

Moloko

Dianne Friesen

with Mana Isaac, Ali Gaston, and
Mana Samuel

African Language Grammars
and Dictionaries 99



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Foreword

Documentary work on small and threatened languages has received increased attention in recent decades, to the point that even members of the general public may be aware of the notion of “endangered language.” While language documentation itself – the collection and possible archiving of primary audio and video recordings of language, tagged with various types of metadata and typically also (partially) transcribed and translated into a language of wider communication – is valuable for community and scholarly reasons, the importance of developing additional analytical and interpretive works, based in part or in whole on such documentary materials, must not be discounted. The latter assist multiple communities – ranging from the speakers themselves, to scholars, educators, government officers, journalists and media enterprises, and even the general public – to appreciate the intricate intellectual, cultural, and creative achievements and knowledge of the speakers and the cultures built with these languages.

It is thus my pleasure to recommend this very fine grammar on Moloko, a little-studied Chadic (Afro-Asiatic) language, spoken by upwards of 10,000 people in Cameroon. Its principal author lived in the Moloko region of Cameroon for nearly a decade, studying the Moloko language and collaborating directly with community members. From my own experiences, I can attest that it is no small endeavor to produce any reference grammar, much less a linguistically sophisticated one like this. The quality of the grammar clearly reflects Dianne Friesen’s substantive and deep knowledge of the language, as well as her persistence in the face of many significant obstacles to see this published grammar come to fruition.

The work is a rich treasure trove, giving insight not just into the workings of the Moloko linguistic system, but also into cultural issues. The presentation notably fronts several translated and analyzed Moloko texts which, in themselves, give us glimpses of Moloko thought and life. Throughout, the grammar then often illustrates claims about grammatical phenomena using examples drawn from these texts. This enables the reader to evaluate the claims and data in their larger communicative context. The analytical chapters discuss intricate phonological phenomena including word-level palatalization and labialization

Foreword

“prosodies,” lexical matters including how semantic distinctions in the verbal lexicon affect morphosyntactic patterns, multiple syntactic issues that help reveal (as Friesen puts it) the “genius” of the language, and various discourse phenomena. The work concludes with a bilingual lexicon and indices, enhancing its use as a reference work.

After having consulted with Dianne Friesen across several years on the content, analysis, and exposition of many parts of this grammar, it is supremely evident to me that this work is grounded in extensive collaboration and dialogue between the principle author and members of the Moloko community. It also reflects respectful consideration of analyses reported in manuscripts and publications produced by previous researchers, and it is enriched by an understanding of Chadic phenomena more generally. It also is grounded in typological and theoretical knowledge of linguistic patterns beyond Chadic. As a whole, the work reflects some of the best practices in scholarly research and practice around small and little-studied languages.

The various collaborators and contributors to this published grammar are to be thoroughly congratulated for the quality and excellence of their work. It is also my hope that this grammar will stand as testament and encouragement to others working on minority languages of the real possibility of seeing their knowledge be “put to paper” in a way that becomes useful and is of benefit to others. Attention to the details, while holding onto the big vision, matter. Grit makes a difference. Persistence produces results. Do not be discouraged in doing well.

Doris Payne

Eugene, Oregon
June 7, 2016

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To the Moloko people who welcomed me to their land and into their homes, and for whose sakes we strive to understand more about this language.

Malan manjan ana Hərmbəlom! (Glory to God)

Abbreviations

/ verb stem /	underlying form	LOC	semantic location
1	1 st person	n.	noun
2	2 nd person	nclitic	noun clitic
3	3 rd person	NEG	negative
ADJ	adjectiviser	n.pr.	proper noun
adp.	adposition	nsfx.	noun suffix
ADV	adverbiser	NOM	nominalised form of verb
adv.	adverb	num.	numeral
CL	verb class (/ -j / suffix)	P	plural
conj.	conjunction	PBL	Possible mood
DAT	dative preposition	PFV	Perfective aspect
dem.	demonstrative	Pl	plural noun clitic
DEM	demonstrative	PLU	pluractional
DEP	dependent form of verb	pn.	pronoun
disc.	discourse marker	POSS	possessive pronoun
DO	direct object pronominal	POT	Potential mood
EX	exclusive (first person plural)	PRF	Perfect
EXT	existential	PRG	progressive aspect
GEN	genitive particle	PSP	presupposition marker
HOR	Hortative mood	quant.	quantifier
ID	ideophone	QUEST	interrogative pronoun
IFV	Imperfective aspect	R	realis mood
IMP	imperative	s	singular
IN	inclusive (first person plural)	S. #	sentence number from text
interj.	interjection	spp.	species
IO	indirect object pronominal	v.	verb
ITR	habitual iterative aspect	vclic	verb clitic
		vpfx.	verb prefix
		vsfx.	verb suffix

1 Introduction

Although this grammar book is currently more than 100,000 words long, it truly only scratches the surface of this beautiful language. Moloko grammar is interesting and complex; we encourage further study to demonstrate its genius in more detail.

The notable features of the language include the following:

- the simplicity of the vowel system (there is only one underlying phoneme with ten phonetic representations and 4 graphemes, see Section 2.3),
- the complexity of the verb word (Chapter 7), with information in the verb word indicating in addition to the verbal idea, subject, direct object (semantic Theme), indirect object (recipient or beneficiary), direction, location, aspect (Imperfective and Perfective), mood (realis, irrealis, iterative), and Perfect aspect,
- the fact that verbs are not inherently transitive or intransitive, but rather the semantics is tied to the number and type of core grammatical relations in a clause (Chapter 9),
- clauses with zero transitivity (no grammatical arguments in a clause) occur, see Section 3.6.3 and Section 9.4),
- the presupposition construction (Chapter 11), which is the main organisational structure in Moloko discourse,
- interrogative formation (see Section 10.3), including re-arrangement of the clause so that the interrogative particle occurs clause final,
- the absence of adjectives as a basic word class (all adjectives are derived from nouns, Section 5.3),
- ideophones (Section 3.6), found in many African languages, are lexical items giving a “picture” or a “sound” idea of the event they symbolise. They function in Moloko as adverbs, adjectives, and in particular contexts, as verbs,

1 Introduction

- the consonantal skeleton of words (see Section 6.2),
- reduplication that occurs in verbs (see Section 7.4.4) and nouns (see Section 3.5.2), and can be inflectional or derivational.
- Moloko is a somewhat agglutinative language, since easily separable morphemes can be added to noun and verb stems,
- cliticisation is very productive within the language. Clitics are both inflectional and derivational, and in nouns and verbs, always follow the lexical root they modify. Cliticisation in verbs allows several layers of clitics to be added. Verbal clitics are called *extensions* in this paper, following Chadic linguistic terminology.¹ In Chadic languages, “extension” refers to particles or clitics in the verb word or verb phrase.

Linguistic classification, language use, and previous research are outlined in Sections 1.1 to 1.3. The four texts that follow in Sections 1.4–1.7 are among many that were recorded while the first author lived in the Moloko region from 1999 to 2008. These stories belong to the community because they represent their collective knowledge and culture. As such, no individual will be named as ‘author’ of any particular story. Many of the examples from the grammar sections in this book are taken from these stories. The sentence numbers are given in the examples so that the reader can refer to the complete texts and locate the example in its context. The first line in each sentence is the orthographic form. The second is the phonetic form (slow speech) with morpheme breaks. The third line is the gloss and the fourth is the translation.

¹ Paul Newman (1973) noted that the term “verbal extension” was widely used in Chadic languages to describe “optional additions that serve to expand or modify the meaning of the basic verb (173:334). Note that verbal extensions also exist in languages from the Niger-Congo, Nilo-Saharan, and Khoisan families, where they can have derivational or inflectional functions (Hyman 2007). Note that the term “extension” for Chadic languages has a different use than for Bantu languages.

1.1 Linguistic classification

Moloko (or Melokwo, Molkore,² Məloko³) is classified by Lewis, Simons & Fennig (2009)⁴ as Central Chadic Biu-Mandara A5, as seen below:⁵

The Ethnologue (Lewis, Simons & Fennig 2009) reports 8,500 speakers of Moloko in 1992. A survey by Starr in 1997 estimated 10,000–12,000 speakers. Most live near Moloko mountain, 30km north of Maroua in the district of Tokombere, department of Mayo-Sava in the Far North Province of the Republic of Cameroon. Local oral history indicates that the Moloko people actually are not a single people group historically, but that people from at least three ethnic groups sought refuge on Moloko mountain during the Fulani invasions of the 19th century. Eventually they all came to speak the same language.

Moloko mountain remains the center of Moloko culture. A few people still live in three villages on the summit itself. The villages immediately surrounding Moloko mountain are organised by clan, each village being the male descendants of a particular clan and their families. Since the 1960's, some of the Moloko language group have moved to the plains between the mountain and Maroua, and have settled in Moloko or Giziga-Moloko villages. Others have moved further away and live in small communities in and around the cities of Maroua, Garoua, Toubouro, Kousseri, and Yaounde. Minor dialectal differences exist in pronunciation and vocabulary but all speakers can understand one another without difficulty.

1.2 Language use, language contact, and multilingualism

A minority of Moloko speakers are monolingual. Most people speak three to five other languages. Men and most women have at least a market level knowledge of Fulfulde, the language of wider communication, and also speak at least one of the neighboring languages Giziga, Muyang, Gemzek, Mbuko, or Dugwor. People with several years of education also speak French.

Men often take wives from neighboring language groups, so homes can be multilingual, but the spoken language at home tends to be the language of the

² Molkore is the Fulfulde name for Moloko.

³ Məloko is the spelling for this name using the Moloko orthography. The orthography, described in Friesen (2001), is being used by the Moloko people (more than a dozen titles are listed in the reference section).

⁴ Dieu & Renaud (1983) classify it as [154] Chadic family, Biu Mandara branch, center-west sub-branch, Wandala-Mafa group, Mafa-south sub-group (A5).

⁵ A more detailed discussion of the classification of Moloko is found in Bow (1997b).

1 Introduction

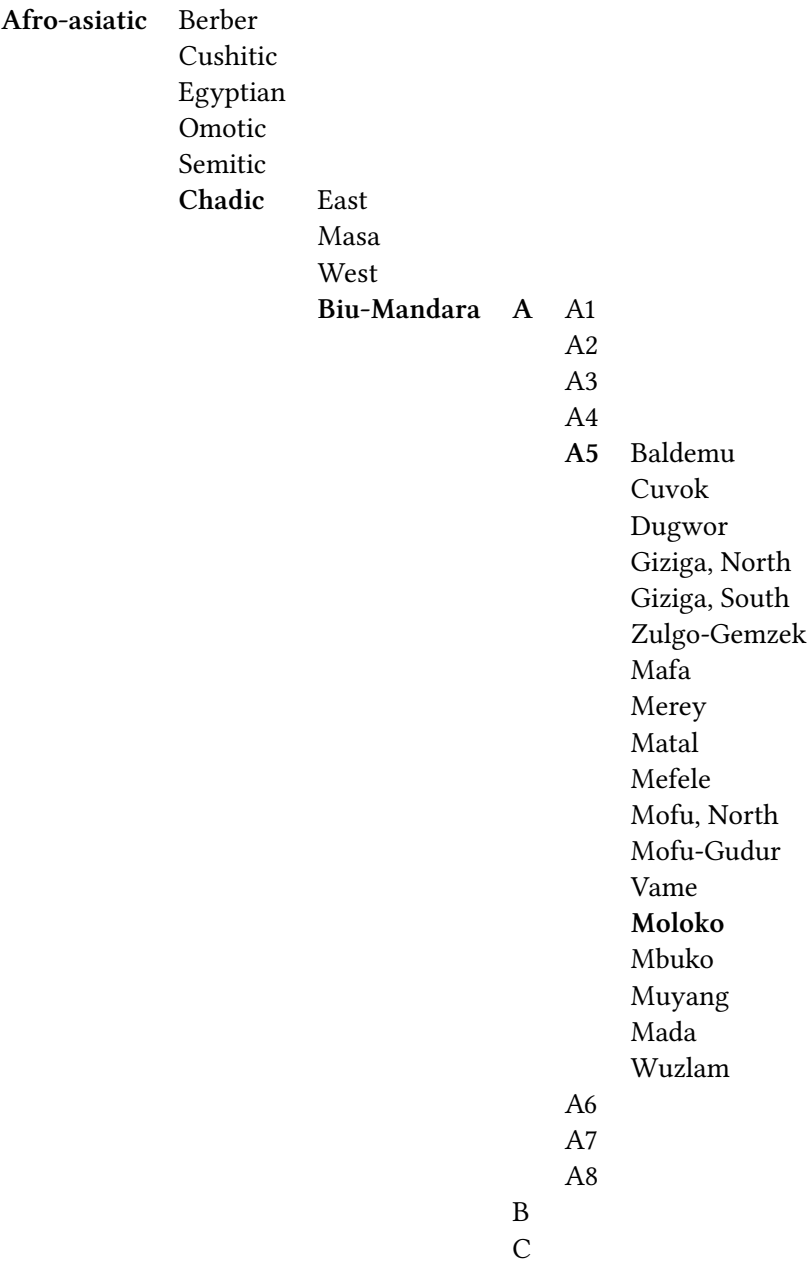


Figure 1.1: Classification of Moloko

father. Friends will often switch languages as they are conversing, perhaps when talking in different domains, but also simply to bond. Dealings in the market can be done in the trade language, but people prefer to bargain in the language of the seller, if possible.

Language viability for Moloko is only at risk in communities where Moloko is not the primary language, especially in cities like Maroua or Yaounde. In the city, children grow up in neighborhoods where many different languages are spoken and so they tend to speak Fulfulde (as well as learn French at school). In such places, Moloko is at risk to be lost in the next generation. Otherwise, in areas where Moloko people are together, Moloko language use is strong among people of every age and in every domain of home life.

1.3 Previous research

Bradley (1992) is a dialect survey of the Moloko region from Moloko mountain to Maroua. Bow (1997a) is a phonological description which included some discussion on tone. Bow (1999) is an M.A. thesis which further studied the vowel system. These two documents, along with discoveries since their work form the basis of the phonology chapter and phonology sections in the verb and noun chapters. Starr, Boyd & Bow (2000) is a 1500 word lexicon, and Friesen (2001) an orthography. Boyd (2002) analyses lexical tone in nouns. Boyd (2001), Oumar & Boyd (2002), Holmaka & Boyd (2002), Holmaka (2002), and Friesen (2003) present interlinearised texts. Friesen (2003) also presents two Moloko fables with a cultural commentary concerning each.

Friesen & Mamalis (2008) describe the Moloko verb phrase, an analysis which is reflected in this work. Prior to Friesen and Mamalis, only a few documents touched on the syntax of Moloko. Bow's phonology statement (1997) explored the grammar of verbs in relation to tone, and a few comparative studies of several Chadic languages included Moloko data (Rossing 1978, Blama 1980, and Colombel 1982). Rossing described Moloko noun prefixes and suffixes, plural and adjective markers, and pronouns. He also mentioned a nominalising prefix on the verb stem that formed the nominalised form. Boyd (2003) is a draft of a grammar sketch; her findings are cited where they add to this present work.

1.4 Snake story

1 Introduction

This true story was recorded in Lalaway, Far North Province of Cameroon in 2007.

Setting

- (1) Ele ndana ege na, ne a Kosewa.
ελε ndana ε-g-ε na ne a K^wɔʃεwa
thing DEM 3S-do-CL PSP 1S at Kossewa,
'When this thing that happened, I was [living] at Kossewa.'
- (2) Ne mändäye ga elé əwla.
ne mɪ-nd-ijε ga ελε =uwla
1S NOM-lie down-CL ADJ eye =1S.POSS
'I was lying down.'
- (3) Ne dəwer ga.
ne duwεr ga
1S sleep ADJ
'I was sleeping.'

Episode 1

- (4) Alala na, gogolvan na, olo alay.
a-l=ala na g^wɔg^wɔlvɔŋ na ɔ-lɔ =alaj
3S-go=to PSP snake PSP 3S+PFV-go =away
'Some time later, the snake went.'

Inciting moment

- (5) Acar a hay kəre ava fo fo fo.
à-tsar a haj kɪrε ava fɔ fɔ fɔ
3S-climb at house wood in 1DSound of snake
'It climbed into the roof of the house fofogo.'
- (6) Sen ala na, okfom adad ala bav!

ʃɛŋ =ala na ɔk^wfɔm à-dəf =ala ɓav
 IDgo =to PSP mouse 3S+PFV-fall =to IDsound of falling
 ‘And walking, a mouse fell bav!’

- (7) Ne awəy, “Alma amədəv ala okfom nehe may?”
 nɛ awij alma amə-dəv=ala ɔk^wfɔm nɛhɛ maj
 1S said what DEP-fall=to mouse DEM what
 ‘[I woke up] I said [to myself], “What made that mouse fall?”’

1 Introduction

Peak episode

- (8) Mbaɗala ehe na, nabay oko,
mbaɗala ehe na nà-b-aj ɔkʷɔ
then here PSP 1S+PFV-light-CL fire
'Then, I turned on a light,'
- (9) nazad ala təystəlam əwla,
nà-zad =ala tijstəlam =uwla
1S+PFV-take =to torch =1S.POSS
'I took my flashlight,'
- (10) nabay cəzlar.
nà-b-aj tsəɟar
1S+PFV-light-CL 1Dshining the flashlight up
'I shone it up tsilar.'
- (11) Nábay na,
ná-b-aj na
1S-light-CL PSP
'[As] I shone [it],'
náməɲjar na, mbajak mbajak mbajak gogolvan!
ná-məɲzar na mbadzak mbadzak mbadzak gʷɔgʷɔlvən
1S+1FV-see PSP 1Dsomething big and reflective snake
'I was seeing, something big and reflective, a snake!'
- (12) Ne awəy, "A, enen baj na, memey na!"
ne awij a ɛneɲ baj na mɛmɛj na
1S said interj. snake NEG PSP how PSP
'I said to myself, "Wah! It's a snake!"' (lit. a snake, if not, how)
- (13) Ne mbət məmbete oko əwla na,
ne mbət mɪ-mbət-ɛ ɔkʷɔ =uwla na
1S 1Dturn off NOM-turn off-CL light =1S.POSS PSP
'I turned off my light,'
kaləw nazad ala ɛɟere =uwla.
kəluw nà-zad =ala ɛɟere =uwla
1Dtake quickly 1S+PFV-take =to spear =1S.POSS
'[and] quickly took my spear.'

- (14) Mək ava alay,
 mək =ava =alaj
 1Dpositioning self for throwing =in =to
 ‘[I] positioned [myself] muk!’
- (15) Mecesle mbəraḅ!
 mə-tʃɛl-ɛ mbəraḅ
 NOM-penetrate-CL 1Dpenetrate
 ‘It penetrated, mburab!’
- (16) Ele a Hərmbəlom ele ga ajənaw ete
 ɛɛ a Hərmbəlom ɛɛ ga à-dzən =aw ɛɛ
 thing GEN God thing ADJ 3S+PFV-help =1S.IO also
 ‘It was by chance and with God’s help’
 kəl kəl kə ndahan aka
 kəl kəl kə ndahanʔ aka
 exactly on 3S on
 ‘[that the spear went] exactly on him.’
- (17) Ádədala vbab a wəyen ava.
 á-dəd =ala vab a wijen ava
 3S+1FV-fall =to 1Dfalling at ground on
 ‘He fell on the ground vab.’
- (18) Ne dəyday məkəde na aka
 nə dijdaj mɪ-kɪd-ɛ na =aka
 1S approximately NOM-kill-CL 3S.DO =on
 ‘I clubbed it to death (approximately).’

Dénouement

- (19) Hor əwla olo alay awəy egege,
 h^wɔr =uwla ð-lɔ =alaj awij ɛgeɛ
 woman =1S.POSS 3S-go =to said that
 ‘My wife went and said,’
 “A a nangehe na, Hərmbəlom aloko ehe.
 a a nɪgehe na Hərmbəlom =alɔk^wɔ ɛhe
 exclamation DEM PSP God =2S.POSS here
 “‘Wah! This one here, our God [is] really here [with us].’

1 Introduction

Bəyna anzakay nok ha a slam məndəje angə ava,
bijna à-nzak-aj nok^w ha a ɬam mɪ-nd-ijɛ aŋg^wə ava
because 3S+PFV-find-CL 2S until at place NOM-sleep-CL 2S in
'Because it found you even in your bed.' (lit. all the way at your place of
lying)

alala Hərmbəlom ajənok na, səwse Hərmbəlom."
a-l =ala Hərmbəlom à-dzən =ok^w na fuwɬɛ Hərmbəlom
3S-go=to God 3S+PFV-help =2S.IO PSP thanks God
'And then God helped you; thanks [be to] God!'"

- (20) Hor əwla ahaw kəygehe.

h^wɔr =uwla à-h=aw kijgehe
woman =1S.POSS 3S+PFV-tell=1S.IO like that
'My wife said it like that.'

- (21) Alala, nəzlərav na ala gogolvən na a amata ava.

a-l=ala nə-ɬərav na =ala g^wɔg^wɔlvən na a amata ava
3S-go=to 1S+PFV-exit 3S.DO =to snake PSP at outside in
'Sometime later I took the snake outside.' (lit. it came, I caused the snake
to exit outside)

- (22) Ko dedew babəza əwla ahay aməzləravala amata na, tawəy,

k^wɔ dɛdɛw babəza =uwla =ahaj amə-ɬərav =ala amata na tawij
early morning child =1S.POSS =Pl NOM-exit =to outside PSP 3P+said
'Early the next morning, when my children came outside, they said,'

"Baba ákad gogolvən, baba ákad gogolvən!"

baba á-kad g^wɔg^wɔlvən baba á-kad g^wɔg^wɔlvən
father 3S+IFV-kill snake father 3S+IFV-kill snake

"Papa killed a snake, Papa killed a snake!"

- (23) Tájaka kəygehe.

tá-dz =aka kijgehe
3P+IFV-say =on like that
'They said it like that.'

Conclusion

- (24) Ka nehe ləbara a ma ndana dəwge.
 ka nehe ləbara a ma ndana dūwge
 like DEM news GEN word DEM actual
 ‘And so was that story.’

1.5 Disobedient girl story

This fable was recorded in Lalaway, Far North Province of Cameroon in 2002.

Setting

- (1) Bamba bamba kəlo dərgod!
 bamba bamba kəlo dərg^wɔd
 story story under silo
 ‘Once upon a time...’ (lit. there’s a story under the silo)
- (2) Tawəy abəya, ma bamba a war dalay cezlere ga.
 tawij abija ma bamba a war dalaj tʃɛʒɛɾɛ ga
 3P+said saying word story GEN child female disobedience ADJ
 ‘They say, the story of the disobedient girl [goes like this:]’
- (3) Zlezle na, Məloko ahaj na, Həmbəlom ávəlata barka va.
 ʒɛʒɛ na Məloko^wɔ =ahaj na Həmbəlo^m á-vəl=ata barka
 long ago PSP Moloko =Pl PSP God 3S+IFV-send=3S.IO blessing
 =va
 =PRF
 ‘Long ago, to the Moloko people, God had given his blessing.’
- (4) Kəwaya asa təwas va neken kəygehe dəw,
 kuwaja asa tə-was =va nek^wɛŋ kijgehe dūw
 that is if 3P+PFV-cultivate =PRF little like this also
 ‘That is, even if they had only sowed a little [millet] like this,’

1 Introduction

ávata mǝvǝye hada.

á-v =ata mǝ-v-ijǝ hada

3S+IFV-spend time =3P.IO NOM-spend time-CL a lot

‘it would last them enough for the whole year.’

- (5) Amǝhaya kǝ ver aka na, tázad war élǝ háy bǝlen,
amǝ-h =aja kǝ ver aka na tá-zad war élǝ haj bǝlǝŋ
DEP-grind =PLU on stone on PSP 3S+IFV-grind child eye millet one
‘For grinding on the grinding stone, they would take one grain of millet.’

- (6) Nde, asa tǝnday táhaya na na,
nde asa tǝ-ndaj tá-h =aja na na
so if 3P+IFV-PRG 3P+IFV-grind =PLU 3S.DO PSP
‘So, whenever they were grinding it,’

hǝmbǝ na, ásak nǝ mǝsǝke.

hǝmbǝ na á-sak nǝ mǝ-fǝk-ǝ

flour PSP 3S+IFV-multiply with NOM-multiply-CL

‘the flour, it multiplied with multiplying.’

- (7) War élǝ háy bǝlen fan na,
war élǝ haj bǝlǝŋ fǝŋ na
child eye millet one yet PSP
‘Just one grain of millet,’

ájata pǝw ha ámbad ǝǝ.

á-nz=ata pǝw ha á-mbad ǝǝ

3S+IFV-suffice=3P.IO enough until 3S+IFV-remain again

‘it sufficed for them, and there were leftovers.’

- (8) Waya a mǝhaya ahan ava na,
waja a mǝ-h =aja =ahan ava na
because at NOM-grind =PLU =3S.POSS in PSP
‘Because, during its grinding,’

ásak kǝ ver aka nǝ mǝsǝke.

á-sak kǝ ver aka nǝ mǝ-fǝk-ǝ

3S+IFV-multiply on grinding stone on with NOM-multiply-CL

‘it would multiply on the grinding stone with multiplying.’

Episode 1

- (9) Nde ehe na, albaya ava aba.
 nde ehe na albaja ava aba
 so here PSP young man EXT+in EXT
 ‘And so, there once was a young man.’
- (10) Olo azala dalay.
 à-lò à-z =ala dalaj
 3S+PFV-go 3S+PFV-take =to girl
 ‘He went and took a wife.’
- (11) Azla na, war dalay ndana, cezlere ga.
 aḷa na war dalaj ndana tʃeḷere ga
 now PSP child female DEM disobedience ADJ
 ‘Now, that young girl was disobedient.’
- (12) Sen ala na, zar ahan na,
 ʃeŋ =ala na zar =ahan na
 IDgo =to PSP man =3S.POSS PSP
 ‘Then her husband’
 dək medakan na, mənɲəye ata.
 dək mɛ-dak=aŋ na mɪ-nɔ-ijɛ =atəta
 IDshow NOM-show=3S.IO 3S.DO NOM-sit-CL =3P.POSS
 ‘instructed her in their habits.’ (lit. instructing their ways)
- (13) Awəy, “Hor golo, afa ləme na,
 awij h^wɔr g^wɔlɔ afa lɪmɛ na
 said woman HONOUR at place of 1PEX PSP
 ‘He said, “My dear wife, here at our (not your) place,
 mənɲəye aləme na, kəygehe.
 mɪ-nɔ-ijɛ =alɪmɛ na kɪjgehe
 NOM-sit-CL =2PEX.POSS PSP like this
 ‘it is like this.’
 Asa asok aməhaya na,
 asa à-s=ɔk^w amə-h =aja na
 if 3S+PFV-please=2S.IO DEP-grind =PLU PSP
 ‘If you want to grind,’

1 Introduction

kázaɗ war élé háy bəlen.

ká-zaɗ war élé haj bílɛŋ
2S+IFV-take child eye millet one

‘you take only one grain.’

War élé háy bəlen ga nəndəye nok amɛ-zɪɗ-ɛ na,

war élé haj bílɛŋ ga nɪndijɛ nɔk^w amɛ-zɪɗ-ɛ na
child eye millet one ADJ DEM 2S DEP-take-CL PSP

‘That one grain that you have taken,’

káhaya na kə vɛr aka.

ká-h =aja na kə vɛr aka
2S+IFV-grind =PLU 3S.DO on grinding stone on

‘grind it on the grinding stone,’

Ánjaloko de pew.

á-nz =alɔk^wɔ de pɛw
3S+IFV-suffice =1PIN.IO enough finished

‘It will suffice for all of us just enough.’

Ádaloko ha ámbaɗ ese.

á-d =alɔk^wɔ ha á-mbɔɗ ɛʃɛ
3S+IFV-prepare =1PIN.IO until 3S+IFV-left over again

‘It will make food for all of us, until there is some left over.’

Waya a mə-haya ahan ava na,

waja a mə-h=aja =ahanj ava na
because at NOM-grind=PLU =3S.POSS in PSP

‘because, during the grinding,’

Hərmbəlɔm anday ásakaləme na aka.

Hərmbəlɔm a-ndaj á-sak =alɪmɛ na aka
God 3S-PRG 3S+IFV-multiply =1PEX.IO 3S.DO on

‘God is multiplying it for us.’

(14) Hor na, ambəɗan aka,

h^wɔr na a-mbɔɗ=an =aka
woman PSP 3S-change=3S.IO =on

‘The woman replied,’

- (15) Awəy, “Ayokon zar golo.”
 awij ajɔkʷɔŋ zar gʷɔlɔ
 said agreed man HONOUR
 ‘saying, “Yes, my dear husband.”’

Episode 2

- (16) Ndahan amandava bəl na, zar ahan olo
 ndahaŋ ama-nd =ava bəl na zar =ahaŋ ɔ-lɔ
 3S DEP-sleep =in IDSOME PSP man =3S.POSS 3S+PFV-go
 ‘She, sleeping there for some time, her husband went away’
 ametele kə dəlmete ahan aka a slam enen.
 amɛ-tɛl-ɛ kə dɪlmetɛ =ahaŋ aka a ʔam ɛnɛŋ
 DEP-walk-CL on neighbor =3S.POSS on at place another
 ‘to walk in the neighborhood to some place.’
- (17) Azla na, hor na, asərkala afa təta va na,
 aʒa na hʷɔr na à-sərk =ala afa təta =va na
 now PSP woman PSP 3S+PFV-habitually =to at house of 3P =PRF PSP
 ‘Now, that woman, she was in the habit at their place’
 aməhaya háy na gam.
 amə-h =aja haj na gam
 DEP-grind =PLU millet PSP a lot
 ‘[of] grinding a lot of millet.’
- (18) Ndahan jo madala háy na,
 ndahaŋ dzɔ ma-d =ala háj na
 3S IDtake NOM-prepare =to millet PSP
 ‘After having gotten ready to grind (she taking millet),’
 Den bəlen tə kə ver aka,
 dɛŋ bɪlɛŋ tə kə vɛr aka,
 IDput one IDput one on stone on
 ‘[she put] one grain on the grinding stone.’
- (19) Awəy, “Gəlo ahay nehe azla na, malmay nəngehe na may?
 awij gʷɔlɔ =ahaj nɛhɛ aʒa na malmaj nɪŋgɛhɛ na maj
 said fellow =Pl DEM now PSP what DEM PSP what
 ‘She said, “Friends, here, what is this?”’

1 Introduction

Háy bəlen azla na, náambəzaka məhaya əwla na,
haj bɪlɛŋ aʒa na, náá-mbəz =aka mə-h =aja =uwla na
millet one now PSP 1S+POT-ruin =on NOM-grind =PLU =1S.POSS PSP

‘One grain, [with it] I know I will ruin my grinding.’

Meme ege mey?

mɛmɛ ɛ-g-ɛ mɛj
how 3S-do-CL how

‘What is happening?’ (What should I do?)

Nehe na, məseβete hərav əwla dəw?

nɛhɛ na mɪ-ʃɛβɛt-ɛ hərav =uwla dəw
DEM PSP NOM-deceive-CL body =1S.POSS QUEST

‘This, am I deceiving my body?’

Bəy na, malmay?

bij na malmaj
NEG PSP what

‘If not, what is it then?’

Aya jen ele ahay nendəye na, nagala kəyga bay.”

aja dʒɛŋ ɛɛ =ahaj nɛndijɛ na nə-g =ala kijga baj
so chance thing =Pl DEM PSP 1S+PFV-do =to like this NEG

‘Above all, these things, I have never done like this.’”

Peak episode

- (20) Jo madala háy na, gam.

dʒɔ ma-d =ala haj na gam
ɪDtake NOM-prepare =to millet PSP a lot

‘Millet was prepared, lots.’

- (21) Ndahan bah məbehe háy ahan

ndahan bax mɪ-bɛh-ɛ haj =ahan
3S ɪDpour NOM-pour-CL millet =3S.POSS

‘She poured her millet’

amadala na kə ver aka azla.

ama-d =ala na kə ver aka aʒa
DEP-prepare =to 3S.DO on stone on now

‘to prepare it on the grinding stone.’

- (22) Njəw njəw njəw aməhaya azla.
 nzuw nzuw nzuw amə-h =aja aka
 IDgrind DEP-grind =PLU now
 ‘Nzu, nzu, nzu [she] ground [the millet] now.’
- (23) Həmbo na dəw, anday ásak ásak ásak.
 hũmbɔ na dəw à-ndaj á-sak á-sak
 flour PSP also 3S+PFV-PRG 3S+IFV-multiply 3S+IFV-multiply
 á-sak
 3S+IFV-multiply
 ‘The flour, it is multiplying [and] multiplying [and] multiplying.’
- (24) Ndahan na, ndahan aka njəw njəw njəw.
 ndahaŋ na ndahaŋ aka nzuw nzuw nzuw
 3S PSP 3S EXT IDgrind
 ‘And she/it, she/it is grinding some more nzu, nzu, nzu.’
- (25) Anday ahaya nə məzere ləmes ga.
 à-ndaj à-h =aja nə mɪ-ʒɛr-ɛ lɪmɛŋ ga
 3S+PFV-PRG 3S+IFV-grind =PLU with NOM-do well-CL song ADJ
 ‘She/it is grinding while singing well.’
- (26) Alala na, ver na, árəh mbaf, nə həmbo na,
 a-l=ala na vɛr na á-rəx mbaf nə hũmbɔ na
 3S-go=to PSP room PSP 3S+IFV-fill up to the roof with flour PSP
 ‘After a while, the room, it filled up to the roof with the flour,’
 dək mə-dəkaka alay ana hor na,
 dək mə-dək =aka =alaj ana hʷɔr na
 IDstuff NOM-plug =on =away DAT woman PSP
 ‘[The flour] plugged the room for the woman [so there was no place for her to even breathe],’
 nata ndahan dəbəsələk məmətava alay
 nata ndahaŋ dəbʊsəlɔk^w mə-mət =ava =alaj
 and then 3S IDcollapse/die NOM-die =in =away
 ‘and she collapsed dubusoluk, dying’

1 Introduction

a hoď a haj na ava.
a h^wɔď a haj na ava
at stomach GEN house PSP in
‘inside the house.’

Dénouement

- (27) Embesen cacapa na, zar ahan angala.
ε-mbɛfɛŋ tsatsapa na zar =ahan à-ŋgala
3S-rest some time PSP man =3S.POSS 3S+PFV-return
‘After a while, her husband came back.’
- (28) Pok mapalay mahay na,
pɔk^w ma-p =alaj mahaj na
ɪɔpen NOM-open =away door PSP
‘When he opened the door, (lit. opening the door pok)
həmbo árah na a hoď a hay ava.
hɔmbɔ á-rax na a h^wɔď a haj ava
flour 3S+IFV-fill 3S.DO at stomach GEN house in
‘the flour filled the stomach (the interior) of the house.’
- (29) Ndahan aməmənжере ele nendəye na, awəy,
ndahan amɪ-minʒɛr-ε ελε nendijɛ na awij
3S DEP-see-CL thing DEM PSP said
‘He, seeing the things, he said,’
“Aw aw aw, hor ngehe na, acaw aka va
aw aw aw h^wɔr ŋgehe na à-ts =aw =aka =va
cry of death woman DEM PSP 3S+PFV-understand =1S.IO =on =PRF
“Ah, this woman, today, she didn’t listen’
ma əwla amahan na bay esəmey?
ma =uwla ama-h =aŋ na baj εfɪmɛj
word =1S.POSS DEP-speak =3S.IO 3S.DO NEG not so
‘to my instructions, did she?’
Agə na va ele ne amahan aməjəye
à-gə na =va ελε nɛ ama-h =aŋ amɪ-dʒ-ijɛ
3S+PFV-do 3S.DO =PRF thing 1S DEP-say =3S.IO DEP-say-CL
‘She has done the thing that I told her’

mege bay na esəmey?
 mɛ-g-ɛ baj na ɛʃmɛj
 3S+HOR-do-CL NEG PSP not so
 ‘she should not do, not so?’

Nde nége ehe na, memey gəlo ahay?”
 ndɛ né-g-ɛ ɛhɛ na mɛmɛj gʊlɔ =ahaj
 so 1S+IFV-do-CL here PSP how friend =Pl
 ‘So, what can I do here, my friends?’”

- (30) Kəlen tazlərav na ala.
 kɪlɛŋ tɑ-ʔərav na =ala
 then 3P+PFV-exit 3S.DO =to
 ‘Then, they took her out of the house.’

- (31) Babək mələye na.
 babək mɪ-l-ijɛ na
 1Dbury NOM-bury-CL 3S.DO
 ‘She was buried.’

Conclusion

- (32) Nde ko ala a dəma ndana ava pew!
 ndɛ kʷɔ =ala a dəma ndana ava pɛw
 so until =to at time DEM in enough
 ‘So, ever since that time, it’s done!’
- (33) Məloko ahay tawəy, “Hərməbəlom ága bərav va
 Mɔlɔkʷɔ =ahaj tawij Hɔrmɔbɔlɔm á-g-a bərav =va
 Moloko =Pl 3P+said God 3S+IFV-do-CL heart =PRF
 ‘The Molokos say, “God got angry’ (lit. God did heart)
 kəwaya war dalay na, amecen sləmay bay ngəndəye.”
 kuwaja war dalaj na amɛ-tʃɛŋ ʔəmaj baj ŋgɪndijɛ
 because of child girl PSP DEP-hear ear NEG DEM
 ‘because of that girl, that one that was disobedient.’”
- (34) Waya ndana Hərməbəlom ázata aka barka ahan va.
 waja ndana Hɔrmɔbɔlɔm á-z =ata =aka barka =ahan
 because DEM God 3S+IFV-take =3P.IO =on blessing =3S.POSS

1 Introduction

=va

=PRF

‘Because of that, God had taken back his blessing from them.’

- (35) Cəcəngehe na, war elé háy bəlen na, ásak asabay.
 tʃɪtʃɪngehe na, war elé haj bɪlɛn na á-sak asa-baj
 now PSP child eye millet one PSP 3S+IFV-multiply again-NEG
 ‘And now, one grain of millet, it doesn’t multiply anymore.’
- (36) Talay war elé háy bəlen kə ver aka na, ásak asabay.
 talaj war elé haj bɪlɛn kə ver aka na á-sak asa-baj
 ɪɹput child eye millet one on stone on PSP 3S+IFV-multiply again-NEG
 ‘[If] one puts one grain of millet on the grinding stone, it doesn’t multiply anymore.’
- (37) Səy kádəya gobay.
 sij ká-d =ija gʷɔbaj
 only 2S+IFV-prepare =PLU a lot
 ‘You must put on a lot.’
- (38) Ka nehe tawəy, “Metesle anga war dalay ngəndəye
 ka nehe tawij mɛ-tɛɬ-ɛ anga war dalaj ŋɡɪndijɛ
 like DEM 3P+said NOM-curse-CL POSS child girl DEM
 ‘It is like this they say, “The curse [is] belonging to that young woman’
 amazata aka ala avəya nengehe ana məze ahay na.”
 ama-z =ata =aka =ala avija nengehe ana mɪʒɛ =ahaj na
 DEP-take =3P.IO =on =to suffering DEM DAT person =Pl PSP
 ‘that brought this suffering to the people.’”
- (39) Ka nehe ma bamba ga andavalay.
 ka nehe ma bamba ga à-ndava =alaj
 like DEM word story ADJ 3S+PFV-finish =away
 ‘It is like this the story ends.’

1.6 Cicada story

This fable was recorded in Maroua, Far North Province of Cameroon in 2001.

Setting

- (1) Bamba bamba!
bamba bamba
story story
'Once upon a time...' (lit. story, story)
- (2) Tawəy:
tawij
3P+said
'They say:'
- (3) Albaya ahay aba.
albaja =ahaj aba
youth =Pl EXT
'There were some young men.'
- (4) Tánday tótalay a ləhe.
tá-ndaj tó-tal-aj a lɪhɛ
3P+IFV-PRG 3P+IFV-walk-CL at bush
'They were walking in the bush.'

Episode 1

- (5) Tánday tótalay a ləhe na,
tá-ndaj tó-tal-aj a lɪhɛ na
3P+IFV-PRG 3P-walk-CL at bush PSP
'[As] they were walking in the bush,
tolo tənjakay agwazla malan ga a ləhe.
tə-lə tə-nzak-aj ag^waʒa malan ga a lɪhɛ
3P+PFV-go 3P+PFV-find-CL spp. of tree large ADJ at bush
'they found a large tree (a particular species) in the bush.'

Episode 2

- (6) Albaya ahay ndana kəlen təngalala ma ana bahay.
 albaja =ahaj ndana kɪlɛŋ tə-ŋgala =ala ma ana bahaj.
 youth =Pl DEM then 3P+PFV-return =to word DAT chief
 ‘Those young men then took the word (response) to the chief.’
- (7) Tawəy, “Bahay, mama agwazla ava a ləhe na,
 tawij bahaj mama ag^waʒa ava a lɪhɛ na maləŋ ga na
 3P+said chief mother spp. of tree EXT at bush PSP large ADJ PSP
 ‘They said, “Chief, there is a mother-tree in the bush, a big one,’
 agasaka na ka mahay ango aka aməmbese.”
 à-gas =aka na ka mahaj =aŋg^wɔ aka amɪ-mbɛʃ-ɛ
 3S+PFV-get =on PSP on door =2S.POSS on DEP-rest-CL
 ‘[and] it would please you to have that tree at your door, so that you
 could rest under it.”’
- (8) Kəlen albaya ahay ndana tolo.
 kɪlɛŋ albaja =ahaj ndana tə-lɔ
 then youth =Pl DEM 3P+PFV-go
 ‘Then, those young men went.’
- (9) Nde, bahay awəy, “Nde na, səy slərom alay war.
 ndɛ bahaj awij ndɛ na sij tɛr-ɔm =alaj war
 so chief said so PSP only send[IMP]-2P =away child
 ‘And so the chief said, “So, you must send a child.’
 Káazədom anaw ala agwazla ndana ka mahay əwla aka.
 káá-zʊd-ɔm an=aw =ala ag^waʒa ndana ka mahaj =uwla aka
 2P+POT-take-2P DAT=1S.IO =to spp. of tree DEM on door =1S.POSS on
 ‘I want you to bring that tree to my door for me.’
 Káafədom anaw ka mahay əwla aka.”
 káá-fʊd-ɔm an =aw ka mahaj =uwla aka
 2P+POT-put-2P DAT =1S.IO on door =1S.POSS on
 ‘I want you to put it by my door.”’
- (10) Bahay kəlen ede gəzom.
 bahaj kɪlɛŋ à-d-ɛ gʊzɔm
 chief then 3S+PFV-prepare-CL wine
 ‘The king then made wine.’

- (11) Aslar məze ahay.
 à-lar mɪʒɛ =ahaj
 3S+PFV-send person =Pl
 ‘He sent out the people.’
- (12) Tolo tamənjər na ala mama agwazla nəndəyə.
 t̪ə-l̪ə t̪ə-mənzər na =ala mama ag^wəʒa nɪndijɛ
 3P+PFV-go 3P+HOR-see 3S.DO =to mother spp. of tree DEM
 ‘They went to see the mother-tree there.’
- (13) Məze ahay tangala ma ana bahay.
 mɪʒɛ =ahaj t̪ə-ŋg =ala ma ana bahaj
 person =Pl 3P+PFV-return =to word DAT chief
 ‘The people brought back word to the chief.’
- (14) Tawəy, “Dedən bahay, agwazla ngəndəyə ágasaka ka mahay ango aka,
 tawij d̪ɛd̪ɛŋ bahaj ag^wəʒa ŋɡɪndijɛ
 3P+said truth chief spp. of tree DEM
 á-gas =aka ka mahaj =aŋg^wɔ aka
 3S+IFV-get =on at door =2S.POSS on
 ‘They said, “It is true, chief. It would be pleasing if that particular tree
 would be by your door,’
 bəyna agwazla ga səlom ga; aʔəsaj ava bay.”
 bijna ag^wəʒa ga səlom ga aʔəsaj ava baj
 because spp. of tree ADJ good ADJ blemish EXT NEG
 ‘because this tree is good; it has no faults.’”

Episode 3

- (15) Bahay alala a həlan na, ndahan gədok mədəyə gəzom.
 bahaj à-l=ala a həlan na ndahan ɡ̊ɔdɔk^w mɪ-d-ijɛ
 chief 3S+PFV-go=to at back PSP 3S 1Dprepare wine NOM-prepare-CL
 ɡ̊ɔzɔm
 wine
 ‘The chief then came behind [and] he made wine.’

1 Introduction

- (16) Kəlen albaya ahay tolo amazala agwazla na,
 kɪlɛŋ albaja =ahaj tɔ-lɔ ama-z =ala ag^waʒa na
 then youth =Pl 3P+PFV-go DEP-take =to spp. of tree PSP
 ‘And then, the young men left to bring back the tree,’
 t̩ààzala t̩əta bay.
 t̩àà-z =ala t̩əta baj
 3P+HOR-take =to ability NEG
 ‘[but] they were not able to bring [it].’
- (17) Mədəye gəzom makar.
 mɪ-d-ijɛ gɔzɔm makar.
 NOM-prepare-CL wine three
 ‘[He] made wine for the third time.’
- (18) Bahay alala a həlan na, awəy,
 bahaj à-l =ala a həlan na awij
 chief 3S+PFV-go =to at back PSP said
 ‘[And then], the chief came behind, saying,’
 “Náanjakay na wa amazaw ala agwazla ana ne na way?
 náá-nzak-aj na wa ama-z =aw =ala ag^waʒa ana nɛ na waj
 1S+POT-find-CL PSP who DEP-take =1S.IO =to spp. of tree DAT 1S PSP who
 “Who can I find to bring to me this tree for me?”
 Kə mahay aka na náambasaka na,
 kə mahaj aka na náá-mbas =aka na
 on door on PSP 1S+POT-rest =on PSP
 ‘By my door I want to rest.’
 Mama agwazla səlom ga lala.”
 mama ag^waʒa səlom ga lala
 mother spp. of tree good ADJ well
 ‘The mother-tree is very good.’”

Prepeak

- (19) Kəlen bahay na, olo kə mətəde aka.
 kɪlɛŋ bahaj na ɔ-lɔ kə mɪtɪdɛ aka
 then chief PSP 3S+PFV-go on cicada on
 ‘Then, the chief went to the cicada.’

- (20) Mətəðe awəy, “Bahay, toko!
 mɪtɪðe awij bahaj təkʷɔ
 cicada said chief go[IMP.1PIN]
 ‘The cicada said, “Chief, let’s go!’
 Náaməɲar na alay memele ga ndana əwðe.”
 náá-məɲar na =alaj memele ga ndana uwðe
 1S+POT-see 3S.DO =away tree ADJ DEM first
 ‘First I want to see the tree that you spoke of.’”
- (21) Məze ahay tawəy, “A a məze ahay səlom ahay ga na,
 mɪʒe =ahaj tawij aa mɪʒe =ahaj səlom =ahaj ga na
 person =Pl 3P+said ah person =Pl good =Pl ADJ PSP
 ‘The people said, “O, even good people,’
 tázala təta bay na,
 tá-z =ala təta baj na
 3P+IFV-take =to ability NEG PSP
 ‘they can’t bring it,’
 azləna mətəðe azla, engeren azla, káazala təta na,
 aʒana mɪtɪðe aʒa ɛŋgɛɛŋ aʒa káá-z =ala təta na
 but cicada now insect now 2S+POT-take =to ability PSP
 ‘but you, cicada, an insect, you think you can bring it,
 káazala na, malma ango may?”
 káá-z =ala na malma =aŋgʷɔ maj
 2S+POT-take =to PSP what =2S.POSS what
 ‘[if] you do bring it, [then] what is with you?’”
- (22) Mətəðe awəy, “Náazala!”
 mɪtɪðe awij náá-z=ala
 cicada said 1S+POT-take =to
 ‘The cicada said, “I will bring [it].”’
- (23) “Káazala təta bay!”
 káá-z =ala təta baj
 2S+POT-take =to ability NEG
 “‘You can’t bring [it].”’

1 Introduction

- (24) “Náazala! Nde toko əwɔfɛ!”
náá-z =ala ndɛ təkʷɔ uwɔfɛ
1S+POT-take =to so go[IMP.1PIN] first
“I will bring [it], but first, let’s go!”

Peak

- (25) Nata olo.
nata ɔlɔ
and then 3S+PFV-go
‘And then, he went.’
- (26) Albaya ahay tolo sen na,
albaja =ahaj tɔ-lɔ ʃɛŋ na
youth =Pl 3P-go IDgo PSP
‘The young men went,’

albaya ahay weley təh anan dəray na, abay.
albaja =ahaj wɛɛj təx an=aŋ dəraj na abaj
youth =Pl which IDput DAT=3S.IO head PSP EXT+NEG
‘[and] no one could lift it.’ (lit. whichever young man put his head [to the tree in order to lift it], there was none)
- (27) Nata mətəfɛ təh anan dəray ana agwazla ngəndəye.
nata mɪtɪfɛ təx an=aŋ dəraj ana agʷaʒa ŋɡɪndijɛ
and then cicada IDput DAT=3S.IO head DAT spp. of tree DEM
‘And then, the cicada put his head to that tree.’
- (28) Kəwna!
kuwna
IDgetting
‘[He] got [it].’
- (29) Dergwecek!
dɛrgʷɛtʃɛk
IDlifting onto head
‘[He] lifted [it] onto his head.’

Dénouement

- (30) Amagala ləmes, “Te te te te ver na tɛpədək tənəw na tambədək...”
 ama-g=ala limeɸ Tɛ tɛ tɛ tɛ ver na tɛpədək tənəw na tambədək...
 DEP-do=to song [words of the song]
 ‘He was singing (song is given), [on his way] to [the chief’s house].’
- (31) Sen ala.
 ʃɛŋ =ala
 IDGO =to
 ‘Going, [he came to the chief’s house].’
- (32) Tahan na.
 tà-h =aŋ na
 3P+PFV-greet =3S.IO PSP
 ‘They greeted him.’
- (33) Mama agwazla na, ka mahay aka afa bahay gəɖəgəz!
 mama ag^waɰa na ka mahaj aka afa bahaj gəɖəgəɰ
 mother spp. of tree PSP on door on at place of chief IDput down
 ‘The mother-tree, at the door of the chief’s house, [he] put [it] down.’
- (34) Bahay na membese, “Səwse, mətədə səwse, səwse, səwse!”
 bahaj na mɛ-mbɛɸ-ɛ ɸuwɸɛ mɪtɪɖɛ ɸuwɸɛ ɸuwɸɛ ɸuwɸɛ
 chief PSP NOM-smile-CL thanks cicada thanks thanks thanks
 ‘The chief smiled, [saying] “Thank you, thank you, thank you cicada!”’
- (35) Mama agwazla na, kə mahay anga bahay aka.
 mama ag^waɰa na kə mahaj aŋga bahaj aka
 mother spp. of tree PSP on door POSS chief on
 ‘The mother tree [is] by the chief’s door.’
- (36) Andavalay.
 a-ndava =alaj
 3S-finish =away
 ‘It is finished.’

1.7 Values exhortation

This exhortation was given in Lalaway, Far North Province of Cameroon in 2002.

Setting

- (1) Səlom ga yawa tədə kəyga!
səlm ga jawa tədə kijga
goodness ADJ well good like this
'Good, well, good, [it is] like this.'
- (2) Ehe na, wəyen ambaɗala a jere azla.
ɛhe na wijɛŋ à-mbaɗ =ala a dʒɛɛ aɕa
here PSP earth 3S+PRV-change =to at truth now
'Here, the earth has changed to truth now (sarcastic).'
- (3) Səwat na, təta a məsyon na ava nəndəye na,
suwat na təta a mɪsijɔŋ na ava nɪndijɛ na
ɪɗɗɪspɛrse PSP 3P at mission PSP in DEM PSP
'As the people go home from church,' (lit. disperse, they in the mission there),

Pester áhata, "Ey! Ele nehe na, kógom bay!"
pɛʃtɛr á-h =ata ɛj ɛɛ nɛhe na kó-g^w-ɔm baj
pastor 3S+IFV-tell =3P.IO hey thing DEM PSP IFV-do-2P NEG
'Pastor told them, "Hey! These things, don't do them!"'
- (4) Yawa, war dalay ga ándaway mama ahan.
jawa war dalaj ga á-ndaw-aj mama =ahan
well child female ADJ 3S+IFV-insult-CL mother =3S.POSS
'Well, the girls insult their mothers.'
- (5) War zar ga ándaway baba ahan.
war zar ga á-ndaw-aj baba =ahan
child male ADJ 3S+IFV-insult-CL father =3S.POSS
'[And] the boys insult their fathers.'

- (6) Yo ele ahay aməgəye bay nəngehe pat,
 jə ɛɛ =ahaj amə-g-ijɛ baj nɪŋgɛɛ pat
 well thing =Pl DEP-go-CL NEG DEM all
 ‘Well, all these particular things that we are not supposed to do,’
 tahata na va kə dəftɛrɛ aka.
 tə-h =ata na =va kə dɪftɛrɛ aka
 3P+PFV-tell =3P.IO 3S.DO =PRF on book on
 ‘they have already told them in the book.’
- (7) Hərməbəlom awacala kə okor aka.
 Hərməbəlom à-wats =ala kə ɔk^wɔr aka
 God 3S+PFV-write =to on stone on
 ‘God wrote them on the stone [tablet].’
- (8) Alala, asara agas.
 á-l =ala asara à-gas
 3S+IFV-go =to white man 3S+PFV-catch
 ‘Later, the white man accepted [it] (lit. caught).’
- (9) Ege dəftɛrɛ ahan kə dəwnəya aka.
 ɛ-g-ɛ dɪftɛrɛ =ahan kə duwnija aka
 3S+PFV-do-CL book =3S.POSS on earth on
 ‘He made his book on the earth.’
- (10) Ahata na va, “Ele nehe na, awasl,
 à-h =ata na =va ɛɛ nəhɛ na à-waɫ
 3S+PFV-tell =3P.IO 3S.DO =PRF thing DEM PSP 3S+PFV-forbid
 ‘He has told them already, “This thing is forbidden,’
 ele nehe na, awasl, ele nehe na, awasl,
 ɛɛ nəhɛ na à-waɫ ɛɛ nəhɛ na à-waɫ
 thing DEM PSP 3S+PFV-forbid thing DEM PSP 3S+PFV-forbid
 ‘this thing is forbidden, this thing is forbidden,’
 ele nehe na, awasl, kəro!”
 ɛɛ nəhɛ na à-waɫ kɔrɔ
 thing DEM PSP 3S+PFV-forbid ten
 ‘this thing is forbidden – ten [commandments]’”

1 Introduction

- (11) Ahata na cece.
à-h =ata na tʃɛtʃɛ.
3S+PFV-tell =3P.IO 3S.DO all
'He told all of them.'
- (12) Yawa nde ele nehe dɔw, kóogəsok ma Həmbəlɔm.
jawa nde ɛle nehe dɔw kóɔ-g^wɔs-ɔk^w ma Həmbəlɔm
well so thing DEM also 2S+POT-catch-2P word God
'So, this thing here, you should accept the word of God.'
- (13) A məsyon ava na, ele ahay aməwəsle na, tége bay.
a mɪsijɔŋ ava na ɛle =ahaj amu-wuɫ-ɛ na té-g-ɛ baj
at mission in PSP thing =Pl DEP-forbid-CL PSP 3P+IFV-do-CL NEG
'In the church, these things that they have forbidden, they don't do.'
- (14) Yo, asara ahata na va.
jɔ asara à-h =ata na =va
well white man 3S+PFV-tell =3P.IO 3S.DO =PRF
'Well, the white man told it to them already.'
- (15) Pester ahata na va.
pɛʃtɛr à-h =ata na =va
pastor 3S+PFV-tell =3P.IO 3S.DO =PRF
'The pastor told it to them already.'
- (16) Təlala a həlan ga ava ese,
tɔ-l =ala a həlan ga ava ɛʃɛ
3P+IFV-go =to at back ADJ in again
'After [church] again, (lit. they come at the back of again)
tɔwəɖakala har a məsyon ava.
tɔ-wəɖak =ala har a mɪsijɔŋ ava
3P+IFV-divide =to body at mission in
'they go home after church.' (lit. they divide body in mission)
- (17) Álaway war ahan.
á-law-aj war =ahan
3S+PFV-mate-CL child =3S.POSS
'[One] sexually abuses his child.'

- (18) Ólo áfan ana baba ahan.
 ʒ-lɔ á-b =aŋ ana baba =aɦaŋ
 3S+IFV-go 3S+IFV-hit =3S.IO DAT father =3S.POSS
 ‘[Another] goes and hits his father.’
- (19) Ólo ápaɖay məze nə madan.
 ʒ-lɔ á-paɖ-aʝ mɪʒɛ nə maɖaŋ
 3S+IFV-go 3S+PFV-crunch-CL person with magic
 ‘[Another] goes and kills someone with sorcery.’ (lit. he goes he eats a person with magic)
- (20) Olo aka akar.
 à-lɔ aka akar
 3S+PFV-go on theft
 ‘[Another] goes and steals.’ (lit. he went on theft)
- (21) Ege adama.
 à-g-ɛ adama
 3S+PFV-do-CL adultery
 ‘[Another] commits adultery.’
- (22) Təta dəl na ma Hərməbəlom nendəye.
 tətə dəl na ma Hərməbəlom nɛndiʝɛ
 3P IDinsult 3S.DO word God DEM
 ‘They insult the word of God!’
- (23) Nde na cəvəd ahan na, memey?
 ndɛ na tʃɪvɛɖ =aɦaŋ na mɛmɛʝ
 so PSP path =3S.POSS PSP how
 ‘So, what can he do?’ (lit. how [is] his pathway)
- (24) Táágas na anga way?
 táá-gas na aŋga waj
 3P+POT-catch PSP POSS who
 ‘They will accept whose word?’ (lit. they will catch it, [something] that belongs to whom?)

1 Introduction

- (25) Ma a baba angas asabay.
 ma a baba =aŋg^{wɔ} kà-gas asa-baj
 word GEN father =3S.POSS 2S+PFV-catch again-NEG
 ‘Your father’s word you no longer accept.’
- (26) Ma a mama angas asabay.
 ma a mama =aŋg^{wɔ} kà-gas asa-baj
 word GEN mother =3S.POSS 2S+PFV-catch again-NEG
 ‘Your mother’s word you no longer accept.’
- (27) Nde na káagas anga way?
 nde na káá-gas aŋga waj
 so PSP 2S+POT-catch POSS who
 ‘So, you don’t accept anyone’s word!’ (lit. you will catch [that which] belongs to whom?)
- (28) Anga Hərmbəlom ga kagas asabay.
 aŋga Hərmbəlom ga kà-gas asa-baj
 POSS God ADJ 2S+PFV-catch again-NEG
 ‘The very [word] of God himself you no longer accept.’
- (29) Hərmbəlom na, amadaşlava ala mæze na,
 Hərmbəlom na ama-đaɫ =ava =ala mɪʒe na
 God PSP DEP-multiply =in =to person PSP
 ‘God, who multiplied the people,’
 ndahan ese na, kagas ma Hərmbəlom na, asabay na,
 ndahan ɛʃe na ka-gas ma Hərmbəlom na asa-baj na
 3S again PSP 2S-catch word God PSP again-NEG PSP
 ‘if you will never accept the word of God,’ (lit. him again, you never catch the word of God)
 káagas na anga way?
 káá-gas na aŋga waj
 2S+POT-catch PSP POSS who
 ‘whose word will you accept then?’ (lit. you will catch it, that which belongs to who)

- (30) Səlom ga.
 səlɒm ga
 goodness ADJ
 ‘Good!’ [narrator to himself].
- (31) Asara anday áɖakaləme ma a dəwnəya.
 asara à-ndaj á-ɖak =alɪmɛ ma a duwnija
 white man 3S+PFV-PROG 3S+IFV-show =1PEX.IO word GEN earth
 ‘The white man is showing us how the world is (lit. the word of the earth).’
- (32) Anday áɖakaləme endeɓ.
 à-ndaj á-ɖak =alɪmɛ endeɓ
 3S+PFV-PROG 3S+IFV-show =1PEX.IO wisdom
 ‘He is showing us wisdom.’
- (33) Tágas bay.
 tá-gas baj
 3P+IFV-catch NEG
 ‘They aren’t the accepting kind.’ (lit. they don’t accept)
- (34) Ehe na, tɛta na, kəw na, bəwɖere!
 ɛhɛ na tɛta na kuw na buwɖere
 here PSP 3P PSP IDtake PSP IDfoolishness
 ‘Here, what they are taking is foolishness!’ (lit. here, they, taking, foolishness)
- (35) Epəle epəle na, wəyen ambaɖala slam a yam avəlo.
 epɪle epɪle na wɪjɛn à-mbaɖ =ala ɬam a jam
 in the future PSP earth 3S+PFV-change =to place GEN water above
 avɔlɔ
 ‘Someday, the earth will change into heaven (the place of water above).’
- (36) Nde na, oko ndana anga way?
 ndɛ na ɔkʷɔ ndana aŋga waj
 so PSP fire DEM POSS who
 ‘So who are the fires [of hell] going to strike?’ (lit. so, that fire, belonging to who)

1 Introduction

- (37) Cəcəngehe na, asa tágalay janga ana endeḅ angə,
 tʃɪtʃɪŋgehe na asa tá-g =alaj dzaŋga ana endeḅ =aŋg^wɔ
 now PSP if 3P+IFV-do =away reading DAT wisdom =2S.POSS
 ‘These days, if they look at your life,’ (lit. now if they do a reading to your wisdom)

nafta wəyen aməndeve na, Hərməbəlom ágok sərəya na,
 nafta wijəŋ amɪ-ndɛv-ɛ na Hərməbəlom á-g =ɔk^w sərija
 day earth DEP-finish-CL PSP God 3S+IFV-do =2S.IO judgement

na

PSP

‘on the day that the earth ends, [and] God judges you [and you fail of course],’

kéegə na, memey?

kéé-g-ɛ na mɛmɛj

2S+POT-do-CL PSP how

‘what will you do [as you burn]?’

- (38) Nde ehe kəyga.
 ndɛ ɛhe kijga
 so here like this
 ‘So, it is like this here.’

- (39) Pepenna na takad sla.
 pɛpɛŋ =ŋa na tà-kad ʔa
 long ago =ADV PSP 3P+PFV-kill cow
 ‘Long ago, they killed cows.’

- (40) Tége almay?
 té-g-ɛ almaj
 3P+IFV-do-CL what
 ‘What were they doing?’

- (41) Məze ákosaka jəyga dəres.
 mɪʒɛ á-k^was =aka dʒijga dɪrɛʃ
 person 3S+IFV-unite =on all IDmany
 ‘The people were all united together.’

- (42) Tápaday.
 tá-pad-aj
 3P+IFV-crunch-CL
 ‘They ate [the meat].’
- (43) Tágaka hærnje bay.
 tá-g =aka hærnje baj
 3P+IFV-do =on hate NEG
 ‘On top of that, they divided it without hate.’ (lit. they did no hate)
- (44) Nde ehe na,
 nde ehe na
 so here PSP
 ‘So, here,’
 cəcəngehe na mæze ahay tandaday mæze asabay pat.
 tʃɪtʃɪngehe na mɪʒe =ahaj ta-ndad-aj mɪʒe asa-baj pat
 now PSP person =Pl 3P-like-CL person again-NEG all
 ‘[and] now, people don’t like each other at all any more.’
- (45) Se mæze amədedef mæze ehe na, cəcəngehe na, se ngomna.
 ʃe mɪʒe amɪ-ded-ɛ mɪʒe ehe na tʃɪtʃɪngehe na ʃe ŋgʷomna
 only person DEP-like-CL person here PSP now PSP only government
 ‘The only person that likes people now is the government.’ (sarcastic)
- (46) Ngomna na, ele aga kə wəyen aka na,
 ŋgʷomna na ɛle à-g-a kə wijen aka na
 government PSP thing 3S+PFV-do-CL on earth on PSP
 ‘The government, [if] there is a problem (lit. a thing does) on the earth,’
 ndahan na ágas na təta.
 ndahan na á-gas na təta
 3S PSP 3S+IFV-catch 3S.DO ability
 ‘it (the government) will be able to take care of it.’ (lit. he, he can catch it)
- (47) Waya ləme Məloko ahay na, nəmbədom a dərəy ava na,
 waja lɪmɛ Məlɔkʷɔ =ahaj na nə-mbɔd-ɔm a dərəy ava na
 because 1PEX Moloko =Pl PSP PFV-change-1PEX at head in PSP
 ‘Because we the Moloko, have changed in our head,’

1 Introduction

ka kərkaɖaw ahay nə hərgov ahay ga a bərɹlan ava na,
 ka kərkaɖaw =ahaj nə hʊrg^{wɔv} =ahaj ga a bərɹan ava na
 like monkey =Pl with baboon =Pl ADJ at mountain in PSP
 ‘like monkeys and baboons on the mountains,’

ka ala kəra na, nə sərom dəray bay pat.
 ka =ala kəra na nə-sʊr-ɔm dəraj baj pat
 like =to dog PSP PFV-know-1PEX head NEG all
 ‘[and] like dogs, we don’t understand anything!’

- (48) Kə wəyen aka ehe tezl tezlɛzl.
 kə wijeŋ aka ehe tɛɹ tɛɹɛɹ
 on earth on here 1Dhollow
 ‘[Among the people] on this earth here, [we are like] the sound of a hollow cup bouncing on the ground.’ (lit. on the earth here, hollow)
- (49) Nde məze ahay gogor ahay ga na, ngama.
 nde mɹɹɛ =ahaj g^{wɔ}g^{wɔ}r =ahaj ga na ŋgama
 so person =Pl elder =Pl ADJ PSP better
 ‘So, our elders [have it] better.’
- (50) Epele epele na me, Hərməbəlom anday agas ta
 ɛpele ɛpele na mɛ Hʊrməbʊlɔm à-ndaj à-gas ta
 in the future PSP opinion God 3S+PFV-PROG 3S+PFV-catch 3P.DO
 ‘In the future in my opinion, God is going to accept them [the elders]’
 a ahar ava re.
 a ahar ava rɛ
 at hand in sure
 ‘in his hands, in spite [of what the church says].’
- (51) Ádal hwəsese ga.
 á-dal h^wʊfɛfɛ ga
 3S+IFV-surpass small ADJ
 ‘He is greater than the small ones.’
- (52) Nde na, kəygehe.
 nde na kijgehe
 so PSP like this
 ‘So [it is] like this.’

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The vowel system of Moloko is noteworthy in its simplicity - it can be analysed as having only one underlying phoneme with eleven phonetic representations (see Section 2.3).

The phonology of Moloko has been fully discussed by Bow (1997a). The following is a summary of the aspects that are necessary to understand the grammar, with focus on the new work that has been done since her manuscript was initially published.

Bow based her phonological outline of Moloko (1997) on a database she compiled consisting of around 1500 words, including some 400 verbs and 1000 nouns. Bow's database was modified and extended by Boyd (2002) with a focus on nouns. Later, Mamalis built on their work to describe the tone on verbs, and Friesen discussed phonological word structure of the verb word in Friesen & Mamalis 2008.

Three inter-related phonological factors must be touched on before a discussion of any of them can be fully understood. The first is that Moloko words are built on a consonantal skeleton with only one underlying vowel /a/ (phonetically expressed as the 'full vowels' [a, o, œ, æ, e], see Section 2.3) that occurs between only some of the consonants.¹ Some consonant clusters (caused by the absence of an underlying vowel between them) are broken up by epenthetic schwa insertion when they are pronounced (and phonetically expressed as [ə, ʊ, u, ø, ɪ, i]).² Although syllable structure will be mentioned in this work, attention will be focussed on the underlying consonantal skeleton. Roberts (2001: 15) notes for Central Chadic languages,

¹ Bow (1997b) used the distinction +/- Low, which focused on one phonetic feature, however we have found that the most salient issue in discussing the vowel patterns of this language is the concept of 'full' vs. epenthetic vowels. For clarity, therefore, this work will use the terms 'full' and 'epenthetic' to distinguish between the two sets of vowel phones, with 'full' referring to /a/ and its prosodically conditioned allophones, and 'epenthetic' referring to schwa and its allophones.

² Likewise in Muyang, another Central Chadic language closely related to Moloko, it can be shown that syllables are built postlexically from the consonant skeleton by regular rules. Only the low vowel /a/ is phonemic, and all high vowels can be accounted for by means of epenthesis (Smith 1999).

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[because] “the consonant skeleton is all-important to the phonological structure, the traditional unit of the syllable is much less useful in the description of Central Chadic languages since at the core of every syllable must be a vowel (or some syllabic segment, at least). And in fact, it can be shown for most of these languages that the syllable is a very superficial phenomenon.”

(And further on p. 16)

“We conclude then that the syllable is not a unit that can be exploited as it is in other languages to elucidate the phonological structure. It is a surface structure phenomenon whose character is completely predictable from other phonological aspects of lexemes. On the other hand, an underlying structure that is more worthy of study in Central Chadic languages is that of the consonant skeleton that can take up lexical roots; to this core are added other peripheral phonological elements such as vowels, prosodies, and tones.”

The second basic phonological factor for Moloko is that all of the vowels (both ‘full’ and epenthetic) and some of the consonants are affected by word-level labialisation or palatalisation prosodies³ (see Section 2.1). These prosodies account for most of the vowel and consonant allophones in the language. Palatalisation can be part of certain morphemes, but Moloko is unlike other Chadic languages where palatalisation and labialisation alone can have morphemic status (for example in Muyang where the application of the palatisation prosody on a noun produces a diminutive, and application of the labialisation prosody produces an augmentative, Smith, personal communication).

The third basic factor is that the final syllable before a pause is stressed in pronunciation. The stressed syllable necessitates a ‘full’ vowel, meaning that any epenthetic vowel in that syllable will be changed to its full counterpart. The following two example pairs each show the same word in non-stressed and stressed environments. Compare [zij] (non-stressed with epenthetic vowel) with [zaj] (stressed with full vowel) in (1) and (2), and [nɔ-zɔm] (non-stressed with epenthetic vowel in final syllable) with [nɔ-zɔm] (stressed with full vowel) in (3) and (4).

³ Prosodies in Chadic languages are word-level suprasegmental processes that labialise or palatalise the entire word and affect all vowels and some consonants. See Roberts (2001) for a fuller discussion.

- (1) [zij dāw]
peace QUEST
'Is there peace?'
- (2) [zaj]
peace
'There is peace.'
- (3) [nɔ-zɔm daf]
1S+PFV-eat boule
'I ate boule.'
- (4) [nɔ-zɔm]
1S+PFV-eat
'I ate.'

Due to these interrelated factors, much of the phonological discussion will require representation of both the underlying and surface forms of lexemes. The underlying form consists of the consonant and vowel phonemes (written between slashes) and the word prosody (written as a superscripted ^e for palatalisation, ^o for labialisation at the right of the morphemes). A neutral prosody has no superscript. The following examples illustrate the phonetic forms (between square brackets) and underlying forms (between slashes) of nouns that are palatalised (5), labialised (6), and neutral with respect to prosody (7). All of the examples in this work will be presented in the phonetic form unless otherwise indicated.

- (5) [mɪdɪgɛr] / m d g r ^e /
'hoe'
- (6) [lɔhɔ] / l h a ^o /
'late afternoon'
- (7) [daf] / d f /
'millet boule'

The phonetic forms of the examples given in this paper are all in citation form (the form of the word when it is pronounced in isolation), and therefore show each word with a stressed final syllable. In each case, the final syllable (whether open or closed) always contains a full vowel, regardless of whether the underlying form has a full vowel or not.

The phonology section of the present work begins with a description of the prosodies of labialisation and palatalisation and their effects (Section 2.1), which leads to a description of the consonant and vowel systems (Sections 2.2 and 2.3, respectively). An examination of the tone system follows (Section 2.4). Finally, notes on the syllable and word breaks are discussed (see Sections 2.5 and 2.6, respectively). Appendix A includes a list of verbs used in this analysis, showing their Imperative form, underlying form, and underlying tone.

2.1 Labialisation and palatalisation prosodies

One of the most basic phonological processes in Moloko is prosody. Chadic linguists refer to prosody as a suprasegmental process where a labialisation or palatalisation feature is applied to a phonological word. Wolff (1981) refers to prosodies as suprasegmental sources of palatalisation and labiovelarisation.

Bow (1997a) has discovered that labialisation and palatalisation work at the morpheme level in Moloko. Both prosodies are attached to a particular morpheme and spread leftward over the entire phonological word. Labialisation affects the back consonants (k, g, ŋg, and h) and vowels; palatalisation affects alveolar fricatives (s and z), affricates (ts and dz), and vowels (see Sections 2.2 and 2.3). All Moloko words are either labialised, palatalised, or are neutral with respect to prosody. Recent work demonstrates that some syllables can be affected by both labialisation and palatalisation (see Section 2.3.1 and Section 2.3.2).

As stated above, in this work prosody is indicated in the underlying form using superscript symbols included at the right edge of the word: /^o/ to represent labialisation and /^e/ to represent palatalisation. In the phonetic form, the prosody is indicated by the quality of the full vowel in the word ([ɔ] for labialisation, [ɛ] for palatalisation, and [a] for no prosody (see Section 2.3). The following examples from Bow (1997a) give evidence of contrast between the prosodies in a minimal triplet:

- (8) /k ra/ [kəra]
 ‘dog’
- (9) /k ra ^o/ [k^wɔrɔ]
 ‘ten’
- (10) /k ra ^e/ [kɪrɛ]
 ‘stake/post’

The effects of both prosodies on a single underlying form can be seen in the paradigm for the verb /mnzar/ ‘see’ shown in Table 2.1. (adapted from Bow 1997a). The verb stem is bolded in the table. The 2s imperative is neutral with respect to prosody, while the 2P imperative form involves a labialisation prosody and the addition of a suffix /-am^o/ (see Section 7.3.1). The nominalised form carries a palatalisation prosody, and involves the addition of both a prefix /m-/ and suffix /-a^e/. Note that vowels and some consonants are affected by the prosodies. The vowel /a/ is realised as [ɔ] in labialised forms, and [ɛ] in palatalised forms, while [ə] is realised as [ʊ] in labialised forms and [ɪ] in palatalised forms (see Section 2.3.2). The consonant /nz/ is realised as [nʒ] in palatalised forms (see Section 2.2.3).

Table 2.1: Paradigm for /mnzar/

	Underlying form	Phonetic form	Gloss
2s Imperative form	/ m nza r /	[mənʒar]	‘see! (2s)’
2P Imperative form	/ m nza r -am ^o /	[mʊnzərɔm]	‘see! (2P)’
Nominalised form	/m- m nza r -a ^e /	[mɪmɪnʒɛɛ]	‘seeing’

Labialisation and palatalisation prosodies are lexical features that are applied to a morpheme, and can spread over an entire word. A prosody in the root will spread to a prefix. Compare the prosody in the subject prefixes of the following verbs. In (11), the root is labialised, in (12), the root is palatalised, and in (13), the root is neutral. The underlying forms are given in the examples.

- (11) [nɔ-zɔm] /na- z m^o/

1s-eat

‘I eat.’

- (12) [nɛ-ʃ-ɛ] /na- s-aɪ^o/

1s-drink-cl

‘I drink.’

- (13) [na-zad] /na- z d/

1s-take

‘I take.’

When initiated by a suffix carrying a prosody, the prosody spreads leftwards, affecting all morphemes within the word including prefixes.⁴ The following ex-

⁴ When the prosody is neutral, the prosody on the root is neutralised (compare examples 16 and 17).

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amples contrast the vowels and consonants in a verb root with no underlying prosody ([kaɬ] ‘wait’) in the second person singular verb form (14, also prosody neutral) and the second person plural which contains the labialised suffix /-ak^o/ (15). The underlying forms are given in each example. Note that the prosody does not spread to the right across word boundaries since *na*, a separate word, is not affected by the prosody of the verb stem (nor does it neutralise the prosody on the verb).

- (14) [ka-kaɬ na] /ka- ka ɬ na/
 2S+PFV-wait 3S.DO
 ‘You waited [for] it.’
- (15) [mɔ-kɔɬ-ɔk^w na] /ma- ka ɬ -ak^o na/
 1PIN+PFV-cultivate-1PIN 3S.DO
 ‘We waited [for] it.’

Palatalised verbs almost always have a palatalised suffix [-ɛ] (see Section 6.6).⁵ Whenever there is another suffix or enclitic attached to the verb stem, the [-ɛ] is deleted, taking with it the palatalisation prosody (see Section 6.3). The verb becomes neutral with respect to prosody, as is shown by (16–17). In (16), the verb ends with [-ɛ] and the entire verb form is palatalised. In (17), the enclitic [=va] has replaced the [-ɛ] and the entire verb form is neutral in prosody.

- (16) nɛ-tʃɪk-ɛ /n- ts k^ɛ/
 1S-move-CL
 ‘I move.’
- (17) nɔ-tʃɔk-ɔ=va /n- ts k^ɛ =va/
 1S-move-CL=PRF
 ‘I moved already.’

Bow (1997a) found that prosodies seem to have the least effect on word-initial V syllables. She notes that in palatalised words, the first syllable of nouns that begin with /a/ will sometimes be completely palatalised and pronounced [ɛ]. However, often it will have an incomplete palatalisation and be pronounced [æ] or even [a]. See the alternate pronunciations that Bow has found for the words /a- la la^ɛ/ (18) and /a- nd ɬ^ɛ/ (19). Palatalisation is a stronger process than labialisation. In labialised words, the first syllable in words that begin with /a/ will

⁵ With the exception of verb stems whose final consonant is /n/, eg, [tʃɛŋ], /tsan^ɛ/, ‘know’.

often⁶ be unaffected by the labialisation and be pronounced [a] (see the alternate pronunciations for the words /a- la ka^o/ in 20 and /a- g ra^o/ 21).

- (18) [alɛlɛ] ~ [æɛlɛ] ~ [ɛlɛlɛ]
‘leaf sauce’
- (19) [andɛɓ] ~ [ændɛɓ] ~ [ɛndɛɓ]
‘brain’
- (20) [alɔk^wɔ] ~ [ɔlɔk^wɔ]
‘fire’
- (21) [agɔrɔ] ~ [ɔg^wɔrɔ]
‘gold’

2.2 Consonants

Bow reported 31 consonant phonemes.⁷ Since her work, the labiodental flap /v/ in Moloko has been noted, making the total 32 consonantal phonemes.

The labio-dental flap /v/ was first described by Olson & Hajek (2004) and is typical of many of the Chadic languages in the Far North Province of Cameroon. In Moloko it is found in ideophones (22–23, see Section 3.6).

- (22) [vaɓ]
‘snake falling’
- (23) [ɓavaw]
‘men running’

Moloko has three sets of sequences which Bow has interpreted as single units (C) rather than sequences of two consonants (CC). These are pre-nasalised consonants [mb, nd, ŋg, nz], affricates [ts, dz], and labialised consonants [k^w, g^w, ŋg^w, h^w]. In the case of pre-nasalised consonants, the nasal is always homo-organic with the following consonant.⁸ Only voiced consonants are pre-nasalised.

⁶ Bow found these first syllables always unaffected by labialisation; Friesen has found that some speakers do pronounce vowel-initial syllables with labialisation [ɔ].

⁷ Bow (1997a) described 30 consonant phonemes although her chart of consonant phonemes included ŋg^w, making the total 31.

⁸ Note that the phoneme /n/ assimilates to the point of articulation of a following consonant throughout the language.

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Allophonic variation for consonants occurs in Moloko due to prosodic conditioning (Section 2.2.3) and word final variations (Section 2.2.4). There is a relationship between consonants and tone which is considered in Section 2.4.1.

Table 2.2 (adapted from Bow 1997a) shows place and manner of articulation of all phonetic realisations of consonants in Moloko. Allophones are shown in parentheses. The individual phonemes and their allophones are considered in Sections 2.2.1–2.2.4.

Table 2.2: Consonant phonemes

		Labial	Alveolar	Velar / Glottal	Labio-Velar
Stops	-voice	p	t	k	k ^w
	+voice	b	d	g	g ^w
	nasal	m	n (ŋ)		
	pre-nasal	mb	nd	ŋg	ŋg ^w
	implosive	ɓ	ɗ		
Affricates	-voice		ts (tʃ)		
	+voice		dz (dʒ)		
	pre-nasal		nz (nʒ)		
Fricatives	-voice	f	s (ʃ)	h (x)	h ^w
	+voice	v	z (ʒ)		
Lateral fricatives	-voice		ɬ		
	+voice		ɮ		
Lateral approximants			l		
Approximants			j		w
Flaps		ɾ	r		

2.2.1 Phonetic description

The list of phonemes and allophones with phonetic description shown in Table 2.3 is adapted from Bow (1997a) and includes additions from our work done

⁸ Orthographically, ‘kw’ is word-initial and word medial, ‘wk’ is word-final.

Table 2.3: List of phonemes and allophones with phonetic description

/p/	p	[p]	voiceless bilabial unaspirated stop	/nz/	nj	[nz]	pre-nasalised voiced alveolar nasal occurring in unpalatalised syllables
/b/	b	[b]	voiced bilabial stop			[nɜ]	pre-nasalised voiced alveopalatal nasal occurring in palatalised syllables
/mb/	mb	[mb]	pre-nasalised voiced bilabial stop	/ɫ/	sl	[ɫ]	voiceless alveolar lateral fricative
/m/	m	[m]	voiced bilabial nasal	/ɣ/	zl	[ɣ]	voiced alveolar lateral fricative
/b/	ɓ	[ɓ]	voiced bilabial stop with ingressive pharynx air (implosive)	/l/	l	[l]	voiced alveolar lateral approximant
/f/	f	[f]	voiceless labio-dental fricative	/r/	r	[r]	voiced alveolar flap
/v/	v	[v]	voiced labio-dental fricative	/r/	vb	[v]	voiced labiodentals flap
/t/	t	[t]	voiceless alveolar unaspirated stop	/j/	y	[j]	voiced palatal semi-vowel
/d/	d	[d]	voiced alveolar stop	/k/	k	[k]	voiceless velar unaspirated stop occurring in unlabialised syllables
/n/	n	[n]	voiced alveolar nasal			[k ^w]	voiceless labialised velar stop occurring in labialised words
		[ŋ]	voiced velar nasal occurring word-finally	/k ^w /	kw/wk ^a	[k ^w]	voiceless labialised velar stop
/nd/	nd	[nd]	pre-nasalised voiced alveolar stop	/g/	g	[g]	voiced velar stop occurring in unlabialised syllables
/d/	ɖ	[ɖ]	voiced alveolar stop with ingressive pharynx air (implosive)			[g ^w]	voiced labialised velar stop occurring in labialised syllables
/ts/	c	[ts]	voiceless alveolar affricate occurring in unpalatalised syllables	/g ^w /	gw	[g ^w]	voiced labialised velar stop
		[tʃ]	voiceless alveopalatal affricate occurring in palatalised syllables	/ŋg/	ng	[ŋg]	pre-nasalised voiced velar stop occurring in unlabialised syllables
/dz/	j	[dz]	voiced alveolar affricate occurring in unpalatalised syllables			[ŋg ^w]	voiced pre-nasalised labialised velar stop occurring in labialised syllables
		[dʒ]	voiced alveopalatal affricate occurring in palatalised syllables	/ŋg ^w /	ngw	[ŋg ^w]	voiced pre-nasalised labialised velar stop
/s/	s	[s]	voiceless alveolar fricative occurring in unpalatalised syllables	/h/	h	[h]	voiceless glottal fricative occurring word-medially
		[ʃ]	voiceless alveopalatal fricative occurring in palatalised syllables			[x]	voiceless velar fricative occurring word-finally
/z/	z	[z]	voiced alveolar fricative occurring in unpalatalised syllables	/h ^w /	hw	[h ^w]	voiceless labialised glottal fricative
		[ʒ]	voiced alveopalatal fricative occurring in palatalised syllables	/w/	w	[w]	voiced labio-velar semi-vowel

^a Orthographically, 'kw' is word-initial and word medial, 'wk' is word-final.

since then. The phoneme (inside slashes), the phonetic form (in square brackets), and the orthographic form (non-bracketed) are shown for each consonant phone. All sounds are made with egressive lung air except where otherwise stated (i.e. implosives are made with ingressive pharynx air). The orthography is discussed in Friesen (2001). The orthography conforms to the General Alphabet for Cameroonian Languages. Examples in the grammar sections are written using both the orthography (top line) and phonetic transcription so that both speakers of Moloko and outside linguists can appreciate them.

2.2.2 Underlyingly labialised consonants

Bow posited the existence of a set of underlyingly labialised consonant phonemes [k^w, g^w, ŋg^w, h^w]. She showed them to be phonemes even though each of these consonants is also the realisation in labialised words of their non-labialised counterpart (see Section 2.2.3). At the surface phonetic level, Bow showed that a labialised velar can have two possible sources, either a labialisation prosody across the whole word (24), or the presence of an underlyingly labialised consonant (25). (24) shows consistently labialised vowels indicating labialisation across whole word; while the palatalised vowels in (25) indicate that there is a palatalisation prosody across the whole word; with the presence of an underlyingly labialised velar consonant.

(24) /dz g r^o/ [dzʊg^wɔr]
 ‘stake’

(25) /dza g^w r^e/ [dʒœg^wɛr]
 ‘limpness’

Bow found underlyingly labialised consonants in words which do not have a labialisation prosody across the whole word. She concluded that the labialisation feature was attached only to these velar consonants within a word since the prosody only affected those particular consonants and the vowels immediately adjacent to them, while other consonants and vowels within the word were unaffected by the labialisation prosody.⁹

⁹ Another interpretive option could be positing that the labialisation prosody touches down on the velar consonant but something prevents it from spreading to the rest of the word (Smith, personal communication). For the purposes of this work, we will consider the labialised velar to be a separate phoneme rather than a supra-segmental phenomenon.

Table 2.4 (adapted from Bow 1997a) shows two pairs of words that are distinguished by the contrast between the underlyingly labialised and non-labialised velars.

Table 2.4: Minimal pairs for word-level labialised prosody vs. labialised consonant

Labialised consonant			Word-level prosody		
Underlying form	Phonetic form	Gloss	Underlying form	Phonetic form	Gloss
/s l k ^e /	[ʃɪlək]	‘jealousy’	/s l k ^w e/	[ʃɪlək ^w]	‘broom’
/g la ^o /	[g ^w ʊlə]	‘left’	/g ^w la/	[g ^w ʊlə]	‘son’
/ha d a ^o /	[h ^w ɔdɔ]	‘wall’	/h ^w a d a/	[h ^w ɔd a]	‘dregs’

Table 2.5 illustrates words containing each of the labialised velar phonemes. The labialised velars may occur as the word-initial consonant, medial consonant in palatalised words or words of neutral prosody. Only voiceless labialised velars can occur in word-final position (see Section 2.2.4). It is interesting that there are no words of neutral prosody which can have a labialised velar in word final position. Note that only the vowels that immediately surround a labialised velar consonant are affected by the prosody of the velar consonant (see Sections 2.3.2 and 2.3.3).

Table 2.5: Distribution of labialised velar phonemes

	Word initial	Word medial	Word final
Neutral prosody	[k ^w ʊsaj] ‘haze’	[tʊk ^w ʊrək] ‘partridge’ [ag ^w ɔʒək] ‘rooster’	
Palatalisation	[k ^w ʊtʃɛɪ] ‘viper’ [g ^w ʊdɛdɛk] ‘frog’	[mɛtʃœk ^w ɛd] ‘maggot’ [mɛdɛləŋg ^w ɛʒ] ‘leopard’ [ah ^w œdɛ] ‘fingernail’	[pɛdœk ^w] ‘blade’

Bow found there are several cases in the data where it was impossible to

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tell whether the consonant is underlyingly labialised or there is a labialisation prosody across the word, as in (26) and (27) (from Bow 1997a).

- (26) /s k^w m/ ~ /s k m °/ [sɔk^wɔm]
 ‘buy/sell’

- (27) /ma g^w m/ ~ /ma g m °/ [mɔg^wɔm]
 ‘home’

Further work on verb conjugations clarified that (26) actually contains a labialised velar (i.e., the underlying form is /s k^w m/). (28) shows the nominalised form of the verb which is palatalised, yet the labialised velar is still present. If there was no underlyingly labialised velar, the nominalised form would have been *[mɪsɪkɪmɛ]

- (28) mɪ-sɪk^wɔm-ɛ
 NOM-buy-CL
 ‘buying’

2.2.3 Prosodic conditioning of consonant allophones

Table 2.6 (adapted from Bow 1997a) shows the effect of prosodic conditioning on each consonant phone. Each consonant phone (reading down the table) is shown in three environments, one without any prosody, one with a labialisation and one with a palatalisation prosody. The table illustrates that prosody has an effect on fricatives, affricates, and back consonants (velar and glottal).

The fricatives [s, z, nʒ] and affricates [ts, dz] are in complementary distribution with [ʃ, ʒ, nʒ] and [tʃ, dʒ], respectively, with the second group only appearing in palatalised words.

Labialisation affects the back consonants such that [k, g, ŋg, h] are in complementary distribution with [k^w, g^w, ŋg^w, h^w], respectively, with the second group only appearing in labialised words. Note however that there is a set of underlyingly labialised back consonant phonemes (see Section 2.2.2).

Note also that the labiodental flap [v] is found only in ideophones (Section 3.6) that have a neutral prosody.

2.2.4 Non-prosodic conditioning of consonants

Word-final position influences the distribution of certain phonemes as well as the production of allophones. The following phonemes do not occur in word-final position: voiced stops (including prenasalised stops but excluding /m/ and the implosives), voiced affricates, and the labiodental flap i.e., [b, mb, d, nd, g, g^w, ŋg,

Table 2.6: Prosodic conditioning of consonant phonemes

	Neutral	Gloss	Labialised	Gloss	Palatalised	Gloss
Stops						
p	[paj]	‘open’	[apɔŋʷɔ]	‘mushroom’	[pembɛʒ]	‘blood’
b	[baj]	‘light’	[abɔɾ]	‘lust’	[bɛkɛ]	‘slave’
ɓ	[ɓaj]	‘hit’	[aɓɔɓ]	‘yam’	[ɓɛʒɛŋ]	‘count’
m	[maj]	‘hunger’	[mɔɓ]	‘twin’	[amɛɛk]	‘bracelet’
mb	[mbaj]	‘follow’	[ambɔɓ]	‘bag’	[mbɛ]	‘argue’
t	[tar]	‘call’	[atɔs]	‘hedgehog’	[tɛʒɛh]	‘boa’
d	[dar]	‘burn’	[dɔkʷaj]	‘arrive’	[dɛ]	‘cook’
ɖ	[ɖas]	‘weigh’	[ɖɔŋʷɔm]	‘nape’	[dɛ]	‘flourish’
n	[nax]	‘ripen’	[sɔnɔ]	‘joke’	[ɛnɛŋ]	‘snake’
ŋ	[ɣaj]	‘start’	[tɔɓɔŋ]	‘heart’	[ɓɛʒɛŋ]	‘count’
nd	[ndar]	‘weave’	[ndɔʒaj]	‘explode’	[ndɛ]	‘lie down’
k	[kaɭ]	‘wait’			[bɛkɛ]	‘slave’
g	[gar]	‘grow’			[gɛ]	‘do’
ŋg	[ŋgaj]	‘set’			[fɛŋgɛ]	‘termite mound’
kʷ	[kʷɔsaj]	‘fog’	[kʷɔndɔŋ]	‘banana’	[ajɔɛkʷ]	‘ground nut’
gʷ	[agʷɔʒak]	‘cockerel’	[gʷɔɾɔ]	‘kola’	[dʒɔɛgʷɛɾ]	‘limpness’
ŋgʷ	[ŋgʷɔdaɭaj]	‘simmer’	[aŋgʷɔɓ]	‘return’	[adɔŋgʷɛɾɛd]	‘type of tree’
Fricatives and Affricates						
f	[far]	‘itch’	[fɔkʷaj]	‘whistle’	[fɛ]	‘play instrument’
v	[vaj]	‘winnow’	[avɔɓɔm]	‘ladle’	[vɛ]	‘spend (time)’
s	[sar]	‘know’	[sɔnɔ]	‘joke’		
z	[zaj]	‘peace’	[zɔm]	‘eat’		
ts	[tsar]	‘climb’	[tsɔkʷɔɾ]	‘fish net’		
dz	[dzaj]	‘speak’	[dzɔŋʷɔ]	‘hat’		
nz	[nzakaj]	‘find’	[nzɔm]	‘sit down’		
h	[haj]	‘millet’			[mɛhɛɾ]	‘forehead’
x	[rax]	‘satisfy’			[tɛʒɛx]	‘boa’
hʷ	[hʷɔɖa]	‘dregs’	[hʷɔɾ]	‘woman’	[ahʷɔɛɖɛ]	‘fingernail’
ʃ					[ʃɛ]	‘drink’
ʒ					[ʒɛ]	‘smell’
tʃ					[tʃɛ]	‘lack’
dʒ					[dʒɛŋ]	‘luck’
nʒ					[nʒɛ]	‘sit down’
Laterals						
ɭ	[ɭaj]	‘slit’	[ɭɔkʷɔ]	‘earring’	[aɭɛɭɛd]	‘egg’
ɣ	[ɣaj]	‘start’	[bɛʒɛm]	‘cheek’	[aɣɛɾɛ]	‘lance’
ɭ	[ɭaj]	‘dig’	[ɭɔ]	‘go’	[lɔhɛ]	‘bush’
Flaps						
r	[rax]	‘satisfy’	[arɔx]	‘pus’	[tɛɾɛ]	‘other’
v	[pəvan]	‘start of race’				
Semivowels						
j	[jam]	‘water’	[sɔkʷɔj]	‘clan’	[ajɛwɛd]	‘whip’
w	[war]	‘child’	[wulɔj]	‘devour’	[wɛ]	‘give birth’

ŋg^w, dz, dʒ, nz, nʒ, v]. Also, [x] and [ŋ] are the word-final allophones of /h/ and /n/, respectively (Section 2.2.4.1). In some contexts, word-final /r/ can be realised as [l] (Section 2.2.4.2). Table 2.7 (adapted from Bow 1997a) shows the distribution of each consonant phone (reading down) in different positions within the word (reading across).

2.2.4.1 Word final allophones of /n/ and /h/

Bow demonstrates that [n] and [ŋ] are allophones of /n/ with a distribution as shown in Figure 2.1.

$$n \rightarrow \eta / _ \#$$

Figure 2.1: Word final allophone of /n/

Table 2.8 (adapted from Bow 1997a) illustrates [n] and [ŋ] in complementary distribution (with [n] word initial and word medial and [ŋ] word final).

Table 2.8: Complementary distribution for /n/

Prosody	Initial		Medial		Final	
Neutral	[nax]	‘ripen’	[gə ⁿ aw]	‘animal’	[=a ^h a ^ŋ]	=3s.POSS
Labialised	[nɔ ^w k ^w]	‘you’	[ana]	‘to’ (dative)	[gə ^l a ^ŋ]	‘threshing area’
Palatalised	[nɛ]	‘me’	[mɪ ^t ɛ ⁿ ɛ ^ŋ]	‘bottom’	[bər ^ʃ a ^ŋ]	‘mountain’

Likewise, Bow demonstrates that [h] and [x] are allophones of /h/ with a distribution as shown in Figure 2.2.

$$h \rightarrow x / _ \#$$

Figure 2.2: Word final allophone of /h/

Table 2.9 shows [x] and [h] in complementary distribution (with [h] word initial and word medial and [x] word final).

Table 2.7: Non-prosodic conditioning of consonant phonemes

Initial		Medial		Final		
Voiceless stops and affricates						
p	[palaj]	‘choose’	[kapaj]	‘roughcast’	[dap]	‘fake’
t	[talaj]	‘walk’	[fataj]	‘descend’	[mat]	‘die’
k	[kapaj]	‘roughcast’	[makaj]	‘leave/let go’	[sak]	‘multiply’
k ^w	[k ^w ɔsaj]	‘fog’	[tɔk ^w asaj]	‘cross/fold’	[ajœk ^w]	‘ground nut’
ts	[tsahaj]	‘ask’	[watsaj]	‘write’	[harats]	‘scorpion’
tʃ	[tʃɛ tʃɛ]	‘all’	[mɛtʃɛk ^w ɛd]	‘worm’	[mɛkɛtʃ]	‘knife’
Implosives						
ɓ	[balaj]	‘build’	[ndaɓaj]	‘wet/whip’	[haɓ]	‘break’
ɗ	[ɗakaj]	‘indicate’	[jadaj]	‘tire’	[zad]	‘take’
Fricatives						
f	[fataj]	‘descend’	[dafaj]	‘bump’	[taf]	‘spit’
v	[vakaj]	‘burn’	[ɣavaj]	‘swim’	[dzav]	‘plant’
s	[sakaj]	‘sift’	[pasaj]	‘detatch’	[was]	‘farm’
ʃ	[ʃɛɛ]	‘witness’	[ʃɛʃɛ]	‘meat’	[pɪɛʃ]	horse
z	[zad]	‘take’	[wazaj]	‘shake’	[baz]	‘reap’
ʒ	[ʒɛ]	‘smell’	[mɔʒɛ]	‘person’	[mɛdɪlɪŋʒ ^w œʒ]	‘leopard’
h	[halaj]	‘gather’	[mbahaj]	‘call’		
h ^w	[h ^w ɔlɛŋ]	‘back’	[tʃœh ^w ɛɫ]	‘stalk’		
x					[ɓax]	‘sew’
Laterals, approximants, flap, and semivowels						
ɬ	[ɬaraj]	‘slide’	[tsaɬaj]	‘pierce’	[kaɬ]	‘wait’
ɮ	[ɮavaj]	‘swim’	[daɮaj]	‘join/tie’	[mbaɮ]	‘demolish’
l	[lagaj]	‘accompany’	[balaj]	‘wash’	[wal]	‘attach’
r	[rax]	‘pluck’	[garaj]	‘command’	[sar]	‘know’
v	[vɔvɔvɔ]	‘rapidly’	[ɓavaw]	‘man running’		
j	[jadaj]	‘tire’	[haja]	‘grind’	[balaj]	‘wash’
w	[watsaj]	‘write’	[ɣawaj]	‘fear’	[mahaw]	‘snake’
Voiced stops and affricates						
m	[makaj]	‘leave/let go’	[lamaj]	‘touch’	[tam]	‘save’
b	[balaj]	‘wash’	[abaj]	‘there is none’		
mb	[mbahaj]	‘call’	[hambar]	‘skin’		
d	[daraj]	‘snore’	[hadak]	‘thorn’		
nd	[ndavaj]	‘finish’	[dandaj]	‘intestines’		
n	[nax]	‘ripen’	[zana]	‘cloth’		
g	[garaj]	‘command’	[lagaj]	‘accompany’		
g ^w	[g ^w ɔɛk]	‘small axe’	[aɡ ^w ɔɣak]	‘rooster’		
ŋɡ	[ŋgaɣaj]	‘introduce’	[maŋgaɬ]	‘fiancée’		
ŋɡ ^w	[ŋɡ ^w ɔdaɬaj]	‘simmer’	[aŋɡ ^w ɔrɣa]	‘sparrow’		
dz	[dzakaj]	‘lean’	[dzadzaj]	‘dawn/light’		
dʒ	[dʒɛŋ]	‘luck’	[tʃɪdʒɛ]	‘illness’		
nʒ	[nʒakaj]	‘find’	[manzaw]	‘beignet’		
nʒ	[nʒɛ]	‘sit’	[hɪrnʒɛ]	‘quarrel’		
ŋ					[hadʒaŋ]	‘tomorrow’

Table 2.9: Complementary distribution for /h/

Prosody	Initial		Medial		Final	
Neutral	[har]	‘make’	[ahar]	‘hand’	[rax]	‘satisfy’
Labialised	[h ^w ɔdɔ]	‘wall’	[tɔh ^w ɔr]	‘cheek’	[h ^w ɔmbɔx]	‘pardon’
Palatalised	[hɛrɛʃ]	‘heat’	[mɛhɛr]	‘forehead’	[tɛʒɛx]	‘boa’

2.2.4.2 Word final allophones of /r/

Friesen & Mamalis (2008) demonstrated that for some verb roots, final /r/ is realised as [l] in certain contexts.¹⁰ In (29) and (30), which are consecutive lines from a narrative text, the final /r/ of the verb /v r/ ‘give’ is [r] in *navar* ‘I give’ (30) but is realised as [l] when the indirect object pronominal enclitic =aw (see Section 7.3.2) is attached (29):

- (29) [vəl=aw kindɛw =aŋg^wɔ na ɛhɛ]
 give[2S.IMP]=1S.IO guitar =2S.POSS PSP here
 ‘Give me your guitar, here!’
- (30) [na-var na baj]
 1S-give 3S.DO NEG
 ‘I won’t give it.’

Likewise, the verb /wal/ ‘hurt’ exhibits similar changes, where the word-final [r] in (31) becomes /l/ when the indirect object pronominal enclitic attaches (32).

- (31) həmaɖ a-war gam
 wind 3S-hurt much
 ‘It’s very cold.’ (lit. wind hurts a lot)
- (32) həmaɖ a-wal =alɔk^wɔ
 wind 3S-hurt =1PIN.IO
 ‘We’re cold.’ (lit. wind hurts us)

2.3 Vowels

¹⁰ This process does not appear to be free variation.

There are ten surface phonetic vowels in Moloko (Table 2.10) but the vowel system can be analysed as having one underlying vowel /a/.¹¹ This vowel may be either present or absent between any two consonants in the underlying form of a morpheme. Bow (1997a) found that the absence of a vowel requires an epenthetic vowel to break up some consonant clusters in the surface form.¹² Different environments acting on the underlying vowel and the epenthetic [ə] result in the ten allophones in Moloko (four from /a/: [a, ɛ, ɔ, œ]¹³ and six from the epenthetic schwa: [ə, ɪ, ʊ, ø, i, u]). Note the addition of the vowel [ø] not in Bow's analysis. Bow noted "a phonetic gap left by the absence of a high vowel with both palatalisation and labialisation." This work reports the presence of this vowel in environments affected by both prosodies (see Section 2.3.3).

Bow distinguished the vowels in Moloko using four features: height, tense (or ATR), palatalisation, and labialisation. In this work, the conditioning environments that affect the phonetic expression of a full or epenthetic vowel include the labialisation and palatalisation prosodies (Section 2.3.2) and adjacency of the epenthetic vowel to particular consonants (Section 2.3.3).

2.3.1 Vowel phonemes and allophones

Table 2.10 is a summary table showing the sources of allophonic variation and the resulting phonetic realisations. In the table, the orthographic representation of each of these phonetic vowels is bolded and follows each vowel or example in the table.¹⁴ For each source of allophonic variation, an example is also given. In a word which is neutral with respect to prosody (line 1), the underlying vowel is pronounced [a] and epenthetic schwa [ə]. In labialised words, (line 2), /a/ becomes [ɔ] and the epenthetic schwa becomes [ʊ]. In palatalised words (line 3), /a/ is pronounced [ɛ] and the epenthetic schwa is pronounced [ɪ]. The epenthetic vowel can also be assimilated to a neighbouring approximant: it is realised as [i] when it occurs beside [j] (line 4) and as [u] when it occurs beside a labialised

¹¹ An analysis by Bow (1999) using Optimality Theory allowed both a single underlying vowel system (/a/) or a two underlying vowel system (/a/ and /ə/). For the purposes of this work, the schwa is considered as epenthetic since its presence is predictable, and /a/ is considered the only underlying vowel phoneme.

¹² Certain consonants do not require epenthetic schwa insertion (Section 2.5.1).

¹³ Bow reported ten surface vowel forms including [æ] which she did not consider as a distinct allophone since not all speakers distinguish between [a] and [æ], leaving nine allophones. Friesen has added [ø].

¹⁴ The orthographic representation is not employed elsewhere in the chapter, since it is important that the reader appreciate the phonetic expression. However, in the grammar chapters, the orthography is given for each example.

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velar [w, k^w, g^w, ŋg^w, h^w] or consonant (line 5). Under the influence of labialised velars and an adjacent /j/, the /a/ becomes [œ] and the epenthetic schwa becomes [ø] (line 6).

Table 2.10: Sources of allophonic variation in vowels with orthographic representation

	/a/	Example	Epenthetic ə	Example
1 No word-level process	[a] a	[awak] awak 'goat'	[ə] ə	[gəgəmaj] gəgəmay 'cotton'
2 Labialisation	[ɔ] o	[sɔnɔ] sono 'game'	[ʊ] ə	[mʊlɔkʷɔ] Məloko 'Moloko'
3 Palatalisation	[ɛ] e	[ʃɛʃɛ] sese 'meat'	[ɪ] ə	[ʃɪlɛk] səlek 'jealousy'
4 Adjacent to [j]	[a] a	[haja] haya 'grind'	[i] ə	[kija] kəya 'moon'
5 Adjacent to [w]	[a] a	[mawar] mawar 'tamarind'	[u] ə	[dʊwa] dəwa 'milk'
6 Adjacent to an inherently labio-velar and /j/	[œ] e	[ʃɪlœkʷ] səlewɔ 'broom'	[ø] ə	[lœkʷøjɛ] lœkwəye 'you' (Pl)

The working orthography for Moloko (Friesen 2001) indicates the word-level processes by the three full vowel graphemes in the word pronounced in isolation: 'e' in palatalised words, 'o' in labialised words, and 'a' in words with neutral prosody.¹⁵ Epenthetic vowels are written as 'ə' in the orthographic representation regardless of the word prosody, because their pronunciation is predictable from the word prosody (discernable from the full vowel in the word) and the surrounding consonants. The result is four orthographic vowel symbols (a, e, o, ə).

2.3.2 Prosodic conditioning of vowel allophones

Bow (1997a) reports that there is a clear prosodic pattern in Moloko where with few exceptions,¹⁶ all vowels in any word will have the same prosody, be it labialised, palatalised, or neutral. Table 2.11 (adapted from Bow 1997a) illustrates the three possible underlying prosody patterns in two and three syllable words.¹⁷

¹⁵ Even if the palatalisation or labialisation is incomplete in a word beginning with /a/, that first vowel will be written 'e' or 'o' respectively in the orthography.

¹⁶ Labialisation and palatalisation in words which begin with a vowel will sometimes be incomplete, leaving the first syllable as [a] for labialised words and [æ] for palatalised words (see

Table 2.11: Underlying prosody patterns in two and three syllable words

	Two syllable stems			Three syllable stems		
Neutral	/ha r ts/	[harats]	‘scorpion’	/ma ta b ɬ/	[matabaɬ]	‘cloud’
	/d r j/	[dəraj]	‘head’	/g g m j/	[gəgəmaj]	‘cotton’
LAB	/ba ɭ m °/	[bɔɭɔm]	‘cheek’	/ta la l n °/	[tɔlɔlɔŋ]	‘chest’
	/s k j °/	[sɔkʷɔj]	‘clan’	/ga g l v n °/	[gʷɔgʷɔlvɔŋ]	‘snake’
PAL	/ma h r °/	[mɛhɛr]	‘forehead’	/ma ba b k °/	[mɛbɛbɛk]	‘bat’
	/ɭ ga °/	[ɭɪgɛ]	‘sow’	/ts ka la °/	[tʃɪkɛlɛ]	‘price’

2.3.3 Non-prosodic conditioning of vowel allophones

Bow reported that besides the prosodies of labialisation and palatalisation, the epenthetic vowel allophones are conditioned by the phonemes /j/ and /w/ as well as the underlyingly labialised consonants. The rules governing these two conditioning environments follow, along with examples of each. Bow found that the epenthetic vowel assimilates to the palatal and labial features of an adjacent semi-vowel even when there is a prosody on the root. Figure 2.3 and Figure 2.4 illustrate the rules for the influence of /j/¹⁸ and /w/ with examples of each.

$$[ə] \rightarrow [i] / _ j$$

Figure 2.3: Influence of j on ə

- (33) /k ja/ [kija]
 ‘moon’

- (34) /m j k °/ [mijɛk]
 ‘deer’

$$[ə] \rightarrow [u] / _ w$$

$$[ə] \rightarrow [u] / w _$$

Figure 2.4: Influence of w on ə

Section 2.1).

¹⁷ Adjacency to certain consonants can also affect the quality of a particular vowel (Section 2.3.3).

¹⁸ We found no cases of *[ji].

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(35) /d wa/ [duwa]
‘milk/breast’

(36) /d w r^e / [duwer]
‘sleep’

(37) /w d a k -j/ [wudakaj]
‘separate/share’

Bow found that the vowel phoneme /a/ is not affected by semi-vowels, as demonstrated in (38) and (39).

(38) /j a d -j/ [jadaj] not *[jɛdɛj]
‘tire’

(39) /g n w/ [gənw] not *[gənɔw]
‘animal’

Bow noted that the semi-vowels themselves do not cause morpheme-level palatalisation or labialisation to occur. (40–44) illustrate that the presence of the labiovelar semi-vowel /w/ in any position within a word (including word-finally) does not effect a labialisation prosody across the word. In fact, the existing data lists no examples of words containing /w/ which have a word-level labialisation prosody.

(40) /ma w r/ [mawar]
‘tamarind’

(41) /da da wa^e/ [dɛdɛwɛ]
‘a species of bird’

Similarly with the palatal semi-vowel, Bow shows that the presence of [j] does not effect a palatalisation prosody across the word, although it may occur within a palatalised or labialised word.

(42) /la j w/ [lajaw]
‘large squash’

(43) /s k j^o/ [sɔk^wɔj]
‘clan’

- (44) /ha j w^e/ [hɛjɛw]
 ‘cricket’

This work also illustrates the rules governing the production of [œ] and the combined influence on the epenthetic vowel of adjacency to /j/ and either /w/ or /k^w/ to produce [ø]. An underlying /a/ is realised as [œ] when it occurs before the labialised velar /k^w/ in a palatalised word (45, Figure 2.5). When an epenthetic schwa occurs between /j/ and a labialised velar /k^w or w/,¹⁹ it is realised as [ø] (46–47, Figure 2.6). It is important to note that the presence of an underlyingly labialised velar consonant also does not cause labialisation of the entire phonological word; in fact, the evidence for their existence stems from this fact (see Section 2.2.2).

$$/a/ \rightarrow [\text{œ}] / _ \text{C}^{\text{w e}} /$$

Figure 2.5: Influence of labialised velar on /a/

- (45) /azɛk^{w e}/ [æʒœk^w]
 ‘sorry’

$$[\text{ə}] \rightarrow [\text{ø}] / \text{k}^{\text{w}} _ \text{j}$$

Figure 2.6: Influence of labialised velar and j on ə

- (46) /l k^w ja^e/ [lɔk^wøjɛ]
 ‘you (plural)’

- (47) /w j n^e/ [wøjɛŋ]
 ‘land’

2.4 Tone

In addition to published manuscripts and a thesis, Bow produced a database and an extensive series of observations relating to lexical and grammatical tone in Moloko nouns and verbs. This database was later expanded and modified, leading

¹⁹ We have not found the epenthetic vowel between /j/ and any other of the underlyingly labialised consonants (g^w, ŋg^w, h^w, see Section 2.2.2).

to an initial analysis of tone in noun phrases by Boyd (2002) and later to tone in verbs by Friesen & Mamalis (2008).

Bow (1997a) describes three phonetic tones (H, M, and L) but only two phonemic tones. In this work, lexical tone and grammatical tone are marked when relevant.²⁰ The phonetic tone patterns will be indicated on the words using accent marks for H (´), M (¨), when necessary, or L tone (`).

Table 2.12 (adapted from Bow 1997a with additional data) shows minimal pairs which illustrate the underlying two tone system in Moloko. Tone does not carry a high lexical load, and so there are only a limited number of lexical items distinguished by tone.²¹ The examples in Table 2.12 are divided into grammatical categories. Some of the minimal pairs are from different grammatical categories.

From an underlying two-tone system, with the influence of depressor consonants, certain melodies can be derived. There are different melodies for nouns and verbs. These melodies will be discussed in the noun and verb sections (see Sections 4.1 and 6.7). Bow described three different categories of verbs, those with underlying high tone, those with underlying low tone, and those with no underlying tone at all (toneless). A list of verbs showing their underlying tone is in Appendix A.

Lexical tone is not marked in the orthography since there are only a few minimal pairs. The minimal pairs are distinguished by a diacritic on one of the words in each pair. Lexical tone will not be marked in examples in the morphosyntax part of this work. Imperfective and Perfective aspect on verbs (indicated by grammatical tone) are distinguished by a diacritic on the subject pronominal verb prefix (see Section 7.4).

2.4.1 Depressor consonants

There are certain consonants which affect tone in Moloko. Bow (1997a) discovered that the voiced obstruents [b, d, g, mb, nd, ng, v, z, dz, nz, ɲ]²² have the effect of lowering an underlying low tone of the syllable in which they occur. Yip (2002: 113, 158) notes that:

“The most frequent form of interaction between tone and laryngeal features in African languages is the presence of ‘depressor’ consonants. This term describes a subset of consonants, usually voiced, which lower the tone of

²⁰ Some data was transcribed without tone.

²¹ One of each in these minimal pairs are marked in the orthography with a diacritic so that the pairs can be distinguished.

²² Bow notes that the phonemes /h, w, r, l/ can appear to function as depressors.

Table 2.12: Minimal pairs for phonetic tone

H tone		L tone	
Nouns			
[háj]	‘millet’	[hàj]	‘house/compound’
[ánēŋ]	‘other’	[ànēŋ]	‘snake’
[gélán]	‘threshing floor’	[gèlāŋ]	‘kitchen/clan’
[háhàr]	‘bean’	[hāhár]	‘straw granary’
[mḁdārā]	‘fire’	[mḁdèrà]	‘bicep’
[mólò]	‘twin’	[mòlò]	‘vulture’
[ēlé]	‘eye’	[èlè]	‘thing’
[vér]	‘grinding stone’	[vèr]	‘room’
Verbs			
[dár]	‘burn’	[dàr]	‘withdraw/recoil’
[hār]	‘pick up/transport’	[hàr]	‘build/make’
[nʒé]	‘suffice’	[nʒè]	‘sit’
[tsáháj]	‘ask’	[tsāháj]	‘get water’
[tsáwáj]	‘cut off the head’	[tsàwāj]	‘grow’
[pḁḁākáj]	‘wake up’	[pḁḁākāj]	‘melt’
Different grammatical categories			
[ává]	‘there is’ (EXT)	[àvà] ^a	‘arrow’ (noun)
[kōrsáj]	‘sweep’ (verb)	[kòrsāj]	‘cucumber’ (noun)
[lālá]	‘come back’ (verb)	[lālā]	‘good’ (adverb)
[ēhé]	‘no’ (interjection)	[èh[ē]	‘here’ (adverb)
[tṱtá]	3P	[tṱtā]	‘is able to’
[vá]	‘Perfect extension’	[vā]	‘body’
[ndánā]	‘therefore’ / ‘you (s) must’	[ndānà]	‘previously mentioned’
[āhán]	3P POSS	[āhān]	‘he said’

^a A third example ([ávā] ‘under’) makes this line a minimal triplet for tone.

neighbouring high tones, and may also block high spreading across them. This is a departure from the usual inertness of consonants in tonal systems...The set of depressor consonants may include all voiced consonants, or often only non-glottalized, non-implosive voiced obstruents. In some languages, such as Ewe, we find a three-way split, with voiced obstruents most active as depressors, voiceless obstruents as non-depressors, and voiced sonorants having some depressor effects, but fewer than the obstruents.”

Depressor consonants do not affect high tone words in Moloko. The phonetic mid and low tones thus both represent an underlying low tone. The phonetic low tone is triggered by the presence of depressor consonants. Table 2.13 demonstrates the effect of depressor consonants on the tone of the verb root in Moloko. The table shows minimal pairs of mid and low tone verb roots with and without depressor consonants. The roots with no depressor consonants have phonetically mid tone, whereas all of the roots with depressor consonants have phonetically low tone.

Table 2.13: Effect of depressor consonants on tone of verb root

Root with no depressor consonants		Root with depressor consonants	
Phonetic tone on root	Verb in 2s imperative form	Phonetic tone on root	Verb in 2s imperative form
M	<i>fɛ</i> ‘play an instrument’	L	<i>vɛ</i> ‘spend time’
M	<i>taf</i> ‘spit’	L	<i>dav</i> ‘plant’
M	<i>taʔ-aj</i> ‘curse’	L	<i>baʔ-aj</i> ‘breathe’

2.4.2 Tone spreading rules

At the phrase level, Bow found that a surface mid tone can have two sources: either an underlying low tone with no depressor consonants (see Section 2.4.1), or a surface high tone lowered by a preceding low. Bow found no LH melodies within words, and illustrated that a noun whose final syllable is low tone will lower a high tone on the first syllable of any word that follows. Table 2.14 (from Bow 1997a) illustrates high tone lowering. Bow also describes a spreading rule which is optional across word boundaries where the mid or high final tone of a noun optionally spreads over a low tone on the first syllable of an adjective.

Table 2.14: High tone lowering at morpheme boundaries

	Words in isolation	Words in context	Tone change	Gloss
Across morpheme boundary	[ɬàlà] + [aháj]	[ɬàlàháj]	LL+H → LLM	‘villages’
	[jàm] + [áhāŋ]	[jàmāhāŋ]	L+HM → LMM	‘his/her water’
Across word boundary	[jàm] + [ábá]	[jàm ábá]	L+HH → LMH	‘there is water’
	[ázóŋg ^w ð] + [ná] + [ɬá]	[ázóŋg ^w ð ná ɬá]	HHL+H+M → HHLMM	‘donkey and cow’

2.5 Notes on the syllable

The syllable in Moloko is a somewhat fluid entity, since Moloko words have a consonantal skeleton with optional vowels, making the syllable a surface structure (see introduction to Chapter 2). Bow (1997a) has discussed the syllable in Moloko in detail. This section deals with aspects of syllable structure that pertain to the grammar (Section 2.5.1) and syllable restructuring when words combine in speech (Section 2.5.2).

2.5.1 Syllable structure

Bow notes that “The basic syllable in Moloko has a consonantal onset, a vocalic nucleus and an optional consonant coda: CV(C), and carries tone.”²³ She found three syllable types in Moloko. CV, CVC, and initial V are the most common syllable types in the language. Both CV and CVC syllables can appear anywhere within the word. V syllables occur only in word initial position and are most likely to have come from what was once a separate morpheme – the /a-/ prefix in nouns (see Section 4.1), the third singular prefix in verbs (see Section 7.3.1), and an adposition (see Sections 5.4.1 and 5.6.1).

Bow notes no restrictions on consonantal onsets.²⁴ Friesen & Mamalis (2008) noted that although nouns ending in CV can have any prosody (see Section 4.1), almost all verb stems phonetically ending in CV are palatalised (48–49), where the V is the -ε suffix discussed in Section 6.3.²⁵

- (48) g-ε
do[2S.IMP]-CL

²³ Bow 1997a: 1

²⁴ Friesen & Mamalis (2008) discovered that although there are no restrictions on consonantal onsets for nouns, verb stems beginning with /n/ or /r/ are rare.

²⁵ The only non-palatalised verb stems ending in CV end with the pluractional clitic =aja or =ija, e.g., [h=aja] ‘grind.’ [s=ija] ‘cut.’ see Section 7.5.2. These verbs do not occur without the clitic so we do not know if they carry an underlying prosody or /-j/ suffix.

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‘Do!’

- (49) d-ε
prepare[2S.IMP]-CL
‘Prepare!’

The coda position carries more restrictions. Firstly, in word-medial position, consonants that are permitted as coda are restricted. Bow reported that liquids can function as the coda to a non-word-final syllable.²⁶ Further research has also shown that a semivowel /w/, /j/ or nasal /m, n/ can also function as the coda of a non word-final closed syllable (50–52).

- (50) duwlaj
‘millet drink’

- (51) kijga
‘like this’

- (52) amsɔk^wɔ
‘sorghum’

Secondly, consonants that can fill the coda position word-finally have other restrictions. Bow reported that the voiced plosives [b, d, dz, g, g^w] and pre-nasalised consonants [mb, nd, nz, ŋg, ŋg^w] do not appear in word-final position, and /n/ and /h/ have word-final allophones (see Section 2.2.4.1). In addition, Friesen & Mamalis (2008) found that word final consonants in verb stems that do not take the /-j/ suffix exclude all of the above and also exclude the voiceless affricate /ts/ and the approximants /w, j/.

Friesen & Mamalis (2008) postulated that a function of the /-j/ suffix of verb stems (see Section 6.3) is to allow root-final consonants which can’t occur word-finally to occur. Verb roots that take the /-j/ suffix permit /b, g, ts/, and /w/ as final consonant (53–55), all consonants that are restricted in the coda position either in all Moloko words or in verb stems. The presence of the /-j/ suffix, another suffix, or an enclitic ensures that in context, the final consonants of /-j/ roots never occur word finally.

- (53) [dab-aj]
follow[2S.IMP]-CL
‘Follow!’

²⁶ Bow also reports that liquids can function as the nucleus of a syllable and also as the second component of a consonantal onset.

- (54) [lag-aj]
accompany[2s.IMP]-CL
'Accompany!'

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- (55) [ndaw-aj]
swallow[2S.IMP]-CL
'Swallow!'

In some contexts, two voiceless consonants do not permit a voiced epenthetic schwa between them. A voiceless syllable results. In some cases, speakers could assign tone to the syllable (56–59),²⁷ and in other cases, they could not assign tone to the voiceless syllable (60–63). In the example, the syllables are separated by a period in the phonetic form. The voiceless syllable is underlined.

- (56) [sɔ̥.kʷɔ̥m]
'buy/sell'
- (57) [tə̥.ka.raj]
'taste'
- (58) [mɪ.tɪ.fɛ]
'spitting' (NOM)
- (59) [mɪ.tʃɪ.kɛ]
'standing' (NOM)
- (60) [mɔkʷɔ̥.tɔ̥.nɔkʷ]
'toad'
- (61) [dɛfɪ.tɛ.rɛ]
'book'
- (62) [fə̥.tak]
'Ftak'
- (63) [ɔ̥.kʷɔ̥.fɔ̥m]
'mouse'

2.5.2 Syllable restructuring

In fast speech, changes may happen within words or at word boundaries affecting adjacent syllables. At word boundaries, certain word-final consonants are

²⁷ Bow's data reports tone in every syllable for all of these words except *mɔkʷtɔ̥nɔkʷ* 'toad', *ɔkʷfɔ̥m* 'mouse', *Ftak* 'Ftak' (a proper name) and *dɛftɛrɛ* 'book' (a borrowed word from Fulfuldé).

lost and there may be vowel elision and reduction of vowels. Within the word, the segments may be restructured into new syllables, vowels may be reduced or deleted, and certain consonants may be deleted.

Bow (1997a) notes vowel elision and semivowel assimilation at morpheme boundaries. Other changes that we have noted are illustrated in Table 2.15. When morphemes are added (lines 1 and 10) or words juxtaposed within a construction (lines 2–8), syllables within the morphemes are sometimes reorganised or deleted. Syllables in the table are separated by a period. Line 1 shows the resyllabification of /anzakr/ where [r] (originally the coda) becomes the onset of a syllable that includes the first vowel of the following word. Line 2 illustrates vowel elision and loss of prosody. Lines 3–5 illustrate that in fast speech, word final /-n/ is deleted. Note in line 5 that although /-n/ is deleted, the high tone of the suffix remains on the vowel and there is no vowel elision. Line 6 illustrates deletion of /h/.²⁸ Note that stress is phrase-final necessitating a full vowel in the final syllable of an utterance (see introduction to Chapter 2).

2.6 Word boundaries

Bow (1997a) notes that “the phonological word in Moloko is made up of a root with the optional addition of affixes.” Further research has revealed that phonologically bound morphemes added to the root include affixes and several kinds of clitics. Specific phonological aspects of nouns and verbs will be discussed in their respective chapters (Chapters 4 and 6).

Word breaks are determined in this work by the phonological criteria discussed in Section 2.6.1 as well as using the grammatical criteria discussed in Section 2.6.2. Using these criteria, affixes, clitics, and extensions²⁹ can be distinguished from separate words in Moloko. Phonological criteria are illustrated for both nouns and verbs, when applicable (Section 2.6.1). ‘Affix,’ ‘clitic,’ and ‘extension’ are categorised for Moloko in Section 2.6.2.

²⁸ This kind of deletion seems to be irregular and may relate to a language change, since in some neighbouring languages, ‘chief’ is [baj]. ‘Chief is [baj] in Cuvok (Ndokobai 2006: 120), Gemzek (Gravina 2005: 9), Muyang (Smith, personal communication), Vame (Kinnaird 2006: 17), but [bahaj] in Mbuko (Gravina 2001: 9).

²⁹ Note that the term ‘extension’ for Chadic languages has a different use than for Bantu languages. In Chadic languages, ‘extension’ refers to particles or clitics in the verbal complex (Section 7.5).

Table 2.15: Changes due to syllable restructuring

Number	Underlying form	Phonetic pronunciation in isolation	Phonetic pronunciation in fast speech
1	/anzakr wla/ chicken 1s.POSS 'my chicken'	[a.nza.kar] [u.la]	[anzakrula]
2	/a- la° ala° ahan/ 3s- go -thing =3s.POSS 'he went away'	[a.lɔ] [ɛ.lɛ] [a.haŋ]	[alɔlahəŋ]
3	/n-la° a b r k̥ n ava/ 1s+PFV-go at mountain in 'I went to the mountain'	[nɔ.lɔ] [a] [bər.k̥aŋ] [a.va]	[nɔlɔbərɕava]
4	/ gl̥n =ahaj/ threshing area =Pl 'threshing areas'	[gə.laŋ] [a.haj]	[gəlahaj]
5	/a- mbɔ° =an =aka/ 3s-change=3s.IO =on 'He/she replied' (lit. he changed on him)	[a.mbə.ɔaŋ] [a.ka]	[əmbəɔáaka]
6	/ bahj alaka° / chief 1Pl.N.POSS 'our (in.) chief'	[ba.haj] [a.lɔ.kʷɔ]	[bajalɔkʷɔ]

2.6.1 Phonological criteria for word breaks

Five phonological criteria are used in this work:

- Word-final /h/ is realized as [x] (Section 2.6.1.1)
- Word-final /n/ is realised as [ŋ] (Section 2.6.1.2)
- Prosodies spread over a word but do not cross word boundaries (Section 2.6.1.3)
- The -aj suffix in verbs drops off when suffixes or extensions are attached to the verb (Section 2.6.1.4)
- Word-final /n/ is deleted before certain clitics and extensions (Section 2.6.1.5)

The criteria are illustrated for both nouns and verbs. Examples are given in pairs showing word breaks in the first example and phonologically bound morphemes in the second example.

2.6.1.1 Word-final /h/ is realized as [x]

The presence of the word-final allophone [x] (Bow 1997a) indicates a word break between *gəvax* 'field' and *nɛhɛ* 'this' (64). The 3P possessive (=atəta) is shown to be phonologically bound to the same noun (65) since this word-final change does not occur (Bow 1997a, see Section 3.1.2).³⁰

(64) [gəvax] /gvah naha^o/ → [gəvax nɛhɛ]
 'field' 'field' DEM 'this field'

(65) [gəvax] /gvah =atəta/ → [gəvahatəta]
 'field' 'field' 3P.POSS 'their field'

(66) shows word-final changes for /h/ for the verb stem /b h/. In contrast, the 1S indirect object pronominal clitic /=aw / (67, see Section 7.3.2) is phonologically bound to its stem since the /h/ does not undergo word-final changes.

(66) [a-bax jam]
 3S-pour water
 'He poured water.'

(67) [bax] /a-bh =aw/ → [abəhaw]
 'sew' 3S-sew=1S.IO 'He/she sews for me.'

³⁰ Note that although =atəta is not completely phonologically bound to *gəvax* since the neutral prosody of /=atta/ does not neutralise the prosody of the noun (criterion c), it is a type of noun clitic since it fulfills the grammatical criteria for a clitic (Section 2.6.2)

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2.6.1.2 Word-final /n/ is realised as [ŋ]

Word-final changes where /n/ is realised as [ŋ] (Bow 1997a) indicate a word break between the noun *həlaŋ* ‘back’ and *na* ‘PSP’ (68). (69) is more complicated. The initial consonant of the adverbiser [ŋa] (see Section 3.5.2) has assimilated to the final consonant of the noun, indicating that they are phonologically bound. However, the fact that the noun [dedeŋ] ‘truth’ exhibits word-final changes indicates that [ŋa] cliticises after word final changes in the noun have occurred.

(68) [həlaŋ] /a hlan na/ → [ahəlaŋna]
 ‘back’ to back PSP ‘behind’

(69) [dedeŋ] /dɛdɛn^e =Ca/ → [dɛdɛŋŋa]
 ‘truth’ ‘truth’ =ADJ ‘truly’

Word-final changes indicate a word break after the verb [ahaŋ] in (70). In contrast, (71) demonstrates no word-final allophones indicating that the indirect object pronominal enclitic [=aw] is phonologically bound to the verb stem /dz n -aj/³¹ (see Section 7.3.2).

(70) [ahaj] /a-h-aj =an ma/ → [ahaŋma]
 ‘he/she speaks’ 3S-tell-CL =3S.IO mouth ‘he/she greeted him/her’

(71) [adzənaɪ] /a-dz n-aj =aw/ → [ajənaw]
 ‘he/she helps’ 3S-help-CL =1S.IO ‘he/she helped me’

2.6.1.3 Prosodies do not cross word boundaries

Bow (1997a) showed that prosodies spread over a word but do not cross word boundaries. (72–74) illustrate nouns. (72) and (73) show that the possessive pronouns are phonologically separate from the nouns that they modify since the prosodies do not spread leftwards over the nouns (labialisation in 72, palatalisation in 73). In contrast, (74) shows that the /a-/ prefix is part of the same phonological word as the noun root, since the prosody of the noun root spreads to the prefix.³²

³¹ The verb stems /h-aj/ ‘greet’ and /dz n -j/ ‘help’ both carry the /-j/ suffix. This suffix is deleted whenever an affix or extension is attached to the verb stem (Section 6.3).

³² Note that the labialisation prosody may not spread as far left as the prefix in some words (Section 2.1). The fact that it sometimes spreads indicates that the /a-/ is indeed phonologically bound.

- (72) /m ze^e s l m^o/ → [mɪʒɛsɔlm]
 person peace 'person characterised by peace'
- (73) /war ala^e/ → [warɛlɛ]
 child eye 'grain' (lit. child eye)
- (74) /a-tama^e/ → [ɛtɛmɛ]
 onion 'onion'

(75–79) illustrate verbs. The words [awij] and [nɛfɛ] in (75) are shown to be separate words since the palatalisation prosody of the verb [nɛfɛ] does not spread to [awij]. In contrast, the subject pronominal prefixes (shown in 76 and 78) and suffixes (shown in 77 and 79) are phonologically bound to the verb stem since prosodies will spread leftwards from verb stem to prefix and suffix to verb stem. Note that the subject prefix in (76) takes on the palatalisation prosody of the verb stem. The pronominal morphemes shown in (77) and (79) are shown to be phonologically bound suffixes. Compare (76) with (77) and (78) with (79). In the second example of each pair, the labialisation prosody of the subject pronominal morphemes /-am^o/ (77) and /-ak^o/ (79) spreads over the verb stems, even overcoming the underlying palatalisation prosody on the verb stem in (77).

- (75) /awj n- s^e/ → [awijnɛfɛ]
 said 1s- drink 'He/she said, "I drink."'
- (76) /n- s^e/ → [nɛfɛ]
 1s- drink 'I drink.'
- (77) /n- s^e -am^o/ → [nɔsɔm]
 1- drink -1PEX 'We drink.'
- (78) /n- ɣar/ → [naɣar]
 1s- kick 'I kick.'
- (79) /m- ɣar -ak^o/ → [mɔɣɔrɔk^w]
 1PEX- kick -1PEX 'We kick.'

2.6.1.4 Deletion of the -aj suffix in verbs

The -aj suffix in verbs drops off when suffixes or extensions are attached to the verb. (80) and (81) show the verb /p -j/ 'open.' In the 3s form, the verb carries the -aj suffix. The 3s direct object *na* is a separate word since the -aj suffix remains

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on the stem (81). The directional *ala* is shown to be phonologically bound to the verb stem since when *ala* is present (81) the *-aj* suffix drops off.

- (80) a-p-aj na
 3S-open-CL 3S.DO
 ‘He/she opens it.’
- (81) a-p =ala
 3S-open-CL =towards
 ‘It opens towards.’

2.6.1.5 Deletion of word-final /n/

Bow (1997a) showed that word-final /n/ is deleted before certain clitics (the possessive and plural in nouns, see Sections 3.1.2 and 4.2.2, respectively) and before some verbal extensions (see Section 7.5.1).³³ (82) shows that word-final /n/ is deleted before the plural marker [=ahaj]. For comparison, (83) shows word-final changes between [ɛŋgɛrɛŋ] and [aʔa], necessitating [ŋ] the word-final allophone of /n/. Syllables are separated by a period in the phonetic form.

- (82) /bərʔan =ahaj/ → [bər.ʔa.haj]
 mountain =Pl ‘mountains’
- (83) /ɛŋgɛrɛŋ aʔa/ → [ɛ.ŋgɛ.rɛ.ŋa.ʔa]
 insect now ‘insect now’

A similar phenomenon occurs in the verb complex (84–85). The adpositional =*aka* (see Section 7.5.1) causes the deletion of word-final /n/ in a verb stem (84).³⁴ (85) shows the typical word final allophone [ŋ] for comparison.

- (84) /a-mbədʰ =an =aka/ → [a.mbə.dʰaa.ka]
 3S-change =3S.IO =on ‘he/she replied.’
- (85) /a-b=an ana mɪʔɛ/ → [a.ba.ŋa.na.mɪ.ʔɛ]
 3S-hit=3S.IO to person ‘he/she hit someone.’

³³ Word-final /n/ is not deleted in any other environment.

³⁴ The vowel is not deleted, resulting in a long vowel.

2.6.2 Affix, clitic, and extension

Five criteria are also used to categorise affixes, clitics, and extensions in Moloko. The first is whether the morpheme can occur in discourse without being bound to some other morpheme. Affixes, clitics, and extensions in Moloko are bound morphemes – they cannot occur alone in discourse. The second criterion is whether prosodies will spread freely between the stem and morpheme in question. Prosodies will always spread between affix and stem, and sometimes between clitic or extension and stem, but prosodies never spread across word boundaries. The third criterion is whether word-final alternations are found in the final consonant of the stem when a morpheme is attached. Suffixes, clitics, and extensions will always block word-final changes in the stem. The fourth and fifth criteria are to distinguish clitics from affixes. Clitics can attach to words of different syntactic categories; whereas no separate word can be inserted between an affix and its stem. Finally, clitics function at the phrase or clause level with grammatical rather than lexical meaning.³⁵ In contrast, affixes may have grammatical meaning but their meaning is applied to the word they modify.

What we have classified as an affix in Moloko is tightly bound to the stem. No morpheme known to be a separate word can occur between the affix and its stem. Prosodies spread freely between affix and stem. There are no word-final alternations in the final consonant of the stem when a suffix is attached. Examples of affixes in this section include the /a-/ prefix in nouns and subject pronominal prefixes and suffixes in verbs.

A clitic carries some of the characteristics of an affix and some of an independent word, and different clitics in Moloko fulfil the above criteria differently. A clitic is similar to an affix in that it is phonologically bound to the stem to which it is attached. However the nature of that phonological bondedness is different than for an affix and its stem. Grammatically, a clitic is different from an affix because a known separate word can occur in between the relevant stem and the clitic, and the clitic will then attach itself phonologically to the inserted word.

The verbal extensions are a special class of clitics which are something between a prototypical affix and a prototypical clitic. They form a close phonological unit with the verb stem. The phonological structure of the verb word will be more fully discussed with examples in Section 7.1, but a few summary statements are included here. When there is no suffix on the verb, extensions will cliticise to the verb stem. Prosodies on verb clitics always spread to the verb stem (see Section 7.5). When there is a suffix on the verb, extensions form a

³⁵ Payne 1997: 22.

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separate phonological word and they cliticise to each other. In addition, the direct object pronominal extension is a separate word from the verb stem, but will be embedded amongst any other extensions that occur. In the presence of the direct object extension, the other extensions will cliticise to the direct object extension. The Perfect extension is a special enclitic in Moloko. It can occur at the end of the verb word or the end of the verb phrase (see Section 7.5.3). The Perfect extension appears to have a stronger phonological connection with the verb stem than the other extensions because the neutral prosody of the extension will neutralise the prosody of the verb word even if the Perfect is phrase-final with many intervening words (see Section 7.5.3).

The adverbiser /Ca/ (see Section 3.5.2) is an interesting clitic in the way it is phonologically bound to its noun. The noun displays word-final changes, which would normally indicate a word break. However, initial consonant of the adverbiser enclitic is a reduplication of the final consonant of the noun (69 in Section 2.6.1) which indicates that the reduplication occurs after phonological word-final alterations are made to the noun.

We consider both the plural marker (see Section 4.2.2) and possessive (see Section 3.1.2) to be clitics even though neither the plural nor the possessive will affect the prosody of the stem (see Section 2.6.1). Both plural marker and possessive are phonologically bound to a stem yet modify a larger structure (a noun phrase). There are no word-final changes that indicate a word break on the stem when the plural or possessive is added. They are clitics and not affixes since they bind to elements of different grammatical classes (noun or noun phrase in the case of the possessive; noun, noun phrase, numeral, or pronoun in the case of the plural).

3 Grammatical classes

Moloko has the following grammatical classes, each described in successive sections or chapters below:

- nouns, which can be simple, compound, or derived from a verb (Chapter 4)
- verbs (Chapter ??)
- pronouns, both free and bound (as prefixes, suffixes, or clitics; Section 3.1)
- demonstratives and demonstrationals (Section 3.2)
- numerals and quantifiers (Section 3.3)
- existentials (Section 3.4), which are verb-like but pattern differently than verbs
- adverbs (see Section 3.5.1), which can be simple or derived from nouns or verbs
- ideophones (Section 3.6), which pattern as adverbs, adjectives, or in particular cases, as verbs
- adpositions (Section 5.6),
- discourse markers, including the presupposition marker (see Chapter 11),
- conjunctions and conjunctive adverbs (see Section 12.3),
- interjections (see Section 3.7)
- the negative (Section 10.2), which can be simple or compounded with certain adverbs

Note the absence of adjectives as a word class, since all adjectives in Moloko are derived from nouns (Section 5.3).

In the following sections, a detailed treatment will be given for each of these word classes and the morphological structure of each class. An operational definition will be given for each class, so that any word in the language can be readily classified.

The first line in the examples is written in the orthography. The second line is the phonetic form for slow speech with morpheme breaks. All consonantal and vowel allophones will be indicated for the sake of the non-speaker. Palatisation and labialisation prosodies will be discernible from the quality of the vowels and the consonants. When an underlying form (typically identified by / / brackets) is cited, only the consonants and the full vowels will be written (i.e. not the epenthetic schwas) and the palatalisation or labialisation prosody on the form will be marked by a superscripted ‘e’ or ‘o,’ respectively, after the morpheme.

3.1 Pronouns

Pronouns stand in the place of a noun phrase in a clause. Pronouns are deictic elements – their reference changes according to the context of the utterance. The role of the speaker furnishes the basic point of reference (first person). The addressee is defined with respect to the speaker (second person). The third person pronouns refer to people or things being talked about by the first and second persons. There are definite and indefinite third person pronouns. Definite pronouns can be used anaphorically, and their reference is determined by linguistic or pragmatic elements in the textual or extratextual environment. Indefinite pronouns have a non-identified referent. Other types of pronouns are not discussed in this work.

Moloko personal pronouns and proforms are illustrated in Table 3.1. Moloko has one set of free personal pronouns (regular, see Section 3.1.1.1), one set of bound pronouns (possessive, see Section 3.1.2), and three sets of pronominals within the verb complex for subject, direct object, and indirect object (see Section 7.3). All personal pronouns and pronominals are shown in Table 3.1. The regular free pronouns can refer to any of the subject or direct object or indirect object. An emphatic subset of free pronouns exists, formed by adding the adjectiviser *ga* to the regular personal pronouns. Possessive pronouns always occur within a noun phrase or a relative clause. Special vocative pronouns that attach to nouns are honorific (Section 3.1.3). There are also interrogative pronouns (Section 3.1.4) and unspecified pronouns (Section 3.1.5).

In some of the pronoun sets, there is an inclusive/exclusive distinction in the first person plural. There are no dual nor gender-specific forms, nor are there logophoric pronouns.¹

Table 3.1: Moloko personal pronouns and pro-forms

Person	Free pronouns		Bound	Pronominal affixes and extensions ^a		
	Regular	Emphatic	Possessive suffix	Subject pronomi- nal affixes ^b	Dedicated direct object pronominals ^c	Indirect object pronominal enclitic
1S	<i>nɛ</i>	<i>nɛ ga</i>	<i>=uwla</i>	<i>n-</i>		<i>=aw</i>
2S	<i>nɔk^w</i>	<i>nɔk^w ga</i>	<i>=aŋg^wɔ (k)^d</i>	<i>k-</i>		<i>=ɔk^w</i>
3S	<i>ndahan</i>	<i>ndahan ga</i>	<i>=ahan</i>	<i>a-</i>	<i>na</i>	<i>=aŋ</i>
1PIN	<i>lɔk^wɔ</i>	<i>lɔk^wɔ ga</i>	<i>=alɔk^wɔ</i>	<i>m/k-...-ɔk</i>		<i>=alɔk^wɔ</i>
1PEX	<i>lime</i>	<i>lime ga</i>	<i>=alime</i>	<i>n-...-ɔm</i>		<i>=alime</i>
2P	<i>lɔk^wɔje</i>	<i>lɔk^wɔje ga</i>	<i>=alɔk^wɔje</i>	<i>k-...-ɔm</i>		<i>=alɔk^wɔje</i>
3P	<i>tɔta</i>	<i>tɔta ga</i>	<i>=atɔta</i>	<i>ta-</i>	<i>ta</i>	<i>=ata</i>

^a Pronominals are discussed in Section 7.3.

^b Note that the 1P and 2P bound pronominals consist of both a prefix and a suffix. They are further discussed in Section 7.3.

^c Note that although *na* and *ta* are free in that they are phonologically separate from the verb word, they are closely bound parts of the verb complex and so are called pronominal extensions, see Section 7.3.2.

^d This pronoun is pronounced either *aŋg^wɔ* or *aŋg^wɔk^w* by people from different regions.

3.1.1 Free personal pronouns

Free pronouns express subject, direct object, and indirect object. They are relatively rare in texts since participants are generally tracked by the bound verbal pronominals. Free pronouns are found in cases of switch reference, at the peak of a story where the verbal pronominals disappear, or in cases of emphasis (see Section 3.1.1.2).

3.1.1.1 Regular pronouns

When free subject, direct object, or indirect object pronouns do occur, they are in the same place within a clause or noun phrase where one would expect the full noun phrase to be (see Sections 10.1.1 and 5.1).

¹ Frajzyngier (1985) describes the types of logophoric systems found in some Chadic languages. No logophoric pronouns are described for Biu-Mandara.

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The clause in (1) has subject (*Mala*, a male proper name), direct object (*dalaj* ‘girl’), and indirect object (*Arsakaj*, another male proper name). Note that the subject is also indicated on the verb by the subject pronominal *à-* and the indirect object is indicated on the verb by the indirect object pronominal enclitic *=aŋ* (see Section 7.3). The noun phrase representing the indirect object is within a prepositional phrase (see Section 5.6.1).

- (1) *Mala avəlan dalaj ana Arsakay.*
Mala à-vəl=aŋ dalaj ana Arsakaj
Mala 3S+PFV-give=3S.IO girl DAT Arsakay
‘Mala gave the girl to Arsakay.’

When the subject is replaced by a free pronoun (2), the pronoun must be marked as presupposed in the clause (see Section 11.2). Note that since subject is pronominalised in the verb word a subject noun phrase is not required (see Section 7.3); the presence of any noun phrase or free pronoun is for pragmatic purposes.

- (2) *Ndahan na, avəlan dalaj ana Arsakay.*
ndahan na à-vəl=aŋ dalaj ana Arsakaj
3S PSP 3S+PFV-give=3S.IO girl DAT Arsakay
‘He [for his part], he gave the girl to Arsakay.’

When the direct object is replaced by a free pronoun (compare 1 and 3), the pronoun *ndahan* (replacing *dalaj*) occurs in the normal direct object slot in the clause.²

- (3) *Mala avəlan ndahan ana Arsakay.*
Mala a-vəl=aŋ **ndahan** ana Arsakaj
Mala 3S-give=3S.IO 3S DAT Arsakay
‘Mala gave her to Arsakay.’

When the indirect object is replaced by a free pronoun, the pronoun occurs in a prepositional phrase (4). The prepositional phrase is delimited by square brackets. Note that the indirect object pronominal enclitic *=aŋ* co-occurs on the verb complex (see Section 7.3.2).

² The dedicated direct object pronominal *na* is can also replace a direct object noun phrase in the case of an inanimate object, Section 7.3.3.

- (4) Mala avəlan dalay [ana ndahan.]
 Mala a-vəl=aŋ dalaj [ana ndahaŋ]
 Mala 3S-give=3S.IO girl DAT 3S
 ‘Mala gave the girl to him.’

The indirect object pronominal enclitic can entirely stand in the place of the prepositional phrase expressing indirect object with no loss in meaning (see (5), Section 7.3.2).

- (5) Mala avəlan dalay.
 Mala a-vəl=aŋ dalaj
 Mala 3S-give=3S.IO girl
 ‘Mala gave the girl to him.’

3.1.1.2 Emphatic pronouns

Emphatic pronouns are formed by adding either the adjectiviser *ga* (Section 5.3) or the third person singular possessive pronoun form =*ahan* to the free pronoun (6–8).

- (6) Ne ga nege.
 nɛ ga nɛ̃-g-ɛ
 1S ADJ 1S+PFV-do-CL
 ‘It was me, I did it.’ (lit. me, I did)
- (7) Ne ga aməgəye.
 nɛ ga amɪ-g-ijɛ
 1S ADJ DEP-do-CL
 ‘It was me who did it.’ (lit. me, the one that did)
- (8) Ne ahan nege.
 nɛ =ahan nɛ̃-g-ɛ
 1S =3S.POSS 1S+PFV-do-CL
 ‘It was me, I did it.’ (lit. me, I did)

3.1.2 Possessive pronouns

Another set of Moloko pronouns occurs only within noun phrases and among its primary uses, indicates a possessive relationship, i.e. these pronouns relate the possessor referent to the person or thing that is possessed. Possessive pronouns

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immediately follow the noun or noun phrase they modify (9–11) and occur before the plural (12).³

- (9) hor **ahan**
h^wɔr =**ahan**
woman =3S.POSS
'his wife'
- (10) mægəye **ango**
mɪ-g-ijɛ =**ang**^wɔ
NOM-do-CL =2S.POSS
'your doings'
- (11) war dalay **ahan**
war dalaj =**ahan**
child girl =3S.POSS
'his daughter'
- (12) anjakar **ata** ahay
anzakar =**atəta** =ahaj
chicken =3P.POSS =Pl
'their chickens'

We consider the possessive pronouns to be noun clitics. They are phonologically bound to the noun. Even though prosodies on the possessive pronouns do not spread to the noun (9–10), Bow (1997a) demonstrated that word-final changes indicating a word break do not occur (Table 3.2). They are clitics, not affixes, since they bind to the right edge of the head of the noun phrase, binding to the final noun where the head is composed of more than one noun, yet modifying the entire structure (11, see Section 5.4.2).

3.1.2.1 Semantic range of possessive constructions

The semantic relation between the possessor and possessed can be flexible and covers the same range of possibilities as the associative construction (see Sec-

³ Bow (1997a) postulated that the set of possessive pronouns did not include the plural possessive pronouns. Rather, she proposed that the plural possessive was actually an associative noun phrase formed by the preposition /a/ and the free pronoun (*a lɔk^wɔ*, *a lime*, *a lɔk^wɔje*, and *a tta*). We found that possessives are viewed as a set in the minds of speakers, and that there is no difference in distribution between singular and plural possessives. Therefore we will treat the possessive pronouns as a set of in Moloko (*alɔk^wɔ*, *alime*, *alɔk^wɔje*, and *atəta*).

Table 3.2: Possessive cliticising to nouns with word-final /h/

	Underlying form	Surface forms of isolated words		Gloss
Neutral	/g v h/	[gəvax] [uwla] → 'field' =1S.POSS	[gəvəhuwla]	'my field'
Labialised	/hamb h °/	[hɔmbɔx] [uwla] → 'pardon' =1S.POSS	[hɔmbɔhuwla]	'my pardon'
Palatalised	/ta z h °/	[tɛzɛx] [uwla] → 'snake' =1S.POSS	[tɛzɛhuwla]	'my snake'

tion 5.4.1). These semantic categories include ownership (13–15),⁴ kinship relationships (16), part-whole (17) and other associations (18–19).

- (13) awak əwla
 awak =uwla
 goat =1S.POSS
 'my goat' (i.e. the goat I own)
- (14) hay əwla
 haj =uwla
 house =1S.POSS
 'my house' (i.e. the house I own/live in)
- (15) gəvah əwla
 gəvax =uwla
 field =1S.POSS
 'my field' (i.e. the field I own)
- (16) baba əwla
 baba =uwla
 father =1S.POSS
 'my father' (also, an older man in my father's family)
- (17) asak əwla
 asak =uwla
 foot =1S.POSS
 'my foot'

⁴ Examples 13–15 show that alienable and inalienable is not a relevant distinction for Moloko.

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- (18) mægəye əwla
mɪ-g-ijɛ =uwla
NOM-do-CL =1S.POSS
'my doings' (i.e. the things I do)
- (19) mæzəme əwla
mɪ-ʒʊm-ɛ =uwla
NOM-eat-CL =1S.POSS
'my food' (i.e. the food I grew/ the food that I am eating)

3.1.2.2 Tone of possessive pronouns

Bow (1997a) concluded that the underlying tone melody for possessive pronouns is HLH. Table 3.3 (from Bow 1997a) shows the surface tonal melodies and underlying tone pattern for all the possessive pronouns with the noun *dāf* 'loaf'.⁵ The singular forms with only two syllables drop the final high tone. All forms but the 2s have the HM(H) surface pattern; the 2s form contains the depressor consonant /ŋg/ and so the second syllable is low tone.

Table 3.4 (from Bow 1997a) gives examples of nouns with each underlying tone melody combined with 2s, 3s and 1PEX possessive pronouns. Some of the rules governing variations in the surface form were considered in Section 2.4.2. The possessive pronoun maintains its tonal melody in every environment. Note that the low surface tone of [dàndàj] 'intestines' (due to the depressor consonant) lowers the first high tone of the 3s and 1PEX possessive.

3.1.3 Honorific possessive pronouns

There are two special possessive pronouns used within vocative expressions to give honour to the person addressed. The honorific pronouns are grammatically bound to the noun they follow. They are used to honour people both within and outside the family. For men and women, whether married or not, to address one another with honour, *gʷɔlɔ* 'dear/honourable' follows the noun (20–21); for other relationships (mother, father, grandmother) *ja* 'dear/honourable' follows the noun (22–24).

⁵ In Moloko, *dāf* is the basic starch form consumed by the people, a millet porridge eaten with various sauces. The word can refer to one loaf of the porridge, and can also simply mean 'food'.

Table 3.3: Possessive pronoun paradigm with tone marked

	Possessive pronoun in NP	Surface tone	Underlying tone
1S	<i>dāf úwlā</i> 'my loaf'	HM	HL
2S	<i>dāf óŋg^wɔ̃</i> 'your loaf'	HL	HL
3S	<i>dāf áhāŋ</i> 'your loaf'	HM	HL
1PIN	<i>dāf álɔ̃k^wɔ̃</i> 'our (inclusive) loaf'	HMH	HLH
1PEX	<i>dāf álīmɛ́</i> 'our (exclusive) loaf'	HMH	HLH
2P	<i>dāf álɔ̃kɔ̃jɛ́</i> 'your (P) loaf'	HMH	HLH
3P	<i>dāf átɔ̃tá</i> 'their loaf'	HMH	HLH

Table 3.4: Tonal melodies in possessive constructions

	Example	Gloss	2S	3S	1PEX
H	[tsáf] [bɔ̃kɔ̃m]	'shortcut' 'cheek'	[tsáf óŋg ^w ɔ̃] [bɔ̃kɔ̃m óŋg ^w ɔ̃]	[tsáf áhāŋ] [bɔ̃kɔ̃m áhāŋ]	[tsáf álīmɛ́] [bɔ̃kɔ̃m álīmɛ́]
L	[dāf] [dāndàj]	'loaf' 'intestines'	[dɔ̃f óŋg ^w ɔ̃] [dāndij óŋg ^w ɔ̃]	[dɔ̃f áhāŋ] [dāndij áhāŋ]	[dɔ̃f álīmɛ́] [dāndij álīmɛ́]
HL	[mékētʃ] [mɔ̃g ^w ɔ̃dɔ̃k ^w]	'knife' 'hawk'	[mékētʃ óŋg ^w ɔ̃] [mɔ̃g ^w ɔ̃dɔ̃k ^w óŋg ^w ɔ̃]	[mékētʃ áhāŋ] [mɔ̃g ^w ɔ̃dɔ̃k ^w áhāŋ]	[mékētʃ álīmɛ́] [mɔ̃g ^w ɔ̃dɔ̃k ^w álīmɛ́]
LH	[ɬəmáj] [bɔ̃g ^w ɔ̃m]	'ear' 'hoe'	[ɬəmáj óŋg ^w ɔ̃] [bɔ̃g ^w ɔ̃m óŋg ^w ɔ̃]	[ɬəmáj áhāŋ] [bɔ̃g ^w ɔ̃m áhāŋ]	[ɬəmáj álīmɛ́] [bɔ̃g ^w ɔ̃m álīmɛ́]
HLH	[ákɔ̃fɔ̃m] [déɖilɛ̃ŋ]	'mouse' 'black'	[ákɔ̃fɔ̃m óŋg ^w ɔ̃] [déɖil óŋg ^w ɔ̃]	[ákɔ̃fɔ̃m áhāŋ] [déɖil áhāŋ]	[ákɔ̃fɔ̃m álīmɛ́] [déɖil álīmɛ́]
LHL	[səsájāk] [māŋgáhàk]	'wart' 'crow'	[səsájāk ^w óŋg ^w ɔ̃] [māŋgáhàk ^w óŋg ^w ɔ̃]	[səsájāk áhāŋ] [māŋgáhàk áhāŋ]	[səsájāk álīmɛ́] [māŋgáhàk álīmɛ́]

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- (20) hor **golo**
h^wɔr g^wɔlɔ
woman HONOUR
'my dear wife'
- (21) zar **golo**
zar g^wɔlɔ
man HONOUR
'my dear husband'
- (22) baba ya
baba ja
father HONOUR
'my dear father'
- (23) dede ya
grandmother HONOUR
'my dear grandmother'
- (24) Mama ya asaw daf.
mama ja a-s=aw daf
mother HONOUR 3S-please=1S.IO loaf
'My dear mother, I want food!' (lit. food is pleasing to me)

3.1.4 Interrogative pronouns

Interrogative pronouns request content information about an event, state, or participant (who, what, when, where, why, how). The basic interrogative words in Moloko are shown in Table 3.5.⁶

The normal position for interrogative pronouns is clause or noun phrase final.⁷ Two of the interrogative pronouns (*memej* 'how,' and *malmaj* 'what') can question a clause in and of themselves (33 and 35). In each example, the interrogative pronoun is bolded.

- (25) Aməvəlok baskor na **way**?
amə-vəl=ɔk^w bask^wɔr na waj
DEP-give=2S.IO bicycle PSP who
'Who gave you the bicycle?' (lit. the one that gave you the bicycle [is] who?)

⁶ Table adapted from Boyd 2003.

⁷ See question constructions in Moloko, Section 10.3.

Table 3.5: Interrogative pronouns

Element questioned	Interrogative pronoun	Gloss	Example numbers
Clause constituent	<i>waj</i>	‘who’ (human)	25 and 26
	<i>almaj</i>	‘what’ (non-human)	27 and 28
	<i>εpelej</i>	‘when’	29
	<i>amtamaj</i>	‘where’	30
	<i>kamaj</i>	‘why’	31
	<i>mεmej</i>	‘how/ explain’	32 and 33
	<i>malmaj</i>	‘what is this’	35 and 34
Noun phrase constituent	<i>mitimej</i>	‘how much’	36
	<i>wεlej</i>	‘which one’	37

- (26) Mana aməɲjar **waj**?
 Mana à-məɲzar **waj**
 Mana 3S+PFV-see who
 ‘Whom did Mana see?’
- (27) Kəɲjakay **almaj**?
 kə-ɲzak-aj **almaj**
 2S+PFV-find-CL what
 ‘What did you find?’
- (28) Kəzom **almaj**?
 kə-zom **almaj**
 2S+PFV-eat what
 ‘What did you eat?’
- (29) Kálala **εpelej**?
 ká-l=ala **εpelej**
 2S+IFV-go=to when
 ‘When are you coming?’
- (30) Kólo **amtamay**?
 kó-lo **amtamay**
 2S+IPV-go where
 ‘Where are you going?’

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- (31) Kólo a Lalaway **kamay**?
kó-lo a Lalawaj **kamaj**
2S+IPFV-go at Lalaway why
'Why are you going to Lalaway?'
- (32) Kəlala na **memey**?
kə-l=ala na **mɛmɛj**
2S+PFV-go=to PSP how
'Why did you come?'
- (33) **Memey**?
mɛmɛj
how
'Explain?' (what do you mean?, lit. how?)
- (34) Nehe na **malmaj**?
nɛhɛ na **malmaj**
DEM PSP what
'What is this here?'
- (35) **Malmaj**?
malmaj
what
'What is it?'
- (36) Dala **mətəme**?
dala **mɪtɪmɛ**
money how much
'How much money [is that]?'
- (37) Məlama angó na **weley**?
məlama =aŋg^{wɔ} na **wɛlɛj**
brother =2S.POSS PSP which
'Which (one among these) is your brother?' (lit. your brother [is] which one?)

(38) Cicada, S. 26

Albaya ahay **wēley** təh anan dəray na abay.

albaja =ahaj **wēlej** təx an=aŋ dəraj na abaj

youth =Pl which IDput DAT=3S.IO head PSP EXT+NEG

‘No one could lift it.’ (lit. whichever young man put his head [to the tree], there was none)

In an emphatic question, a reduced interrogative pronoun both commences and finishes the clause (39–42). The interrogative pronouns *waj* ‘who,’ *malmaj* ‘what is this,’ *memej* ‘why,’ and *almaj* ‘what’ are reduced, (without a change in meaning), to *wa* (39), *malma* (40), *meme* (41), and *alma* (42), respectively. These reduced forms occur at the beginning of an emphatic question. At the end of the clause, some of these same pronouns are reduced in a different manner. The interrogative pronoun *memej* becomes *mej* (41) and *almaj* becomes *maj* (42).

(39) Wa andaday way?

wa a-ndad-aj **waj**

who 3S-love-CL who

‘No one loves him.’ (lit. who loves him?)

(40) Malma awəlok may?

malma a-wəl=ɔk^w **maj**

what 3S-hurt=2S.IO what

‘What is bothering (hurting) you?’

(41) Meme ege mey?

meme ɛ-g-ɛ **mej**

how 3S-do-CL how

‘What is going on here?’/ ‘What are you doing?’ (when something is wrong) (lit. how is it doing?)

(42) Snake, S. 7

Alma amədəvala okfom na **may?**

alma amə-dəv=ala ɔk^wfom na **maj**

what DEP-trip=to mouse PSP what

‘What was it that made that mouse fall?’

3.1.5 Unspecified pronouns

A few pronouns refer to unspecified referents. *Meɬenenɛ* is a negative indefinite ‘no one’ (43) and must occur in a clause that is negated (see Section 10.3). *Mana*

is purposefully indefinite, referring to a person ‘who shall remain nameless’ (44). *Eneŋ* ‘another’ (45) is an indefinite determiner, used to introduce new participants or things not previously mentioned.

- (43) Nəmənjar **meslenen** bay.
 nə-mənzar **mɛɬeneŋ** baj
 1S+PFV-see no one NEG
 ‘I didn’t see anyone.’
- (44) Anjaka aməbezlata azla **mana mana mana**.
 a-nz=aka amə-bɛɬ =ata aɣa **mana mana mana**
 3S-left=on DEP-count =3P.IO emphasis so and so so and so so and so
 ‘He started telling their names: so and so, and so and so, and so on.’
- (45) [Nafat **enen**] aba
 [nafat **eneŋ**] aba
 day another EXT
 ‘One day...’ (a usual way to start a story)

3.2 Demonstratives and demonstratorials

Moloko has three main types of demonstratives: nominal demonstratives (Section 3.2.1) which point to a person or object and modify a noun in a noun phrase, local adverbial demonstratives (Section 3.2.2) which point to a place and modify a noun in a noun phrase, and manner adverbial demonstratives (Section 3.2.3), which point to an action and modify a verb.⁸ Manner adverbials are derived from local adverbial demonstratives.

Table 3.6 shows all of the demonstratives in Moloko. All demonstratives have the same form for both singular and plural referents. All are anaphoric in that the referent must be known from the preceding context. Place/time adverbs are also shown for comparison. The proximal demonstratives are morphologically similar to the locational adverb *ehe* ‘here/now’ (shown for comparison in Table 3.6.)

It can be seen that the near speaker and distant from speaker demonstratives are morphologically derived from the corresponding adverbs. Note that there are no non-visible demonstratives or place/time adverbs.

⁸ Dixon (2003) describes three types of demonstratives: nominal, local adverbial, and verbal. Verbal demonstratives do not occur in Moloko. Dixon considers manner adverbial demonstratives to be a subtype of nominal demonstratives.

Table 3.6: Demonstratives in Moloko

	Nominal demonstratives	Local adverbial demonstratives	Manner adverbial demonstratives	Place/time adverbs
Proximal (near speaker)	$\eta g\epsilon h\epsilon$ / $n\eta g\epsilon h\epsilon$ / $n\eta g\epsilon h\epsilon^a$ 'this'	$n\epsilon h\epsilon$ 'here'	$ka\ n\epsilon h\epsilon$ 'like this' $kiygehe$ 'this way'	$\epsilon h\epsilon$ 'here' $tʃitʃ\eta g\epsilon h\epsilon$ 'now'
Distal (away from speaker)	$\eta g\eta ndij\epsilon$ / $\eta g\eta ndig\epsilon^b$ 'that'	$n\eta ndij\epsilon$ / $n\epsilon ndig\epsilon^c$ 'there'		
Distant from speaker		$t\alpha h^{w_3d}$ 'over there'		$t\alpha h^{w_3}$ 'over there'
Anaphoric		$ndana$ 'that previously mentioned'	$ka\ ndana$ 'like what was described' $kiyga$ 'like that'	

^a The demonstrative $\eta g\epsilon h\epsilon$ is a contraction of $n\eta g\epsilon h\epsilon$.^b This demonstrative is pronounced either $n\eta g\eta ndij\epsilon$ or $n\eta g\eta ndig\epsilon$ by people from different regions.^c Likewise, dialect differences account for the different pronunciations.^d In a genitive or possessive construction.

3.2.1 Nominal demonstratives

Nominal demonstratives have a referent that is a person or object. They modify a noun within a noun phrase to specify or point out the referent. Moloko has two nominal demonstratives: proximal (near the speaker) and distal (away from the speaker). There is no nominal demonstrative to indicate a referent that is far away from the speaker.

In the examples below,⁹ the demonstrative is bolded and the noun phrase is marked by square brackets. In (55) from Section 3.2.2.1, the demonstrative is head of the noun phrase, suggesting that it can act as a demonstrative pronoun.

- (46) Náskom [zana **ngehe**.]
ná-sʊk^wɔm [zana **ŋgehe**]
1S+1FV-buy cloth DEM
‘I will buy this particular cloth here.’ (pointing to or holding a particular cloth among others)
- (47) Asaw [awak **ngəndəye**.]
a-s=aw [awak **ŋgɪndije**]
3S-please=1S.IO goat DEM
‘I want that particular goat there’ (pointing to a particular goat among others).
- (48) [Babəza ahay **ngəndəye**] anga əwla ahay.
[babəza =ahaj **ŋgɪndije**] anga =uwla =ahaj
children =Pl DEM POSS =1S.POSS =Pl
‘These particular children here [are] belonging to me.’

Besides their use to point out specific referents, the nominal demonstratives can also be used anaphorically in discourse.¹⁰ The distal nominal demonstrative *ngɪndije* in line S. 14 of the Cicada story (49) identifies the tree as being that particular previously mentioned one that the men wanted the chief to have.

⁹ The first line in each example is the orthographic form. The second is the phonetic form (slow speech) with morpheme breaks.

¹⁰ Moloko has one specifically anaphoric demonstrative used in discourse (*ndana*, Section 3.2.2.2). Also, two other particles function in cohesion as discourse anaphoric referent markers. They are *ga* (Section 5.3) and *na* (Chapter 11).

(49) Cicada, S. 14

[Ngəvəray **ngəndvəye**] ágasaka ka mahay angó aka.

[ngəvəraj **ngindije**] á-gas=aka ka mahaj =aŋg^wó aka

spp. of tree DEM 3S+IFV-catch=on at door =2S.POSS on

‘That particular (previously mentioned) tree would be pleasing by your door.’

At the conclusion of the Millet story, nominal demonstratives are used anaphorically to mark two different referents – the suffering brought to the Moloko people and the young girl whose disobedience resulted in the suffering. Both are shown in (50). The beginning of the Millet story describes the blessing – that Moloko people could make an entire meal for a whole family from one grain of millet. The blessing occurred because the millet would multiply during its grinding. The story describes how a young, newly-married non-Moloko girl hears how to handle the millet yet disobeys the rules on how to handle it. As a result, the disobedient girl was killed by the millet. The story tells how the Creator was offended by her act and withdrew his blessing from the Moloko people such that millet would not multiply any more and the Moloko had to work hard to even get enough food to feed their families. The suffering that the Moloko people experienced as a result of the withdrawal of God’s blessing is described in lines 33-37 but it is not named as such until line S. 38. In that line, the particular suffering of the Moloko people that was brought on by the girl is marked by the proximal nominal demonstrative *avija nengehe* ‘this particular previously mentioned suffering’. Also, the young woman who, by her disobedience, brought suffering to the entire Moloko population is marked in lines 33 and 38 by the distal nominal demonstrative. Line 33 contains *war dalaj na ametfɛŋ tɛmaj baj ngəndəye* ‘the young woman, the previously mentioned disobedient one’ and line 38 contains *war dalaj ngindije* ‘that previously mentioned young woman.’

(50) Disobedient Girl, S. 33

Məloko ahay tawəy, Həmbəlom ága bərav va

Mələk^wó =ahaj tawij Həmbəlom á-g-a bərav =va

Moloko =Pl 3P+said God 3S+IFV-do heart =PRF

‘The Molokos say, God got angry (lit. God did heart)’

kəwaya war dalaj na, amecen sləmay baj **ngəndəye**.

kuwaja war dalaj na amɛ-tfɛŋ tɛmaj baj **ngindije**

because of child girl PSP DEP-hear ear NEG DEM

‘because of the girl, the particular previously mentioned one that was disobedient.’

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Disobedient Girl, S. 34

Waya ndana Hərmbəlom ázata aka barka ahan va.

waja ndana Hərmbəlom á-z =ata =aka barka =ahan
because DEM God 3S+IFV-take =3P.IO =on blessing =3S.POSS

=va

=PRF

‘Because of that, God had taken back his blessing from them.’

Disobedient Girl, S. 35

Cəcəngehe na, war elé háy bəlen na, ásak asabaj.

tʃɪtʃɪngehe na, war elé haj bɪlɛj na á-sak asa-baj
now PSP child eye millet one PSP 3S+IFV-multiply again-NEG

‘And now, one grain of millet, it doesn’t multiply anymore.’

Disobedient Girl, S. 36

Talay war elé háy bəlen kə ver aka na, ásak asabay.

talaj war elé haj bɪlɛj kə ver aka na á-sak asa-baj
ɪdput child eye millet one on stone on PSP 3S+IFV-multiply again-NEG

‘[If] one puts one grain of millet on the grinding stone, it doesn’t multiply anymore.’

Disobedient Girl, S. 37

Səy kádəya gobay.

sij ká-d =ija gʷɔbaj
only 2S+IFV-prepare =PLU a lot

‘You must put on a lot.’

Disobedient Girl, S. 38

Ka nehe tawəy, metesle anga war dalay ngəndəye

ka nehe tawij mɛ-tɛɬ-ɛ anga war dalaj ngɪndijɛ
like DEM 3P+said NOM-curse-CL POSS child girl DEM

‘It is like this they say, “The curse [is] belonging to that particular (previously mentioned) young woman’

amazata aka ala [avəya nengehe] ana məze ahay na.

ama-z =ata =aka =ala avija nengehe ana mɪʒɛ =ahaj na
DEP-take =3P.IO =on =to suffering DEM DAT person =Pl PSP

‘that brought this particular (previously mentioned) suffering onto the people.’

3.2.2 Local adverbial demonstratives

Local adverbial demonstratives point to a referent that is a place (physical or metaphorical). They commonly occur with a noun but can also occur as the only element in a noun phrase. Moloko has three local adverbial demonstratives: proximal (near the speaker), distal (away from the speaker) (Section 3.2.2.1), and an anaphoric demonstrative used only in discourse (Section 3.2.2.2). There is no demonstrative to indicate a place far away from the speaker. However the adverb *tɔh^{wɔ}* ‘over there’ is used within noun phrases where such a place needs to be indicated.

3.2.2.1 Proximal and distal local adverbial demonstratives

Proximal and distal local adverbial demonstratives refer to a physical place (here or there). In a noun phrase, the position for the local adverbial demonstrative is different than for a nominal demonstrative. The local adverbial demonstrative occurs as a separate final element (51–54).¹¹ In the examples below, the demonstrative is bolded and the noun phrase is marked by square brackets.

- (51) [Daf **nehe**] acar.
 [ɗaf **nehe**] a-tsar
 loaf DEM 3S-taste good
 ‘This loaf here (in this place) tastes good.’
- (52) Nazalay [awak ahay **nəndəye**] a kosoko ava.
 na-z-alaj [awak =ahaj **nɪndije**] a kɔsɔk^{wɔ} ava
 1S-carry-away goat =Pl DEM at market in
 ‘I take the goats there (in that place) to the market.’
- (53) [War elé háy bəlen ga **nəndəye**] [nok amɛzɔɗɛ na,
 [war ɛɛ haj bɪlɛŋ ga **nɪndije**] [nɔk^w amɛ-zɪɗ-ɛ na]
 child eye millet one ADJ DEM 2S DEP-take-CL PSP
 ‘That one grain there (highlighted¹²), the one that you have taken’
 káhaya na kə vɛr aka.
 ká-h =aja na kə vɛr aka
 2S+IFV-grind =PLU 3S.DO on grinding stone on
 ‘grind it on the grinding stone.’

¹¹ Note that nominal demonstratives do not occur after the adjectiviser, Section 5.1.

¹² See below for the discourse function of local adverbial demonstratives.

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- (54) Səwat na, [təta a məsəyon na ava **nəndəye** na,] pester áhata, “Ey! Ele nehe na, kógom bay!”
 suwat na [təta a mɪsijən na ava **nɪndije** na]
 IDdisperse PSP 3P at mission PSP in DEM PSP
 ‘As the people go home from church, the Pastor tells them,’ (lit. disperse, they in the mission there),’

The local adverbial demonstrative can be the head of a noun phrase. In (55) the demonstrative is modified by the plural.

- (55) Nde [**nehe** ahay na] sla angó ahay daw?
 ndɛ [**nɛhɛ** =ahaj na] ʔa =aŋɡʷɔ =ahaj daw
 so DEM =Pl PSP COW =2S.POSS =Pl QUEST
 ‘So, these [cows] here (in this place), are they your cows?’

For locations far away from the speaker, the locational adverb *təhʷɔ* is used in a possessive or genitive construction with the noun it modifies, (*aŋga təhʷɔ*, (56) see Section 5.6.1; or *a təhʷɔ*, (57), see Section 5.4.1).

- (56) [Hay əwla **anga toho** na,] eleməzləbe tanday tozom na.
 [haj =uwla **aŋga təhʷɔ** na] ɛlɛmɪkɪbɛ ta-ndaj tɔ-zɔm na
 house =1S.POSS POSS DEM PSP termites 3P-PROG 3P-eat 3S.DO
 ‘My house way over there (pointing to a particular house among others in the distance), termites are eating it.’ (lit. my house, the one that belongs to over there, termites are eating it)
- (57) [Awak ahay **a toho**] anga əwla.
 [awak =ahaj **a təhʷɔ**] aŋga =uwla
 goat =Pl GEN DEM POSS =1S.POSS
 ‘The goats over there (in that place) belong to me.’ (lit. the goats over there [are] belonging to me)

The function of local adverbial demonstratives to point out a place can be seen in the Cicada text (58–59, found in its entirety in Section 1.6). In the story, a beautiful tree is found in the bush and the chief decides that he wants to have it moved to his yard. The tree is first mentioned as being *a ləhe* ‘in the bush’ in line S. 5 (58). The tree is mentioned again in line S. 12 marked by the local adverbial demonstrative *nɪndije* ‘that one there’ (59).

(58) Cicada, S. 5

Təlo tənjakay agwazla malan ga a ləhe.

tə-lə tə-nzak-aj ag^waʒa malan ga a ləhe

3P+PFV-go 3P+PFV-find-CL spp. of tree large ADJ at bush

‘They went and found a large tree (of a particular species) in the bush.’

(59) Cicada, S. 12

Təlo tamənjər na ala [mama agwazla **nəndəye**]

tə-lə tə-mənzər na =ala [mama ag^waʒa **nəndije**]

3P+PFV-go 3P+HOR-see 3S.DO =to mother spp. of tree DEM

‘They went to see the mother tree there.’

Sometimes local adverbial demonstratives have a highlighting function for new information in a narrative, drawing attention to their referent.¹³ In the ‘Cows in the Field’ story (not illustrated in its entirety in this work), *derijwel nəndige* ‘this paper here’ (60) was not with the speaker when he told the story; neither was it previously mentioned in the discourse. According to the discourse, the paper should have helped to bring justice to the men whose cotton was destroyed, but didn’t. Its marking with a demonstrative therefore has the function to highlight the paper at that moment of the eventline.

(60) Alala na, ta anaw [derəywel **nəndəge**.]

a-l=ala na ta an =aw [derijwel **nəndige**]

3S-go=to PSP 3P DAT =1S.IO paper DEM

‘Later, they [gave] me this here paper.’

In the Values exhortation (61, shown in its entirety in Section 1.7) the local adverbial demonstrative *nəhe* ‘this here’ is used to draw attention to new information. In the exhortation, the phrase *ele nəhe* ‘these things here’ introduces information not previously mentioned in the discourse.¹⁴ This information – the things that people are not supposed to do – is the main topic of the entire discourse. The demonstrative marking functions to notify the reader of the importance of the new information. Note that the demonstrative is not functioning

¹³ Dixon (2003) mentions that demonstratives can function to introduce new information. Note that in Moloko, all new information need not be marked with a demonstrative.

¹⁴ Note that the local adverbial demonstrative *nəndije* ‘here’ in the same example functions to simply point out a place in the phrase *tata a məsɔŋ na ava nəndije* ‘the ones in church there’. Also, compare the function of the proximal local adverbial demonstrative *nəhe* with that of the proximal nominal demonstrative *nɛŋgehe* in the same example. The nominal demonstrative in the phrase *ele =ahaj amɛgije baj nɛŋgehe* ‘these particular things that one shouldn’t do’ points out particular things which are previously mentioned Section 3.2.1.

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cataphorically here. It is the narrator who specifies the things that people are not supposed to do in the discourse which follows (S. 4–5 in 61), not the pastor in his speech.

(61) Values, S. 3

Səwat na, [təta a məsyon na ava nəndəye na,] Pester ahata,
 suwat na [təta a məsjon na ava nɪndijɛ na] Pɛstɛr a-h =ata
 IDdisperse PSP 3P at mission PSP in DEM PSP pastor 3S-told =3P.IO
 ‘As they disperse, the ones in church there, the Pastor said,
 “Ey, [ele **nɛhɛ** na] kogom bay!”
 ɛj [ɛlɛ **nɛhɛ** na] kɔ-g^w-ɔm baj
 hey thing DEM PSP 2-do-2P NEG
 “Hey! These here things, don’t do them!”’

Values, S. 4

Yawa, war dalay ga ándaway mama ahan.
 jawa war dalaj ga á-ndaw-aj mama =ahan
 well child female ADJ 3S+IFV-insult-CL mother =3S.POSS
 ‘Well, the girls insult their mothers.’

Values, S. 5

War zar ga ándaway baba ahan.
 war zar ga á-ndaw-aj baba =ahan
 child male ADJ 3S+IFV-insult-CL father =3S.POSS
 ‘[And] the boys insult their fathers.’

Values, S. 6

Yo, [ele ahay aməgəye bay nəngehe pat,]
 jɔ [ɛlɛ =ahaj amɪ-g-ijɛ baj nɪngehɛ pat]
 well thing =Pl DEP-go-CL NEG DEM all
 ‘Well, all these particular things that we are not supposed to do,’
 tahata na va kə dəftɛrɛ aka.
 ta-h=ata na =va kə dɪftɛrɛ aka.
 3P-tell=3P.IO 3S.DO =PRF on book on
 ‘they have already told them in the book.’

The highlighting function of local adverbial demonstratives does not have to be associated with the introduction of new information. For example, in the

Disobedient Girl story (62, shown in its entirety in Section 1.5), the one grain of millet is introduced in the first line of the husband's speech to his wife (line S. 13 in 62). The next mention of the one grain of millet is in the next line of his speech is where the grain is marked by the local adverbial demonstrative in *war éle haj bɪleŋ ga nɪndije* 'that one grain there.' In this case, *nɪndije* 'that there' does not mark new information; the one grain of millet has already been mentioned in the previous sentence. However, the highlighting function of the demonstrative identifies the one grain of millet as being important in the developing story. It is the one grain of millet which becomes transformed and multiplied and suffocates the disobedient girl by the end of the story.

(62) Disobedient Girl, S. 13

Asa asok aməhaya na, kázaɗ war élé háy bəlen.

asa à-s =ɔk^w amə-h =aja na ká-zaɗ war élé haj
if 3S+IFV-please =2S.IO DEP-grind =PLU PSP 2S+IFV-take child eye millet

bɪleŋ

one

'If you want to grind, you take only one grain.'

[War élé háy bəlen ga **nəndəye**] [nok amɛzəɗe na,]

[war élé haj bɪleŋ ga **nɪndije** nɔk^w amɛ-zɪɗ-ɛ na]

child eye millet one ADJ DEM 2S DEP-take-CL PSP

'That (highlighted) one grain, the one that you have taken,'

káhaya na kə ver aka.

ká-h =aja na kə ver aka

2S+IFV-grind =PLU 3S.DO on grinding stone on

'grind it on the grinding stone.'

The distal non local demonstrative is employed in a common discourse idiom – *a ɬam nəndije ava* 'at that time.' The idiom notifies the reader of an important pivotal moment in a story. (63) is from the 'Cows in the Field' story (not illustrated in its entirety in this work). The narrative concerns dealings with the owners of a herd of cows that had destroyed someone's field of cotton. *A ɬam nəndije ava* marks the transition point in the way that the speaker dealt with the cows.

(63) A [ɬam **nəndəye**] ava na, nawəy,

a [ɬam **nɪndije**] ava na nawij

at place DEM in PSP 1S+said

'At that moment, I said,'

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“Sla ahay na, məmokok ta bay,
 ʎa =ahaj na mʊ-mək^w-ɔk^w ta baj
 cow =Pl PSP 1PIN+IFV-leave-2PIN 3P.DO NEG
 “‘These cows, let’s not leave them at all,’

 golok ta a Kəɖəmbər,
 g^wɔl-ɔk^w ta a Kʊɖəmbər
 drive[IMP]-1PIN 3P.DO at Tokombere
 ‘let’s drive them to Tokembere,’

 ɖeɖen bay na memey?”
 ɖeɖeŋ baj na mɛmɛj
 truth NEG PSP how
 ‘if it’s not true, then how?’”

3.2.2.2 Anaphoric demonstrative

The anaphoric demonstrative *ndana* ‘that previously mentioned’ refers to a metaphorical place and is used only in discourse for anaphoric marking of a participant that is important to the message of the discourse. In the Disobedient Girl story, *war dalaj ndana* ‘that previously mentioned young woman’ occurs in the introduction of the major characters in the story (S.11, 64). The three major characters in the story are the husband, the woman, and the grain of millet. The woman will, by her disobedience, bring a curse on the Moloko people.

- (64) Disobedient Girl, S. 11
 Azla na, [war dalaj **ndana**] cezlere ga.
 aʎa na [war dalaj **ndana**] tʃeʎere ga
 now PSP child female DEM disobedience ADJ
 ‘Now, the above-mentioned young girl was disobedient.’

Likewise, in the Cicada story (65–67), found in its entirety in Section 1.6, the demonstrative *ndana* ‘previously mentioned’ is used anaphorically to mark the young men and the tree, both of which are key elements in the story. In (66) (from S. 6), *albaja =ahaj ndana* ‘those previously mentioned young men’ and (67) (from S. 9) *ag^waʎa ndana* ‘that tree just mentioned,’ *ndana* is used to refer back to the young men introduced in S3 and the tree introduced in S5.

- (65) Cicada, S. 3 and S. 5
 Albaya ahay aba....Təlo tənjakay agwazla malan ga a ləhe.
 albaja =ahaj aba....
 young man =Pl EXT
 ‘There were some young men...
 tə-lo tə-nzak-aj ag^waʒa malan ga a lɛɛ
 3P+PFV-go 3P+PFV-find-CL spp. of tree large ADJ at bush
 ‘They went and found a large tree (of a particular species) in the bush.’
- (66) Cicada, S. 6
 [Albaya ahay **ndana**] kəlen təngalala ma ana bahaj.
 [albaja =ahaj **ndana**] kɛɛ tən-ɲgala =ala ma ana bahaj
 young man =Pl DEM then 3P+PFV-come back =to word DAT chief
 ‘Those above-mentioned young men then took the word (response) to the chief.’
- (67) Cicada, S. 9
 Káazaɗom anaw ala [agwazla **ndana**] ka mahay əwla aka.
 káá-zaɗ-ɔm an =aw =ala [ag^waʒa **ndana**] ka mahaj =uwla
 2P+POT-take-2P DAT =1S.IO =to spp. of tree DEM on door =1S.POSS
 aka
 on
 ‘[the chief desired to have that tree transplanted at his gate. He commissioned his people to do it, saying:] You will bring the above-mentioned tree to my door for me.’
- Ndana* ‘the above-mentioned’ can also replace an entire thought. (68) is from line S. 34 of the Millet story. In this sentence, *ndana* ‘the above-mentioned’ is head of the noun phrase and refers to the entire preceding story of the disobedience and death of the girl.
- (68) Waya **ndana** Hərmbəlom ázata aka barka ahan va.
 waja ndana Hərmbəlom á-z =ata =aka barka =ahan
 because DEM God 3S+IFV-take =3P.IO =on blessing =3S.POSS
 =va
 =PRF
 ‘Because of the above-mentioned, God had taken back his blessing from them.’

3.2.3 Manner adverbial demonstratives

Manner adverbial demonstratives have been described by Dixon (2003) to function as non-inflecting modifiers to verbs. There are two types in Moloko, depending on how they are derived.¹⁵

The first type in Moloko is derived from the demonstrative by the addition of *ka* ‘like.’ The adverbial demonstrative *ka nehe* ‘like this’ (69) is used when the speaker indicates with hand or body movements how a particular action is carried out. It is derived from the proximal nominal demonstrative *nehe* ‘this here’ (see Section 3.2.2.1).

- (69) Enjé ele ahan dāren **ka nehe**.

à-ndʒ-ε ελε =ahan dāren **ka nehe**
 3S+PFV-leave-CL thing =3S.POSS far like this

‘He went (lit. took his things away) far away like this.’

The adverbial demonstrative *ka ndana* ‘like what was just said’ is used in the reply (70b) to the statement in (70a). *Ka ndana* is derived from the anaphoric demonstrative *ndana* ‘the above-mentioned’ (see Section 3.2.2.2). *Ka ndana* can be negated; compare the positive and negative replies in (70b) and (71b), respectively.

- (70) a. Nəvəye ngehe na, ngama aməgəye jerne nə eteme.

nɪvɪjɛ ŋgɛhɛ na ŋgama amɪ-g-ijɛ dʒɛrnɛ nə ɛtɛmɛ
 season DEM PSP better DEP-do-CL garden with onion

‘This season I think it is better to grow onions.’

- b. Nədəgalay **ka ndana**.

nə-ɖəgal-aj **ka ndana**
 1S+IFV-think-CL like DEM

‘I think so too.’

- (71) a. Nəvəye ngehe na, ngama aməgəye jerne nə eteme.

nɪvɪjɛ ŋgɛhɛ na ŋgama amɪ-g-ijɛ dʒɛrnɛ nə ɛtɛmɛ
 season DEM PSP better DEP-do-CL garden with onion

‘This season I think it is better to grow onions.’

¹⁵ Dixon (2003) notes that manner adverbial demonstratives are morphologically derived from nominal demonstratives. In Moloko they are derived from the nominal demonstrative, an adverb, or the adjectiviser.

- b. Nédəgalay ka ndana bay.
 ná-dəgal-aj ka ndana baj
 1S+IFV-think-CL like DEM NEG
 ‘I don’t think so.’

The second type of adverbial demonstrative in Moloko is derived from the adverb *ehe* by the addition of the tag *kijga* ‘like that’ (see Section 10.3.3). *Kijgehe* ‘like this’ will be accompanied by gestures demonstrating the place where the action will occur (72–73).

- (72) Adəkwalay ana Hərməbəlom ton kəygehe.
 à-dək^w =alaj ana Hərməbəlom tən kijgehe
 3S+PFV-arrive =away DAT God 1Dtouch like this
 ‘It touched God like this [in the eye]. (lit. it arrived to God, touching [Him] like this)’
- (73) Lo kəygehe.
 lo kijgehe
 go[2S.IMP] like this
 ‘Go that way (along that pathway).’

3.3 Numerals and quantifiers

Three systems of numerals are found in Moloko:

- A base ten system for counting in isolation and for cardinal numbers (counting items excluding money, Section 3.3.1).
- A base five system for counting money (Section 3.3.2).
- A base ten system for ordinal numbers (ordering items with respect to one another, Section 3.3.3).

3.3.1 Cardinal numbers for items

Cardinal numbers for counting items follow a base-ten system are shown in Table 3.7.

Table 3.7: Cardinal numerals for counting items

1	<i>bilēŋ</i>	21	<i>kók^wór tǝw hār bilēŋ</i>
2	<i>tǝw</i>	30	<i>kók^wór mākār</i>
3	<i>mākār</i>	100	<i>sākāt</i>
4	<i>máfād / uwfād^a</i>	101	<i>sākāt ná bilēŋ</i>
5	<i>ǵòm</i>	122	<i>sākāt ná kók^wór tǝw hār tǝw</i>
6	<i>mók^w</i>	200	<i>sākāt tǝw</i>
7	<i>fǝfǝrē</i>	300	<i>sākāt mākār</i>
8	<i>ǵálákár</i>	1,000	<i>dǝbǝ</i>
9	<i>hǝlǝmbǝ</i>	1,001	<i>dǝbǝ ná bilēŋ</i>
10	<i>kórǝ</i>	1,100	<i>dǝbǝ ná sākāt</i>
11	<i>kórǝ hār bilēŋ</i>	2,000	<i>dǝbǝ tǝw</i>
12	<i>kórǝ hār tǝw</i>	3,000	<i>dǝbǝ mākār</i>
13	<i>kórǝ hār mākār</i>	5,000	<i>dǝbǝ ǵòm</i>
14	<i>kórǝ hār máfād</i>	10,000	<i>dǝbǝ kórǝ</i>
15	<i>kórǝ hār ǵòm</i>	10,001	<i>dǝbǝ kórǝ ná bilēŋ</i>
16	<i>kórǝ hār mók^w</i>	100,000	<i>dǝbǝ dǝbǝ sākāt</i>
17	<i>kórǝ hār fǝfǝrē</i>	100,001	<i>dǝbǝ dǝbǝ sākāt ná bilēŋ</i>
18	<i>kórǝ hār ǵálákár</i>	1,000,000	<i>dǝbǝ dǝbǝ dǝbǝ</i>
19	<i>kórǝ hār hǝlǝmbǝ</i>	1,000,001	<i>dǝbǝ dǝbǝ dǝbǝ ná bilēŋ</i>
20	<i>kók^wór tǝw</i>		

^a This numeral is pronounced either *máfād* or *uwfād* by people from different regions.

Numbers used for counting in isolation are identical to the system shown in Table 3.7. When modifying a noun, the numerals follow the noun in a noun phrase (74–75). The constituent order of the noun phrase is discussed in Section 5.1.¹⁶

- (74) Mǝze ahaj dǝbo cew tolo amǝmǝnjere mǝkǝdǝ balon.
 mǝzɛ =ahaj dǝbǝ tǝw tǝ-lǝ amǝ-mǝnzɛr-ɛ mǝ-kǝd-ɛ balɔŋ
 person =Pl 1000 two 3P+PFV-go DEP-see-CL NOM-kill-CL ball
 ‘Two thousand people went to see the football game.’

¹⁶ The first line in each example is the orthographic form. The second is the phonetic form (slow speech) with morpheme breaks.

- (75) Nəmənjar awak ahay kəro a kosoko ava.
 nə-mənzar awak =ahaj kərɔ a kəsəkʷɔ ava
 1S+PFV-see goat =Pl 10 at market in
 ‘I saw ten goats at the market.’

The numerals can stand as head of a noun phrase in a clause (76–77) but the immediate context must give the referent. In (76b), the response to the question in (76a) need only give the number.

- (76) a. Kənjakay awak mətəmej?
 kə-nzak-aj awak mʉtɪmɛj
 2S+PFV-find-CL goat how many
 ‘How many goats did you find?’
 b. Nənjakay bəlen.
 nə-nzak-aj bɪlɛj
 1S-find-CL one
 ‘I found one.’
- (77) Babəza əwla ahay na, cew.
 babəza =uwla =ahaj na tʃɛw
 children =1S.POSS =Pl PSP two
 ‘I have two children.’ (lit. my children, two)

Table 3.7 shows that the numbers one to ten are unique. The numbers eleven through nineteen are composites of ten plus one, ten plus two, etc. The word to indicate ‘plus’ is *hər*, which has no other meaning in the language. Twenty is *kəkʷɔr tʃɛw*, which is some kind of derivative of *kərɔ* ‘ten.’ After 100, numbers are made of a coordinate noun phrase composed of *səkat* ‘one hundred,’ the adposition *nə* ‘with,’ and a second number. One thousand is *dəbɔ*, and higher numbers are seen as multiples of *dəbɔ*.

There is a culturally governed exception to the use of cardinal numbers in Moloko. To give the age of a one year old child, a Moloko speaker will say *mrvije daz* (not **mrvije bɪlɛj* ‘year one’). *Mrvije daz* means that the child has lived through one Moloko New Year (celebrated in September). We found no other meaning for the word *daz* apart from its use here.

3.3.2 Numbers for counting money

Money is counted using two different systems which overlap (see Table 3.8). A base-five system is used for amounts under about 250 Central African Francs

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(Fcfa). Many languages in Cameroon use a base five system for counting money. The reason for its use is probably based on the fact that the smallest coin was worth 5 Fcfa, and it became the basic unit for monetary transactions.¹⁷ Ten francs, being two of these coins, is *dal tɛw* ‘two coins,’ fifteen francs is *dal makar* ‘three coins,’ and so on (the values for the other coins that were available are indicated in the left column of Table 3.8). The system becomes awkward for higher amounts (above 50 coins, or 250 Fcfa) because of the high numbers, and so a base ten system is superimposed (right column of Table 3.8). Between 100 Fcfa and 250 Fcfa, both the base five and base ten are used, although within the Moloko mountain region, the base five system predominates.

Table 3.8: Numbers for money

Amount of money	Base five system	‘Base ten’ system
5 Fcfa (coin)	<i>síj-sàj</i>	
10 Fcfa (coin)	<i>dāl tɛw</i>	
15 Fcfa	<i>dāl mákār</i>	
50 Fcfa (coin)	<i>dāl kóró</i>	
100 Fcfa (coin)	<i>dāl kók^wór tɛw</i>	<i>(səlój) sākāt</i>
150 Fcfa	<i>dāl kók^wór mákār</i>	<i>səlój sākāt ná dāl kóró</i>
200 Fcfa	<i>dāl kók^wór máfād</i>	<i>sākāt tɛw</i>
250 Fcfa	<i>dāl kók^wór ɣòm</i>	<i>sākāt tɛw dāl kóró</i>
300 Fcfa		<i>sākāt mákār</i>
500 Fcfa (coin)		<i>sākāt ɣòm</i>
1,000 Fcfa (bill)		<i>ɔmbòlɔ</i>
2,000 Fcfa (bill)		<i>ɔmbòlɔ tɛw</i>
3,250 Fcfa		<i>ɔmbòlɔ mákār ná səlój kók^wór ɣòm</i>
5,000 Fcfa (bill)		<i>ɔmbòlɔ ɣòm</i>
10,000 Fcfa (bill)		<i>ɔmbòlɔ kóró</i>
50,000 Fcfa		<i>ɔmbòlɔ kók^wór ɣòm</i>
100,000 Fcfa		<i>ɔmbòlɔ sākāt</i>
1,000,000 Fcfa		<i>ɔmbòlɔ sākāt kóró</i>

The basic unit for the monetary base ten system is the 100 Fcfa coin (*səlój sākāt* ‘coin 100’). This system uses the same number for one hundred as the system

¹⁷ The generic term for money in Moloko is *dala*, possibly a borrowed term from the American dollar.

for counting items (*sakat*). Ten of these coins make the 1000 Fcfa bill, so not unexpectedly, the term for the 1000 Fcfa bill is not the same as the number ‘1000’ for counting non-money items (*dɔbɔ* see Table 3.7.), but rather is a term specific to money – *ɔmbɔlɔ*.

When larger amounts of money are counted, both base ten and base five systems are used. For example, 13,250 Fcfa is *ɔmbɔlɔ kɔrɔ hɛr makar nɔ sɔlɔj kɔkɔr kɔm* ‘thirteen thousand Fcfa (base ten) and fifty 5 Fcfa coins (base five)’ (lit. 13 thousand with 50 5Fcfa coins).

It is interesting that recently, a one franc coin has been made available in Cameroon. The term for this coin wasn’t in the original counting system where the 5 Fcfa coin was the basic unit. It is now called [ɛlé bilɛŋ] literally ‘one eye.’

3.3.3 Ordinal numbers

Only the first ordinal number is a unique vocabulary word in Moloko: *tʃɛkɛm* ‘first.’ The other ordinal expressions use a noun phrase construction using the cardinal counting numbers (cf. Table 3.7.):

(78) *cekem*
tʃɛkɛm
‘first’

(79) *anga baya cew*
aŋga baja tʃɛw
POSS time two
‘second’

(80) *anga baya makar*
aŋga baja makar
POSS time three
‘third’

3.3.4 Non-numeral quantifiers

Non-numeral quantifiers ¹⁸ include *gam* ‘much,’ *nekʷɛŋ* ‘little,’ *dziŋga* ‘all,’ *dijɔdaj* ‘approximately,’ *hadʌ* ‘enough.’ When they occur, they are the final element of a noun phrase (81, the noun phrase is delimited by square brackets).

¹⁸ Some of these quantifiers can also pattern as adverbs, e.g., *gam* ‘much.’ (107).

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- (81) [Məze ahay **gam**] təlala afa ne.
[mɪʒɛ =ahaj **gam**] tə-l=ala afa nɛ
people =Pl much 3P-go=to at house of 1S
'Many people came to my house.'
- (82) Slərele **gam**!
ʃɪrɛɛ **gam**
work much
[That is] a lot of work!
- (83) Disobedient Girl, S. 4
Ávata [məvəye **haɖa**].
á-v=ata [mɪ-v-ijɛ **haɖa**]
3S+IFV-spend time=3P.IO NOM-spend time-CL enough
'It would last them enough for the whole year.'
- (84) Nok [**haɖa** baj].
nɔk^w [**haɖa** baj]
2S enough NEG
'You [are] small' (lit. not enough)

3.4 Existentials

Moloko has three positive existentials and one negative existential. The prototypical existential *aba* 'there exists' (85). carries the most basic idea of existence. Its negative is *abaj* 'there does not exist.'¹⁹ The locational existential *ava* 'there exists in a particular place,' and the possessive existential *aka* 'there exists associated with' each carry the concept of existence along with their own specific meaning. The possessive existential must be accompanied by an indirect object pronominal.

Existentials are verb-like and fill the verb slot in a clause, but are not conjugated for aspect or mood and do not take subject or direct object pronominals. Some of the existentials can carry verbal extensions or indirect object pronominals. The existential clause contains few elements – most commonly just a subject and the existential. The existential clause can be in a presupposition construction (Chapter 11) or interrogative construction (Section 10.3).

¹⁹ This existential is perhaps a compound of the existential *aba* and the negative *baj*.

The prototypical existential is *aba* ‘there is’ (85–86) and its negative is *abaj* ‘there is none’ (87–88). A clause with one of these existentials requires a subject but there are no other core participants or obliques. The existential is bolded in the examples.²⁰

- (85) Məze **aba**.
 mɪʒɛ **aba**
 person EXT
 ‘There was a man ...’ (a common beginning to a story)
- (86) Babəza əwla ahay **aba**.
 babəza =uwla =ahaj **aba**
 children =1S.POSS =Pl EXT
 ‘I have children.’ (lit. my children exist)
- (87) Babəza əwla ahay **abay**.
 babəza =uwla =ahaj **abaj**
 children =1S.POSS =Pl EXT+NEG
 ‘I have no children.’ (lit. my children do not exist)
- (88) Dala **abay**.
 dala **abaj**
 money EXT+NEG
 ‘I have no money.’ (lit. there is no money)

The existentials *aba* and *abaj* can also carry an extended sense to indicate the health of the person. (89a) and (90) are greetings, which are questions that can occur with (89a) or without (90) the word *zaj* ‘peace.’ (89b) and (91) are possible replies to either of these questions. Likewise, (92–93) show inquiries and possible replies as to the health of a third person.

- (89) a. Nok **aba** zaj daw?
 nɔk^w **aba** zaj daw
 2S EXT peace QUEST
 ‘Are you well?’ (lit. ‘Do you exist [in] peace?’)

²⁰ The first line in each example is the orthographic form. The second is the phonetic form (slow speech) with morpheme breaks.

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- b. Ne **aba**.
 nɛ **aba**
 1S EXT
 ‘I am well.’ (lit. I exist)
- (90) Nok **aba** daw?
 nɔk^w **aba** daw
 2S EXT QUEST
 ‘Are you well?’ (lit. ‘Do you exist?’)
- (91) Asak əwla **abay**.
 asak =uwla **abaj**
 foot =1S.POSS EXT+NEG
 ‘My foot hurts.’ (lit. my foot doesn’t exist)
- (92) a. Baba ango **aba** daw?
 baba =aŋg^wɔ **aba** daw
 father =2S.POSS EXT QUEST
 ‘Is your father well?’ (lit. does your father exist?)
- b. Ayaw, ndahan **aba**.
 ajaw ndahan **aba**
 yes 3S EXT
 ‘Yes, he is well.’
- (93) Baba əwla na, hərvə ahan **abay**.
 baba =uwla na hərvə ahan **abaj**
 father =1S.POSS PSP body =3S.POSS EXT+NEG
 ‘My father is sick.’ (lit. my father, his body doesn’t exist)

The existential *aba* is also used in presentational clauses in a narrative to introduce some major participants in the setting. (94) is the introduction to the Cicada story.

- (94) Cicada, S. 3-4
 Albaya ahay **aba**. Tándaŋ tótalay a ləhe.
 albaja =ahaj **aba** tá-ndaj tót-tal-aj a ləhe
 young man =Pl EXT 3P+IFV-PRG 3P+IFV-walk-CL at bush
 ‘There were some young men. They were walking in the bush.’

In some presentational clauses both the prototypical existential and the locational existential can co-occur. (95) is from the setting of the Disobedient Girl story. Note that this existential clause contains the adverb *ete* ‘also.’

- (95) Disobedient Girl, S. 9-10

Albaya **ava aba** *ete*. Olo azala hor.

albaja **ava** **aba** *ete* ð-lɔ à-z=ala h^wɔr

young man EXT+in EXT also 3S+PFV-go 3S+PFV-take=to woman

‘And so, there once was a young man (in a particular place). He went and took a wife.’

The locational existential *ava* ‘there is in’ expresses existence ‘in’ a particular location. This existential is the same as the adpositional verbal extension =*ava* ‘in’ (see Section 7.5.1) and locational postclitic *ava* ‘in’ (see Section 5.6.2), all of which express the location in something, either physically or figuratively. In some of the examples below, a response is included which also employs the same existential. Note that the existential in (99) carries the directional ‘away from’ (see Section 7.5.2).

- (96) a. Sese **ava** daw?

ʃɛʃɛ **ava** daw

meat EXT+in QUEST

‘Is there any meat located here [for sale]?’

- b. Ayaw, sese **ava**.

ajaw ʃɛʃɛ **ava**

yes meat EXT+in

‘Yes, we have meat located here.’

- (97) a. Baba angɔ, ndahan **ava** daw?

baba =aŋg^wɔ ndahan **ava** daw

father =2S.POSS 3S EXT+in QUEST

‘Is your father located here?’ (lit. your father, is he here?)

- b. Ndahan **ava** bay; enjé amətele.

ndahan **ava** baj è-nʒɛ amɪ-tɛl-ɛ

3S EXT+in NEG 3S+PFV-left DEP-travel-CL

‘No, he is not located here; he went somewhere.’

- (98) Ndahan **ava**.

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ndahanj **ava**
 3S EXT+in
 'He/she is here.'

- (99) Ndahan **ava** alay.
 ndahanj **ava** =alaj
 3S EXT+in =away
 'He/she is located at the place of reference.' (lit. he is in away)

The possessive existential *aka* 'there is on' expresses existence 'on' a person (indicating possession or accompaniment). This existential is the same as the adpositional verbal extension =*aka* 'on' (see Section 7.5.1) and locational postclitic *aka* 'on' (see Section 5.6.2), all of which express location on something, whether physically or figuratively. The subject of the possessive existential (the possessed item) is followed by a construction consisting of the indirect object pronominal cliticised to the particle *an-*, in turn followed by the possessive existential *aka* 'on.' The particle *an-* is the same particle to which the indirect object pronominal cliticises when there is a suffix on the verb stem (see Section 7.3.2) and these elements are found in the same order as they are within the verb complex. (100) shows a question and response pair.

- (100) a. Dala anok **aka** daw?
 dala an=ɔk^w **aka** daw
 money DAT=2S.IO EXT+on QUEST
 'Do you have any money [located] with you?' (lit. is there money on you?)
- b. Ayaw, dala anaw **aka**.
 ajaw dala an =aw **aka**
 yes money DAT =1S.IO EXT+on
 'Yes, I have money [located] on me.'
- (101) Hor anan **aka** ana Mana.
 h^wɔr an=an **aka** ana Mana
 woman DAT=3S.IO EXT+on DAT Mana
 'He has a wife.' (lit. a woman to him there is on for Mana)

The existential *aka* can also be used to mean accompaniment (102).

- (102) Bahay a sla ahay na, ndahan **aka** daw?
 bahaj a ɬa =ahaj na ndahan **aka** daw
 chief GEN COW =Pl PSP 3S EXT QUEST
 'Was the owner of the cows [located] with [you]?' (lit. the chief of the cows, was he 'on'?)

The locational existential *aka* (103, 105) can also fill the same role as the verb *ndaj* (104, see Section 8.2.1) to express an action in progress. This usage of *aka* may be due to adoption of a similar particle in Fulfulde, the language of wider communication in the region. The particle *don* in Adamawa Fulfulde has a present progressive and existential use similar to *aka* in Moloko (Edward Tong, personal communication).

- (103) Ndahan aka ozom daw.
 ndahan aka ɔ-zɔm daw
 3S EXT+on 3S+IFV-eat loaf
 'He/she is eating millet loaf.'
- (104) Ánday ózom daw.
 á-ndaj ɔ-zɔm daw
 3S+IFV-PROG 3S+IFV-eat loaf
 'He/she is eating millet loaf.'
- (105) Disobedient Girl, S. 24
 Ndahan na, ndahan aka njəw njəw njəw.
 ndahan na ndahan aka nzuw nzuw nzuw
 3S PSP 3S EXT+on IDgrind
 'And she, she is grinding some more.'

3.5 Adverbs

Some adverbs modify verbs within the verb phrase (simple or derived, Sections 3.5.1 and 3.5.2, respectively), others modify the clause as a whole (temporal adverbs, Section 3.5.3), and yet others function at the discourse level (Section 3.5.4). Note that ideophones can function adverbially to give pictorial vividness to a clause (Doke 1935). Because they pattern differently than adverbs, they are considered in their own section (Section 3.6).

3.5.1 Simple verb phrase-level adverbs

Verb phrase adverbs give information concerning the location, quality, quantity, or manner of the action expressed in the verb phrase. These adverbs occur after any adpositional phrases (106–108).²¹ The negative follows any such adverbs in negative clauses (Section 10.2).

- (106) Disobedient Girl, S. 4
 Təwasava **neken** kəygehe.
 tə-was =ava **nek^wɛŋ** kijgehe
 3P+PFV-cultivate =in little like this
 ‘They cultivated a little like this.’
- (107) Hərmbəlom andaɖaj nok **gam**.
 Hərmbəlɔm a-ndaɖ-aj nɔk^w **gam**
 God 3S-love-CL 2S much
 ‘God loves you a lot.’
- (108) Názaɖ a dəraj ava **sawan**.
 ná-zaɖ a dəraj ava **sawən**
 1S+IFV-carry at head in without help
 ‘I can carry it (on my head) by myself!’

Verb phrase adverbs include *dɪrɛŋ* ‘far distance,’ *nek^wɛŋ* ‘a small quantity’ (106), *gam* ‘a large quantity’ (107), *sawən* ‘without help’ (108) and the modal adverbs *təta* ‘can,’ an adverb of ability (109 and 110), and *dewɛle* ‘ought,’ an adverb of necessity (111).

- (109) Kázala **təta**.
 ká-z =ala **təta**
 2S+IFV-carry =to ability
 ‘You can carry it.’
- (110) Bahay ázom sese **təta**.
 bahaj á-zɔm ʃɛʃɛ **təta**
 chief 3S+IFV-eat meat ability
 ‘The chief can eat meat.’

²¹ The first line in each example is the orthographic form. The second is the phonetic form (slow speech) with morpheme breaks.

- (111) Bahay ázom sese **dewe**le.
 bahaj á-zom ʃɛʃɛ dɛwɛlɛ
 chief 3S+IFV-eat meat necessary
 ‘The chief must eat meat.’

The simple adverbs expressing location, quantity, quality, and manner can be intensified by reduplication (or lengthening) of a consonant or reduplication of the entire adverb.²² (112–115) show the simple adverb with its intensified counterpart. The reduplication of a consonant occurs at the onset of the final syllable (112 and 113). The entire adverb is reduplicated in (114) and (115). Intensified adverbs cannot be negated.

- (112) dɔren dərren
 dɪrɛŋ dɪrrɛŋ
 ‘far’ ‘very far’
- (113) dɛdɛn dɛddɛn
 dɛdɛŋ dɛddɛŋ
 ‘true’ ‘very true’
- (114) gam gam gam
 ‘a lot’ ‘a whole lot’
- (115) nekwen nekwen nekwen
 nɛkʷɔɛŋ nɛkʷɔɛŋ nɛkʷɔɛŋ
 ‘little’ ‘a little at a time’

3.5.2 Derived verb phrase-level adverbs

Verb phrase adverbs can be derived from nouns by reduplicating the final consonant of the noun and adding [a] (i.e. Ca where the C is the final consonant of the noun). The reduplicated syllable is labelled ‘adverbiser’ (ADV)²³ in (116–117). Compare the noun and its derived adverb in (116) and (117). Note that the reduplicated consonant in the derived adverb in example (116) is the word-final

²² Adverbs of ability and necessity cannot be reduplicated, nor can adverbs which function beyond the verb phrase level.

²³ We have not found the term ‘adverbiser’ in the literature. Adverbiser in this work is defined as a derivational morpheme whose presence changes the grammatical class of a stem to become an adverb.

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allophone [x] rather than word-medial [h]. Likewise, example (117) shows [ŋ] rather than [n]. These word-final changes (see Section 2.6.1) in the reduplicated consonant indicate that the reduplication occurs after phonological word-final changes are made and that the reduplicated segment is phonologically bound to the noun (see Section 2.6.2).

- (116) zayəh **zayəhha**
 zajəx zajəx=xə
 care care =ADV
 ‘care’ ‘carefully’
- (117) deden **dedenna**
 dɛdɛŋ **dɛdɛŋ=ŋa**
 truth truth =ADV
 ‘truth’ ‘truthfully’

Note especially (118) and (119) which illustrate that the labialisation prosody on the nouns *rəbək* and *hərək* does not spread rightwards to the adverbiser (otherwise, the reduplicated /k/ would be labialised, see Section 2.1).

- (118) zar akar dəw, ndahan ava **rəbəkka**
 zar akar dəw ndahan ava **rəbək^w** =ka
 man theft also 3S EXT+in hiding place =ADV
 ‘There was (in that place) a thief, hiding.’
- (119) nege slərwlə **hərəkka**
 nɛ-g-ɛ ɦɾɛɛ **hərək^w** =ka
 1S-do-CL work all day =ADV
 ‘I worked all day.’

3.5.3 Clause-level adverbs

Temporal adverbs modify the clause as a whole and can occur clause initial or verb phrase final (120 and 121,²⁴ respectively).²⁵ These include ‘today,’ *hadzan* ‘tomorrow,’ *apazan* ‘yesterday.’

- (120) **Egəne** nolo a kosoko ava.
 ɛɡɪnɛ nɔ-lɔ a kɔsɔk^{wɔ} ava
 today 1S+IFV-go at market in
 ‘Today I will go to the market.’
- (121) Nolo a kosoko ava **hajan**.
 nɔ-lɔ a kɔsɔk^{wɔ} ava **hadzan**
 1S+IFV-go at market in tomorrow
 ‘I will go to the market tomorrow.’

²⁴ Note that *a kɔsɔk^{wɔ} ava* ‘in the market’ is a complex adpositional phrase (see Section 5.6.2).

²⁵ The order of constituents in the verb phrase is given in Chapter 8.

3.5.4 Discourse-level adverbs

Discourse adverbs function at the clause combining level. Grammatically they are found verb phrase final. Semantically they tell something of the relation of their clause to what has happened before in the discourse. Discourse adverbs can neither be negated nor intensified by reduplication. They include *εφε* ‘again’ (same actor, same action, 122), *ετε* ‘also’ (same action, different actor, 123), *φαν* ‘already’ (expressing Perfect aspect in that the action is performed in the past with effects continuing to the present, 124), *κωλο* ‘already’ or ‘before’ (the action was performed at least once before a particular time, 125).

- (122) Nóolo **ese**.

nóó-ló εφε
1S+POT-go again
‘I will go again.’

- (123) Nóolo **ete**.

nóó-ló ετε
1S+POT-go also
‘I will go too.’

- (124) Nege na **fan**.

nè-g-ε na fan
1S+PFV-do-CL 3S.DO already
‘I did it already.’

- (125) Nəmənjar ndahan **kəlo**.

nə-mənzar ndahan kəlo
1S-see 3S before
‘I have seen him/her before.’

Uwde ‘first’ (126) indicates that the event expressed in the clause occurs before something else.

- (126) Cicada, S. 20

Náamənjar na alay memele ga ndana **əwde**.
náá-mənzar na =alay memele ga ndana **uwde**
1S+POT-see 3S.DO =away tree ADJ DEM before something else
‘First let me go and see that tree that you spoke of.’ (lit. I would like to see that above-mentioned tree first)

Aḵa ‘now’ (127 and 128) adds tension and excitement.

- (127) Disobedient Girl, S. 21

Ndahan bah məbehe háy ahan amadala na kə ver aka **azla**.

ndahanᵛ bax mɪ-bɛh-ɛ haj =ahanᵛ ama-d =ala na kə

3S IDpour NOM-pour-CL millet =3S.POSS DEP-put =to 3S.DO on

ver aka **aḵa**

stone on now

‘She poured out the millet to put it onto the grinding stone now.’

- (128) Disobedient Girl, S. 22

Njəw njəw njəw aməhaya **azla**.

nzu nzu nzu amə-h=aja **aḵa**

IDgrind DEP-grind=PLU now

‘Nzu nzu nzu [she was] grinding now.’

Duwge ‘actual’ (to indicate that the events in the clause actually happened, 129).

- (129) Snake, S. 24

Ka nehe ləbara a ma ndana **dəwge**.

ka nəhɛ ləbara a ma ndana **d̥uwge**

like DEM news GEN word DEM actual

‘And so was that previously mentioned story.’

Rɛ ‘counterexpectation’ (130) indicates that the clause is the opposite to what the hearer might have expected.

- (130) Values, S. 50

Epele epele na me, Hərməbəlom anday agas ta a ahar ava **re**.

ɛpɛlɛ ɛpɛlɛ na mɛ Hɔrmɛbɔlɔm a-ndaj a-gas ta a ahar

in the future PSP opinion God 3S-PROG 3S-catch 3P.DO at hand

ava **rɛ**

in in spite

‘And so in the future in-my-opinion-and-think-about-it-yourself, God is going to accept them [the elders] in his hands, in spite [of what the church people say].’

3.6 Ideophones

Ideophones are a “vivid representation of an idea in sound” (Doke 1935: 118). They evoke the “idea” of a sensation or sensory perception (action, movement, colour, sound, smell, or shape). As such they are often onomatopoeic.

Ideophones add vividness to texts. They are found in strategic places in narratives (both in legends and in true stories) and add vividness to major points in exhortations. At the peak moment of a story, ideophones can have a special narrative function to present the entire event expressed in a sentence. In such cases the clause may have no expressed subject or object – a transitivity of zero.

Newman (1968) suggests that ideophones do not comprise a grammatical class of their own, but rather are words from several different classes (including nouns, adjectives, and adverbs) which are grouped together based on phonological and semantic similarities rather than syntax. In Moloko ideophones will be treated as a separate grammatical class since although they may fill the noun, verb, or adverb slot in a clause, ideophones never pattern as typical nouns, verbs, or adverbs. Section 3.6.1 describes the semantic and phonological features of ideophones; Section 3.6.2 discusses their syntax and their role in discourse, and Section 3.6.3 discusses the fact that a clause where an ideophone fills the verb slot can carry zero transitivity.

3.6.1 Semantic and phonological features of ideophones

Ideophones carry an idea of a particular state or event – Moloko speakers can imagine the particular situation and the sensation of it when they hear a particular ideophone. The sensation may be a sound (131), vision (132), taste (133), feeling (134), or even abstract idea (for example, an insult, 135).²⁶

- (131) gəḏəgəzl
gəḏəgə̀k
‘the noise of something closing or being set down’

- (132) danjəw
dànzúw
‘sight of someone walking balancing something on their head’

²⁶ The first line in each example is the orthographic form. The second is the phonetic form (slow speech) with morpheme breaks.

- (133) podococo
pòdótsótsó
‘taste of sweetness’
- (134) pəyecece
pìjé tʃé tʃé
‘feeling of coldness’
- (135) kekəf kəf kekəf kəf
kəkíf kíf kəkíf kíf
‘imagination of someone who hasn’t any weight’ (an insult)

Ideophones have specific meanings; compare the following three ideophones in (136–138). The ideophones differ in only the final syllable.

- (136) pənbəw pənbəw
pənuw pənuw
‘sight of rabbit hopping’
- (137) pənbə pənbə
pəvə pəvə
‘sound of a whip’
- (138) pənbəw pənbəw
pəvəŋ pəvəŋ
‘sight of the start of a race’

Ideophones do not follow the stress rules for the language (Chapter 2). Some ideophones are stressed on the initial syllable (shown by full vowels in 135). Some ideophones have no full vowel even if one of the syllables is stressed (131, 139, 142).

- (139) jəb jəb
dʒɪb dʒɪb
‘completely wet’

Moloko ideophones sometimes contain unusual sounds, including the labio-dental flap [v], found only in ideophones that carry a neutral prosody.

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- (140) vbaḅ
vàḅ
‘sound of something soft hitting the ground’ (a snake, or a mud wall collapsing)

Ideophones often have reduplicated segments as shown in (141) (see also (133), (134), (135) for additional examples).

- (141) həḃek həḃek
hiḃék hiḃék
‘hardly breathing’ (almost dead)

Some ideophones require a context in order for their meaning to be understood clearly; others give a clear meaning even if they are spoken in isolation. For example, if a Moloko speaker hears someone say *nzuw nzuw* (142), they know that the speaker is talking about someone grinding something on a grinding stone. Likewise see (143), (131), (133–135), (140), (141), and (160), all of which carry a distinctive lexical meaning even when spoken in isolation.

- (142) njəw njəw
nzùw nzùw
‘the sound of someone grinding something on a grinding stone’
- (143) pəcəkəḃək
pòtsókóḃók
‘the sight of a toad hopping’

However, a Moloko speaker will need to understand a wider context to determine the meaning of *derg^wetfək* (144), which requires a context for the listener to understand the detail of the picture. In the same way, (140) also requires a context to specify its exact meaning (snake falling or wall collapsing).

- (144) dergwecek
derg^wetfək
‘sight of someone lifting something onto their head’

3.6.2 Syntax of ideophones

In a sentence, an ideophone can function as a noun, adverb, or verb. As a noun, the ideophone carries a descriptive picture with certain features. Ideophones

that are lexical nouns (145–147), see also 133 and 134) can function as the head of a noun phrase, but they cannot be pluralised or modified by noun phrase constituents except with the adjectiviser *ga*. In example (147), the ideophone ***mbadzak mbadzak mbadzak*** ‘something big and reflective’ is the direct object of the clause. The ideophones are bolded in the examples.

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- (145) Values, S. 34
 Ehe na, t̥əta na, kəw na, **bəwɗere**.
 ɛhe na t̥əta na kuw na **buwɗere**
 here PSP 3P PSP IDtake PSP IDfoolishness
 ‘Here, what they are taking is foolishness!’ (lit. they, taking, foolishness)
- (146) Values, S. 48
 Kə wəyen aka ehe **tezl tezlezl**.
 kə wijeŋ aka ɛhe **tɛk tɛkɛk**
 on earth on here IDhollow
 ‘Among the people (on this earth) here, [we are like] the sound of a hollow cup bouncing on the ground.’
- (147) Snake, S. 11
 Náməŋjar na, **mbajak mbajak mbajak** gogolvon.
 ná-mənzar na **mbadzak mbadzak mbadzak** gʷɔgʷɔlvɔŋ
 1S+IFV-see 3S.DO IDsomething big and reflective snake
 ‘I was seeing it, something big and reflective, a snake!’

When an ideophone functions as an adverb, the ideophone gives information concerning the subject of the clause as well as the manner of the action. Table 3.9 illustrates 11 different adverbial ideophones that collocate with the verb *həm-aj* ‘run’ but vary depending on the actor of the clause. Unlike most other adverbs however, ideophones cannot be negated.

When they act as adverbs, ideophones can occupy one of two slots in the clause. When the verb they modify is finite, ideophones will occur at the end of the clause following other adverbs (148–150 and all of the examples in Table 3.9). In a narrative, ideophones that function as adverbs can be found wherever the language is vivid. They occur most often at the inciting moment and the peak section of a narrative. The ideophones in each clause are bolded and the verb phrase is delimited by square brackets.

- (148) [Azləgalay] avəlo **zor**!
 [à-ɕəg =alaj] avɔlɔ **zór**
 3S+PFV-throw =away above IDthrowing
 ‘She threw [the pestle] up high (movement of throwing).’
- (149) [Anday azlaɓay ele] **kəndal, kəndal, kəndal**.
 [a-ndaj a-ɕaɓ-aj ɛɛ] **kəndál, kəndál, kəndál**
 3S-PRG 3S-pound-CL thing IDpounding millet
 ‘She was pounding the [pestle] (threshing millet) pound, pound pound.’

Table 3.9: Selected ideophones that co-occur with the verb *həmaj* ‘to run’

1	<i>zar a-həm-aj gəðð gəðð gəðð</i> man 3S-run-CL IDman running	‘A man runs <i>gudo gudo gudo</i> .’
2	<i>war a-həm-aj nzəððk nzəððk</i> child 3S-run-CL IDchild running and jumping	‘A toddler runs <i>nzudok nzudok</i> .’
3	<i>albaja a-həm-aj nzəl nzəl</i> youth 3S-run-CL IDyouth running	‘A young man runs <i>nzul nzul</i> . (also mice run like this)
4	<i>məðæh^wær a-həm-aj tata baj</i> ; old person 3S-run-CL ability NEG	‘An old person can’t run;
	<i>a-həm-aj kərwəd wəd, kərwəd wəd</i> 3S-run-CL IDinsult someone with no stomach	he moves <i>kurwud wud, kurwud wud</i> .
5	<i>gəvək a-həm-aj pəvūw pəvūw</i> rabbit 3S-run-CL IDrabbit hopping	‘A rabbit runs <i>pavuw pavuw</i> .’
6	<i>la =ahaj tə-həm-aj gríp gríp</i> cow =Pl 3P-run-CL IDsomething heavy running	‘Cows run <i>grip grip</i> .’
7	<i>dzavar =ahaj tə-həm-aj tsərr</i> guinea fowl=Pl 3P-run-CL IDguinea fowl taking off	‘Guinea fowl run <i>tsirr</i> . (when they are taking off)
8	<i>erke[ε a-həm-aj jəd jəd jəd</i> ostrich 3S-run-CL IDostrich running	‘An ostrich runs <i>yed yed yed</i> .’
9	<i>mək^wtəŋək^w a-həm-aj pətsók^wəðð k^w, pətsók^wəððk^w</i> toad 3S-run-CL IDtoad hopping	‘A toad runs <i>putsukuduk, putsukuduk</i> .’
10	<i>muwta a-həm-aj fixx</i> truck 3S-run-CL IDtruck humming	‘A truck runs <i>fixx</i> .’
11	<i>həmad a-həm-aj fəwwá</i> wind 3S-run-CL IDwind blowing	‘The wind runs <i>fowwa</i> .’

- (150) [Həmbo ga anday asak ele ahan] wəsekeke.
 [həmbo ga a-ndaj a-sak εε =ahan] wùfɛkɛkɛ
 flour ADJ 3S-PRG 3S-multiply thing =3S.POSS IDmany
 ‘The flour was multiplying all by itself (lit. its things), sound of multiplying.’

When the verb they modify is non-inflected, the ideophone is the first element of the verb preceding the verb complex (151 and 152). This is a special construction that is discussed in Section 8.2.3.

- (151) Nata ndahan [pək mapata aka va pərgom ahaj na].
 nata ndahan [pək ma-p =ata =aka =va
 also 3S IDopen door or bottle NOM-open =3P.IO =on =PRF
 pərg^wom =ahaj na]
 trap =Pl PSP
 ‘He opened the traps for them.’

- (152) Dərlenge [pəyted məhəme ele ahan] etc.
 dirlɛŋɛ [píjtéd mɪ-hɪm-ε εε =ahan] εε
 hyena IDcrawling NOM-run-CL thing =3S.POSS also
 ‘The hyena, barely escaping, ran home also.’

At the most vivid moments of a discourse, an ideophone can carry the morphosyntactic features of a verb. As a verb the ideophone syntactically fills the verb slot in the verb phrase: it takes verbal extensions and non-subject pronominals. Semantically, the main event in a clause is expressed by the ideophone. For example, the ideophone *mək* ‘positioning [self] for throwing’ in line 14 of the Snake story (153) carries the verbal extensions *=ava* ‘in’ and *=alaj* ‘away.’ Also, the ideophone *təx* ‘put on head’ in lines 26 and 27 of the Cicada story (154) carries the verbal pronominal *an=an* ‘to it.’ (155) also shows an ideophone with the direct object verbal extension *na*.

- (153) Snake, S. 14
 [Mək ava alay.]
 [mək =ava =alaj]
 IDposition [self] for throwing =in =away
 ‘[I] positioned [myself] muk!’

(154) Cicada, S. 26

Albaya ahay weley [**təh** anan dəray na,] abay.

albaja =ahaj welej [**təx** an=aŋ dəraj na] abaj

youth =Pl which IDput on head DAT=3S.IO head PSP EXT+NEG

‘No one could lift it.’ (lit. whichever young man put his head to [the tree in order to lift it], there was none)

In an exhortation, the major points may be made more vivid by the use of ideophones. (155) expresses a major point in the Values exhortation (see Section 1.7). See also (145), (146) which also display this device.

(155) Values, S. 22

Təta [**dəl** na, ma Hərməbəlom nendəye.]

təta [**dəl** na ma Hərməbəlom nendijə]

3P IDinsults 3S.DO word God DEM

‘They insult it, this word of God!’

At the peak of a story, ideophones are found within many of the clauses. In some cases, the ideophone is the only element in the clause. In the Snake story for example, the peak episode (lines 8–18, see Section 1.4 for the entire text) contains many ideophones. The narrator tells that he took his flashlight, shone it up *tsilar*, saw something *mbadzak mbadzak* (big and reflective), a snake! He *mbət* turned off his light, *kaluw* took his spear, *mək* (positioned himself). Penetration *mbərab* ! It fell *vab* on the ground. Note that at the climactic moment (line 14, 156), the entire clause is expressed by a single ideophone *mək*, followed by verbal extensions.

(156) Snake, S. 14

Mək ava alay.

mək =ava =alaj

IDposition for throwing =in =away

‘[I] positioned myself muk!’

Likewise, in the peak episode of the Cicada text (Sentences 25–29, see Section 1.6) ideophones are frequent and at the climactic moment (157), the ideophone is the only element in the clause. The cicada and young men go *feŋ* to the tree to to move it. None of the young men could *təx* (put) their head to the tree. Then the cicada *təx* (put) his head to the tree. *Kuwna* (he got it)! *Dərg^wetfek* (he lifted it to his head). In line S. 26 the ideophone *təx* takes the place of the verb in the main clause and in lines S. 28 and 29 the ideophone is the only element in

the clause. The entire event in each of those lines is thus expressed by that one word.

- (157) Cicada, S. 28
Kəwna.
kuwna
 ɪɲgetting
 ‘[He] got [it].’

- (158) Cicada, S. 29
Dergwecek.
dɛrg^wɛtʃɛk
 ɪɲlifting.onto.head
 ‘[He] lifted [it] onto [his] head.’

3.6.3 Clauses with zero transitivity

Chapter 9 discusses the semantics of Moloko verbs for different numbers of core grammatical relations. Moloko verbs can have from zero to four grammatical relations, three of which can be coded as part of the verb complex. Similarly, in clauses where ideophones fill the verb slot, the clause can have from zero to three explicit grammatical relations. The cases where the ideophone clause requires no explicit grammatical relations is a most interesting situation. The clause displays a grammatical transitivity of zero, even though it expresses a semantic event with participants. The use of ideophones makes the moment vivid and draws the listener into the story as if it was present before him/her so that the hearer can see and hear and participate in what is going on. This is a narrative device found in Moloko peak episodes.

Ideophones make up the entire clause in lines S. 28 and 29 at the peak of the Cicada text (example 157 above). On hearing the ideophones *kuwna* and *dɛrg^wɛtʃɛk*, the hearer knows that someone has gotten a hold of something, and then lifted it up onto his head to carry it. Two participants are understood, but the actual number of grammatical relations in the clauses is zero. The hearer must infer from the context that it was the cicada (the unexpected participant) who was doing the lifting and carrying. The cicada being so small, the people actually watching the event would not know for sure who was moving the tree either, since it would look like the tree was moving all by itself. Thus the use of ideophones with zero grammatical relations contributes to the visualisation of the story and makes the listener more of an actual participant in the events of the story.

Likewise, in line S. 21 of the Disobedient Girl story (159) the clause has no expressed subject, direct or indirect object. The verb /h/ is in nominalised form with no pronominals to indicate participants. If a Moloko person hears the ideophone *nzuw nzuw*, he or she knows that someone is grinding something. In the context of the story, the woman is grinding millet, but the millet is expanding to fill the room and eventually will crush the woman. The clause only gives a picture/sound/idea of grinding with gaps in knowledge that the listener must work to fill in for himself, such as who is grinding whom. The listener is thus drawn into the story and made to be a participant in the event, creating vividness.

(159) Disobedient Girl, S. 21

Njəw njəw njəw aməhaya azla.

nzuw nzuw nzuw amə-h =aja aḵa

IDgrind DEP-grind =PLU now

Nzu, nzu, nzu [she] ground [the millet] now. (lit. nzu nzu nzu to grind now)

A third example is found in the Snake story. In lines S. 14 and 15, both the ideophone clause (line 14) and the nominalised form plus ideophone (line 15) have zero grammatical relations (160). The speaker is making both himself and the snake ‘invisible’ at this peak moment of his story. The effect would be to allow the hearer to imagine himself there right beside the speaker in the darkness, wondering where the snake was, hearing only the sounds of the events.

(160) Snake, S. 14

Mək ava alay.

mək =ava =alaj

IDtake position for throwing =in =to

‘[He] positions himself for throwing [the spear].’

Snake, S. 15

Mecesle **mbəraḇ**.

mɛ-tʃɛt-ɛ **mbəraḇ**

NOM-penetrate-CL IDpenetrate

‘[The spear] penetrates [the snake].’

3.7 Interjections

Interjections can form a clause of their own (161 and 162) or function as a kind of ‘audible’ pause while the speaker is thinking (163). They can also occur before

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or after the clause in an exclamation construction (see Section 10.5). Note that some interjections can be reduplicated for emphasis (compare 162 and 164).

- (161) **məf**
məf
‘get away! (to put off an animal or a child from continuing to do an undesirable action).’
- (162) **təde**
tɪde
‘good’
- (163) Apazan nəməɲar, **andakaj**, Hawa.
apazaɲ nə-məɲzar **andakaj** Hawa
yesterday 1S+PFV-see what’s her name Hawa
‘Yesterday I saw ... what’s her name ... Hawa.’
- (164) **tətəde**
‘very good’

4 Noun morphology

A Moloko noun functions as the head of a noun phrase. A noun phrase can serve as an argument within a clause. The most prototypical nouns are those denoting something temporally stable, compact, physically concrete and made out of durable material, with a number of defining sub-features¹ but the class extends also to include a range of more abstract concepts. The morphosyntactic criteria for identifying a noun in Moloko include:

- They can be pluralised, taking the plural =*ahaj* (see Section 4.2.3).

(1) mæze ahay²
mɪʒɛ =ahaj
person =Pl
'people'

(2) ayah ahay
ajax =ahaj
squirrel =Pl
'squirrels'

- They can take a possessive pronoun (see Section 3.1.2).

(3) hor əwla
h^wɔr =uwla
woman =1S.POSS
'my wife'

(4) slərele ango
ɬɪɾɛɛ =aŋg^wɔ
work =2S.POSS
'your work'

¹ Givón 2001: 50–51.

² The first line in each example is the orthographic form. The second is the phonetic form (slow speech) with morpheme breaks.

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- They can be counted (see Section 3.3.1).

(5) gəvah bəlen
gəvax bɪlɛŋ
field one
‘one field’

(6) sla ahay kəro
ɬa =ahaj kʊrɔ
cow =Pl ten
‘ten cows’

- They can be modified by a demonstrative (see Section 3.2.1).

(7) war nehe
war nɛhɛ
child DEM
‘this child’

(8) ma ndana
word DEM
‘that word’ (just spoken)

- They can take the derivational enclitic *ga* resulting in a derived adjective (Section 5.3).

(9) gədan ga
gədaŋ ga
strength ADJ
‘strong’

(10) bərav ga
heart ADJ
‘perseverant’

- They can be modified by a derived adjective (see Section 4.3).

(11) memele malan ga
memeɛ malaŋ ga
tree greatness ADJ
‘a large tree’

- (12) yam pəyecece ga
 jam pijetʃetʃɛ ga
 water coldness ADJ
 ‘cold water’

Moloko nouns (or noun phrases) carry no overt case markers themselves; the function of the various noun phrases in a clause is indicated by the word order in the clause, pronominal marking in verbs (see Section 7.3), and adpositions (Section 5.6).

4.1 Phonological structure of the noun stem

Bow (1997a) studied syllable patterns in nouns. Table ?? (from Bow 1997a) shows examples of one- to three-syllable noun words of each possible syllable pattern, with and without labialisation and palatalisation prosodies. Syllable pattern is independent of prosody. Bow found many nouns that are CVC but very few that are CV. However, many CVCV nouns actually contain a reduplicated syllable, (13–15).

- (13) dede
 dɛdɛ
 ‘grandmother’
- (14) sese
 ʃɛʃɛ
 ‘meat’
- (15) baba
 ‘father’

There are many Moloko nouns whose first syllable is V. This syllable may be historically an old /a-/ prefix. Nouns with these /a-/ prefixes can only be discovered by comparing Moloko vocabulary with that of other related languages where the nouns do not carry the prefix. Table 4.2 illustrates three nouns in Moloko and in Mbuko.³

Bow (1997a) discovered that tonal melodies on nouns are different than for verbs (see Section 6.7 for verb tone melodies). Table 4.3 (from Bow 1997a) shows

³ Mbuagbaw (1995), Gravina (2001). Judging from the number of nouns in the Moloko database that begin with *m*, there may be some kind of an old *m*-prefix as well.

Table 4.1: Syllable patterns in noun stems with different prosodies

	Neutral	Gloss	Labialised	Gloss	Palatalised	Gloss
CV	<i>ʔa</i>	‘cow’				
CVC	<i>fat</i>	‘day/sun’	<i>h^wɔd</i>	‘stomach’	<i>dʒeŋ</i>	‘chance’
V.CV	<i>ava</i>	‘arrow’	<i>ɔk^wɔ</i>	‘fire’	<i>ɛɛ</i>	‘eye’
V.CVC	<i>ahar</i>	‘hand/arm’	<i>ɔtɔs</i>	‘hedgehog’	<i>ɛnɛŋ</i>	‘snake’
CV.CV	<i>gala</i>	‘yard’	<i>sɔnɔ</i>	‘joke’	<i>dʒɛɾɛ</i>	‘truth’
CV.CVC	<i>mavad</i>	‘sickle’	<i>tɔh^wɔr</i>	‘cheek’	<i>pɛmbɛʒ</i>	‘blood’
V.CV.CV	<i>adama</i>	‘adultery’	<i>ɔbɔɔ</i>	‘yam’	<i>ɛtɛmɛ</i>	‘onion’
V.CV.CVC	<i>adangaj</i>	‘stick’	<i>ɔmbɔdɔts</i>	‘sugar cane’	<i>ɛmɛɬk</i>	‘bracelet’
CV.CV.CV	<i>manzara</i>	‘termite’	<i>mɔzɔŋgɔ</i>	‘chameleon’	<i>ʒɛtɛnɛ</i>	‘salt’
CV.CV.CVC	<i>matalam</i>	‘sword’	<i>dɔɔkɔwɔj</i>	‘syphilis’	<i>dɛbɛʒɛm</i>	‘jawbone’

Table 4.2: /a/ prefix in Moloko compared with Mbuko

Moloko	Mbuko	Gloss
<i>anzakar</i>	<i>nzakar</i>	‘chicken’
<i>azʋŋg^{wɔ}</i>	<i>zʋŋg^{wɔ}</i>	‘donkey’
<i>εtεmε</i>	<i>tεmε</i>	‘onion’

how the underlying tone melodies are realised on the surface in one, two, and three syllable nouns. The left column gives examples with no depressor consonants (see Section 2.4.1), and the right column contains nouns with depressor consonants which effect different tone melodies. For one syllable nouns, only two tonal melodies are possible (H or L). For two syllable nouns, H, L, HL, or LH are possible. For three syllable nouns, H, L, HL, LH, HLH, and LHL are possible. Note that a surface mid tone can result from two sources. It can be an underlying high tone that has been lowered by a preceding low tone⁴ or it can be an underlying low tone in a word with no depressor consonants.⁵

4.2 Morphological structure of the noun word

Moloko noun words are morphologically simple compared with verbs. A noun can be comprised of just a noun stem,⁶ a compound noun, or a nominalised verb.

A noun stem can consist of a simple noun root (16) or two reduplicated segments (17). These reduplicated elements actually form two separate phonological words (note the word-final alteration *ŋ* in both segments) but are lexically one item.⁷

- (16) hay
hàj
‘house’

⁴ Therefore there are no surface LH combinations since an underlying LH will be realised as LM.

⁵ There are also very few examples of ML combinations in the surface form. The only example was [*kimɛdʒɛ*], an underlying LHL that had depressor consonants.

⁶ We refer to the simplest form as a stem because it can be more complex than a root in that it can have an /a-/ prefix.

⁷ Because there are word-final consonant changes for only /n/ and /h/, it is not known whether all similar reduplications necessarily form two separate phonological words.

Table 4.3: Tonal melodies on nouns

Underlying tonal melody	No depressor consonants			Depressor consonants present		
	Surface tone	Phonetic transcription	Gloss	Surface tone	Phonetic transcription	Gloss
H	H	[tsáf]	‘shortcut’	H	[záj]	‘peace’
	HH	[tʃétʃé]	‘louse’	HH	[bóʒóm]	‘cheek’
	HHH	[mólókʷó]	‘Moloko’	HHH	[déndará]	‘lamp’
L	M	[dáf]	‘loaf’	L	[gàr]	‘difficulty’
	MM	[kārā]	‘dog’	LL	[dàdàj]	‘intestines’
	MMM	[mītēnēŋ]	‘bottom’	LLL	[àdàngàj]	‘stick’
HL	HM	[mékētʃ]	‘knife’	HL	[dʒérè]	‘truth’
	HMM	[átōkʷō]	‘okra’	HLL	[mógʷdòkʷ]	‘hawk’
	HHM	[mósókʷōj]	‘vegetable sauce’	HHL	[ázōŋʷō]	‘donkey’
LH	MH	[təmáj]	‘ear/name’	LM	[bògʷòm]	‘hoe’
	MMH	[kītēfēr]	‘scoop’	LLM	[gègēmāj]	‘cotton’
	MHH	[āmélék]	‘bracelet’	LMH	[gèmbīrè]	‘dowry’
HLH	HMH	[ákōfòm]	‘mouse’	HLM	[dédīlēŋ]	‘black’
LHL	MHM	[sāsáják]	‘wart’	LML	[kīmédʒè]	‘clothes’
				MHL	[māŋgáhák]	‘crow’

- (17) ndən nden
 ndəŋ ndəŋ
 ‘traditional sword’

Nouns can be derived from verbs by a potentially complex process where a prefix, a suffix, and palatalisation are added. The prefix is *mɪ-* or *mɛ-*, depending on whether the verb has the /a-/ prefix or not. The suffix is *-ijɛ* or *-ɛ*, depending on whether the verb root has one or more consonants. The suffix carries palatalisation which palatalises the whole word. The resulting form is an abstract noun which cannot take the plural =*ahaj* but which otherwise has all the characteristics of a noun. This highly productive process is discussed further in Section 7.6 but two nominalisations are shown here. In (18) and (19), the underlying form, the 2S imperative, and the nominalised form are given. (18) is a one-syllable verb with no prefix, and so takes the prefix *mɪ-* and the suffix *-ijɛ*. (19) shows a two consonant root with /a-/ prefix that takes the prefix *mɛ-* and the suffix *-ɛ*.

- | | | | |
|------|-------------------|----------------------|-------------------------------|
| (18) | /v ^ɛ / | v-ɛ | mɪ-v-ijɛ |
| | | pass[2S.IMP]-CL | NOM-pass-CL |
| | | ‘Pass!’ (spend time) | ‘year’ (lit. passing of time) |
| | | | |
| (19) | /a-m l-aj/ | məl-aj | mɛ-mɪl-ɛ |
| | | rejoice[2S.IMP]-CL | NOM-rejoice-CL |
| | | ‘Rejoice!’ | ‘joy’ |

Another nominalisation process can be postulated when noun stems and verb roots are compared. This second nominalisation process is irregular and non-productive. Table 4.4 illustrates a few examples and compares verb roots with their counterpart regular and irregular nominalisations. In each case, the consonants in the nouns in both nominalised forms are the same as those for the underlying verb root. These data show that in the irregular set of nominalisations, there is no set process of nominalisation – in some cases an *a-* prefix is added (see lines 1 and 2); in other cases the prosody is changed to form the irregular nominalised form (from palatalised to neutral in line 4, from neutral to palatalised in lines 3, 5, and 6).

When the irregular nominalisations are compared with the regular nominalised form in Table 4.4, it can be seen that the two types of nouns relate to the sense of the verbs in different ways. The regular nominalisation refers to the event or the process itself (stealing, carrying, sending, etc.), whereas the irregular nominalisation denotes some kind of a referent involved in the event (thief, work, hand, etc.).

Table 4.4: Derived nouns

Line	Underlying form of verb root	2s imperative	Nominalisation	
			Regular	Irregular
1	/k r/	<i>kar-aj</i> 'Steal!'	<i>mi-kɛr-ɛ</i> 'stealing'	<i>akar</i> 'thief'
2	/h r/	<i>har</i> 'Carry by hand!'	<i>mi-hɪr-ɛ</i> 'carrying'	<i>ahar</i> 'hand'
3	/h r ʙ ^o /	<i>hɔrʙ-ɔj</i> 'Heat up!'	<i>mi-hɪrʙ-ɛ</i> 'heating'	<i>hɛrɛʙ</i> 'heat'
4	/t w/	<i>tuw-ɛ</i> 'Cry!'	<i>mi-tuw-ɛ</i> 'crying'	<i>tuwaj</i> 'cry'
5	/ʔ r/	<i>ʔar</i> 'Send!'	<i>mi-ʔɪr-ɛ</i> 'sending'	<i>ʔarɛɛ</i> 'work' ^a
6	/dz n/	<i>dzən-aj</i> 'Help!'	<i>mi-dzɛn-ɛ</i> 'helping'	<i>dzenj</i> 'luck'

^a Probably a compound of *ʔar* 'send/commission' + *ɛɛ* 'thing' (Section 4.3).

Two processes denominalise nouns; one forms adjectives (Section 4.3) and the other, adverbs (see Section 3.5.2). It is not possible to derive a verb from a noun root or stem in Moloko.

4.2.1 Subclasses of nouns

There are no distinct morphological noun classes in Moloko. Those nouns with an /a-/ prefix could perhaps be considered a separate class (see Section 4.1), but this phenomenon is more of an interesting historical linguistic phenomenon rather than a marker of synchronically different Moloko noun classes. There appears to be no phonological, grammatical or semantic reason for the prefix or other consequences of the presence versus absence of /a-/.

The plural construction is discussed in Section 4.2.2. Relative to pluralisation patterns, Moloko has four subclasses of nouns. These are concrete nouns (Section 4.2.3), mass nouns (Section 4.2.4), abstract nouns (Section 4.2.5), and irregular nouns (Section 4.2.6). The subclasses are distinguished by whether and how they become pluralised.

4.2.2 Plural construction

Noun plurals are formed by the addition of the clitic *=ahaj* which follows the noun or the possessive pronoun. The plural clitic carries some features of a separate phonological word and some of a phonologically bound morpheme. The neutral prosody of *=ahaj* does not neutralise the prosody of the word to which it cliticises (20, 21), which would indicate a separate phonological word (see Section 2.6.1).

- (20) /atama^e =ahj/ → [ɛtɛmɛhaj]
 onion =Pl ‘onions’
- (21) /akfam^o =ahj/ → [ɔk^wfɔmahaj]
 mouse =Pl ‘mice’

Two types of word-final changes indicate that the plural is phonologically bound to the noun. First, word-final changes for /h/ that demonstrate a word break do not occur between a noun and the plural (2).

Second, the stem-final deletion of /n/ before the /=ahj/ (shown in Table 4.5, adapted from Bow 1997a) indicates that the plural is phonologically bound to the noun (Section 2.6.1.5).

Table 4.5: Word-final changes of /n/ between noun and plural clitic

	Underlying form	Surface form	Gloss
Neutral	/g s n/	[gəsəŋ] [ahaj] → [gəsahaj] ‘bull’ ‘Pl’	‘bulls’
Labialised	/t la l n ^o /	[təlɔləŋ] [ahaj] → [təlɔləhaj] ‘heart’ ‘Pl’	‘hearts’
Palatalised	/da d n ^e /	[dɛdɛŋ] [ahaj] → [dɛdɛhaj] ‘truth’ ‘Pl’	‘truths’

We consider the plural marker to be a type of clitic and not an affix⁸ because it does show some evidence of phonological attachment and because it binds to words of different grammatical classes in order to maintain its position at the right edge of the noun phrase permanent attribution construction (see Section 5.4.2). The plural *=ahaj* will cliticise to a noun (22), possessive pronoun (23,

⁸ Bow (1997a) considered the plural marker to be an affix.

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24), or pronoun in a permanent attribution construction (10 in Section 5.1). The plural modifies the entire construction in a permanent attribution construction.

- (22) /b r k n =ahj/ → [bərʔahaj]
mountain =Pl 'mountains'
- (23) /g l n =ahn =ahj/ → [gəlahahaj]
kitchen =3s.POSS =Pl 'his/her kitchens'
- (24) /plas^e =ahn =ahj/ → [pələʔahahaj]
horse =3s.POSS =Pl 'his horses'

Note that in adjectivised noun phrases, other constituents must also be pluralised (47–49 from Section 5.3)

4.2.3 Concrete nouns

Concrete nouns (see Table 4.6) occur in both singular and plural constructions. The plural of these nouns is formed by the addition of the plural clitic =ahaj within the noun phrase, following the head noun (further discussed in Section 5.1). Concrete nouns can also take numerals.

4.2.4 Mass nouns

Mass nouns (shown in Table 4.7.) are non-countable — the singular form refers to a collective or a mass, e.g. *jam* 'water.' These nouns, when pluralised, refer to different kinds or varieties of that noun referent. These nouns cannot take numerals but they can be quantified (see Section 3.3.4).

4.2.5 Abstract nouns

Abstract nouns are ideas or concepts and as such they are not "singular" or "plural." In Moloko they do not take =ahaj, e.g., *fama* 'intelligence, cleverness,' *ʔrele* 'work.' Although they cannot be pluralised, they can be quantified (see Section 3.3.4).

4.2.6 Irregular nouns

Three nouns, all of which refer to basic categories of human beings, have irregular plural forms in that the noun changes in some way when it is pluralised.

4.2 Morphological structure of the noun word

Table 4.6: Concrete plural

Singular	Plural ^a	Plural with numeral
<i>anzakar</i> 'chicken'	<i>anzakar =ahaj</i> 'chickens'	<i>anzakar =ahaj ɣom</i> 'five chickens'
<i>ɬəmaj</i> 'ear,/'name'	<i>ɬəmaj =ahaj</i> 'ears,/'names'	<i>ɬəmaj =ahaj tɬew</i> 'two ears,/'two names'
<i>dzɔŋ^wɔ</i> 'hat'	<i>dzɔŋ^wɔ =ahaj</i> 'hats'	<i>dzɔŋ^wɔ =ahaj makar</i> 'three hats'
<i>albaja</i> 'young man'	<i>albaja =ahaj</i> 'young men'	<i>albaja =ahaj kɔrɔ</i> 'ten young men'
<i>dɛdɛ</i> 'grandmother'	<i>dɛdɛ =ahaj</i> 'grandmothers'	<i>dɛdɛ =ahaj mɔk^wɔ</i> 'six grandmothers'

^a Resyllabification occurs with the addition of plural marker. It is the same resyllabification that occurs at the phrase level (Section 2.5.2).

Table 4.7: Mass noun plural

Singular	Plural
<i>jam</i> 'water'	<i>jam =ahaj</i> 'waters' (in different locations)
<i>ʃɛʃɛ</i> meat	<i>ʃɛʃɛ =ahaj</i> 'meats' (from different animals)
<i>ag^wɔdʒɛr</i> 'grass'	<i>ag^wɔdʒɛr =ahaj</i> 'grasses' (of different species)

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The singular and plural forms for these nouns are shown in Table 4.8. For *h^wər* ‘woman’ and *zar* ‘man,’ the plural forms resemble the singular but involve insertion of the consonant *w* (*hawər* and *zawər*, respectively). For *war* ‘child’ the plural form is completely suppletive (*babəza*). For each of these three items, there is an alternate plural form which is formed by reduplicating the entire plural root. This alternate form is interchangeable with the corresponding irregular plural form.

Table 4.8: Irregular plurals

Singular	Plural	Alternate plural form
<i>h^wər</i> ‘woman’	<i>hawər</i> = <i>ahaj</i> ‘women’	<i>hawər hawər</i> ‘women’
<i>zar</i> ‘man’	<i>zawər</i> = <i>ahaj</i> ‘men’	<i>zawər zawər</i> ‘men’
<i>war</i> ‘child’	<i>babəza</i> = <i>ahaj</i> ‘children’	<i>babəza babəza</i> ‘children’

4.3 Compounding

In a language like Moloko where individual words meld together in normal speech, real compounds are difficult to identify, since two separate nouns can occur together juxtaposed within a noun phrase without a connecting particle (see Section 5.4.2). In general, if what might seem to be a compound phonologically can be analysed as separate words in a productive syntactic construction, we interpret them as such. We have found some genuine compound noun stems in Moloko, and proper names are often lexicalised compounds that in terms of their internal structure are structurally like phrases or clauses (Section 4.4).

The grammatical and phonological criteria used to identify a compound are fourfold:

- The compound patterns as a single word in whatever class it belongs to, instead of as a phrase (that is, in terms of its outer distribution),
- The compound is seen as a unit in the minds of speakers,

- The compound has a meaning that is more specific than the semantic sum of its parts,
- The compound exhibits no word final phonological changes that would necessitate more than one phonological word (see Section 2.6); for example, there are no word final changes ([ŋ] and [x]) and prosodies spread over the entire compound.

Table 4.9 shows several compounds made from *ελε* ‘thing,’ placed both before and after another root. The compounds in the table illustrate that compounds can be made from a noun plus another noun root (lines 1–3), or a noun plus a verb root (line 4). Note that when *ελε* ‘thing’ is the leftmost root in a compound (lines 1–2), *ελε* loses its own palatalisation prosody, an indication that the roots comprise a phonological compound. When it is the rightmost root in the compound, its palatalisation prosody spreads leftwards, affecting the whole word.

Table 4.9: Compounds made with *ελε* ‘thing’

Line	Compound noun	Elements	
1	alahar ‘weapon, bracelet’	<i>ελε</i>	<i>ahar</i> thing hand
2	<i>αλκ^wο</i> ‘wood’	<i>ελε</i>	<i>ακ^wο</i> thing fire
3	<i>μεμελε</i> ‘tree’	<i>mama</i>	<i>ελε</i> mother thing
4	<i>τρελε</i> ‘work’	<i>tar</i>	<i>ελε</i> send thing

Table 4.10 shows two compounds made with *μα* ‘mouth’ or ‘language.’

A more complex example is *ajva* ‘inside-house.’ It could be analysed as /a *haj* *ava*/ ‘at house in’; however it distributes not as a locative adpositional phrase, but rather as a noun, in that it can be possessed (25) and it can be subject of the verb /s/ ‘want’ (26).

- (25) Atərava ayva ahan.
a-tər=ava ajva =ahan
3s-enter=in inside house =3s.POSS
‘He goes into his house.’

Table 4.10: Compounds made with *ma*

Compound	Elements
mahaj door'	<i>ma</i> <i>haj</i> mouth house
<i>maɫar</i> 'front teeth'	<i>ma</i> <i>aɫar</i> mouth tooth

(26) Asan ayva bay.

a-s=aɲ ajva baj
3s-please=3s.IO inside house NEG

'He doesn't want [to go] inside the house.' (lit. the inside of the house
does not please him)

4.4 Proper Names

Moloko proper nouns (names of people, tribes, and places) can be morphologically simple but often are compounds. In the case of names for people, the names often indicate something that happened around the time of the baby's birth. Names can also be compounds that encode proverbs. Thus, proper names can be simple nouns, compounds, prepositional phrases, verbs, or complete clauses. Table 4.11. illustrates some proper names that are compounds, and shows the components of the name where necessary. Lines 1–5 show simple proper names and lines 6–11 show proper names that are compounds.

Twins are usually given special names according to their birth order, *Masaj* 'first twin,' *Aluwa* 'second twin.' A single child after a twin birth is named *Aban*.

Table 4.11: Proper names

Line	Name	Type of name	Components of name (where applicable)	Meaning
1	<i>Dzεε</i>	person		‘truth’
2	<i>Gadzəɬax</i>	person		‘broken piece of pottery’
3	<i>Fiak</i>	person/village		(no meaning outside its name)
4	<i>Mək^wijə</i>	village		(no meaning outside its name)
5	<i>Maɬaj</i>	tribe		(no meaning outside its name)
6	<i>Mələk^wə</i>	language	<i>ma</i> <i>ələk^wə</i> language, 1PIN.POSS	‘our language’ (Moloko)
7	<i>Anzakijma</i>	person	<i>a-nzak-aj</i> <i>ma</i> 3S-find-CL word	‘here comes trouble’
8	<i>Kəsijmize</i>	person	<i>kəs-aj</i> <i>mizε</i> unite[2S.IMP]-CL people	‘he unites the people’
9	<i>Kavijaka</i>	person	<i>kə</i> <i>avija</i> <i>aka</i> on suffering on	‘in suffering’
10	<i>Angadaj</i>	person	<i>a-ngad-aj</i> 3S-rejoice-CL	‘he is joyful’
11	<i>Mərijabaj</i>	person	<i>məraj</i> <i>abaj</i> shame EXT+NEG	‘no shame’

5 Noun phrase

Moloko, an SVO language, has head initial noun phrases. (1–4) show a few examples of noun phrases. A noun (*nafat* ‘day’ and *ləhe* ‘bush’ in 1), multiple nouns (*war ελε haj* ‘millet grain’ in 3 and *war dalaj* ‘girl’ in 4) or free pronoun (*nε* ‘me’ 2) is the head of the NP. In the examples in this chapter, the noun phrases are delimited by square brackets.

- (1) [Nafat enen] anday atalay a [ləhe.]
 [nafat εnεη] a-ndaj a-tal-aj a [lɪhε]
 day another 3S-PRG 3S-walk-CL at bush
 ‘One day, he was walking in the bush.’
- (2) [Ne ahan] aməgəye.
 [nε =ahan] amɪ-g-ijε
 1S =3S.POSS DEP-do-CL
 ‘It was me (emphatic) that did it.’
- (3) Cəcəngehe na, [war elé háy bəlen] na, asak asabay.
 tʃɪtʃɪngehe na [war εle haj bɪleη] na a-sak asa-baj
 now PSP child eye millet one PSP 3S +IFV-multiply again-NEG
 ‘And now, one grain of millet, it doesn’t multiply anymore.’
- (4) Metesle anga [war dalay ngendəye.]
 mε-tεɫ-ε aηga [war dalaj ηgendijε]
 NOM-curse-CL POSS child girl DEM
 ‘The curse belongs to that young woman.’

In this chapter, noun phrase modifiers and the order of constituents are discussed (see Section 5.1), using simple noun heads as examples. Then, noun heads are discussed (see Section 5.2). Next, derived adjectives are discussed, which consist of a noun plus the adjectiviser (see Section 5.3). Finally, four kinds of noun plus noun constructions are discussed, the genitive construction (see Section 5.4.1), the permanent attribution construction (see Section 5.4.2), relative clauses (see Section 5.4.3), and coordinated noun phrases (see Section 5.5).

Some things one might expect to see in a noun phrase are not found in Moloko noun phrases, but are accomplished by other constructions. For example, some attributions are expressed at the clause level using an intransitive clause (see Section 9.2.4.2) or transitive verb with indirect object (see Section 9.2.3), and comparison is done through an oblique construction (see Section 5.6.1).

5.1 Noun phrase constituents

A noun head can be modified syntactically by the addition of other full-word or clitic elements. In the examples which follow, the noun phrases are delimited by square brackets. Examples are given in pairs, where the noun phrase in the first of each pair is the direct object of the verb. In the second example of each pair, the noun phrase is the predicate in a predicate nominal construction (see Section 10.1.2). Note that most of the predicate nominal constructions require the presupposition marker *na* (Chapter 11). The constituents being illustrated are bolded in each example.

A noun modified by the plural marker (5 and 6, see Section 4.2.3).

- (5) Náməɲjar [awak **ahay**].
 nə-məɲzar [awak =**ahaj**]
 1S+IFV-see goat =Pl
 ‘I see goats.’
- (6) [Awak **ahay** na], [səlom **ahay** ga.]
 [awak =**ahaj** na] [səlɔm =**ahaj** ga]
 goat =Pl PSP good =Pl ADJ
 ‘The goats [are] good.’

A noun modified by a possessive pronoun (7 and 8, see Sections 3.1.2 and 5.4.1).

- (7) Náməɲjar [awak **əwla**].
 nə-məɲzar [awak =**uwla**]
 1S+IFV-see goat =1S.POSS
 ‘I see my goat.’
- (8) [Awak **əwla** na], [səlom ga.]
 [awak =**uwla** na] [səlɔm ga]
 goat =1S.POSS PSP good ADJ
 ‘My goat [is] good.’

A noun modified by an unspecified pronoun (9 and 10, see Section 3.1.5).

- (9) Nómənjər [awak **enən**.]
 nə-mənzər [awak **enən**]
 1S+IFV-see goat another
 'I see another goat.'
- (10) [Awak **enən** ahay na], [səlom ahay ga.]
 [awak **enən** =ahaj na] [səlom =ahaj ga]
 goat other =Pl PSP good =Pl ADJ
 'Other goats [are] good.'

A noun modified by a numeral (11 and 12, Section 3.3).

- (11) Nómənjər [awak =əwla ahay **makar**.]
 nə-mənzər [awak =uwla =ahaj **makar**]
 1S+IFV-see goat =1S.POSS =Pl three
 'I see my three goats.'
- (12) [awak =əwla ahay **makar** ahay na], [səlom ahay ga.]
 [awak =uwla =ahaj **makar** =ahaj na] [səlom =ahaj ga]
 goat =1S.POSS =Pl three =Pl PSP good =Pl ADJ
 'My three goats [are] good.'

A noun modified by a derived adjective (13 and 14, Section 5.3).

- (13) Nómənjər [awak ahay **malan** ahay ga.]
 nə-mənzər [awak =ahaj **malan** =ahaj ga]
 1S+IFV-see goat =Pl great =Pl ADJ
 'I see the big goats.'
- (14) [awak ahay **malan** ahay ga na], [səlom ahay ga.]
 [awak =ahaj **malan** =ahaj ga na] [səlom =ahaj ga]
 goat =Pl great =Pl ADJ PSP good =Pl ADJ
 'The big goats [are] good.'

A noun modified by a nominal demonstrative (15 and 16, Section 3.2).

- (15) Nómənjər [awak ahay makar **ngəndəye**.]
 nə-mənzər [awak =ahaj makar **ngəndijə**]
 1S+IFV-see goat =Pl three DEM
 'I see those three goats.'

5 Noun phrase

- (16) [Awak ahay makar **ngndəye** na], [səlom ahay ga.]
 [awak =ahaj makar **ngindije** na] [səlom =ahaj ga]
 goat =Pl three DEM PSP good =Pl ADJ
 ‘Those three goats [are] good.’

A noun modified by a relative clause (17 and 18, see Section 5.4.3).

- (17) Némənjər [awak əwla ahay makar [**nək aməvələw**.]]
 nə-mənzər [awak =uwla =ahaj makar [**nək^w amə-vəl=aw**]]
 1S+IFV-see goat =1S.POSS =Pl three 2S DEP-give=1S.IO
 ‘I see my three goats that you gave to me.’
- (18) [awak əwla ahay makar [**nək aməvələw**] na], [səlom ahay ga.]
 [awak =uwla =ahaj makar [**nək^w amə-vəl=aw**] na] [səlom =ahaj ga]
 goat =1S.POSS =Pl three 2S DEP-give=1S.IO PSP good =Pl ADJ
 ‘My three goats that you gave me [are] good.’

A noun modified by a non-numeral quantifier (19 and 20, see Section 3.3.4).

- (19) Némənjər [awak ahay **gam**.]
 nə-mənzər [awak =ahaj **gam**]
 1S+IFV-see thing =Pl many
 ‘I see many goats.’
- (20) [Awak ahay **gam** na], [səlom ahay ga.]
 [awak =ahaj **gam** na] [səlom =ahaj ga]
 goat =Pl many PSP good =Pl ADJ
 ‘Many goats [are] good.’

A noun modified by a numeral and the adjectiviser *ga* (21 and 22, Section 5.3).

- (21) Némənjər [awak ahay məfadn **ga**.]
 nə-mənzər [awak =ahaj məfad **ga**]
 1S+IFV-see goat =Pl four ADJ
 ‘I see the four goats.’
- (22) [Awak ahay məfad **ga**], [səlom ahay ga.]
 [awak =ahaj məfad **ga**] [səlom =ahaj ga]
 goat =Pl four ADJ good =Pl ADJ
 ‘The four goats [are] good.’

The constituent order is shown in Figure 5.1, followed by illustrative examples. Not all constituents can co-occur in the same clause. There are restrictions on how complex a noun phrase can normally become. Restrictions include the fact that quantifiers cannot co-occur in the same noun phrase as either derived adjectives or numerals. The order of relative clause and demonstrative does not appear to be strict. Note that nominal demonstratives are in a different position than local adverbial demonstratives.

head	possessive	plural	numeral	relative	nominal	quantifier	ADJ	local adverbial
noun				clause	demonstrative			demonstrative

Figure 5.1: Structure of the Moloko noun phrase

Modification by possessive pronoun and plural marker.

- (23) Námə́njar [awak əwla ahay.]
 ná-mə́njar [awak =uwla =ahaj]
 1S+IFV-see goat =1S.POSS =Pl
 ‘I see my goats.’
- (24) [Awak əwla ahay na], [səlóm ahay ga.]
 [awak =uwla =ahaj na] [səlóm =ahaj ga]
 goat =1S.POSS =Pl PSP good =Pl ADJ
 ‘My goats [are] good.’

Modification by nominal demonstrative, relative clause, and plural marker.

- (25) Námə́njar [awak ahay ngə́ndəye [nok amə́vəlaw.]]
 ná-mə́njar [awak =ahaj ngíndijə [nɔ́kʷ amə́-vəl=aw]]
 1S+IFV-see goat =Pl DEM 2S DEP-give=1S.IO
 ‘I see those goats that you gave me.’
- (26) [Awak əwla ahay [nok amə́vəlaw] ngə́ndəye na], [səlóm ahay ga.]
 [awak =uwla =ahaj [nɔ́kʷ amə́-vəl=aw] ngíndijə na] [səlóm =ahaj
 goat =1S.POSS =Pl 2S DEP-give=1S.IO DEM PSP good =Pl
 ga]
 ADJ
 ‘Those goats of mine that you gave me [are] good.’

Modification by quantifier, relative clause, and plural marker.

5 Noun phrase

- (27) Námənjər [awak ahay gam] [nok aməvələw va na.]
 nə-mənzər [awak =ahaj gam] [nɔk^w amə-vəl=aw =va na]
 1S+IFV-see thing =Pl many 2S DEP-give=1S.IO =PRF PSP
 ‘I see many goats, the ones that you gave me.’
- (28) [Awak əwla ahay [nok aməvələw] jəyga na], [səlɔm ahay ga.]
 [awak =uwla =ahaj [nɔk^w amə-vəl=aw] dʒijga na] [səlɔm =ahaj ga]
 goat =1S.POSS =Pl 2S DEP-give=1S.IO all PSP good =Pl ADJ
 ‘All of my goats that you gave to me [are] good.’

Modification by quantifier, nominal demonstrative, and plural marker.

- (29) Námənjər [awak ahay ngəndəye jəyga.]
 nə-mənzər [awak =ahaj ŋgɪndijɛ dʒijga]
 1S+IFV-see goat =Pl DEM all
 ‘I see all those goats.’
- (30) [Awak ahay ngəndəye jəyga na], [səlɔm ahay ga.]
 [awak =ahaj ŋgɪndijɛ dʒijga na] [səlɔm =ahaj ga]
 goat =Pl DEM all PSP good =Pl ADJ
 ‘All of those goats [are] good.’

5.2 Noun phrase heads

Noun phrases can have a head that is either a simple noun (31), nominalised verb (see Section 5.2.1, 32), or a pronoun (see Section 5.2.2, emphatic pronoun in 33). In the examples, the noun phrases are delimited by square brackets and the head is bolded.

- (31) [**Albaya** ahay] tánday táwas.
 [albaja =ahaj] tá-ndaj tá-was
 young man =Pl 3P-PROG 3P+IFV-cultivate
 ‘The young men are cultivating.’
- (32) [**məzəme** əwla] amanday acəbən ana Mana.
 [mɪ-ʒum-ɛ =uwla] ama-ndaj a-tsəb=ən ana Mana
 NOM-eat-CL =1S.POSS DEP-PROG 3S-overwhelm=3S.IO DAT Mana
 ‘[The act of] my eating is irritating Mana.’

- (33) [Ndahan ga] ánday áwas.
 [ndahan ga] á-ndaj á-was
 3S ADJ 3S+IFV-PROG 3S+IFV-cultivate
 ‘He himself is cultivating.’

5.2.1 Noun phrases with nominalised verb heads

When the head noun is a nominalised verb, the other elements in the noun phrase represent clausal arguments of the nominalised verb. The modifying noun represents the direct object Theme of the nominalised verb and the possessive pronoun or noun in a modifying genitive construction represents the subject of the verb. In (34), the noun modifier *daf* ‘loaf’ represents the direct object of the nominalised verb *mɪ-ʒum-ε* ‘eating’ and the 3P possessive pronoun *=atəta* represents the subject of the nominalised verb, i.e., ‘they are eating loaf’.

- (34) A [məzəmə daf ata] ava na, tázlapay bay.
 a [mɪ-ʒum-ε daf =atəta] ava na tá-ʒap-aj baj
 at NOM-eat-CL loaf =3P.POSS in PSP 3P+IFV-talk-CL NEG
 ‘While eating (lit. in the eating of their loaf), they don’t talk to each other.’

In (35), *mɪ-nd-ijε =aŋg^{wɔ}* literally ‘your lying down’ indicates that ‘you are lying.’ The possessive pronoun *=aŋg^{wɔ}* is the subject of the nominalised verb *mɪ-nd-ijε*. In (36), both subject and direct object of the nominalised verb are present. *Mana*, the noun in the genitive construction (see Section 5.4.1) codes the subject of the nominalised verb and the ‘body-part’ verbal extension *va* is the direct object, i.e., ‘Mana is resting his body.’

- (35) Snake, S. 19
 Anjakay nok ha a slam [məndəye ango] ava.
 à-nzak-aj nɔk^w ha a ʔam [mɪ-nd-ijε =aŋg^{wɔ}] ava
 3S+PFV-find-CL 2S until at place NOM-sleep-CL =2S.POSS in
 ‘It found you even at the place you were sleeping.’ (lit. it found you until in your sleeping place)
- (36) [membese va a Mana]
 [mε-mbεʃ-ε va a Mana]
 NOM-rest-CL body GEN Mana
 ‘Mana’s rest’ (lit. resting body of Mana)

5.2.2 Noun phrases with pronoun heads

A free pronoun head is more limited in the number of modifiers that it can take than a lexical noun head. A pronoun head can only be modified by the adjectiviser (??) or possessive pronoun in emphatic situations (??, see Section 3.1.1.2). Noun phrases with pronoun heads can not be modified by plural, number, demonstrative, adjective, or relative clause.¹ The pronoun heads are bolded in the examples.

- (37) [Ndahan ga] [aməgəye.]
 [ndahan ga] [amɪ-g-ijɛ]
 3S ADJ DEP-do-CL
 ‘He is the one that did it.’
- (38) [Amədəye elele nəndəye na], [ne ga.]
 [amɪ-d-ijɛ ɛlɛlɛ nɪndijɛ na] [nɛ ga]
 DEP-prepare-CL sauce DEM PSP 1S ADJ
 ‘The one that prepared the sauce there [was] me.’
- (39) [Ne ahan] [aməgəye.]
 [nɛ =ahan] [amɪ-g-ijɛ]
 1S =3S.POSS DEP-do-CL
 ‘I myself [am] the one that did it.’
- (40) [Ne ahan] nólo a kosoko ava.
 [nɛ =ahan] nɔ-lɔ a kɔsɔkʷɔ ava
 1S =3S.POSS 1S+IFV-go at market in
 ‘I myself am going to the market.’

5.3 Derived adjectives

All adjectives in Moloko are derived from nouns – there is no separate grammatical class of adjectives.² Adjectives are derived from nouns by a very productive process in which the morpheme *ga* follows the noun. Table 5.1. illustrates this process for simple nouns.

Nominalised verbs (see Section 7.6) can be further derived into adjectives by the adjectiviser. The process is illustrated in Table 5.2.

¹ Pronouns can be the subject of a relative clause, see (17) and Section 5.4.3.

² There are no comparative adjectives in Moloko – comparison is done by means of a clause construction using a prepositional phrase described in Section 5.6.1.

Table 5.1: Derived adjectives

Noun		Derived Adjective	
<i>sɔlɔm</i>	‘goodness’	<i>sɔlɔm ga</i>	‘good’
<i>gədaŋ</i>	‘force’	<i>gədaŋ ga</i>	‘strong’
<i>dɛdɛŋ</i>	‘truth’	<i>dɛdɛŋ ga</i>	‘true’
<i>g^wɔg^wɛʒ</i>	‘redness’	<i>g^wɔg^wɛʒ ga</i>	‘red’
<i>dalaj</i>	‘girl’	<i>daliŋ ga</i>	‘feminine’
<i>bərav</i>	‘heart’	<i>bərav ga</i>	‘with ability to support suffering’ ^a
<i>daz daz</i>	‘redness’	<i>daz daz ga</i>	‘red’
<i>k^wɔlɛdɛdɛ</i>	‘smoothness’	<i>k^wɔlɛdɛdɛ ga</i>	‘smooth’
<i>pijɛtɛtɛ</i>	‘coldness’	<i>pijɛtɛtɛ ga</i>	‘cold’
<i>malan</i>	‘greatness’	<i>malan ga</i>	‘great’ / ‘big’
<i>h^wɔfɛfɛ</i>	‘smallness’	<i>h^wɔfɛfɛ ga</i>	‘small’

^a An idiom.

Table 5.2: Adjectives derived from nominalised verbs

Verb	Nominalised verb	Derived adjective
<i>ɛ-nʒ-ɛ</i>	<i>mɪ-nʒ-ijɛ</i>	<i>mɪ-nʒ-ijɛ ga</i>
3S-sit-CL	NOM-sit-CL	NOM-sit-CL ADJ
‘He sat.’	‘sitting’ (the event)	‘seated’ (adjective)
<i>a-dar-aj</i>	<i>mɛ-dɛr-ɛ</i>	<i>mɛ-dɛr-ɛ ga</i>
3S-plant-CL	NOM-plant-CL	NOM-plant-CL ADJ
‘He planted.’	‘planting’ (the event)	‘planted’ (adjective)

5.3.1 Structure of noun phrase containing *ga*

Examples show the adjectivised nouns in complete clauses. In the examples in this section, the adjectiviser *ga* is bolded and the whole noun phrase construction including *ga* is delimited by square brackets.

- (41) Nazalay [awak gogwez **ga**.]³
 nà-z=alaj [awak g^wɔg^weʒ **ga**]
 1S+PFV-take=away goat redness ADJ
 ‘I took a red goat.’
- (42) Tənjakay [agwazla malan **ga**] a ləhe.
 tə-nzak-aj [ag^waʒa malan **ga**] a ləhe
 3P-find-CL spp. of tree bigness ADJ at bush
 ‘They found a big tree (of a specific species) in the bush.’
- (43) [war enen] [cezlere **ga**]
 [war ɛnɛŋ] [tʃɛʒɛɾɛ **ga**]
 child another disobedient ADJ
 ‘Another child [is] disobedient.’

We consider that the adjectiviser is a separate phonological word with semantic scope over the preceding noun phrase.⁴ The adjectiviser maintains its position at the right edge of a noun phrase regardless of the noun phrase components (44–49). This fact indicates that it might be a clitic. However, we find no undisputable evidence that it is phonologically bound to the noun. (42) shows noun-final changes /n/ → [ŋ] before *ga*. These changes might be due to assimilation of /n/ to point of articulation of /g/ within a word (see Section 2.2). However, the same change would occur at a word break, with word-final changes to /n/ (see Section 2.2.4 and criterion b in Section 2.6.1).⁵ Also, the prosody of *ga* does not neutralise any prosody on the word to which it is bound.

- (44) Tákəwala [kəra mətece elé **ga**.]

³ The first line in each example is the orthographic form. The second is the phonetic form (slow speech) with morpheme breaks.

⁴ Bow (1997a) called this morpheme a noun affix. Also, for simple adjectivised noun constructions, speakers consider the adjectiviser to be part of the same word as the noun that is modified. However, in the absence of evidence for phonological bondedness, we consider *ga* to be a separate phonological word.

⁵ We have not no examples of word-final alterations of /h/ before *ga*.

tá-kuw=ala [kəra mɪ-tɛtʃ-ɛ ɛɛ ga]

3P+IFV-look=to dog NOM-close-CL eye ADJ

‘They look for a puppy that hasn’t opened its eyes yet.’ (lit. a dog closing eyes)

5 Noun phrase

- (45) Ləme Məloko ahay na, nəmbədom a dəray ava na,
 lɪmɛ Məlɔkʷɔ =ahaj na nə-mbɔd-ɔm a dəraj ava na
 1PEX Moloko =Pl PSP 1+PFV-change-1PEX at head in PSP
 ‘We the Moloko, we have become’ (lit. we the Moloko, we have changed
 in the head [to be])

ka [kərkadaw ahay nə hərgov ahay ga] a bərzlan ava na.
 ka [kərkadaw =ahaj nə hərgʷɔv =ahaj ga] a bərlʒan ava na
 like monkey =Pl with baboon =Pl ADJ at mountain in PSP
 ‘like the monkeys and baboons in the mountains’

When the head noun in a phrase that contains the adjectiviser *ga* is pluralised, both the head noun and the noun modifier are pluralised as well. Compare the singular noun phrase in (46) with the pluralised noun phrase in (47) where both the head noun and adjective are pluralised. The same pattern of pluralisation is shown in (48–49). Note that the plural is not becoming individually ‘adjectivised.’ but rather the entire noun phrase is adjectivised. Note also that the adjectiviser always maintains its position at the right edge of the noun phrase.

- (46) Naharalay [awak babəf ga] a mogom.
 nə-har =alaj [awak babəf ga] a mɔgʷɔm
 1S+PFV-carry =away goat white ADJ at home
 ‘I carried the white goat home.’
- (47) Naharala [awak ahay babəf ahay ga] a mogom.
 nə-har =alaj [awak =ahaj babəf =ahaj ga] a mɔgʷɔm
 1S+PFV-carry =away goat =Pl white =Pl ADJ at home
 ‘I carried the white goats home.’
- (48) [Məze ahay səlom ahay ga na], tázala təta bay.
 [mɪzɛ =ahaj səlɔm =ahaj ga na] tá-z =ala təta baj
 person =Pl good =Pl ADJ PSP 3P+IFV-take =to ability NEG
 ‘Good people (lit. people with the quality of goodness), they can’t bring [it].’
- (49) Values, S. 49
 Nde [məze ahay gogor ahay ga na] ngama.
 ndɛ [mɪzɛ =ahaj gʷɔgʷɔr =ahaj ga na] ŋgama
 so person =Pl elder =Pl ADJ PSP better
 ‘So, our elders [have it] better.’

Derived adjectives can be negated by following them with the negative *baj*.

- (50) [Agwəjer mədere **ga** bay na], natoɦo.
 [ag^wədʒɛr mɪ-dɛr-ɛ **ga** baj na] natɔh^wɔ
 grass NOM-braid-CL ADJ NEG PSP over there
 ‘The grass [that is] not thatched [is] over there.’
- (51) [Yam pəyecece **ga** bay na], acar bay.
 [jam pijetʃetʃɛ **ga** baj na] a-tsar baj
 water coldness ADJ NEG PSP 3S+PFV-taste good NEG
 ‘Lukewarm water doesn’t taste good.’ (lit. water not with the quality of coldness, it doesn’t taste good)

5.3.2 Functions of noun phrases containing *ga*

The morpheme *ga* has two other functions besides adjectiviser.⁶ Its function to render a pronoun emphatic is discussed in Section 3.1.1.2.

The adjectiviser can also function as a discourse demonstrative to make the noun definite and even sometimes emphatic. A set of examples from the Cicada story illustrates the discourse function. (52–54) are from lines 5, 12 and 18 respectively (the Cicada story is found in its entirety in Section 1.6). The first mention in the narrative of *ag^waʒa* ‘tree of a particular species’ is shown in (52). The tree is introduced as *ag^waʒa malan ɣa* ‘a large tree.’ Later on in the narrative, the particular tree that was found is mentioned again (53 and 54). In these occurrences however, the tree is not modified by an adjective, but the noun is simply marked by *ga* (*ag^waʒa ga* ‘this tree of a particular species’ in 53 and *memele ga* ‘the tree’ in 54). In these last two examples, *ga* indicates that ‘tree’ is referring to the particular tree previously mentioned in the discourse.

- (52) Cicada, S. 5
 Təlo tənjakay [agwazla malan **ga**] a ləhe.
 tə-lo tə-njak-aj [ag^waʒa malan **ga**] a lihe
 3P+PFV-go 3P+PFV-find-CL spp. of tree largeness ADJ at bush
 ‘They went and found a large tree (a particular species) in the bush.’ (lit. a tree with the quality of greatness/size)

⁶ These two functions for *ga* do not indicate homophones. We interpret all cases of *ga* as the same morpheme since all instances pattern in exactly the same way even when their function is different. We conclude that the same morpheme is functioning at the noun phrase level as an adjectiviser and at the discourse level in definiteness and emphasis.

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(53) Cicada, S. 14

[Agwazla **ga**] səlom ga aḃəsaj ava bay.
[ag^waʒa **ga**] səlɔm ga aḃəsaj ava baj
spp. of tree ADJ goodness ADJ blemish EXT NEG
'This tree is good; it has no faults.'

(54) Cicada, S. 20

Náaməɲar na alay [memele **ga** ndana] əwɗɛ
náá-məɲar na =alaj [memele **ga** ndana] uwɗɛ
1S+POT-see 3S.DO =away tree ADJ DEM first
'First I want to see this tree that you spoke of.'

In another story about a reconciliation ceremony between two warring parties (the Moloko and the Mbuko), the ceremony requires the cutting in two of a puppy. Which side received which part was a key element to the outcome of the ceremony. In the text, the first mention of *dəraj* 'the head' (55) is marked with *ga* – it is an expected part of the narrative frame. When the outcome of the ceremony revealed that the Moloko got the head part (and so 'won' the contest) and the Mbuko received the hind parts, both are adjectivised: *dəraj ga* 'the head' and *mɪtɛɲɛ ga* 'the hindparts' (56). Note that (56) consists of two predicate possessive verbless clauses (see Section 10.1.2), each with a predicate that is an adjectivised noun.

(55) Asa ləme nəgəsom na [dəraj **ga**] na, [səlom **ga**.]
asa lɪmɛ nə-gʊs-ɔm na [dəraj **ga**] na [səlɔm **ga**]
if 1PEX 1+IFV-catch-1PEX 3S.DO head ADJ PSP goodness ADJ
'If we got the head, [it would be] good.'

(56) [Dəraj **ga**] anga ləme [mɛtɛɲɛ **ga**] anga mboko ahay.
[dəraj **ga**] aɲga lɪmɛ [mɪtɛɲɛ **ga**] aɲga mbək^wɔ =ahaj
head ADJ POSS 1PEX hindparts ADJ POSS Mbuko =PI
'The head [is] belonging to us; the hindparts [are] belonging to the Mbuko.'

Compare (57) and (58) (from lines 1 and 30, respectively of the Disobedient Girl story; shown in its entirety in Section 1.5). The noun *bamba* 'story', when first mentioned in the introduction of the story (57) is not adjectivised. When the same noun is mentioned again in the conclusion (58), it is adjectivised *ma bamba ga* 'the story.'

- (57) Disobedient Girl, S. 1
 [Bamba] [bamba] kəlo dərgod
 [bamba] [bamba] kəlo dərg^wɔd
 story story under silo
 ‘Once upon a time...’ (lit. there’s a story under the silo)
- (58) Disobedient Girl, S. 39
 Ka nehe [ma bamba ga] andavalay.
 ka nehe [ma bamba ga] à-ndava=alaj
 like here word story ADJ 3S+PFV-finish=away
 ‘It is like this the story ends.’

In the Cows in the Field story (not illustrated in this work) *ga* is used to mark the five brothers (previously mentioned) whose field was damaged (and who had to go to the police to resolve the problem, 59 and 60), and the problem (*ma ga* ‘that word’) that developed when they couldn’t find justice (61 and 62).

- (59) [Mələma ahay məfad ga] tanday tágalay ta [sla ahay na] a Kədəmbor
 [məlama =ahaj məfad ga] ta-ndaj tá-gal-aj ta [ʔa =ahaj na]
 brother =Pl four ADJ 3P-PRG 3P+IFV-drive-CL 3P.DO cow =Pl PSP
 a Kədəmbor
 to Tokembere
 ‘The four brothers, they were driving the cows to Tokembere.’
- (60) Nəbohom ta alay ləme [zlom ga]
 nə-bəh-ɔm ta =alaj lɪmɛ [ʔɔm ga]
 1PEX+PFV-pour-1PEX 3P.DO =away 1PEX five ADJ
 ‘We gave them [our identity cards], we [were] the five [whose fields were damaged].’
- (61) Sen a slam na ava nendəge na, nəmənɔrom [ma ga]
 ʃɛŋ a ʔam na ava nɛndɪgɛ na nə-mənɔr-ɔm [ma ga]
 IDwalk at place PSP in DEM PSP 1PEX+PFV-see word ADJ
 ‘Walking (later), at that place, we saw the problem.’
- (62) Nəbohom [ma ga] a brəygad ava.
 nə-bəh-ɔm [ma ga] a briygad ava
 1PEX+PFV-pour-1PEX word ADJ at Brigade in
 ‘We took the problem to the Brigade.’

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The emphatic function of *ga*⁷ mentioned above is even more obvious in the Values exhortation (see Section 1.7). Line 7 in the Values exhortation, shown in (63), alludes to the commandments that *Hərmbələm à-wats=ala kə ɔk^wɔr aka* ‘God wrote on the stone,’ and line 12 (64) exhorts the hearer *kɔ́ɔ-gʊs-ɔk ma Hərmbələm* ‘you should accept the word of God.’ Further in the text, the mention of *anga Hərmbələm ga* ‘the very [word] of God himself’ (65 from line 28) draws attention to the fact that the people don’t accept what God himself wrote on the stone tablets. This time, the marker *ga* has an emphatic function.

(63) Values, S. 7

Hərmbələm awacala kə okor aka.
Hərmbələm à-wats =ala kə ɔk^wɔr aka
God 3S+PFV-write =to on stone on
‘God wrote them on the stone [tablet].’

(64) Values, S. 12

Yawa nde ele nehe dɛw, kóogəsok ma Hərmbələm.
jawa nde ɛɛ nehe dɛw kɔ́ɔ-gʊs-ɔk^w ma Hərmbələm
well so thing DEM also 2S+POT-catch-2P word God
‘So, this thing here, you should accept the word of God.’

(65) Values, S. 28

[Anga Hərmbələm ga] kagas asabay.
[anga Hərmbələm ga] kà-gas asa-baj
POSS God ADJ 2S+PFV-catch again-NEG
‘The very [word] of God himself you will never accept.’

5.4 Nouns as modifiers

There are three types of constructions where nouns figure in the modification of another head noun in Moloko. They are:

- Genitive construction. A head noun followed by a genitive noun phrase with the genitive particle *a* (66, see Section 5.4.1).
- Permanent attribution construction. Two nouns are juxtaposed with no intervening particle (67, see Section 5.4.2).

⁷ The emphatic function of *ga* is discussed with respect to pronouns in Section 3.1.1.2.

- Relative clause (68, see Section 5.4.3).

- (66) [war [a bahay]]
 [war [a bahaj]]
 child GEN chief
 ‘the chief’s child’
- (67) [zar Məloko]
 [zar mʊləkʷɔ]
 man Moloko
 ‘Moloko man’
- (68) [war [aməgəye cəɖoy] akaray zana aloko apazan.
 [war [amɪ-g-ijɛ tsʊɖoj] à-kar-aj zana =alɔkʷɔ apazan
 child DEP-do-CL wickedness 3S+PFV-steal-CL clothes =1PIN yesterday
 ‘The child that did wickedness stole our clothes yesterday.’

5.4.1 Genitive construction

The genitive construction follows the head noun in a noun phrase. The genitive noun phrase consists of the genitive particle *a* plus a noun phrase expressing the possessor (69 and 70).

- (69) [zar [a Hawa]]
 [zar [a Hawa]]
 man GEN Hawa
 ‘Hawa’s husband’
- (70) [hay [a baba ango]]
 [haj [a baba =aŋgʷɔ]]
 house GEN father =2S.POSS
 ‘your father’s house’

Bow (1997a) remarks that the particle *a* appears to carry the tone HL, with a floating L.⁸ She demonstrates in (71) that the floating low tone lowers the high tone of the noun (*háj*) to become M.

- (71) [dǎf] + [á] + [háj] → [dǎf á hāj]
 ‘loaf’ GEN ‘millet’ ‘millet loaf’

⁸ Note that the genitive particle *a* and the adposition *a* (Sections 5.6.1 and 5.6.2) are homophones.

5 Noun phrase

Also, the genitive particle will elide with any word final vowel in a previous word; likewise it will elide with a vowel at the beginning of the following word. In any case, the tone effects remain.

In a genitive construction, the relationship of the genitive noun phrase to the head noun is a temporary attribute of or relationship to the head.⁹ The semantic relationship between head noun and genitive expresses the same range of semantic notions as the possessive pronoun (see Section 3.1.2.1). In the examples below, the genitive construction expresses ownership (both alienable and inalienable, 72), kinship (73), partitive (74), and other looser associations (75–77). When applicable, a corresponding pronominal possessive construction is also given for comparison.

- | | | |
|------|--|--|
| (72) | [hay [a Mana]
[haj [a Mana]
house GEN Mana
'Mana's house' | [hay əwla]
[haj =uwla]
house =1S.POSS
'the house that I live in' (not the house I made) ¹⁰ |
| (73) | [hor [a Mana]]
[h ^w ɔr [a Mana]]
woman GEN Mana
'Mana's wife' | [hor ahan]
[h ^w ɔr =ahan]
woman =3S.POSS
'his wife' |
| (74) | [dəray [a Mana]]
[dəraj [a Mana]]
head GEN Mana
'Mana's head' | [dəray ahan]
[dəraj =ahan]
head =3S.POSS
'his head' |
| (75) | [slərele [a Mana]]
[ɬɪrɛle [a Mana]]
work GEN Mana
'Mana's work' | [slərele ahan]
[ɬɪrɛle =ahan]
work =3S.POSS
'his work' |
| (76) | [pəra [a Mala]]
[pəra [a Mala]]
spirit-place GEN Mala
'the spirit-place that Mala worships' | [pəra ahan]
[pəra =ahan]
spirit-place =3S.POSS
'his spirit-place' |

⁹ As compared with the permanent attribution construction Section 5.4.2.

¹⁰ 'The house I made' requires a relative clause: [haj [uwla amɪ-her-ɛ =va]] 'house mine to build.'

- (77) [zar akar [a Mana]] [zar akar ahan]
 [zar akar [a Mana]] [zar akar =ahan]
 man thief GEN Mana man thief =3S.POSS
 ‘the man who stole from Mana’ ‘the man who stole from him’

There are several idioms or figurative expressions in Moloko which involve genitive constructions where the head noun in the noun phrase is a body part such as *ma* ‘mouth’ (78–80) or *h^wɔd* ‘stomach’ (81).

- (78) [ma [a gəver]]
 [ma [a gɪvɐr]]
 mouth GEN liver
 ‘gall bladder’
- (79) [ma [a gələn]]
 [ma [a gələn]]
 mouth GEN kitchen
 ‘door to the kitchen’
- (80) [ma [a savah]]
 [ma [a savax]]
 mouth GEN rainy season
 ‘beginning of rainy season’
- (81) Ne a [hɔd [a zazay]] ava.
 nɛ a [h^wɔd [a zazaj]] ava
 1S at stomach GEN peace in
 ‘I [am] very peaceful.’ (lit. I, in the centre of peace)

All other modifiers in a genitive construction will modify the genitive noun and not the head noun. In (82), the possessive modifies the genitive noun (my wife) and not the head noun (i.e., not ‘my bride price’). Likewise in (83), the demonstrative modifies the genitive noun (‘this woman’) and not the head noun (i.e., not ‘this bride price’). In (84), it is the genitive noun ‘animals’ that is pluralised and modified by ‘all’, not the head noun ‘chief’.

- (82) [Gembere [a hor əwla]] adal anga angɔ.
 [gembɛɾɛ [a h^wɔr =uwla]] a-dal anga =ang^wɔ
 bride price GEN woman =1S.POSS 3S-exceed POSS =2S.POSS
 ‘The bride price of my wife exceeded [that] belonging to you.’

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- (83) [Gembere [a hor nehe] na], acəbava.
 [gembere [a h^wɔr nehe] na] a-tsəb =ava
 bride price GEN woman DEM PSP 3S-overwhelm =in
 ‘The bride price of this woman is exorbitant.’
- (84) Angala [bahay [a gənaw ahan ahay a slala ga ava jəyga.]]
 à-ŋgala [bahaj [a gənaw =ahan =ahaj a ʔala ga ava
 3S+PFV-return chief GEN animal =3S.POSS =Pl at village ADJ in
 dzijga]]
 all
 ‘He came back as the chief of all his animals in the village.’

5.4.2 Permanent attribution construction

In a ‘permanent attribution construction,’ the noun phrase has a head composed of two (or even three) nouns, which acts as a unit within a larger noun phrase. The nouns in a permanent attribution construction do not comprise a compound made of phonologically bound words, but are separate words (prosodies do not spread from one noun to the other, (87), (88), (91), and there are word-final changes in the first noun). Semantically, the second noun in the noun phrase indicates something about the identity of the first noun or gives a permanent attribute of the head noun.¹¹ The glosses in each of the examples below confirm this observation.

- (85) [zar Ftak]
 [zar Ftak]
 man Ftak
 ‘a man who was born in Ftak’
- (86) [zar akar]
 [zar akar]
 man theft
 ‘thief’ (someone who makes his living from stealing)

¹¹ As compared with the genitive construction which gives a more temporary attribute Section 5.4.1.

- (87) [zar jəgwer]
 [zar dʒɪg^wɛr]
 man shepherd
 ‘a shepherd’ (paid for his work)
- (88) [zar səlom]
 [zar sɔlom]
 man goodness
 ‘a man who is known for his goodness’
- (89) [dalay zazay]
 [dalaj zazaj]
 girl peace
 ‘girl of peace’ (peace identifies her)
- (90) [zar madan]
 [zar madaŋ]
 man sorcery
 ‘a known sorcerer’
- (91) [zar slərele]
 [zar ʃɪrɛɛ]
 man work
 ‘a man who is known as someone who works hard’

In a noun phrase with the permanent attribution construction as its head noun, other elements in the noun phrase modify the entire head (and not just one of the nouns in the construction, as is the case for the genitive construction, see Section 5.4.1). In (92), the plural and the numeral modify the head noun *ndam ʃɪrɛɛ* and the sense is ‘his three workmen,’ not ‘the man of his three works.’ In (93), the noun phrase has a triple noun head, *war ele haj* ‘millet grain.’ In this noun phrase, the derived adjective *bɪlɛŋga* ‘one,’ the demonstrative *nɛndije* ‘that,’ and the relative clause *nɔk^w amɛ-ʒ-ɛ* ‘the one that you brought’ all modify the triple noun head *war ele haj* ‘millet grain.’ They do not just modify the noun *war* ‘child’ or *haj* ‘millet.’ In the examples below, the noun phrase is delimited by square brackets and the permanent attribution construction is bolded.

- (92) [ndam slərele ahan ahay makar.]
 [ndam ʔirele =ahan =ahaj makar]
 people work =3s.POSS =Pl three
 ‘his three workmen’
- (93) Disobedient Girl, 13
 [War elé háy bəlen ga nendəye nok ameze na], kahaya na kə ver aka.
 [war ɛle haj bɛlɛŋ ga nɛndijɛ nɔk^w amɛ-ʒ-ɛ] na
 child eye millet one ADJ DEM 2S DEP-take-CL PSP
 ‘That one grain of millet that you took,’
- ka-h=aja na kə ver aka
 2S-grind=PLU 3S.DO on grinding stone on
 ‘you should grind it on the grinding stone.’

It is interesting that when dependent and nominalised clauses (see Section 7.6 and Section 7.7) are within permanent attribution and genitive constructions, the same modal differences seen in Section 12.1.1 still apply. The nominalised form of the verb functions to give a particular situation a finished idea, with an event that has been accomplished before the point of reference, almost as a state. In contrast, the dependent form of the verb is employed in situations which have an incomplete idea, one that is not yet achieved. Compare (94) and (95). (94) (as well as 87) refers to someone whose identity is a shepherd – he is a man who makes his living caring for sheep or other animals. He probably is hired. This more permanent identity or state is expressed through the nominalised form of the verb in a permanent attribution construction. In contrast, example (95) (a relative clause, see Section 5.4.3) reflects a man who cares for sheep but being a shepherd isn’t his identity – he has sheep now but may not always have them. It is an incomplete or not completely realised situation expressed through the dependent form of the verb (a relative clause, but similar to the genitive).

- (94) zar məjəgwere
 zar mɪ-dʒɪg^wɛr-ɛ
 man NOM-shepherd-CL
 ‘a shepherd-man’ (lit. man shepherding)
- (95) məze aməjəgwere təmak
 mɪʒɛ amɪ-dʒɪg^wɛr-ɛ təmak
 person DEP-shepherd-CL sheep
 ‘a person that cares for sheep’ (lit. person to care for sheep)

Likewise, compare (96) and (97). In example (96), the dependent verb form is used to give the idea that the person has stolen something from someone, perhaps only once in his life. In contrast, in (97) (using the irregular nominalised form of the verb, see Section 4.2 in a permanent attribution construction) the nominalised form is used to express that the man is a thief by identity or occupation – he steals to make his living. In addition, example (98) shows the man who experienced the theft. The theft has occurred already with ongoing effects to the point of reference and the nominalised form is used.

- (96) mæze aməkəre mæze
 mɪʒɛ amɪ-kɪr-ɛ mɪʒɛ
 person DEP-steal-CL person
 ‘the person that steals’ (lit. person to steal from person)
- (97) zar akar
 zar akar
 man theft
 ‘a thief’ (lit. man thief)
- (98) mæze məkəre ga
 mɪʒɛ mɪ-kɪr-ɛ ga
 person NOM-steal-CL ADJ
 ‘the person who was robbed’

5.4.3 Relative clauses

Relative clauses are one of the final elements in a noun phrase (see Section 5.1). The structure of relative clauses in Moloko is shown in Figure 5.2. and consists of a pronoun (when necessary), a verb in dependent form (see Section 7.7) and a complement. A relative clause has no pronoun when the head of the relative clause is the subject of the relative clause. If the head of the relative clause has a grammatical role other than subject, then a pronoun is used.

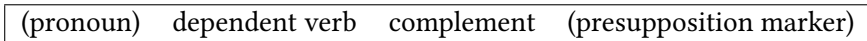


Figure 5.2: Structure of relative clause

The head noun of the relative clause can be either the subject or the direct object of the relative clause. When the head noun is the subject of the relative clause (99, 100, 101, 102, 108, 114), there is a gap for subject in the relative clause (marked

by Ø in the examples). For example, the understood subject of the relative clause in (99) is the same as *war dalaj* ‘the girl’ in the noun phrase. In the example, the Ø is a zero marking where the subject of the clause would otherwise be. There is a gap for subject because the subject of the relative clause is the same as the head of the noun phrase that is being modified. The relative clause is bolded and the noun phrase is delimited by square brackets in the examples in this section.

- (99) Disobedient Girl, S. 38

Metesle anga [war dalaj ngendəye **amazata aka ala**
 metɛɛ anga [war dalaj ngendijɛ **Ø ama-z=ata** **aka =ala**
 curse POSS child girl DEM DEP-bring=3P.IO on =to
 ‘The curse [is] belonging to that girl, (the one) who had brought’
avəya nengehe ana mæze ahay na.]
avija nɛngɛhe ana mɪzɛ =ahaj na]
 suffering DEM DAT person =Pl PSP
 ‘this suffering to the people.’

- (100) [Ləkwəye hawər ahay na, **amanday a hay a zawər ahay ava,**]
 [lɔkʷɔjɛ hawər =ahaj na **Ø ama-ndaj a haj a zawər =ahaj ava]**
 2P women =Pl PSP DEP-PROG at house GEN men =Pl in
 ‘You women, the ones that are living at your husband’s house,
 səy kogəsom ma a zawər aləkwəye ahay.
 sij kɔ-gʊs-ɔm ma a zawər =alɔkʷɔjɛ =ahaj
 only 2-catch-2P mouth GEN men =2P.POSS =Pl
 ‘you must listen to your husbands.’

- (101) Disobedient Girl, S. 33

Həmbəlom ága bərav va kəwaya [war dalaj na
 Həmbəlɔm á-g-a bərav =va kuwaja [war dalaj na
 God 3S+IFV-do-CL heart =PRF because of child girl PSP
 ‘God had gotten angry because of that girl,’
amecen sləmay bay ngəndəye.]
Ø amɛ-tʃɛŋ tɛmaj baj ngɪndijɛ]
 DEP-hear ear NEG DEM
 ‘that one that was disobedient.’

- (102) Nde [ləbara əwla ga amətaraləkwəye ma] nehe.
 ndɛ [ləbara =uwla ga Ø amə-tar =alɔk^wɔjɛ ma] nehe
 so news =1S.POSS ADJ DEP-call =2P.IO mouth DEM
 ‘So, this is my news that I have called you together (to hear).’ (lit. So, my news which called mouth to you [is] this here)

When the head noun is the direct object of the relative clause, the relative clause must contain a subject pronoun. The pronoun must be inserted before the verb in the relative clause (103–105). It is interesting that this subject pronoun of the relative clause is sometimes a free pronoun (104, 105, 109, see Section 3.1.1) but in other cases is a possessive pronoun (103, see Section 3.1.2). (103) and (104) are taken from the same narrative,¹² but they each use different pronouns for the subject of the relative clause. (103) uses the 3P possessive pronoun =atəta; (104) uses the free pronoun təta. In some cases, the relative clause will contain the direct object pronominal *na* following the dependent verb. The DO pronominal represents the noun phrase head. In the examples below, the direct object pronominal *na* is underlined. A gap for the direct object in the relative clause (104 and 109) is indicated by Ø.

- (103) Tasan oko ana [hay ata aməgəye na va.]
 t̩a-s=aŋ ɔk^wɔ ana [haj =atəta amɪ-g-ijɛ na va]
 3P+PFV-cut=3S.IO fire DAT house =3P.POSS DEP-do-CL 3S.DO PRF
 ‘They set fire to the house that the others had made.’
- (104) A slam a [hay t̩əta aməgəye a dala kosoko ava na], tolo.
 a ʎam a [haj t̩əta amɪ-g-ijɛ Ø a dala kɔsɔk^wɔ ava na]
 at place GEN house 3P DEP-do-CL at money market in PSP
 t̩ɔ-lɔ
 3P+PFV-go
 ‘To the place of the house that they made in the market, they went.’
- (105) [War háy ngəndəye **nok** ameze na va] bəlen ngəndəye na,
 [war haj ŋgɪndijɛ nɔk^w amɛ-ʒ-ɛ na =va] bɪlɛŋ ŋgɪndijɛ na
 child millet DEM 2S DEP-take-CL 3S.DO =PRF one DEM PSP
 ‘That grain that you have taken, that one [grain],’

¹² The entire narrative is not included in this work.

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káahaya kə ver aka.
 káá-h=a ja kə ver aka
 2S+POT-grind=PLU on grinding stone on
 ‘grind it on the grinding stone.’

(106) is more complex since the subject of the relative clause includes the speaker along with the head of the noun phrase (*mɪʒɛ ɛnɛŋ* = *ahaj* ‘some other people’). The relative clause begins with the 1PEX pronoun *lɪmɛ*. The speaker brought food to those people who helped him to drive the cows.

- (106) Dəyday anga fat amədəde va nángala a mogom
 dijdaj anga fat amɪ-dɛd-ɛ =va ná-ŋg =ala a mɔg^wɔm
 approximately POSS sun DEP-fall-CL =PRF 1S+IFV-return =to at home
 ‘At sunset, I went home’ (lit. [it was] approximately [time] belonging to the sun which already fell, I returned home)
- waya amazata ala dəf ana [məze enen ahay
 waja ama-z =ata =ala dəf ana [mɪʒɛ ɛnɛŋ =ahaj
 because DEP-take =3P.IO =away food DAT person another =Pl
 ‘to bring food for all the people’ (lit. because to bring food to some other people)
- lɪmɛ aməŋgele alay sla ahay jəyga na.]**
lɪmɛ amɪ-ŋgɛl-ɛ =alaj ɬa =ahaj dʒijga na]
 1PEX DEP-return-CL =away cow =Pl all PSP
 ‘that drove the cows [to Tokembere].’ (lit. we the ones returning all cows)

In all of the above examples, the head noun can be modified by other modifiers in addition to the relative clause. Sometimes, however, the relative clause itself is the entire noun phrase (107–108). These noun phrases that consist of relative clauses take no other noun phrase modifiers. Also, they are apparently limited in the type of clause construction in which they can occur. They can only be the predicate of a larger predicate nominal construction (see also Section 10.1.2). (107) and (108) are interrogative constructions with a predicate nominal structure (see Section 10.3.1). We found no natural examples where a headless relative clause served as a matrix component in a matrix verbal clause. (108) is an emphatic construction (see Section 10.3.5).

- (107) [Aməzəde dəray na] way?
 [Ø amɪ-ɜɪd-ɛ dəraj na] waj
 DEP-carry-CL head PSP who
 ‘Who will win?’ (lit. the one to carry the head, who?)
- (108) Snake, S. 7
 [Amədəvala okfom nehe na] almay?
 [Ø amə-dəv=ala ɔk^wfɔm nehe na] almaj
 DEP-fall=to mouse DEM PSP what
 ‘What made this mouse fall?’ (lit. to fall this mouse, what?)

Noun phrases with relative clauses can get quite complicated in Moloko even though they only occur in specific places in discourse. In (109), there are two relative clauses together, both modifying the head noun *ɛle* ‘thing.’ In the first (*ne ama-h=aŋ* the thing ‘that I told her’) the head of the noun phrase corresponds to the direct object of the verb in the relative clause (marked as Ø in the example). In the second (*amɪ-dɜ-ijɛ mɛ-g-ɛ baj* the thing ‘that I said she should not do’) there is an embedded complement clause within the relative clause (delimited by lines). In this second relative clause, the element that corresponds to the head of the noun phrase is represented by Ø within the complement clause.

- (109) Disobedient Girl, S. 29
 Agə na va [ele ne amahan
 à-gə na =va [ɛle ne ama-h=aŋ Ø
 3S+PFV-do 3S.DO =PRF thing 1S DEP-say=3S.IO
 ‘She has done the thing that I told her’ (lit. she did it, [the thing] that I told her;)
 aməjəye |mege bay| na] esəmey.
 amɪ-dɜ-ijɛ |mɛ-g-ɛ Ø baj| na] ɛɪmɛj
 DEP-tell-CL 3S+HOR-do-CL NEG PSP not so
 ‘she should not do, not so?’ (lit. [the thing] that [I] said she shouldn’t do, not so)

Plural head nouns in noun phrases containing a relative clause have so far only been noted in elicited relative clauses and their interpretation is ambiguous. In these noun phrases, speakers insert the plural *=ahaj* in one of two places: the plural *=ahaj* can occur immediately following the head noun, or in some instances it may follow the relative clause. (110) and (111) show the plural in front of the relative clause.

- (110) [Ele ahay **nok aməzəde na**], anga əwla bay.
 [ɛle =ahaj **nək^w amɪ-ʒɪd-ɛ na**] anga =uwla baj
 thing =Pl 2S DEP-take-CL PSP POSS =1S.POSS NEG
 ‘The things that you brought [are] not belonging to me.’
- (111) [Məze ahay **aməzəde dəray na**], tolo a mogom nə memle ga.
 [mɪʒɛ =ahaj **amɪ-ʒɪd-ɛ dəraj na**] tɔ-lɔ a mɔɡ^wɔm nə mɛmlɛ ga
 person =Pl DEP-take-CL head PSP 3P-go at home with joy ADJ
 ‘The people that won went home with joy.’

When the plural =ahaj occurs after the relative clause (113), exactly what is pluralised is ambiguous. When plural forms are used in Moloko discourse, which possibility is correct must be already clear from the context. (112) and (113) give the singular and plural head nouns with following relative clauses. In (113), the possibilities are chief’s house/ chief’s houses / chiefs’ house / chiefs’ houses,’ depending on if *ndam*, *haj*, *bahaj*, or all three are pluralised.

- (112) Dala slərele asan
 dala ɬɛrɛle a-s=aŋ
 money work 3S-please=3S.IO
 ana [məze **aməhere hay a bahay**.]
 ana [mɪʒɛ Ø **amɪ-hɛr-ɛ haj a bahaj**]
 DAT person DEP-build-CL house GEN chief
 ‘The person (the one) that built the chief’s house wants his wages (lit. work money pleases him).’
- (113) Dala slərele asata
 dala ɬɛrɛle a-s =ata
 money work 3S-please =3P.IO
 ‘Wages please [people].’
 ana [ndam **aməhere hay a bahay ahay**.]
 ana [ndam Ø **amɪ-hɛr-ɛ haj a bahaj** =ahaj]
 DAT people DEP-build-CL house GEN chief =Pl
 ‘the people that built the chief’s house/ chief’s houses / chiefs’ house / chiefs’ houses.’

The end of the relative clause is sometimes delimited by the presupposition marker *na* (99, 104, 107, 114, Chapter 11). *Na* indicates that the relative clause contains previously shared (or presupposed) information. *Na* also physically delineates the end of the relative clause. The relative clauses in the following examples

are bolded and the noun phrase is delimited by square brackets and in (114), the presupposition marker *na* is underlined.

- (114) Disobedient Girl, S. 38
 Metesle anga [war dalay ngəndəye **amazata aka ala**
 Metɛɛ anga [war dalaj ɲgəndəjɛ Ø **ama-z=ata** =aka =ala
 NOM-curse POSS child girl DEM DEP-take=3P.IO =on =to
 ‘The curse belongs to that young woman that brought’
 avəya nengehe ana mæze ahay na.]
 avija nɛɲgɛhe ana mɪzɛ =ahaj na]
 suffering DEM DAT person =Pl PSP
 ‘this suffering onto the people.’

Any information inside a relative clause must be known or presupposed information expected to be shared by the hearer. Relative clauses function in two ways. Firstly, relative clauses may specify the head noun among others. Secondly, in a narrative, relative clauses identify their content as carrying information concerning a key participant in the discourse and may allude to the moral of the story.

Consider the Disobedient Girl text (see Section 1.5 for the full narrative). The moral of the story is to instruct children (especially girls) to be obedient. There are relative clauses in S. 13 (115), S. 29 (109), S. 33 (101), and S. 38 (99). Note that all but one (115) of the relative clauses in this narrative concern the moral of the story. The Disobedient girl story involves suffering of a particular nature that was brought on by a particular girl who disobeyed specific instructions. The instructions that she disobeyed are in a relative clause within the husband’s lament when he finds her (109 from line 29). The disobedient girl is the head of two relative clauses at the end of the story, one citing her as the reason that God got angry (101 from line 33) and the other stating that she brought suffering to the Moloko people (99 from line 38). The only relative clause that does not concern information relevant to the moral of the story (115) is from a section in the narrative where the man instructs his wife on how much millet to grind. The man tells her to take one grain of millet. Then he specifies with a relative clause ‘that one grain of millet you have taken.’ This relative clause specifies the one grain of millet (from the other grains in the sack) that will be multiplied for them.

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(115) Disobedient Girl, S. 13

Asa asok aməhaya na,

asa à-s =ɔk amə-h =aja na

if 3S+PFV-please =2S.IO DEP+PFV-grind =PLU PSP

‘If you want to grind,’

kázaɗ war elé háy bəlen.

ká-zaɗ war elé haj bɛlɛŋ

2S+IFV-take child eye millet one

‘you take only one grain.’

[War elé háy bəlen ga nəndəye **nok amezəɗe na,**]

[war elé haj bɛlɛŋ ga ŋɛndijɛ **nɔk^w amɛ-ʒɪɗ-ɛ na**]

child eye millet DEM ADJ DEM 2S DEP-take-CL PSP

‘That one grain that you have taken,’

Káhaya na kə ver aka. Anjaloko de pew.

ká-h=aja na kə ver aka à-nz=alɔk^wɔ dɛ pɛw

2S+IFV-grind=PLU 3S.DO on stone on 3S+PFV-suffice=1PIN enough done

‘grind it on the grinding stone, and it will suffice for all of us.’

Note that the relative clauses that contain information about the moral of the story are at the end of the narrative; there are no relative clauses related to the moral of the story at the beginning of the narrative – the noun phrases in S.10–S.11 (116) that introduce her and identify her as disobedient contain no relative clause.

(116) Disobedient Girl, S. 10–11

Olo azala [dalaj] azlana [war dalaj ndana]

à-lɔ à-z =ala [dalaj] aɣana [war dalaj ndana]

3S+PFV-go 3S+PFV-take =to girl but child girl DEM

[cezlere ga.]

[tʃɛɣɛɛ ga]

disobedience ADJ

‘He went and took a wife, but that above-mentioned girl [was]

disobedient.’

In the Snake narrative (see Section 1.4), there is only one relative clause. This relative clause shows another function of relative clauses in discourse. The relative clause, *amə-dəv=ala ɔk^wfɔm nəhɛ* ‘the thing that caused the mouse to fall’

in line 7 (108), contains the first mention (albeit indirect) of the snake who is a central participant in the story and the reason that the story was told.

5.5 Coordinated noun phrases

The basic way to coordinate two participants in Moloko is to join two noun phrases by the adposition *nə* ‘with’ (see Section 5.6.1). Modifiers will have semantic scope over both of the coordinated elements. In the examples below, the noun phrases are delimited by square brackets and the adpositions are bolded.

- (117) Ləbara anga [[bahay a hay] **nə** [ndam slərele ahan ahay makar.]]
 ləbara anga [[bahaj a haj] **nə** [ndam ʔɪrɛɛ =ahan =ahaj
 news POSS chief GEN house with people work =3S.POSS =Pl
 makar]]
 three
 ‘The story [is] belonging to the chief of the house with his three
 workmen.’

- (118) Values, S. 47
 Nəmbədom a dəraj ava na,
 nə-mbɔd-ɔm a dəraj ava na
 1+PFV-change-1PEX at head in PSP
 ‘We have become’ (lit. we changed in the head)
 ka [[[kərkadaw ahay] **nə** [hərgov ahay] ga] [a bərzlan ava na]]
 ka [[[kərkadaw =ahaj] **nə** [hʊrgʷɔv =ahaj] ga] [a bərʒan ava] na]
 like monkey =Pl with baboon =Pl ADJ at mountain in PSP
 ‘like monkeys and baboons in the mountain.’

- (119) [[Zar] **nə** [hor ahan]] tolo a mehele ava.
 [[zar] **nə** [hʷɔr =ahan]] tɔ-lɔ a mɛ-hɛl-ɛ ava
 man with woman =3S.POSS 3P-go at NOM-unite-CL in
 ‘A man and his wife went to the meeting.’

5.6 Adpositional phrase

Adpositional phrases function to relate noun phrases to the clause, expressing physical, grammatical, or logical relationships. Friesen & Mamalis (2008) found

two types of adpositional phrases in Moloko; simple and complex. Simple adpositional phrases (see Section 5.6.1) consist of an adposition followed by the noun phrase. Complex adpositional phrases (see Section 5.6.2) consist of a noun phrase framed by a preposition and a postposition.

5.6.1 Simple adpositional phrase

There are seven adpositions in Moloko: *a* ‘to,’ *ana* ‘to’ *nə* ‘with,’ *aka* ‘on,’ *anga* ‘belonging to,’ *afa* ‘at the house of,’ and *ka* ‘like.’

The preposition *a* ‘at’¹³ marks the relationship of location of the event (at, to, in; 120, 121).

- (120) Cicada, S. 4
 Tənday tətalay a ləhe.
 tə-ndaj tə-tal-aj a lɛɛ
 3P-PRG 3P-walk-CL at bush
 ‘They were walking in the bush.’

- (121) Olo a Marva.
 ɔ-lɔ a Marva
 3S+PFV-go at Maroua
 ‘He/she went to Maroua.’

The adposition *ana* ‘to’ marks the indirect object which is the place where the action of the verb occurs; the recipient, benefactive, or malefactive (122, 123, see Section 9.2 for a discussion of semantic roles).

- (122) Tolo na, tasan oko **ana** hay ata aməgəye na va.
 tə-lɔ na ta-s=aŋ ɔkʷɔ **ana** haj =atəta amɪ-g-ijɛ na =va
 3P-go PSP 3P-cut=3S.DO fire DAT house =3P.POSS DEP-do-CL 3S.DO =PRF
 ‘They went and set fire to the house that they had built.’
- (123) Adəkaka alay **ana** Hərmbəlom.
 a-dəkʷ =aka =alaj **ana** Hərmbəlɔm
 3S-arrive =on =away DAT God
 ‘It reached God.’

¹³ This particle is a homophone with the genitive particle (Section 5.4.1).

The adposition *nə* ‘with’ marks the instrument (124) or comitative (accompaniment) relation (125, 126). The adposition is also used to form the verb focus construction (127, see Section 7.6.3).

- (124) Naslay sla **nə** mekec.
 na-ɬ-aj ɬa **nə** məkɛtʃ
 1S-slay-CL cow with knife
 ‘I kill the cow with a knife.’
- (125) Olo **nə** zar ahan.
 ɔ-lo **nə** zar =ahan
 3S-go with man =3S.POSS
 ‘She went with her husband.’
- (126) Zar **nə** hor ahan tɔta a mogom.
 zar **nə** h^wɔr =ahan tɔta a mɔg^wɔm
 man with woman =3S.POSS 3P at home
 ‘The man and his wife [are] at home.’
- (127) Nəskom awak **nə** məskwəme.
 nə-sʊk^wɔm awak **nə** mɪ-sk^wɔm-ɛ
 1S+PFV-buy/sell goat with NOM-buy/sell-CL
 ‘I really bought the goat.’ (lit. I bought the goat with buying)

The adposition *nə* ‘with’ also participates in forming comparative constructions in Moloko. When one noun phrase is compared with another, it is done by means of a clause construction using the verb *dal*, ‘overtake.’¹⁴ The standard of comparison (*baba* = *ahan* ‘his father’ in 128 and 129, and *mədəga* = *ahan* ‘his older sibling’ in 130) is the direct object of the verb. The quality being compared (*fɪber* ‘height’ in 128, *gədaŋ* ‘strength’ in 129, and *mɪfɪrɛ ɛlɛ* ‘knowledge’ in 130) follows in an adpositional phrase.

- (128) War ahan ádal baba ahan **nə** səber.
 war =ahan á-dal baba =ahan **nə** fɪber
 child =3S.POSS 3S+IFV-overtake father =3S.POSS with height
 ‘The child is taller than his father.’ (lit. his child surpasses his father with height)

¹⁴ The verb *dal* ‘overtake’ takes subject prefixes and carries aspectual tone. Other constructions can be employed when comparing people (97) or ideas (line 49 in the Values exhortation).

5 Noun phrase

- (129) War ahan ádal baba ahan nə gədan.
 war =ahanj á-dal baba =ahanj nə gədanj
 child =3S.POSS 3S+IFV-overtake father =3S.POSS with strength
 ‘The child is stronger than his father.’
- (130) War na, á-dal mədəga ahan nə məsəre ele.
 war na á-dal mədəga =ahanj nə mɪ-fɪr-ɛ
 child PSP 3S+IFV-overtake older sibling =3S.POSS with NOM-know-CL
 ɛɛ
 thing
 ‘The child is smarter than his older sibling.’ (lit. the child is greater than his older sibling with respect to knowledge)

No ‘less than’ comparatives were found in the data. Superlative constructions are possible but are not used often in Moloko culture. (131) illustrates what people say in an elicitation context.

- (131) Ádal məze ahay jəyga nə məsəre ele a lekʷel ava.
 á-dal mɪʒɛ =ahaj dʒijga nə mɪ-fɪr-ɛ ɛɛ a lekʷɛl
 3S+IFV-overtake person =Pl all with NOM-know-CL thing at school
 ava
 in
 ‘He/she is the smartest child in his school.’

The adposition *aka* ‘on’ is used with the verb *lɔ* ‘go’ to mark the purpose of a trip (132).

- (132) Aban olo **aka** yam.
 Abanj ɔ-lɔ **aka** jam
 Aban 3S-go on water
 ‘Aban goes to get water.’ (lit. she goes on water)

The adposition *anga* indicates possession. The predicate possessive construction is discussed in Section 10.1.2. In the possessive construction, *anga* indicates a possessive relationship between the noun in the adpositional phrase and the other noun phrase in the construction. In (133), *anga* indicates that *dəraj* ‘head’ is possessed by *lime* ‘us.’

- (133) [Dəray ga] [aŋga ləme.]
 [dəraj ga] [aŋga lɪmɛ]
 head ADJ POSS 1PEX
 ‘We got the head.’ (lit. the head, belonging to us)

The adposition *afa* ‘at the house of’ plus a noun phrase gives a location at the house of the referent specified in the noun phrase (134).

- (134) Nolo afa bahay.
 nɔ-lɔ afa bahaj
 1S-go at house of chief
 ‘I go to the chief’s house.’

The adposition *ka* ‘like’ introduces an adverbial complement that expresses manner. *Ka* appears twice in (135). In the second instance, *ka* carries the directional extension *ala* ‘towards.’

- (135) Values, S. 47
 Nəmbədom a dəray ava na,
 nə-mbɔd-ɔm a dəraj ava na
 1+PFV-change-1PEX at head in PSP
 ‘We have become’ (lit. changed in the head)
 [ka kərkadaw ahay nə hərgov ahay ga a bərzlan ava na],
 [ka kərkadaw =ahaj nə hərg^wɔv =ahaj ga a bərzlan ava na]
 like monkey =Pl with baboon =Pl ADJ at mountain in PSP
 ‘like monkeys and baboons on the mountains,’
 [ka ala kəra na], nəsərom dəray bay pat.
 [ka =ala kəra na] nə-sɔr-ɔm dəraj baj pat
 like =to dog PSP 1+PFV-know-1PEX head NEG all
 ‘[and] like dogs, we don’t know anything!’

5.6.2 Complex adpositional phrase

There are two complex adpositional phrases, each composed of the combination of a preposition and a postposition that surround the noun phrase. The adpositions give locational information. The first, *kə...aka* ‘on’ marks the noun phrase as being a location on which the event expressed by the verb is directed. It can be employed in a physical sense (136–138) or a figurative sense (139).

5 Noun phrase

- (136) Cicada, S. 9
 Kafədom anaw **kə** mahay əwla **aka**.
 ka-fəɗ-əm an=aw **kə** mahaj =uwla **aka**
 2+HOR-place-2P DAT=1S.IO on door =1S.POSS on
 ‘You should place [the tree] at my door.’
- (137) Enjé **kə** delmete **aka** a slam enen.
 ɛ-ndʒ-ɛ **kə** delmɛtɛ **aka** a ɬam ɛnɛŋ
 3S-leave-CL on neighbor on at place another
 ‘He left to go to his neighbor at some other place.’
- (138) Azad oloko **kə** dəray a məwta **aka**.
 à-zad ɔləkʷɔ **kə** dəraj a muwta **aka**
 3S+PFV-carry wood on head GEN truck on
 ‘He/she carried the wood on top of the truck.’ (lit. on the head of the truck)
- (139) Hərməlom agə bərav va **ka** war anga məze dedelen ga **aka**.
 Hərməbəlɔm a-gə bərav =va **ka** war anga mɪʒɛ dɛdɛlɛŋ ga **aka**
 God 3S-do heart =PRF on child POSS person black ADJ on
 ‘God was angry with the black man’s child.’ (lit. God did heart on the child that belongs to the black person)

The second complex adpositional phrase, *a...ava* ‘in,’ the prepositional and postposition surround a noun phrase to mark that noun phrase as being a physical location in which the action of the verb is directed (140 and 141).

- (140) Olo a kosoko **ava**.
 ɔ-lɔ a kɔsɔkʷɔ **ava**
 3S-go at market in
 ‘He/she goes to market.’
- (141) Afad dala a ombolo **ava**.
 a-fad dala a ambɔlə **ava**
 3S-put money at sack in
 ‘He/she put the money into [his] sack.’

The postpositions *aka* ‘on’ and *ava* ‘in’ have the same forms as the verb adpositional extensions =*aka* ‘on’ and =*ava* ‘in’ (see Section 7.5.1). The extensions

permit the presence of the complex adpositional phrase which gives further precision concerning the location of the event (142 and 143¹⁵). In the examples, the postpositions and verbal extensions are both bolded.

- (142) Afə́d**aka** war élé háy na **kə** ver **aka**.
a-fə́d =**aka** war élé háj na **kə** ver **aka**
3s-place =on child eye millet PSP on stone on
‘She put the grain of millet on the grinding stone.’

- (143) Disobedient Girl, S. 26
Məmətava alay **a** ver **ava**.
mə-mət =**ava** =alaj a ver **ava**
NOM-die =in =away at room in
‘She died in the room.’

¹⁵ Even though the verb in this example has verbal extensions, it is not conjugated for subject since it is a climactic point in the story where nominalised forms are often found. This is discussed further in Sections 7.6 and 8.2.3.

6 Verb root and stem

In addition to analysing the phonology of Moloko, Bow (1997a) studied verb morphology and also produced notes on the grammar of Moloko which were expanded by Boyd (2003); Friesen & Mamalis (2008) is an analysis of the Moloko verb and verb phrase. The next four chapters are based on Friesen & Mamalis (2008), but the data and analysis have been re-worked, reorganised, and expanded.

The verb is the centre of the clause in Moloko. It expresses the action of an event, or a situation or state. It may be the only element in a clause, or it may be accompanied by noun phrases or pronouns expressing the subject, the direct object, and the indirect object of the verb, adpositional phrases expressing location, and/or discourse markers. Ideophones (Section 3.6) figure greatly in the expression of the action, both when they function as adverbs and when they fill the verb slot in a clause.

Typical of a Chadic language, Moloko has a variety of extensions that modify the sense of the verb stem.¹ It has 6 extensions which specify location of the event, direction with respect to centre of reference, and the Perfect. An underspecified valence system (Chapter 9) allows variable transitivity usage for a given verb. In Moloko, valence-changing operations are not achieved through morphological modifications of the verb (for example with causative, applicative, and passive affixes). Transitivity is a clause-level property that carries a grammatical function.

Because of its complexity, the Moloko verb and verb phrase are treated in four separate chapters. We distinguish verb root, stem (both described in Chapter 6), verb word – renamed ‘verb complex’ for Moloko (verb stem plus affixes and extensions, Chapter 7), verb phrase (Chapter 8), and finally verb and transitivity types (Chapter 9).

¹ Note that the term ‘extension’ for Chadic languages has a different use than for Bantu languages. In Chadic languages, ‘extension’ refers to particles or clitics in the verb word or verb phrase.

6.1 The basic verb root and stem

Bow (1997a) found that the verb root in Moloko consists of one to four consonants and perhaps a vowel. The verb root by itself never occurs in the language. In discussing the verb in Moloko it is more profitable to consider the verb stem as the most basic lexical unit. The Moloko verb stem itself is already complex. Friesen & Mamalis (2008) determined that in order to pronounce a verb stem in Moloko, a speaker needs to know the following six features:

- the consonantal skeleton of the verb root (Section 6.2).
- if the stem carries the *-aj* suffix (Section 6.3).
- if the root has an underlying vowel (Section 6.4).
- if the stem carries the *a-* prefix (Section 6.5).
- the prosody of the stem (labialised, palatalised, or neutral, Section 6.6).
- the tone class of the stem (high, low, or toneless, Section 6.7).

The structural arrangement of the six features is diagrammed in Figure 6.1.

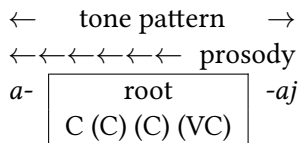


Figure 6.1: Structure of the verb stem

6.2 The consonantal skeleton of the root

Moloko verb roots are like those of other Afroasiatic languages in that they are built on a consonantal skeleton. Bow (1997a) found that the verb root consists of one to four consonants, although a skeleton of two consonants is most common.² That Moloko verb roots are based on a consonantal skeleton can be evidenced by two facts, both of which are illustrated in Table 6.1. (adapted from Bow 1997a).

² Bow's (1997) database includes 26 one-consonant verbs, 231 two-consonant verbs, 83 three-consonant verbs, and 10 four-consonant verbs.

6.2 The consonantal skeleton of the root

Firstly, the consonants display a unique stability when the verb is inflected.³ The vowels, on the other hand, change with the prosody of the inflection and whether or not the word carries stress.⁴ Secondly, there are verb roots that consist simply of one consonant and a prosody. These have no underlying root vowel, but they will acquire their vowels in the inflections.

The underlying form of a verb stem is defined as the consonantal skeleton plus the optional presence of an underlying vowel, *-aj* suffix, and *a-* prefix, potential prosody, and tone (see Sections 6.3–6.7). In the examples in Table 6.1 and in the rest of this section, the underlying form will be given when necessary in addition to the phonetic pronunciation. The tone class is not shown.

Table 6.1: Consonantal skeleton of selected verb stems and selected word forms

Root type ↓	Underlying form of stem	3s Perfective <i>a-</i>	3s Perfective with directional <i>a-</i> = <i>ala</i>	1PIN Perfective <i>mɔ-</i> <i>-ɔk^w</i>	Nominalised form <i>mɪ-</i> (<i>-ij</i>)- <i>ε</i>
One-consonant					
neutral	/p j /	<i>a-p-aj</i> 'he opened'	<i>a-p=ala</i> 'he opened towards'	<i>mɔ-p-ɔk^w</i> 'we opened'	<i>mɪ-p-ij-ε</i> 'opening'
palatalised	/g ^e /	<i>ε-g-ε</i> 'he did'	<i>a-g=ala</i> 'he did towards'	<i>mɔ-g^w-ɔk^w</i> 'we did'	<i>mɪ-g-ij-ε</i> 'doing'
labialised	/l ^o /	<i>ɔ-lɔ</i> 'he went'	<i>a-l=ala</i> 'he came towards'	<i>mɔ-lɔh-ɔk^wa</i> 'we went'	<i>mɪ-l-ij-ε</i> 'going'
Two-consonant					
neutral	/f d /	<i>a-fad</i> 'he put'	<i>a-fad=ala</i> 'he put towards'	<i>mɔ-fɔd-ɔk^w</i> 'we put'	<i>mɪ-fid-ε</i> 'putting'
palatalised	/k g ^e /	<i>ε-kɪg-ε</i> 'he sowed'	<i>a-kɔg=ala</i> 'he sowed towards'	<i>mɔ-kɔg^w-ɔk^w</i> 'we sowed'	<i>mɪ-kɪg-ε</i> 'sowing'
labialised	/ndaɣ -j ^o /	<i>a-ndaɣ-ɔj</i> 'he exploded'	<i>a-ndaɣ=ala</i> 'it exploded towards'	<i>mɔ-ndaɣ-ɔk^w</i> 'we exploded'	<i>mɪ-ndeɣ-ε</i> 'exploding'
Three-consonant					
neutral	/p d k-aj /	<i>a-pədɔk-aj</i> 'he woke'	<i>a-pədɔk=ala</i> 'he woke up'	<i>mɔ-pɔdɔk^w-ɔk^w</i> 'we woke up'	<i>mɪ-pɪdɪk-ε</i> 'waking'
palatalised	/ts f d ^e /	<i>ε-tsɔfɔd-ε</i> 'he asked'	<i>a-tsɔfɔd=ala</i> 'he asked'	<i>mɔ-tsɔfɔd-ɔk^w</i> 'we asked'	<i>mɪ-tsɪfɪd-ε</i> 'questioning'
labialised	/b r ts -j ^o /	<i>ɔ-bɔrts-ɔj</i> 'he pounded'	<i>a-bɔrts=ala</i> 'he pounded towards'	<i>mɔ-bɔrts-ɔk^w</i> 'we pounded'	<i>mɪ-bɔrts-ε</i> 'pounding'

^a Irregular form with epenthetic *h* added between vowels. For complete conjugation see Appendix B). /l^o / is the only single consonant verb root that is labialised.

³ Note there are consonantal allophones in palatalised and labialised words.

⁴ Since stress is phrase-final, the final syllable of these elicited examples will always carry a 'full' vowel.

Mamalis found that the underlying consonants in a verb root can most easily be identified from the 2s imperative form (Table 6.2 from Friesen & Mamalis 2008). Note that palatalisation will cause an underlying /s/ to be expressed as [ʃ] (see Section 2.2.3). The same verb stems are included as were in Table 6.1 as well as a few more. Prosody, underlying vowels (lines 12, 15), and the *-aj* suffix (lines 4-7, 15) can also be seen in the imperative form; these features will be discussed in the sections below.

Table 6.2: Underlying form of selected verb stems and imperative forms

Line	Underlying form showing consonants in verb root	2s Imperative form	Gloss
Neutral prosody			
1	/f d /	<i>fad</i>	‘put’
2	/g s/	<i>gas</i>	‘catch’
3	/m nz r/	<i>mənzar</i>	‘look’
4	/p -j /	<i>p-aj</i>	‘open’
5	/t l-aj/	<i>tal-aj</i>	‘walk’
6	/t-aj/	<i>t-aj</i>	‘kill (by cutting the throat)’
7	/p d f k-aj /	<i>pəɖak-aj</i>	‘wake’
Palatalised prosody			
8	/ g ^e /	<i>g-ε</i>	‘do’
9	/ s ^e /	<i>ʃ-ε</i>	‘drink’
10	/ ḳ g ^e /	<i>ḳɪg-ε</i>	‘bring’
11	/ ts f d ^e /	<i>tsɪfɪd-ε</i>	‘ask’
12	/ ts a n ^e /	<i>tʃɛŋ</i>	‘understand’
Labialised prosody			
13	/ l ^o /	<i>lɔ</i>	‘go’
14	/ z m ^o /	<i>zɔm</i>	‘eat’
15	/ nd a ḳ -j ^o /	<i>ndɔḳ-ɔj</i>	‘explode’

The consonants in a verb stem in Moloko are remarkably constant. We have found only two irregular verbs where there are changes in the verb consonants. Firstly, the irregular verb /l^o/ adds an epenthetic [h] in some conjugations to break up vowels (the full conjugation of /l^o/ is in Appendix B). Secondly, the

root-final *d* of the verb /z d/ ‘take’ drops off when affixes and clitics are added (1, 2). This process does not happen with the phonologically similar verb /f d/ ‘put’ (3, 4).

- (1) /z d/ =aw =ala → [zawala]
 take[2S.IMP] =1S.IO =to ‘give to me’
- (2) /z d/ =aka → [zaka]
 take[2S.IMP] =on ‘give again’ (on top of what you gave before)
- (3) /f d/ =aw =ala → [faɖuwala]
 put[2S.IMP] =1S.IO =to ‘put on me’
- (4) /f d/ =aka → [faɖaka]
 put[2S.IMP] =on ‘put again’ (on top of what you put before)

6.3 Underlying suffix

Moloko verb stems can be divided into two subclasses based on whether an underlying suffix is present or not. Slightly over 70% of the verb stems in Bow’s (1997) data take the suffix *-aj*, which can have different surface variants depending on the prosody of the stem.

Friesen and Mamalis found that although the *-aj* suffix appears to have no semantic value, it does allow certain consonants to be verb root final which would otherwise not be permitted.⁵ However, for many verb stems, it appears to at least synchronically be simply a place-holding suffix that drops off whenever other suffixes or extensions are attached to the verb (compare columns 3 and 4 in Table 6.1.). (5) and (6) show the same verb complex with (5) and without (6) the *-aj* suffix.⁶

- (5) Apay.
 a-p-aj
 3S-open-CL
 ‘It opens.’

⁵ I.e., *b*, *mb*, *d*, *nd*, *dz*, *nz*, *g*, *ŋg*, *g^w*, *ŋg^w*, *ts*, *w*, *j*. See discussion on word final consonants in Section 2.5.1.

⁶ The first line in each example is the orthographic form. The second is the phonetic form (slow speech) with morpheme breaks.

- (6) Apala.
 a-p=ala
 3S-open=to
 ‘It opens towards.’

Verb stems with the underlying suffix but no underlying (i.e., a neutral) prosody take the surface suffix form [-aj]; verb stems that are labialised carry the surface form suffix [-ɔj].⁷ With the exception of verbs with the root-final consonant /n/,⁸ verb stems that are palatalised carry the surface form suffix [-ɛ]. We interpret the [-ɛ] in palatalised verbs as the palatalised variant of the -aj suffix for two reasons. First, [-ɛ] patterns the same way as the -aj suffix (dropping off with its prosody whenever another suffix or extension is added). Second, the same rules of restriction of final stem consonants apply for palatalised verb stems as for other verb stems (see Section 2.5.1), and so the presence of [-ɛ] allows root-final consonants which would otherwise be restricted. For example, /d/ and /g/ are both not permitted as word-final consonants (Section 2.2.4), but the presence of [-ɛ] allows verbs like [d-ɛ] and [g-ɛ]. Examples from verb roots of one, two, and three consonants are shown in Table 6.3.⁹

Because the suffix surfaces only word-finally, whenever the relevant verb is pronounced in isolation (and is thus phrase-final), the suffix syllable takes the phrase-final stress, necessitating a full vowel. It is therefore pronounced [aj] (see example 7) in verbs with neutral prosody, [ɔj] in labialised verb stems, and [ɛ] in palatalised verb stems). Whenever the verb is not phrase-final, the vowel drops and an epenthetic schwa occurs, rendering the pronunciation [i] for labialised and neutral prosody verbs (8) and [ɪ] for palatalised verbs.

- (7) [a-paɔ-aj]
 3S-crunch-CL
 ‘It crunches.’
- (8) [a-paɔ-ij ʃɛʃɛ]
 3S-crunch-CL meat
 ‘He eats meat.’

⁷ Prosody is applied to the verb stem since the -aj suffix takes on the prosody of the stem (prosodies spread leftwards, Section 2.1).

⁸ Stems ending in [ŋ] are all palatalised, e.g., *tʃɛŋ* ‘understand.’ *tʃɪdʒɛŋ* ‘lose.’ *ndʒɛɾɛŋ* ‘groan.’ *mbɛʃɛŋ* ‘relax.’ *ndɛʃɛŋ* ‘make cold.’ *bɪrʒɛŋ* ‘count.’ *mbɛʃɛŋ* ‘put out.’ and *mbɛʒɛŋ* ‘spoil’. We interpret these verbs as having /n/ as final consonant because the *ŋ* cannot be interpreted as direct or indirect object and also there are no other stems which end in *ŋ*.

⁹ We found no three-consonant palatalised verb stems in the data. Labialised verb stems without the -aj suffix were rare.

Table 6.3: Stems with and without underlying suffix

Number of consonants	One-consonant verb root	Two-consonant verb root	Three-consonant verb root
Stems with no suffix			
No underlying prosody		<i>tax</i> ‘reach out’ <i>ʒaŋ</i> ‘begin’	<i>mənzar</i> ‘see’ <i>təkam</i> ‘taste’
Labialised verb stems	<i>lɔ</i> ‘go’	<i>zɔm</i> ‘eat’	<i>sɔk^wɔm</i> ‘buy/sell’
Palatalised verb stems		<i>tʃeŋ</i> ‘understand’	<i>mbɛʒeŋ</i> ‘count’ <i>mbɛʒeŋ</i> ‘spoil’
Stems with suffix			
No underlying prosody [-aj] suffix	<i>l-aj</i> ‘dig’ <i>dz-aj</i> ‘say’	<i>hab-aj</i> ‘dance’ <i>lag-aj</i> ‘accompany’	<i>tuwad-aj</i> ‘cross’ <i>təbat-aj</i> ‘repair’
Labialised verb stems [-ɔj] suffix		<i>tsɔk^w-ɔj</i> ‘undress’ <i>ʃɔr-ɔj</i> ‘climb’	<i>tsk^wɔs-ɔj</i> ‘cross legs’ <i>tslɔk^w-ɔj</i> ‘drip’
Palatalised verb stems [-ɛ] suffix	<i>g-ɛ</i> ‘do’ <i>ʒ-ɛ</i> ‘smell’	<i>tʃik-ɛ</i> ‘stand up’ <i>ʒig-ɛ</i> ‘plant’	

Table 6.4 (adapted from Bow 1997a and Boyd 2003) illustrates pairs of verb stems that have the same consonantal shape but with and without the *-aj* suffix.

6.4 Underlying vowel in the root

Bow (1997a) noted that no Moloko verb root has more than one underlying internal vowel and many Moloko verb roots have no underlying vowels (see Table 6.2.).¹⁰ The presence of an underlying internal vowel in the verb stem (if any) can be determined by studying the second plural imperative. Bow illustrates the following minimal pair. The verb stems /ts r/ ‘climb’ and /tsar/ ‘taste good’ have identical surface forms in the second person singular imperative (9, 10) due to stress on the final syllable, which necessitates a full vowel. However, the presence of the underlying vowel can be seen in the second person plural imperative (11, 12).¹¹ The verb root for ‘climb’ does not have an underlying vowel, so a schwa

¹⁰ Bow 1997a, page 24. Her database of 350 verb stems has 189 with the internal vowel.

¹¹ The 2P imperative is formed by adding the suffix *-ɔm* and labialisation prosody.

Table 6.4: Verb stems with and without *-aj* suffix

Underlying Form of Stem	Verb Stem	Gloss
/bar/	<i>bár</i>	‘shoot an arrow’
/bar-aj/	<i>bár-áj</i>	‘toss and turn when sick’
/tsar/	<i>tsár</i>	‘taste good’
/tsar-aj/	<i>tsàr-àj</i>	‘tear’
/dar/	<i>dàr</i>	‘move’
/dar-aj/	<i>dàr-àj</i>	‘plant’
/ɖak/	<i>ɖàk</i>	‘fill up a hole’
/ɖak-aj/	<i>ɖàk-áj</i>	‘show’/‘tell’
/fad/	<i>fàɖ</i>	‘put’
/fad-aj/	<i>fáɖ-áj</i>	‘fold’
/f t/	<i>fàt</i>	‘grow’ (plant)
/fat-aj/	<i>fàt-àj</i>	‘lower’
/g r/	<i>gár</i>	‘grow’ (human)
/gar-aj/	<i>gár-àj</i>	‘govern’
/h ɓ/	<i>hàɓ</i>	‘break’
/haɓ-aj/	<i>hàɓ-àj</i>	‘dance’
/k d/	<i>káɖ</i>	‘kill’
/kad-aj/	<i>káɖ-áj</i>	‘prune’
/ɬ r/	<i>ɬár</i>	‘send’
/a-ɬar/	<i>ɬàr-áj</i>	‘slide’
/mb d/	<i>mbàɖ</i>	‘change position’
/mbad-aj/	<i>mbáɖ-áj</i>	‘swear’
/ng r/	<i>ngár</i>	‘prevent’
/ngar-aj/	<i>ngàr-àj</i>	‘rip’
/s k/	<i>sák</i>	‘multiply’
/sak-aj/	<i>sàk-áj</i>	‘sift’
/t r/	<i>tár</i>	‘enter’
/tar-aj/	<i>tàr-áj</i>	‘call’
/v r/	<i>vár</i>	‘roof’ (a house)
/var-aj/	<i>vàr-àj</i>	‘chase away’
/w l/	<i>wál</i>	‘attach’
/wal-aj/	<i>wál-áj</i>	‘look among things’
/w s/	<i>wàs</i>	‘cultivate’
/was-aj/	<i>wàs-áj</i>	‘populate’

is inserted and labialised to become [ʊ] (11). On the other hand, the verb root for ‘taste good’ has an internal vowel which becomes [ɔ] when labialised (12).

- (9) [tsar]
‘climb!’ (2s)
- (10) [tsar]
‘taste good!’ (2s)
- (11) [tsʊr-ɔm]
‘climb!’ (2P)
- (12) [tsɔr-ɔm]
‘taste good!’ (2P)

Table 6.5 (from Friesen & Mamalis 2008) shows several other examples. Single consonant roots have no internal vowel (line 1). Two and three-consonant roots may have no internal vowel (lines 2-4) or an internal vowel (lines 5-7). All four-consonant roots have an internal vowel (line 8).

Table 6.5: Presence or absence of internal vowel

Line	2s Imperative	2P Imperative	Consonantal skeleton with stem vowel	Gloss
No internal vowel				
1	<i>ʔ-aj</i>	<i>ʔ-ɔm</i>	/ʔ/	‘kill’
2	<i>tar</i>	<i>tʊr-ɔm</i>	/t r/	‘enter’
3	<i>həm-aj</i>	<i>hʊm-ɔm</i>	/h m-aj/	‘run’
4	<i>mənzar</i>	<i>mʊnzʊr-ɔm</i>	/m nz r/	‘see’
Internal vowel				
5	<i>tar-aj</i>	<i>tʊr-ɔm</i>	/tar-aj/	‘call’
6	<i>ndaḵ-ɔj</i>	<i>ndaḵ-ɔm</i>	/ˈndaḵ/	‘explode’
7	<i>məndats-aj</i>	<i>mʊndʊts-ɔm</i>	/m ndats-aj/	‘gather’
8	<i>bədzəgam-aj</i>	<i>bʊdzʊgˈɔm-ɔm</i>	/b dz gam -j/	‘crawl’

Bow discovered that when an underlying vowel exists in the root, it always immediately precedes the final root consonant, so possible verb roots could take the

following forms (disregarding affixes): C, CC, CaC, CCC, CCaC, CCCaC. These ‘full’ vowels will remain full in all inflections of the verb, and will be affected by the prosodies of the forms, resulting in surface [a, ε, ɔ, œ]. In syllables where there are no underlying vowels, an epenthetic schwa is inserted between certain consonant clusters to facilitate pronunciation in the inflected forms. On stressed syllables, the schwa will become its full vowel counterpart (see example 9).

6.5 Underlying prefix

The verb stems in one class of bi-consonantal verbal stems take subject prefixes with the full vowel /a/ instead of the epenthetic schwa. Bow (1997a) called this a historical *a-* prefix on the verb stem. She reported that 83 out of 231 bi-consonantal verb stems that she studied have the (now frozen) *a-* prefix. Whether a verb stem has this prefix or not can be determined from the nominalised form. Bow illustrates the presence of this prefix with the minimal pair /a-ndaw/ ‘swallow’ and /ndaw/ ‘insult.’ (13) and (14) show the nominalised form of the two verb stems.¹² The verb stem [mɪ-ndɛw-ɛ] ‘swallow’ does not have the *a-* prefix. The verb stem [mɛ-ndɛw-ɛ] ‘insult’ has the *a-* prefix (shown by the full vowel [ɛ] in the prefix).

- (13) mɛndewe
mɪ-ndɛw-ɛ
NOM-swallow-CL
‘swallowing’

- (14) mendewe
mɛ-ndɛw-ɛ
NOM-insult-CL
‘insulting’

Bow proposed that synchronically, the *a-* prefix verb stems represent a separate class of verb stems. Table 6.6. (adapted from Bow 1997a) shows other minimal pairs giving evidence of the presence of the *a-* prefix. Those with *mɛ* in the initial syllable contain the *a-* underlying prefix; those with *mɪ* in the initial syllable do not have the *a-* prefix.

Note that the *a-* prefix carries very little lexical weight; there appears to be no semantic reason for its presence. Contrast is lost between *a-* prefix verb forms and those without the prefix in irrealis mood (see Section 7.4.3). (15) and (16) show

¹² The nominalised form has a *mɪ-* or *mɛ-* prefix, an *-ɛ* suffix, and is palatalised (Section 7.6).

Table 6.6: Minimal pairs showing presence of historical /a-/ prefix

Underlying form	Gloss	Nominalised form	Underlying tone of stem ^a
/ndaw -j/	‘swallow’	[mɪ-ndɛw-ɛ]	toneless
/a-ndaw -j/	‘insult’	[mɛ-ndɛw-ɛ]	L
/k̥ r/	‘pierce’	[mɪ-k̥ɪr-ɛ]	H
/a-k̥ r/	‘kick’	[mɛ-k̥ɪr-ɛ]	L
/tsah -j/	‘ask’	[mɪ-tʃɛh-ɛ]	H
/a-tsah -j/	‘scar’	[mɛ-tʃɛh-ɛ]	L
/law -j/	‘hang’	[mɪ-lɛw-ɛ]	L
/a-law -j/	‘mate’	[mɛ-lɛw-ɛ]	L
/k w -j/	‘get drunk’	[mɪ-kuw-ɛ]	L
/a-k w -j/	‘search’	[mɛ-kuw-ɛ]	L

^a Note that the underlying tone of *a-* prefix verb stems is always low (see discussion in Section 6.7)

that the Potential form for the verbs /a-ndaw/ ‘swallow’ and /ndaw/ ‘insult’ are identical.

- (15) Káandáway.
káá-ndaw-aj
2S+POT-swallow-CL
‘He will swallow.’
- (16) Káandaway.
káá-ndaw-aj
2S+POT-insult-CL
‘He will insult.’

6.6 Prosody of verb stem

Bow (1997a) found that in their underlying lexical form, Moloko verb stems are either labialised, palatalised, or without a prosody. The database in 0 Appendix A shows that 83 out of 350 verb stems carry a prosody (61 are palatalised and 22 are labialised).¹³ Although prosodies can carry predictable lexical weight in some

¹³ The effects of labialisation and palatalisation are discussed in Section 2.1. Note that there are also some morphological processes where palatalisation or labialisation is a part of the morpheme. For example, palatalisation is part of the formation of the nominalised form (Section 7.6), and labialisation is a part of the 1P and 2P subject forms Section 7.3.1.

other related languages,¹⁴ in Moloko, labialisation and palatalisation carry very little lexical weight. Table 6.7 (adapted from Bow 1997a, with additional data) illustrates several minimal pairs (or near minimal pairs) for prosody. There appears to be no predictable semantic connection between verb stems of differing prosodies.

The underlying labialisation and palatalisation prosodies are lost when most suffixes or clitics¹⁵ are added, compare example (17) and (18) for the verb /s -j^e / ‘drink.’

- (17) Nese.
nɛ-ʃ-ɛ
1S+PFV-drink-CL
‘I drank.’
- (18) Nasala.
na-s=ala
1S+PFV-drink=to
‘I drank already.’ (lit. I drank towards)

6.7 Tone classes

Bow (1997a) concluded that verb stems in Moloko belong to one of three underlying tone classes: high (H), low (L), or toneless (Ø). She discovered that the underlying tone of a verb stem can be identified by comparing the 2S imperative with the Potential form. The Potential form has a high tone on a lengthened subject prefix (see Section 7.4.3). If the tone melody of the stem is high on both imperative and Potential forms, then that stem has an underlying high tone. If the tone melody is mid or low on both forms due to the presence of depressor consonants (see Section 2.4.1), then the stem has underlying low tone. If the tone melody of the stem syllable is low in the imperative but high following the high tone of the subject prefix in the Potential form, that verb stem is toneless. The high tone of the Potential form of the subject prefix spreads to the toneless stem. For the imperative form of a toneless stem, a default low tone is applied to the stem.

¹⁴ All causatives in Muyang involve the palatalisation of the root (Smith 2002). In Mbuko, the data show a correlation between palatalisation and pluractionality (Gravina 2001).

¹⁵ The indirect object pronominal enclitic does not always influence the verb prosody; see Section 7.3.3 and 2.6.1.3.

Table 6.7: Minimal pairs for prosody of verb stems

Neutral	Labialised	Palatalised
<i>kak-aj</i>	<i>kɔk^w-ɔj</i>	<i>kɪg-ɛ</i>
<i>mbar</i>		<i>mbɛ</i>
<i>mbas-aj</i>		<i>mbɛʃɛŋ</i>
<i>nzar-aj</i>		<i>ndʒɛrɛŋ</i>
<i>s-aj</i>		<i>ʃ-ɛ</i>
<i>v-aj</i>		<i>v-ɛ</i>
<i>dzak-aj</i>	<i>tsɔk-ɔj</i>	<i>tʃɪk-ɛ</i>
<i>dak-aj</i>	<i>dzɔk^w-ɔj</i>	
<i>fak-aj</i>	<i>dɔk^w-ɔj</i>	
<i>gaz-aj</i>	<i>fɔk^w-ɔj</i>	
<i>kar-aj</i>	<i>gʊz-ɔj</i>	
<i>l-aj</i>	<i>kɔr-ɔj</i>	
<i>tah-aj</i>	<i>lɔ</i>	
<i>pal-aj</i>	<i>ʈɔh^w-ɔj</i>	
<i>sab-aj</i>	<i>pɔl-ɔj</i>	
<i>sak-aj</i>	<i>sɔb-ɔj</i>	
<i>sar</i>	<i>sɔk^w-ɔj</i>	
<i>takas-aj</i>	<i>sɔr-ɔj</i>	
<i>tah-aj</i>	<i>tɔk^wɔs-ɔj</i>	
<i>zar-aj</i>	<i>ʈɔh^w-ɔj</i>	
	<i>zɔr-ɔj</i>	

A minimal triplet is shown in Table 6.8 (from Friesen & Mamalis 2008). Line 1 shows a High tone verb stem. The tone on the verb stem is high in both the imperative and Potential forms. Line 2 shows a low tone verb stem with low tone in the imperative form and mid in the Potential form. Line 3 shows a toneless verb stem. This verb stem carries no inherent tone of its own and its surface tone is low in the imperative form and takes the high tone of the prefix in the Potential form.

Table 6.8: Tone class contrasts

Line	Underlying form of stem	Imperative Form	Potential Form	Tone Class
1	/d r/	<i>dár</i> 'Burn!'	<i>náá-dár</i> 'I will burn'	H
2	/a-dar-aj/	<i>dàr-āj</i> 'Plant!'	<i>náá-dār-āj</i> 'I will plant'	L
3	/d r/	<i>dàr</i> 'Recoil!'	<i>náá-dár</i> 'I will recoil'	Ø

Mamalis (Friesen & Mamalis 2008) studied tone patterns in Moloko verbs. Table 6.9 (adapted from Friesen & Mamalis 2008) shows the imperative and Potential forms and the underlying tone patterns for different verb stems.

Tone patterns in Moloko verbs are summarised in Table 6.10 (from Friesen & Mamalis 2008), which shows the tone pattern on the stem for the imperative and Potential forms for the three underlying tone forms. All verb stems in each class have the same pattern, as follows (note that the tone in parentheses is the tone on the *-aj* suffix, if there is one). Tone patterns are influenced by the presence of depressor consonants (see Section 6.7.1) and the underlying structure of the verb stem (see Section 6.7.2).

6.7.1 Effect of depressor consonants

Bow (1997a) subdivided the low tone verb stem category phonetically into mid and low surface forms by the presence or absence of one or more of the class of consonants known as depressor consonants (see Section 2.4.1). Depressor consonants in Moloko include all voiced obstruents except implosives and nasals (i.e. *b, d, g, dz, v, ɟ, z, mb, nd, ŋg*). Bow (1997a) demonstrated that an underlyingly low tone verb with no depressors has a mid tone surface form; with depressors it has a low tone surface form. For verb stems of underlying high tone or toneless verb

Table 6.9: Tone patterns for selected verb stems

CV pattern	Underlying form of stem	Imperative form	Potential (Irrealis) form (/náá/- prefix)	Tone class
C	/b-j/ 'light'	[b-àj] 'Light!'	[náá-b-àj] 'I will light'	L
	/g-ε/ 'do'	[g-é] 'Do!'	[néé-g-é] 'I will do'	H
	/d-ε/ 'cook'	[d-è] 'Cook!'	[néé- d-è] 'I will cook'	L
CC	/mb r/ 'heal, cure'	[mbár] 'Heal! '	[náá- mbár] 'I will heal'	H
	/m t/ 'die'	[māt] 'Die! '	[náá-māt] 'I will die'	L
	/g s/ 'catch'	[gàs] 'Catch!'	[náá-gàs] 'I will catch'	toneless
CaC	/tsar/ 'taste good'	[tsār] 'Taste good!'	[náá-tsār] 'I will taste good'	L
a-CaC-aj	/a-pas -j/ 'spread out'	[pās-áj] 'Spread out!'	[náá- pās-áj] 'I will spread out'	L
CaC-aj	/nzak -j/ 'find'	[nzák-áj] 'Find!'	[náá- nzák-áj] 'I will find'	H
	/ndaɖ -j/ 'like, love'	[ndaɖ-āj] 'Love!'	[náá- ndaɖ-āj] 'I will love'	toneless
CCC-aj	/d b n -j/ 'learn'	[dɔ̀bən-āj] 'Learn!'	[náá- dɔ̀bən-āj] 'I will learn'	L
CCCaC-aj	/b dz gam -j/ 'crawl'	[bɔ̀dzəgàm-āj] 'Crawl!'	[náá-bɔ̀dzəgàm-āj] 'I will crawl'	L

Table 6.10: Summary of tone patterns for the three tone classes

Underlying tone	Phonetic tone in imperative form	Phonetic tone in Potential form
H	H(H)	H(H)
L without depressor consonants in stem	M(H)	HM(H)
L with depressor consonants in stem	L(M)	HL(M)
Toneless	L(M)	H(H)

stems, the presence or absence of depressor consonants makes no difference to the surface form of the melody. Toneless verb stems take low tone as the default surface form, regardless of depressors. Table 6.11. (from Bow 1997a) shows the realisations of surface tone with and without depressor consonants for the most common verb type (underlying form /CaC/ with high tone -aj suffix in the 2P.IMP form).

Table 6.11: Effect of depressor consonants; imperative forms

Underlying tonal melody	Depressor consonants	Surface tone	Underlying form of stem	Surface form	Gloss
Toneless	–	L	/haḁ-aj/	[hàḁ-āj]	‘dance!’
	+	L	/daḁ-aj/	[dàḁ-āj]	‘join!’
L	–	M	/pàḁ-aj/	[pāḁ-áj]	‘bite!’
	+	L	/ḁàv-aj/	[ḁàv-āj]	‘swim!’
H	–	H	/fāḁ-aj/	[fāḁ-áj]	‘fold!’
	+	H	/bál-aj/	[bál-áj]	‘wash!’

6.7.2 Effect of underlying form on tone of stem

Bow (1997a) found that the components of the underlying form, particularly initial vowel and number of consonants, influence what underlying tone the root has, such that she could predict the underlying tone of certain verb stems with accuracy. Table 6.12. (from Friesen & Mamalis 2008) shows the tone of verb stems of different structures, with examples. The following three stem structures are significant with respect to tone:

- Verb stems with the *a-* prefix (always two-consonant) always have underlying low tone (line 4, Section 6.5).
- Verb stems with three or more consonant roots (line 5-6) always have underlying low tone (Section 6.7.2.3).
- Non-palatalised verb stems with one-consonant roots (line 1 of Table 6.12.) always have underlyingly low tone (Section 6.7.2.1). Palatalised verb stems with one-consonant roots may be high or low but not toneless (line 2).

These three categories account for about 45% of the verb stems in the database of 316 verb stems used by Mamalis (Friesen & Mamalis 2008). Only two-consonant roots with no *a-* prefix allow all underlying tone patterns (line 3 of Table 6.12.).

6.7.2.1 Verb Stems with One Root Consonant

Verb stems with single consonant verb roots (the *-aj* suffix is added to produce the stem) (cf. lines 1 and 2 of Table 6.12.) are never toneless.¹⁶ Non-palatalised verb stems carry only low tone. Palatalised verb stems may be high or low. The two possible tonal melodies are seen in the following minimal pair (from Friesen & Mamalis 2008). Example (19) has an underlying high tone; example (20) has an underlying low tone.

- | | | |
|------|------------------|-----------------|
| (19) | Njé. | Néénjé. |
| | nʒ-é | néé-nʒ-é |
| | leave[2S.IMP]-CL | 1S+POT-leave-CL |
| | ‘leave!’ | ‘I will leave.’ |
| | | |
| (20) | Nje. | Néénje. |
| | nʒ-è | néé-nʒ-è |
| | sit[2S.IMP]-CL | 1S+POT-sit-CL |
| | ‘Sit!’ | ‘I will sit.’ |

Additional examples illustrating underlying stem tone in verb stems with one root consonant are given in Table 6.13. (from Friesen & Mamalis 2008). Imperative and Potential forms are given for each example. Stems with and without depressor consonants are included.

¹⁶ One possible exception is /dz-aj/ ‘say,’ which may be toneless.

Table 6.12: Underlying tones for different verb stem structures

Line	Verb stem structure	Underlying tone of 316 verb stems		
		H	L	Toneless
1	One-consonant non-palatalised verb roots		7 verb stems [b-àj] 'light' [p-āj] 'open'	
2	One-consonant palatalised verb roots	4 verb stems [g-é] 'do'	8 verb stems [d-è] 'cook' [f-ē] 'drink'	
3	2 consonant verb roots with no <i>a</i> - prefix	36 verb stems [fár] 'scratch' [bál-āj] 'wash'	49 verb stems [gàr-āj] 'tremble' [fāt] 'grow' [t]ík-é] 'stand' [tsōd'-āj] 'shine'	38 verb stems [dàd] 'fall' [həm-āj] 'run'
4	<i>a</i> - prefix verb stems (all have 2 consonants)		82 verb stems [báz] 'harvest'	
5	3 consonant verb roots		58 verb stems [vənàh-āj] 'vomit' [təbāt-āj] 'repair'	
6	4 consonant verb roots		12 verb stems [bədzəgàm-āj] 'crawl'	

Table 6.13: Tone patterns in stems with one root consonant

Syllable pattern and Aspect/mood		H	L – depressor consonants	+ depressor consonants
Palatalised	Imperative	<i>g-ē</i> 'do, make'	<i>f-ē</i> 'drink'	<i>d-è</i> 'prepare'
	Potential	<i>kéé-g-é</i> 'you will do'	<i>kéé-f-ē</i> 'you will drink'	<i>kéé-d-è</i> 'you will prepare'
Non-palatalised	Imperative	Ø	<i>p-āj</i> 'open'	<i>b-àj</i> 'light'
	Potential		<i>káá-p-āj</i> you will open	<i>káá-b-àj</i> 'you will light'

6.7.2.2 Verb Stems with two root consonants

Verb stems with two-consonant roots correspond to lines 3 and 4 of Table 6.12. Bow (1997a) found that verb stems that have two root consonants and the *a*-prefix all carry low tone (Table 6.14 adapted from Friesen & Mamalis 2008).

Verb stems with no *a*- prefix may be from any tone class. Table 6.15. (Friesen & Mamalis 2008) shows several examples of two consonant verbs, giving the imperative and Potential verb forms for each of the possibilities.

6.7.2.3 Verb stems with three or more root consonants

Bow (1997a) determined that verb stems with three (or more) root consonants (cf. lines 5 and 6 of Table 6.12) all have underlyingly low tone. The surface tone will be low or mid, depending on the presence or absence of depressor consonants. If the stem carries the *-aj* suffix, the suffix will carry mid tone. Table 6.16. (from Friesen & Mamalis 2008) shows examples of verb stems with three or more consonants in imperative and Potential form.

Table 6.14: Tone patterns in a- prefix verbs

Stem structure		L – depressor consonants	+ depressor consonants
a-CC	Imperative	Ø	<i>dàl</i> ‘surpass’
	Potential		<i>káá-dàl</i> ‘you will surpass’
a-CC-aj	Imperative	<i>sɔ̃l-áj</i> ‘fry’ ^a	<i>gə̀rāj</i> ‘frighten’
	Potential	<i>káá-sɔ̃l-áj</i> ‘you will fry’	<i>káá-gə̀r-āj</i> ‘you will fear’
a-CaC-aj (60)	Imperative	<i>pās-áj</i> ‘spread out’	<i>dàr-āj</i> ‘plant’
	Potential	<i>káá-pā-sáj</i> ‘you will spread out’	<i>káá-dàr-āj</i> ‘you will plant’

^a There was only one example of H tone for this structure.

Table 6.15: Tone patterns in stems with two root consonants with no *a-* prefix

Stem structure		H	L ^a	Toneless
CC	Imperative	<i>mbár</i> 'heal, cure' ^b	<i>māt</i> 'die'	<i>gàs</i> 'catch'
	Potential	<i>káá-mbár</i> 'you will heal'	<i>káá-māt</i> 'you will die'	<i>káá-gàs</i> 'you will get'
CaC ^c	Imperative	Ø	<i>tsār</i> 'taste good'	<i>hàr</i> 'make'
	Potential		<i>káá-tsār</i> 'you will taste good'	<i>káá-hàr</i> 'you will make'
CC-aj	Imperative	<i>ngól-áj</i> 'defend' (only example)	<i>rāb-áj</i> 'be beautiful'	<i>hām-āj</i> 'run'
	Potential	<i>káá-ngól-áj</i> 'you will defend'	<i>káá-rb-áj</i> 'you will be beautiful'	<i>káá-hām-āj</i> 'you will run'
CaC-aj	Imperative	<i>bál-áj</i> 'wash'	<i>māk-áj</i> 'stop'	<i>ǵaw-āj</i> 'fear'
	Potential	<i>káá-bál-áj</i> you will wash	<i>káá-māk-áj</i> you will leave	<i>káá-ǵaw-āj</i> you will fear

^a No two-consonant verbs without *a-* prefix with low tone have depressor consonants.^b Most CC roots that have high tone end in /r/.^c Note that these are the only structures that have no counterpart *a-* prefix forms.

Table 6.16: Tone patterns in verb stems with three root consonants

		L	
		No depressor consonants	Depressor consonants
CCC	Imperative	<i>sōk^wóm</i> 'buy'	<i>dzög^wòr</i> 'look after'
	Potential	<i>kóó-sōk^wóm</i> you will buy	<i>káá-dzög^wòr</i> 'you will shepherd'
CCaC	Imperative	<i>tākár</i> 'try, taste'	<i>mànzàr</i> 'see'
	Potential	<i>káá-tākár</i> 'you will try'	<i>káá-mànzàr</i> 'you will see'
CCC-aj	Imperative	<i>tsəfə́d-áj</i> 'ask'	<i>də̀bən-āj</i> 'teach, learn'
	Potential	<i>káá-tsəfə́d-áj</i> 'you will ask'	<i>káá-də̀bən-āj</i> 'you will learn'
CCaC-aj	Imperative	<i>pə́dək-áj</i> 'wake'	<i>vənàh-āj</i> 'vomit'
	Potential	<i>páá-dək-áj</i> 'you will wake'	<i>káá-vənàh-āj</i> 'you will vomit'
CCCaC-aj	Imperative		<i>bə̀dzə̀gàm-āj</i> 'crawl!'
	Potential		<i>káá-bə̀dzə̀gàm-āj</i> 'you will crawl'

7 The verb complex

Moloko does not have a simple verb word. Rather, Friesen & Mamalis (2008) named this structure the ‘verb complex’ since affixes and extensions attach to the verb stem that comprises a close phonological unit that is not always one phonological word. The verb complex may be made up of from one to three phonological words as defined by prosody spread and word final allophones (Sections 2.6.1 and 2.6.2).

There are two fundamental aspects of Moloko grammar that are expressed in the verb complex. The first is the concept of the point of reference. The point of reference involves both place and time. Actions in Moloko are usually placed with respect to a set locational point of reference, which in normal speech is usually the speaker. In a narrative or other discourse, the speaker can set the point of reference. Verbs are aligned with respect to the locational point of reference by means of directional verbal extensions (Section 7.5.2). These extensions determine the direction of the event with respect to the point of reference, and can be towards the speaker, away from the speaker, or back and forth. Directionals are different from adpositionals (Section 7.5.1), since adpositionals align the action with respect to other elements in the immediate context. The temporal point of reference is set in Moloko by mood and the Perfect. Mood involves what is real or not yet experienced in the world shared by the speaker and his or her audience (realis and irrealis, Section 7.4.3). The speaker and audience are, as it were, walking backwards into the future.¹ What has happened and is happening is ‘visible’ to them (realis) and they move together into the ‘invisible’ world behind them (irrealis). The point of reference will be the time of communication in normal speech. However, again in a narrative or other type of discourse, the speaker can set the point of reference (usually to the time the events took place). The Perfect extension is employed whenever the speaker needs to make sure that the hearer understands that an event is already completed before the point of reference, with ongoing effects to that point.

Another fundamental concept in Moloko verbs expressed in the verb complex is expectation, accomplished through mood. The realis world is the realm of the

¹ I first heard this image at a First Nations languages conference in Canada in 2011 to express an Indigenous view of time.

visible or real; it includes the past and what is present as it happens before the speaker and audience and what is shared knowledge or expectations about the world and how it works. It is presented by the speaker as being real or known – events and states that happened, are happening, or which are part of the expected ‘frame’ of a situation. Within the realis world, the distinctions coded in verbs are for events that are complete/accomplished (Perfective, Section 7.4.1), incomplete/unachieved (Imperfective, Section 7.4.2), in progress (Section 8.2.1), repeated (three types, Section 7.4.4, Section 7.4.5, Section 7.5.2). The irrealis world is the realm of desire and will and the unknown world of the future. Within that world, verbs in Moloko are marked as to the degree of desire and perhaps the control the speaker has over the accomplishment of the event.

There is no system of tense as such in Moloko (Friesen & Mamalis 2008).² Perfective versus Imperfective aspect is expressed through changes in the tone of the subject prefix (Section 7.4.1 and Section 7.4.2). Irrealis mood is differentiated from realis mood by vowel changes in the subject prefix (Section 7.4.3). For the imperative (Section 7.4.2), the subject prefix is absent.

The verb stem as defined in Chapter 6 can take up to two prefixes and only one suffix. Morphemes on the stem include the subject pronominal affixes (a prefix and a suffix for 1P and 2P subjects, Section 7.3.1) and an indirect object pronominal enclitic (Section 7.3.2). Two prefixes are derivational – one prefix nominalises the verb (Section 7.6) and the other subordinates the entire clause in which it occurs (Section 7.7).

Another noteworthy feature is that Moloko has three ways to indicate repeated actions. Reduplication in the root is one of the ways that pluractionals are formed in other Chadic languages (Newman 1990). Contrary to many Chadic languages, Moloko does not have a productive pluractional. Only a few verb stems take the pluractional extension (used for actions that are made up of repetitive motions, Section 7.5.2).³ However, two kinds of reduplication of the verb stem in Moloko express iterative aspect. Reduplication of a consonant in the stem indicates an iterative action that is habitual (Section 7.4.4) and reduplication of the entire verb word indicates an iterative action that is intermittent (Section 7.4.5).

The verbal extensions, which include locational and directional information and Perfect aspect, are also described in this chapter (Section 7.5). They and the indirect object pronominal enclitic are discussed as part of the verb complex because they form a close phonological unit with the verb stem, even though

² Bow (1997a) considered tense and mood.

³ The only stems which take the pluractional which we have so far identified are *a-h=aja* ‘he/she grinds’, *a-s=ija* ‘he/she cuts’, and *d=ija* ‘take many’.

they may sometimes be part of a separate phonological word.

7.1 The phonological structure of the verb word

The phonological structure of the Moloko verb word is interesting in that, although its elements can each be part of a phonological unit with the verb stem, combinations of different elements can cause the entity to be broken into up to three phonological words. Its complexity is especially located in the post-verbal elements of the verb complex. The subject prefix and verb stem are the only necessary parts of the basic inflected verb complex.⁴ All other affixes and extensions are structurally optional and are determined by the context and the lexical requirements of the particular verb.

Friesen & Mamalis (2008) discovered that Moloko has three types of verb complexes. The first type of verb complex is one phonological word (Figure 7.1), and occurs when there is no plural suffix (see Section 7.3.1), no indirect object pronominal enclitic (see Section 7.3.2), and no direct object pronominal (see Section 7.3.3). In this case, the extensions (see Section 7.5) cliticise directly to the verb stem.

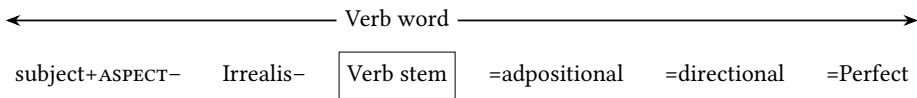


Figure 7.1: One phonological word verb complex

In the examples, the verb word is delineated by square brackets.

- (1) Gaka ala.
 [g =aka =ala]
 do[2S.IMP] =on =to
 ‘Put some more on!’⁵ (lit. do on towards)
- (2) Alala va.
 [à-l =ala =va]
 3S+PFV-go =to =PRF
 ‘He came back.’

⁴ The structure of the nominalised or dependent forms of the verb is similar. The derivational prefixes are in the same location as the subject prefix. All other affixes and extensions are possible with the exception of the Perfect extension.

⁵ Note that the verb stem is /g -j^c/. The palatalisation drops with the extensions.

The second type necessitates two phonological words – a verb word and an ‘extension word’ – because of the presence of either a direct or indirect object pronominal (or both). The verb word may have either a subject suffix or an indirect object pronominal enclitic (but not both). The structure of this second verb complex is illustrated in Figure 7.2.

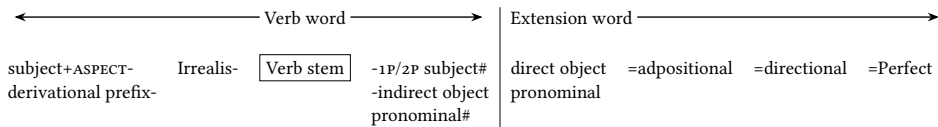


Figure 7.2: Two phonological word verb complex

The word break is initiated by both the direct and indirect object pronominals such that when either is present, there will be a word break. The word break after the 3S indirect object pronominal enclitic is indicated by word-final changes in /n/; in slow speech the 3S indirect object pronominal enclitic /=an/ is pronounced [aŋ] (showing word-final changes) even when there are other clitics following the verb word (3, see Section 7.3.2). The word break before the 3S DO pronominal is indicated by the fact that the 3S DO pronominal does not neutralise the prosody on the verb stem, and does not cause the /-j/ suffix to drop (4 and 5, see Section 7.3.3).⁶

- (3) Ámbadfan aka alay.
 verb word ‘extension word’
 [á-mbad =aŋ] [=aka =alaj]
 3S+PFV-change =3S.IO =on =away
 ‘He/she replied.’ (lit. he changed on away)

- (4) Aslay na.
 [à-ɬ-aj] [na]
 3S+PFV-slay-CL 3S.DO
 ‘He killed it.’

- (5) Ege na.
 [ê-g-ε] [na]
 3S+PFV-drink 3S.DO
 ‘He did it.’

⁶ The first line in each example is the orthographic form. The second is the phonetic form (slow speech) with morpheme breaks.

(6) shows a direct object pronominal with no indirect object pronominal enclitic and the extensions cliticise to the direct object pronominal. (7) shows both direct and indirect object pronominals; again the extensions cliticise to the direct object pronominal. (3) and (8) show an indirect object pronominal enclitic with no direct object pronominal. When there is no direct object pronominal, the extensions form a separate phonological word in and of themselves.

- (6) Abək ta aya va mələma ahan ahay jəyga.

verb word ‘extension word’

[a-bək] [ta=aja=va] mələma =ahan =ahaj dziɟa

3S-invite 3P.DO=PLU=PRF brothers =3P.POSS =Pl all

‘He had already invited all of his brothers.’

- (7) Ákaɗaw na va.

verb word ‘extension word’

[á-kaɗ =aw] [na =va]

3S+PFV-club =1S.IO 3S.DO =PRF

‘He/she has killed it for me.’

- (8) Hor agaw aka ala.

verb word ‘extension word’

h^wɔr [à-g=aw] [=aka =ala]

woman 3S+PFV-do=3S.IO =on =to

‘The woman liked me [as I liked her].’ (lit. she did to me on toward)

The third type of verb complex consists of three phonological words (a verb word, an ‘indirect object word,’ and an ‘extension word’). This type occurs when the verb complex has both a subject suffix and an indirect object pronominal enclitic. Phonological rules will not allow two morphemes suffixed or cliticised to the verb; nor can the indirect object pronominal enclitic commence another word. So, the morpheme *an* is inserted and the indirect object pronominal clitic attaches to the inserted morpheme. The overall structure is then as shown in Figure 7.3.

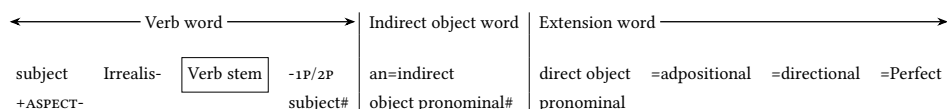


Figure 7.3: Three phonological word verb complex

In (9) and (10), the verb *kə- t-əm* has the 2P imperative suffix attached. The indirect object pronominal enclitic and the inserted morpheme *an*. Other extensions must make a third phonological word since there is a word break following the indirect object pronominal enclitic.

- (9) Kəslom anan na aka awak.
verb word ‘indirect object word’ ‘extension word’
[kə-ʔ-ɔm] [an=aŋ] [na =aka] awak
2-slay-2P DAT=3S.IO 3S.DO =on goat
‘You (p) kill another goat for him.’ (lit. you slay a goat for him on top of
[another time a goat was slain])
- (10) Kəslom anan aka awak.
verb word ‘indirect object word’ ‘extension word’
[kə-ʔ-ɔm] [an=aŋ] [=aka] awak
2-kill-2P DAT=3S.IO =on goat
‘You kill another goat for him.’

The three types of verb complexes seen in Moloko are shown in Figure 7.4.

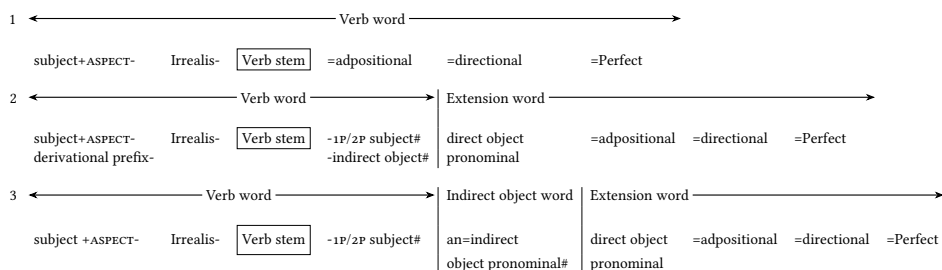


Figure 7.4: Three types of verb complexes

7.2 Imperative

The 2s imperative form is the basic citation form of the verb as the 2s form gives the clearest presentation of the verb stem. The imperative occurs in 2s, 1PIN and 2P forms. The 2s form is simply the verb stem. The plural forms carry suffixes which correspond to their respective subject pronominal suffixes in indicative verb stems (see Section 7.3.1). The singular and plural imperative forms are shown in Table 7.1. (from Friesen & Mamalis 2008).

Table 7.1: Singular and plural imperative forms

2S form	1P inclusive form	2P form
<i>fad</i> 'Put! (2S)'	<i>fɔd-ɔk</i> 'Let's put! (1PIN)'	<i>fɔd-ɔm</i> 'Put! (2P)'
<i>zɔm</i> 'Eat! (2S)'	<i>zɔm-ɔk</i> 'Let's eat! (1PIN)'	<i>zɔm-ɔm</i> 'Eat! (2P)'
<i>f-ε</i> 'Drink! (2S)'	<i>s-ɔk</i> 'Let's drink! (1PIN)'	<i>s-ɔm</i> 'Drink! (2P)'
<i>fat-aj</i> 'Descend! (2S)'	<i>fɔt-ɔk</i> 'Let's descend! (1PIN)'	<i>fɔt-ɔm</i> 'Descend! (2P)'

7.3 Verb complex pronominals

Friesen & Mamalis (2008) showed that the verb complex can carry pronominals that indicate the subject, direct object, and indirect object. These markers in the verb complex are all bound forms. They are called pronominals and not just agreement markers because all of them can be the only indication of their referent in the clause. Because the pronominals are present, there is no need for a noun phrase or free pronoun in the clause. Participants are tracked in discourse solely by pronominals, and free pronouns and noun phrases only occur in discourse to introduce a participant or to switch the referent.

Table 7.2 lists all the pronominals. Subject is indicated by a verbal prefix for singular subjects and third person plural. Plural subjects for first and second person are indicated by a combination of a prefix and a suffix. These subject pronominals (discussed in Section 7.3.1) are given in their underlying form because the surface vowel and tone on the prefix is determined by mood and aspect, respectively. Also, the underlying form is given to show the prosody, because the labialisation prosody in the plural subject suffixes will spread over the entire verb stem. The direct object pronominal (Section 7.3.3) only occurs for third person singular and plural. The indirect object pronominal (Section 7.3.2) cliticises to the right edge of the verb stem and the direct object pronominal follows it. In Table 7.2, the independent pronouns are also given for comparison since there are similarities between the free pronoun and its corresponding pronominal.

Table 7.2: Pronominals

Person	Pronominal subject affixes	Indirect object pronominal enclitics	Third person direct object pronominals	Independent pronouns
1S	<i>n-</i>	<i>=aw</i>		<i>nɛ</i>
2S	<i>k-</i>	<i>=ɔk^w</i>		<i>nɔk^w</i>
3S	<i>a- / ma^a</i>	<i>=aŋ</i>	<i>na</i>	<i>ndahan</i>
1P inclusive ^b	<i>m-...-ɔk^w</i>	<i>=alɔk^wɔ</i>		<i>lɔk^wɔ</i>
1P exclusive ^c	<i>n-...-ɔm</i>	<i>=alɪmɛ</i>		<i>lɪmɛ</i>
2P	<i>k-...-ɔm</i>	<i>=alɔk^wøje</i>		<i>lɔk^wøje</i>
3P	<i>t-</i>	<i>=ata</i>	<i>ta</i>	<i>tata</i>

^a The third person Hortative subject pronominal, see Table 7.12. in Section 7.4.3.

^b i.e. speaker (+others) + hearer

^c i.e. speaker + others

7.3.1 Subject pronominal affixes

The subject is always marked on the finite form of the verb, regardless of whether there is a free subject phrase in the clause.⁷ In fact, the subject pronominal marker in the verb can be the only indication of subject in the entire clause.⁸ As noted in Table 7.3. and Table 7.4. (adapted from Friesen & Mamalis 2008), subject is marked by a prefix or combination of prefix and suffix. In the examples below, the pronominal affixes are highlighted. The prefix carries aspectual tone (see Section 7.4), and the vowel quality is influenced by the prosody on the verb stem (see Section 6.6), the presence of the /a-/ prefix (see Section 6.5), and the mood of the verb (see Section 7.4.3). The 1P and 2P suffixes are labialised. This prosody will spread over the entire verb stem.

Bow (1997a) found that a prosody on the verb stem will spread leftwards from the verb stem over the singular subject prefixes. The fact that palatalisation and labialisation spread over the subject prefixes indicates that the subject markers are fully bound to the verb stem and are not separate words. Example (11)

⁷ The presence of both subject pronominal and corresponding noun phrase occurs for pragmatic reasons.

⁸ In a non-finite verb form, the subject pronominal is absent and the subject of the clause is either understood from the context or indicated by a free pronoun or noun phrase in the clause (Sections 7.6.2, 7.7, and 8.2.3).

Table 7.3: Conjugations with subject pronominal affixes for the verb /m nzar/ ‘see’

Person	Singular	Plural
1	<i>nə-mənzar awak</i> ‘I saw a goat’	<i>mʊ-mʊnzər-ɔk awak</i> ‘we (inclusive) saw a goat’ <i>nʊ-mʊnzər-ɔm awak</i> ‘we (exclusive) saw a goat’
2	<i>kə-mənzar awak</i> ‘you saw a goat’	<i>kʊ-mʊnzər-ɔm awak</i> ‘you (plural) saw a goat’
3	<i>ɑ-mənzar awak</i> ‘he/she saw a goat’	<i>tə-mənzar awak</i> ‘they saw a goat’

Table 7.4: Conjugations with subject pronominal affixes for the verb /h m-aj/ ‘run’

Person	Singular	Plural
1	<i>nə-həm-aj</i> ‘I ran’	<i>mʊ-hʊm-ɔk</i> ‘we (inclusive) ran’ <i>nʊ-hʊm-ɔm</i> ‘we (exclusive) ran’
2	<i>kə-həm-aj</i> ‘you ran’	<i>kʊ-hʊm-ɔm</i> ‘you (plural) ran’
3	<i>ɑ-həm-aj</i> ‘he/she ran’	<i>tə-həm-aj</i> ‘they ran’

presents the palatalised verb / g^e / ‘do,’ and example (12) presents the labialised verb / l^o / ‘go.’

- (11) Nege.
[nɛ-g-ɛ]
1S-DO-CL
‘I did.’

- (12) Olo.
[ɔ-lɔ]
3S-go
‘he/she went.’

Bow (1997a) also discovered that labialisation on the 1P and 2P subject suffixes will spread leftwards from the suffix onto the entire verb word. This fact indicates that these morphemes are fully bound to the verb stem and are not separate words. The verb / ts k -j^e / ‘stand’, shown in example (13) in its 1S form, loses its palatalisation and becomes labialised when the (labialised) plural suffixes are added (14):

- (13) Necəke.
nɛ-tʃɪk-ɛ
1S-stand-CL
‘I stand.’

- (14) Nəcəkom.
nɔ-tsɔk^w-ɔm
1-stand-1PEX
‘We (exclusive) stand.’

Bow (1997a) also determined that the subject pronominal prefixes in Moloko appear to be toneless. The aspect of the verbal construction will allocate tone to the pronoun. In the Imperfective aspect, the pronoun always takes high tone (see Section 7.4.2). In the Perfective aspect, the pronoun copies the first tone of the root if it is low or mid. If the first tone of the root is high, the pronoun takes on mid tone.

7.3.2 Indirect object pronominal enclitic

An indirect object pronominal enclitic can attach to the verb word to express the indirect object, which is a core argument of the verb. The indirect object

in Moloko is the participant that represents the place where the direct object is directed to – the recipient or beneficiary of the action.⁹ In (15), the verb /dz -j/ ‘help’ takes the indirect object. The indirect object represents the participant who receives the help.

- (15) Ajəṇaw.
 a-dzən =aw
 3S-help =1S.IO
 ‘He/she helped me.’

The indirect object pronominal enclitic allows the core indirect object argument to be expressed in a prepositional phrase *ana Mana* ‘to Mana’ (16).

- (16) Ajəṇan ana Mana.
 a-dzən =aŋ ana Mana
 3S-help =3S.IO DAT Mana
 ‘He/she helped Mana.’

The indirect object pronominal enclitic can also stand in the place of the prepositional phrase (17).

- (17) Ajəṇan.
 a-dzən =aŋ
 3S-help =3S.IO
 ‘He/she helped him.’

Table 7.5 (adapted from Friesen & Mamalis 2008) shows the verb /v l/ ‘give’ conjugated for the indirect object argument. The indirect object expresses the recipient.

The indirect object pronominal enclitics are phonologically bound to the verb stem and do not comprise separate words. When an indirect object pronominal cliticises to the verb stem, there are no word final alternations in the verb stem. Compare the following pairs of examples showing verb stems with and without indirect object pronominal enclitics. (18) and (19) show that when the indirect object pronominal enclitic is attached (19), we do not see the word final alternation of /h/ → [x] / _#. ¹⁰

⁹ Employing the Agent-Theme-Location analysis developed by DeLancey (1991), the indirect object in Moloko expresses the semantic LOC (see Chapter 9). The direct object pronominal expresses the semantic Theme – the participant that changes position or state (see Section 7.3.3).

¹⁰ See Section 2.6.1. Likewise, we do not see the word-final process of n → [ŋ] / _# between the verb stem and the indirect object pronominal.

Table 7.5: Verb /v l/ ‘give’ conjugated for indirect object pronominal enclitic

Person	Singular	Plural
1	<i>a-vəl=aw</i> ‘he/she gave to me’	<i>a-vəl=alɔk^wɔ</i> ‘he/she gave to us (inclusive)’ <i>a-vəl=alɪmɛ</i> ‘he/she gave to us (exclusive)’
2	<i>a-vəl=ɔk^w</i> ‘he/she gave to you’	<i>a-vəl=alɔk^wɔjɛ</i> ‘he/she gave to you (plural)’
3	<i>a-vəl=aŋ</i> ‘he/she gave to him/her’	<i>a-vəl=ata</i> ‘he/she gave to them’

- (18) Aḃah zana.
a-ḃax zana
3S-sew clothing
‘He/she sews clothing.’

- (19) Aḃahaw zana.
a-ḃah=aw zana
3S-sew=1S.IO clothing
‘He/she sews clothing for me.’

Similarly, the example pairs (20) and (21) illustrate that the *-aj* suffix is dropped when the indirect object pronominal is present (21), indicating that the pronominal is phonologically bound to the stem (see Section 6.3).

- (20) Ajay.
a-dz-aj
3S-speak-CL
‘He/she speaks.’

- (21) Ajan.
a-dz=aŋ
3S-speak=3S.IO
‘He/she speaks to him/her.’

The indirect object pronominal enclitic is not phonologically a true suffix, because the prosody of the indirect object pronominal enclitic does not affect the prosody on the verb stem. Compare (22) and (23) which illustrate the verb stem /s/ conjugated with second person singular and plural indirect objects. If the prosody of the indirect object pronominal enclitic affected the verb stem, one would expect that the /s/ in example (23) would be affected by the palatalisation prosody of the plural indirect object pronominal enclitic and be expressed as [ʃ].

- (22) Asok aka daf.
 a-s=ɔk =aka daf
 3S-please=2S.IO =on loaf
 ‘You want to have more millet loaves.’ (lit. millet loaf is pleasing to you)
- (23) Asaləkwəye aka daf.
 a-s=alɔk^wøje =aka daf
 3S-please=2P.IO =on loaf
 ‘You want to have more millet loaves.’ (lit. millet loaf is pleasing to you)

The fact that the indirect object pronominal can attach to verb stems as well as other particles confirms that it is in fact a clitic pronoun. Normally, the indirect object pronominal enclitic attaches directly to the verb stem (24). However, if the plural subject pronominal suffix is required on the verb (25), the indirect object pronominal can no longer attach to the verb, because the verb stem can take only one suffix (see Section 7.1). Instead, the indirect object pronominal cliticises to the particle *an*. This particle may be related to *ana*, the dative preposition ‘to.’

- (24) Kaslan awak.
 ka-t=aŋ awak
 2S-slay=3S.IO goat
 ‘You slay the goat for him.’
- (25) Kəslom **anan** awak.
 kə-t-ɔm **an**=aŋ awak
 2-slay-2P to=3S.IO goat
 ‘You (plural) slay the goat for him.’

There is a word break after the indirect object pronominal enclitic (the phonological words are indicated by square brackets in the examples immediately below). The word break is indicated by the fact that the 3S indirect object pronominal enclitic /=an/ in slow speech is pronounced [aŋ] even when there are other

clitics following the verb word (see 26 and 27). The word-final [ŋ] will delete in fast speech (see Section 2.5.2). These clitics (e.g., the adpositional clitics in these examples, see Section 7.5.1) would otherwise attach to the verb (compare with example 28):

- (26) *Asan aka* daf.
 [a-s=aŋ] [=aka] daf
 3S-please=3S.IO =on loaf
 ‘He/she wants to have more millet loaves.’ (lit. millet loaf is pleasing to him)
- (27) *Adan aka* daf.
 [a-d=aŋ] [=aka] daf
 3S-prepare=3S.IO =on loaf
 ‘She made more loaves of millet for him.’
- (28) *Adaka* daf.
 [a-d =aka] daf
 3S-prepare =on loaf
 ‘She made more loaves of millet.’

7.3.3 Third person direct object pronominal

Table 7.2 (from Friesen & Mamalis 2008) shows the direct object (DO) pronominals. The third person DO pronominals replace or double a full noun phrase in a discourse – the *na* (3S.DO) or *ta* (3P.DO) refer back to something in the immediately preceding context. (29) and (30) show two clauses that might occur in a discourse. In (30) the *na* refers back to *ta* ‘cow’ in (29).

- (29) *Kaslay sla.*
 kà-t-aj ta
 2S+PFV-slay-CL cow
 ‘You slew the cow.’
- (30) *Kaslay na.*
 ka-t-aj na
 2S+PFV-slay-CL 3S.DO
 ‘You slew it.’

A third person DO pronominal can be the only expression of direct object in a clause if its identity is known in the discourse (30, 32, and 36). The only time that a clause will contain both a third person DO pronominal and a noun phrase that co-refer to the direct object in the clause is when a special focus on the direct object is required ('all his brothers' in 31, 'that fruit-bearing tree' in 38).

(31) Race Story¹¹

Moktonok na, abək ta aya va mələma ahan ahay jəyga.
mək^wtənək^w na a-bək ta=aja=va mələma =ahan =ahaj dzijga
toad PSP 3S-invite 3P=PLU=PRF brothers =3P.POSS =Pl all
'The toad, he had already invited all of his brothers.'

We know that the third person DO pronominals are phonologically separate words (not clitics like the other verbal extensions) because the *-aj* suffix does not drop when the DO pronominal is added to a clause (32). Normally the *-aj* suffix drops off when extensions or suffixes are added to the clause (33, see also Section 6.3).

(32) Apaday na.

a-pad-aj na
3S-crunch-CL 3S.DO
'He/she crunches it.'

(33) Apadaka.

a-pad =aka
3S-crunch =on
'He/she crunches on.'

Another indication that the DO pronominal is phonologically a separate word is that the neutral prosody on the DO pronominal does not affect the prosody of the verb word. Compare (34) and (35). In both examples the verb complex is palatalised in spite of the addition of the DO pronominal. This situation is in contrast to what happens with the Perfect enclitic (see Section 7.5.3).

(34) Nese.

nɛ-ʃ-ɛ
1S-drink-CL
'I drink.'

¹¹ Friesen 2003.

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- (35) Nese na.
 nɛ-ʃ-ɛ na
 1S-drink-CL 3S.DO
 ‘I drink it.’

A third indication is that word final changes (like word-final /n/ being realised as [ŋ] (see Section 2.6.1 and example 36) are preserved when followed by *na* or *ta*.

- (36) Nəvəlan na.
 nə-vəl=ɑŋ na
 1S-give=3S.IO 3S.DO
 ‘I gave it to him.’

The normal slot for the DO pronominal is within the verb complex between the verb stem and the directional extension. In each example below, the verb complex is delineated by square brackets and the third person DO pronominal is bolded.

- (37) Baba angə avəlan na alay ana məze.
 baba =ɑŋg^wɔ [a-vəl=ɑŋ **na** =alaj] ana mɪʒɛ
 father =2S.POSS 3S-give=3S.IO 3S.DO =away DAT person
 ‘Your father gave it to that person.’

Any further verbal extensions will cliticise to a third person DO pronominal. In example (38), the directional extension =*ala* ‘toward’ cliticises to *na* and vowels will elide resulting in the pronunciation [nala]. See also example 469, where the pluractional and perfect extensions =*aja* and =*va* cliticise to the DO pronominal *ta* to result in the pronunciation [tajava].

- (38) Cicada, S. 12
 Tolo [təmənjar **na** ala] mama agwazla nəndəye.
 tɔ-lɔ [təmənzar **na** =ala] mama ag^wɑʒa nɪndijɛ
 3P-go 3P-see 3S.DO =to mother spp. of tree DEM
 ‘They went and saw that fruit-bearing tree.’

The first and second person direct objects are expressed by free pronouns (see Section 3.1.1.1) or noun phrases. The free pronouns are distributionally and phonologically distinct from the third person direct object pronominals. The free pronouns occur after the verb complex. Note that they occur after the directional extensions in (39) and (40). In each example, the verb complex is delineated by square brackets and the first or second person independent pronoun is bolded.

- (39) [Kazalay] **ne** a kosoko ava daw?
 [ka-z =alaj] **ne** a kɔsɔk^wɔ ava daw
 2S-take =away 1S at market in QUEST
 ‘Will you take me to the market?’
- (40) Baba angɔ [avələta] **nɔk** va a ahar ata ava
 baba =aŋg^wɔ [à-vəl=ata] **nɔk^w** =va a ahar =atəta ava
 father =2S.POSS 3S-give=3P.IO 2S =PRF at hand =3P.POSS in
 ‘Your father gave you to them’ (lit. your father gave you into their hands)
 waya aməmbede hor ata.
 waja amɪ-mbɛd-ɛ h^wɔr =atəta
 because DEF-change-CL woman =3P.POSS
 ‘to become a wife [for their relative].’ (lit. because to change their woman)

The 3s pronominal is employed in discourse to track participants (along with the subject and indirect object pronominals, see Sections 7.3.1 and 7.3.2, respectively). (41) and (42) are from the Snake story (see Section 1.4). In S. 4 (41) the snake is introduced with a noun phrase g^wɔg^wɔlvɔŋ ‘snake’ and in S. 18 (42) it is referred to by the 3s DO pronominal *na*.

- (41) Snake story, S. 4
 Alala na, gogolvɔn na, olo alay.
 a-l=la na g^wɔg^wɔlvɔŋ na ɔ-lɔ =alaj
 3S-go=to PSP snake PSP 3S+PFV-go =away
 ‘Some time later, the snake went.’
- (42) Snake story, S. 18
 Ne dəyday məkəde na aka
 nɛ dijdaj mɪ-kɪd-ɛ na =aka
 1S approximately NOM-kill-CL 3S.DO =on
 ‘I clubbed it to death (approximately).’

In a clause where the referent is clear, the 3s DO pronominal *na* can sometimes be left out in a clause. (43) is from a narrative not illustrated in this work. In the narrative, the head of the household brings home some things he bought at the market. He tells his workers to carry the things into the house. In his instructions h^wɔr-ɔm =alaj əjva ‘carry [all the things] into the house,’ there is no grammatical indication of ‘those things.’ The absence of the DO pronominal is indicated in the

clause by the symbol Ø. In this case, the referent is clear and is not required in the clause.¹²

- (43) Bahay a hay olo a kosoko ava.
 bahaj a haj ɔ-lo a kɔsɔk^{wɔ} ava
 chief GEN house 3S-go at market in
 ‘The head of the house went to the market.’

 Askomala ele ahay gam.
 a-sɔk^{wɔ}m =ala εε =ahaj gam
 3S-buy =to thing =PL many
 ‘He bought many things.’

 Awɔɔakata ele ngɛndɔye ana ndam slɛrele ahan ahay, awɔy,
 a-wudak =ata εε ngɛndijɛ ana ndam ɬrɛle =ahan =ahaj awij
 3S-divide =3P.IO thing DEM DAT people work =3S.POSS =PL said
 ‘[when he got home], he divided the things among his workmen, saying,’
 “Horom alay ayva!”
 h^{wɔ}r-ɔm Ø =alaj ajva
 carry[IMP]-2P =away inside house
 “‘Carry [all the things] into the house.’”

Likewise, in the Cicada story, the direct object (the tree that the chief wanted by his door) is not grammatically indicated in the clause in S. 16 (44). Although the referent is definite, there is no grammatical reference to it in the clause.

- (44) Cicada, S. 16
 Tàazala tɛta bay.
 tãà-z =ala Ø tɛta baj
 3P.irrealis-take =to ability NEG
 ‘They were not able to bring [the tree].’

Participants can be made prominent in a clause by doubling the reference to them. In (45) from S. 20 of the Cicada story, the tree that the chief desired is indicated twice in a clause, both by the presence of a noun phrase *mɛmɛle ga*

¹² The DO pronominal in Moloko does not function in the way Frajzyngier has postulated for some Chadic languages. Frajzyngier & Shay (2008) say that the DO pronoun codes the definiteness of the referent in some Chadic languages. While it is true in Moloko that when the DO pronominal (or any other pronoun) is used, then the referent is definite, the converse is not true. For example, the referent in (43) is definite yet there is no DO pronominal.

ndana ‘that tree that you spoke of’ and also the 3S DO pronominal (both are bolded in 45). The effect is prominence.

- (45) Cicada, S. 20
 Náaməɲar **na** alay **memele** ga **ndana** əwɔ́ɛ.
 náá-məɲzar **na** =alaj **memele** ga **ndana** uwɔ́ɛ
 1S+POT-see 3S.DO =away tree ADJ DEM first
 “First I want to see the tree that you spoke of.”

7.4 Aspect and mood

Friesen & Mamalis (2008) showed that Moloko does not mark verb stems for tense, but uses an aspectual system, looking at realis events as complete (Perfective, see Section 7.4.1) or incomplete (Imperfective, see Section 7.4.2). The vowel in the prefix expresses realis or irrealis mood (see Section 7.4.3). The tonal melody on the subject prefix expresses realis events as Perfective or Imperfective aspect, and expresses the various kinds of irrealis events. Reduplication of a consonant in the verb stem indicates habitual iterative aspect (see Section 7.4.4). Reduplication of the entire verb stem indicates the intermittent iterative aspect – the intermittent repetition of the same action, possibly by the same actor, over a period of time (see Section 7.4.5).¹³

7.4.1 Perfective

The Perfective (PFV) aspect in Moloko is the aspect that presents a realis event as completed (Friesen & Mamalis 2008).¹⁴ The Perfective aspect is indicated by a phonetic low or mid tone on the subject prefix. Verb stems with underlyingly low tone or toneless verb stems have a phonetic low tone if the verb stem begins with a depressor consonant (see Section 6.7.1), and phonetic mid tone otherwise. Verb stems with underlyingly high tone are unaffected by depressor consonants

¹³ Another repeated aspect is the pluractional. The pluractional extension in Moloko indicates an action is back and forth, for example *s=ija* ‘sawing’ or *h=aJa* ‘grinding’ (Section 7.5.2).

¹⁴ Usually, the term ‘Perfective’ is used to refer to a situation as a whole, whether it is completed at the time of speaking or not. The situation is viewed in its entirety for Perfective, whereas in Imperfective aspect, the situation is viewed ‘from inside.’ as an ongoing process (Comrie 1976: 3–4; Payne 1997: 239). Dixon (2012) refers to verbs expressing completed actions as ‘perfect’ and those expressing incomplete actions as ‘imperfect.’ We have used the term ‘Perfective’ for completed actions in Moloko because there is also a morpheme representing Perfect in Moloko (Section 7.5.3) which collocates with both of these other aspects.

and so the phonetic tone of the subject prefix is mid. Table 7.6. (from Friesen & Mamalis 2008) shows an example from each tone class.

Table 7.6: Perfective tone

Underlying verb stem	Underlying tone of verb stem	Phonetic tone of Perfective verb word	Gloss
/nz a k -j/	H	<i>nā-nzák-áj</i>	'I found'
/a-p a s/	L, no depressor consonants	<i>nā-pās-áj</i>	'I spread (something) out'
/a-d-a r -j/	L, with depressor consonants	<i>nà-dàr-āj</i>	'I planted'
/k w -j/	Toneless	<i>nā-kw-āj</i>	'I feared'

The default verbal aspect for the main event line in a narrative is Perfective. Perfective verb forms are found in the main eventline clauses expressing the events immediately following the setting sections of narratives. This is seen in the following examples drawn from three different narratives. (46) is from lines 4-6 of the Snake story, (47) is from a story not illustrated in this work, and (48) is from line 6 of the Cicada story. In the examples, Perfective verb forms are bolded. The low tone is marked on the subject pronominal prefix.

(46) Snake, S. 4-6

Alala na, gogolvan na, **ololay**.

a-l=ala na g^wɔg^wɔlvən na ɔ-lɔ =**alaj**

3S-go=to PSP snake PSP 3S+PFV-go =away

'Some time later, the snake went,'

Acar a hay kəre ava fo fo fo.

à-tsar a haj kɪrɛ ava fɔ fɔ fɔ

3S+PFV-climb at house beams in 1DSound of snake

'it climbed into the roof of the house fɔfɔfɔ,'

Senala na, okfom **adɔfala** bav.

ʃɛŋ =ala na ɔk^wfɔm à-dɔf =**ala** bav

1Dgo =to PSP mouse 3S+PFV-fall =to 1DSound of falling

'And walking, a mouse fell bav!'

(47) Kəlen na, zar ahan na, **enjë** ele ahan ametele.

kɪlɛŋ na zar =ahan na è-nɔ-ɛ ɛlɛ =ahan amɛ-tɛl-ɛ

next PSP man =3S.POSS PSP 3S+PFV-leave-CL thing =3S.POSS DEP-walk-CL

'Then, her husband went away to walk;'

Enjé kə delmete aka a slam enen.

è-nɜ-ɛ kə delmete aka a ɬam enenɟ
 3S+PFV-leave-CL on place on at place another
 ‘he left for some place.’

(48) Cicada, S. 6

Albaya ahay ndana kəlen **tangala** ala ma ana bahay.
 albaja =ahaj ndana kɪɬɟ **tà-ŋgala** =ala ma ana bahaj
 young man =Pl DEM then 3P+PFV-return =to word DAT chief
 ‘The above-mentioned young men then took the word (response) to the chief.’

7.4.2 Imperfective

In contrast with the Perfective, the Imperfective aspect (IFV) can refer to a realis event that is incomplete and in the process of happening or to an event that is just about to begin.¹⁵ The subject prefix for the Imperfective form is always high tone and the tone over the verb stem varies according to the underlying tone of the verb stem. Bow (1997a) noted that the high tone on the prefix spreads to the first syllable of an underlyingly low tone verb. In the examples, the high tone of the Imperfective and low tone of Perfective are marked on the subject pronominal prefix. (49–56) are in pairs to show contrast between the tone of the Imperfective (the first of each pair) and the Perfective (the second of each pair). Compare (49) (Imperfective) and (50) (Perfective). (49) refers to an event in process of happening (going to the market; already en route).¹⁶

(49) Kólo amtamay?

kɔ-lɔ amtamaj
 2S+IFV-go where
 ‘Where are you going?’

¹⁵ ‘Imperfective aspect’ usually refers to a situation ‘from the inside’ and is concerned with the internal structure of the situation (Comrie 1976: 4). Perhaps ‘incomplete’ would be a better name for this aspect in Moloko; however it does not correspond with imperfect as described by Dixon (2012) in that the action need not begin before the present and be continuing, as Dixon (2012: 31) notes.

¹⁶ There is also a progressive aspect expressed by a complex verb construction (see Section 8.2.1), but the Imperfective verb form alone can give the idea of an action in progress.

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- (50) Kolo amtamay?
kò-l̩s amtamaj
2S+PFV-go where
'Where were you?'

(51) and (52) illustrate another Imperfective/Perfective pair. The Imperfective in this case refers to an event in process.

- (51) Nákaď b̩rek c̩c̩ngehe.
ná-kàď b̩rek tʃɪtʃɪŋgehe
1S+IFV-kill brick now
'I am making bricks (now).'

- (52) Nakàď b̩rek c̩c̩ngehe.
nà-kàď b̩rek tʃɪtʃɪŋgehe
1S+PFV-kill brick now
'I made bricks just now.'

(53) is an Imperfective that marks an event about to begin (compare with the Perfective in 54).

- (53) Nápasay agaban.
ná-pàs-āj agabaŋ
1S+IFV-take away-CL sesame
'I'm about to take away the sesame seeds.'

- (54) Napasay agaban.
nà-pàs-āj agabaŋ
1S+PFV-take away-CL sesame
'I took away the sesame seeds.'

Likewise, the Imperfective in (55) illustrates an event about to begin (compared with the Perfective in 56).

- (55) C̩c̩ngehe ne aw̩y, "Nége hay əwla ete."
tʃɪtʃɪŋgehe ne aw̩j né-g-é haj =uwla ete
now 1S said 1S+IFV-do-CL house =1S.POSS also
'Now I said, "I want to/am going to make a house for myself too.'"

- (56) Cəcəngehe ne awəy, “Nege hay əwla ete.”
 tʃɪtʃɪŋgɛhɛ nɛ awɪj nɛ-g-ɛ haj =uwla ɛtɛ
 now 1S said 1S+PFV-do-CL house =1S.POSS also
 ‘Now I said, “I made a house for myself too.”’

Table 7.7 (from Friesen & Mamalis 2008) shows the Imperfective tonal pattern on the same four verb stems as were illustrated in Table 7.6. for the Perfective.

Table 7.7: Imperfective tone

Underlying verb stem	Underlying tone of verb stem	Phonetic tone of verb word	Gloss
/nz a k-aj/	H	<i>ná-nzák-áj</i>	‘I’m finding’
/a-p a s/	L, no depressor consonants	<i>ná-pās-áj</i>	‘I’m spreading (something) out’
/a-d-a r-aj/	L, with depressor consonants	<i>ná-dār-áj</i>	‘I’m planting’
/k w-aj/	Toneless	<i>ná-káw-áj</i>	‘I’m fearing’

Table 7.8 (from Friesen & Mamalis 2008) summarises the tone patterns for Perfective and Imperfective tone on stems of different structures though the syllable pattern of the stem does not influence the tone pattern for the different aspects.

In texts, the Imperfective is used whenever the (ongoing) normal state of affairs is being expressed, i.e., the way the world is. (57–60) are general statements; they are not speaking of a particular situation. All the main verbs are Imperfective.

- (57) Sləreɛle áyəɗɗay məze.
 ʎɪrɛɛ á-jəɗ-aj mɪzɛ
 work 3S+IFV-tire-CL person
 ‘Work tires people out.’
- (58) Fat ánah háy.
 fat á-nax haj
 sun 3S+IFV-ripen millet
 ‘The sun ripens the millet.’
- (59) Kásɫay awak nə məsləye.
 ká-ɫ-aj awak nə mɪ-ɫ-ije
 2S+IFV-slay-CL goat with NOM-slay-CL
 ‘You slaughter goats by cutting their throat, and not by any other way.’
 (lit. you slay a goat with slaying)

Table 7.8: Summary of tone patterns in selected verb forms

Underlying tone of verb stem	Structure of verb stem	Perfective (lower tone on subject prefix)	Imperfective (higher tone on subject prefix)
H	CaC-aj	<i>nā-nzák-áj</i> 'I found'	<i>ná-nzák-áj</i> 'I am finding'
	CC	<i>nā-mbár</i> 'I healed'	<i>ná-mbár</i> 'I am healing'
		<i>nā-dák</i> 'I blocked up'	<i>ná-dák</i> 'I am blocking up'
L no depressor consonants	a-CaC-aj	<i>nā-pās-áj</i> 'I took away'	<i>ná-pās-áj</i> 'I am taking away'
	CaC-aj	<i>nā-tāts-áj</i> 'I close'	<i>ná-tāts-áj</i> 'I am closing'
	CC	<i>nā-fād'</i> 'I put'	<i>ná-fād'</i> 'I am putting'
L depressor consonants in verb stem	a-CaC-aj	<i>nà-dàr-āj</i> 'I recoil'	<i>ná-dàr-āj</i> 'I am recoiling'
	CCaC-aj	<i>nà-vànàh-āj</i> 'I vomitted'	<i>ná-vànàh-āj</i> 'I am vomiting'
Toneless	CaC-aj	<i>nà-ǵàw-āj</i> 'I feared'	<i>ná-ǵàw-āj</i> 'I am fearing'
	CC	<i>nà-ndáz</i> 'I pierced'	<i>ná-ndáz</i> 'I am piercing'
		<i>nà-dád'</i> 'I fell'	<i>ná-dád'</i> 'I am falling'

- (60)
- Kákaɖ**
- okfom nə məkəɖe.
- Káslay**
- bay.

ká-kad ɔk^wfɔm nə mɪ-kɪɖ-ɛ **ká-l-aj** baj
 2S+IFV-kill(club) mouse with NOM-kill(club)-CL 2S+IFV-slay-CL NEG

‘You kill mice by smashing their head; you don’t cut their throats.’ (lit.
 you kill a mouse with killing; you don’t slay it)

The Imperfective can refer to events that take place at any time, including in the past. In a story set in the past, the idea of an ongoing event that was the context for another event is encoded using the Imperfective verb form combined with the progressive aspect construction (see Section 8.2.1). The Imperfective verb stems are bolded in (61).

- (61) Asa təmənjar zar Məloko andalay
- ásəya**
- ele

asa tə-mənzar zar Mɔlək^wɔ a-nd=alaj **á-s=i**ja ɛɛ
 if 3P-see man Moloko 3S-PRG=away 3S+IFV-cut=PLU thing

‘If they found a Moloko cutting [his fields]’

nə zlərgo coco fan na,
 nə ʔərg^wɔ tsɔtsɔ fan na
 with axe IDcutting already PSP
 ‘with his axe, tsotso’

tələla tətə gam na, tarəbokoy na ala rəbok rəbok.
 tə-l =ala tətə gam na ta-rəbək^w-ɔj na =ala rəbək^w rəbək^w
 3S-go =to 3P many PSP 3P-hide-CL 3S.DO =to IDhide hide
 ‘many came stealthily upon him, rubok, rubok.’

In narratives, the Imperfective is found in the introduction to stories to describe the way things were at the beginning of the story.¹⁷ For example, in the Disobedient Girl story, the main verbs in the introduction (lines 1–8) are all Imperfective. The entire story is in Section 1.5; the literal English translation of the introduction is given here with Imperfectives bolded.

“A story under the silo, they say, the story of the disobedient girl:
 Long ago, to the Moloko people, God **gives** his blessing. That is, even if they
 had only sowed a little [millet] like this, it **lasts** them enough for the whole
 year. While grinding on the grinding stone, they **take** one grain of millet.

¹⁷ As well as Imperfective, verb forms in the progressive aspect Section 8.2.1 and existentials (which do not inflect for aspect, Section 3.4) are found in the setting and conclusion sections of a narrative.

So, if they **are grinding** it, the flour **multiplies**. Just one grain of millet, it **suffices** for them, and there **are leftovers**. Because, during its grinding, it **multiplies** on the grinding stone.”

Imperfectives are also found in the conclusion of the narrative to recount how things turned out at the end of the story. The main verbs in the conclusion of the Disobedient Girl are also Imperfective. The literal English translation of the conclusion (lines 32-38) is given here with Imperfectives bolded (the entire story is in Section 1.5).

“So, ever since that time, finished! The Molokos say that God **gets** angry because of that girl, the disobedient one. Because of all that, God **takes back** his blessing from them. And now, one grain of millet, it **doesn’t multiply** anymore. Putting one grain of millet on the grinding stone, it **doesn’t multiply** anymore. You must **put on** a lot. It is like this they say, The curse belongs to that young woman who brought this suffering onto the people.”

When the Imperfective co-occurs with the Perfect, the verb describes the current state or result of an event (62, see Section 7.5.3).

- (62) Arahəva.
 à-rah=va
 3S+PFV-fill=PRF
 ‘It is full.’ (it had filled)

7.4.3 Irrealis mood

Friesen & Mamalis (2008) showed how mood influences the vowel features of the subject pronominal prefix. Moloko has two moods: realis and irrealis. The main formal feature of the irrealis mood is that the vowel in the subject prefix is lengthened. There are three subtypes of irrealis mood, indicated by tone along with the lengthened subject prefix.¹⁸ Tone on the subject prefix has three patterns, and no longer correlates with Perfective or Imperfective aspect in the irrealis mood. Rather, it correlates with the speaker’s desire and will. These three types of mood are called Potential, Hortative, and Possible, respectively. Potential mood expresses an action desired by the speaker that is under his or her influence to perform. It carries a mild hortatory force for second person forms.

¹⁸ Only two moods were distinguished in previous documents (Friesen & Mamalis 2008; Boyd 2003).

Hortative mood expresses an action desired by the speaker to be performed by another who is somehow under his or her influence. Possible mood expresses that an action is desired by the speaker but dependent on the will of another.

The difference between the moods is illustrated in the following narrative situations. The first (63 and 64) illustrates a situation where someone says that he wants the chief to come to him, but he is not sure if the chief will actually come. The fact that the chief's coming is desired by the speaker but dependent on the will of the chief is expressed by the Possible mood in (63), with falling tone on the lengthened subject prefix (**bolded**). Compare with the response given in (64), where the speaker is sure that the chief will come. The surety is expressed by the Potential mood, with high tone on the lengthened subject prefix (**bolded**).

- (63) Asaw bahay mälala azana **aälala** ete daw?
 a-s =aw bahaj mə-l =ala azana **áä**-l=ala ete daw
 3S-please =1S.IO chief 3S+HOR-go =to maybe 3S+PBL-go=to polite QUEST
 'I would like the chief to come; maybe he will come (if he wants to).'
- (64) **Áalala**.
áä-l =ala
 3S+POT-go =to
 'He will come (I am sure).'

Likewise, in (65), the speaker is expressing his wish that a potential attacker will leave him and his family alone. The falling tone on the lengthened subject prefix (**bolded**) indicates that the speaker is not sure that the person will leave them alone, but it depends on the will of that person (Possible mood).

- (65) Adan bay aámakay loko émbäzen loko asabay.
 adan baj **áä**-mak-aj ləkʷɔ ɛ-mbrɪʒɛŋ ləkʷɔ asa-baj
 perhaps NEG 2S+PBL-leave-CL 1PIN 3S+IFV-ruin 1PIN again-NEG
 'Perhaps he will leave us alone; he will not ruin us anymore.'

High tone on the lengthened subject prefix indicates Potential mood (an action desired by the speaker that is under his or her influence to perform, 66 and 68). In the examples, the subject prefix is **bolded**.

- (66) Hajan **nóolo** a kosoko ava.
 hadzan **nóó**-lɔ a kɔsɔkʷɔ ava
 tomorrow 1S+POT-go at market in
 'Tomorrow I will go to the market.'

7 *The verb complex*

- (67) Ólo.
 áá-l̩
 3S+POT-go
 ‘He/she will hopefully go.’ (if I have a say in it)

- (68) Káazala t̩ta bay.
 káá-z =ala t̩ta baj
 2S+POT-take =to ability NEG
 ‘You cannot bring it.’

Low tone on the lengthened subject prefix indicates Hortative mood (an action desired by the speaker to be performed by another who is somehow under his or her influence, 69–70).

- (69) Moolo a kosoko ava.
 m̩l̩-l̩ a k̩s̩k̩ʷ̩ ava
 3S+HOR-go at market in
 ‘He/she should go to the market.’

- (70) Kooz̩m̩m̩ enen bay.
 k̩l̩l̩-z̩m̩-m̩ ɛnɛŋ baj
 2P+HOR-eat-2P another NEG
 ‘You (plural) should not eat anything.’

High tone followed by low tone on the lengthened subject prefix indicates Possible mood (an action is desired by the speaker but dependent on the will of another, 71–74).

- (71) Epeley epeley d̩w̩ noólo bay d̩w̩?
 ɛpɛlɛj ɛpɛlɛj d̩w̩ n̩ó-l̩ baj d̩w̩
 whenever whenever also 1S+PBL-go NEG QUEST
 ‘Far in the future also, might I not go perhaps?’

- (72) Aálo.
 áà-l̩
 3S+PBL-go
 ‘He/she might go.’ (it is up to him whether he goes, and I don’t know what he is thinking)

- (73) Adan bay bərav ahan aándeslen aámakay mədʒegele ahan.
 adaŋ baj bərav =ahaŋ áà-ndɛɬɛŋ áà-māk-aj mɪ-dɪgɛl-ɛ
 perhaps heart =3S.POSS 3S+PBL-cool 3S+PBL-leave-CL NOM-think-CL
 =ahaŋ
 =3S.POSS
 ‘Perhaps his heart will cool, and he might leave behind his anger (lit. his thinking).’
- (74) Maáhəzlək asabay bay way.
 mǎǎ-hʷɔk-ɔk asa-baj baj waj
 1PIN+PBL-destroy-1PIN again-NEG NEG who
 ‘Maybe we won’t be destroyed after all.’¹⁹

The three irrealis moods are illustrated in Table 7.9. for the high tone verb /l^o/ ‘go.’

Table 7.9: Mood for the verb /l^o/ ‘go’

2S form	3S form
Potential mood	
<i>kàà-l=àlà</i> 2S+POT-go=to ‘You will come.’ (I am sure you will come)	<i>áà-l=àlà</i> 3S+POT-go=to ‘He/she will come.’ (I am sure he will come)
Hortative mood	
<i>kàà-l=àlá</i> 2S+HOR-go=to ‘You come now!’ (I want you to come)	<i>mǎ-l= àlá</i> 3S+HOR-go=to ‘He/she should come.’ (I want him to come)
Possible mood	
<i>kàà-l=àlà</i> 2S+PBL-go=to ‘I want you to come (but I am not sure if you will).’	<i>áà-l=àlà</i> 3S+PBL-go=to ‘I want him to come (but am not sure if he will).’

Table 7.10 illustrates the low tone verb /tats/ ‘close’ in all of the realis and irrealis forms.

In first or third person, the Potential mood indicates some measure of confidence on the part of the speaker that the action will be performed, or the state

¹⁹ Note that this ‘passive’ idea (to be destroyed) is accomplished through the flexible transitivity system in Moloko. The verb means ‘destroy’ but with the Theme as subject of the verb, the whole clause here expresses a passive idea (Chapter 9).

Table 7.10: Realis and irrealis forms of /tats/ ‘close’

	2S form	Gloss
Perfective	<i>kə-tāts-āj mahaj</i> 2S+PFV-close-CL door	‘You closed the door.’
Imperfective	<i>kə-tāts-āj mahaj</i> 2S+IFV-close-CL door	‘You are closing the door.’ / ‘You are about to close the door.’
Potential	<i>káá-tāts-āj mahaj</i> 2S+POT-close-CL door	‘I would like you to close the door.’ / ‘You should close the door.’ / ‘You will close the door.’
Hortative	<i>kàà-tāts-āj mahaj</i> 2S+HOR-close-CL door	‘I strongly suggest you close the door.’ / ‘You should have already closed the door.’
Possible	<i>káá-tāts-āj mahaj</i> 2S+POT-close-CL door	‘You might close the door.’ / ‘I want you to close the door but I don’t know if you will.’

achieved. First note the Imperfective in (75) (with high tone and short vowel on subject prefix) expressing an incomplete action. The Potential mood in (76) (with high tone and long vowel on subject prefix) carries the idea of surety (as does 77).

- (75) *Nálo* a kosoko ava.
ná-ló a kɔsɔk^{wɔ} ava
 1S+IFV-go at market in
 ‘I am going to the market.’

- (76) *Náalo* a kosoko ava.
náá-ló a kɔsɔk^{wɔ} ava
 1S+POT-go at market in
 ‘I will go to the market.’

- (77) Asa hay ango andava na mɛ, áarəbaj.
 asa haj =aŋg^{wɔ} a-ndava na mɛ áá-rəb-aj
 if house =2S.POSS 3S-finish PSP opinion 3S+POT-be beautiful-CL
 ‘When your house is finished, it will be beautiful.’

Table 7.11 shows a conjugation of the low tone verb /*fat -j* / ‘descend’ in the Potential form.

Table 7.11: Potential form conjugation

Person	Singular	Plural
1	<i>náá-fāt-aj</i> 1S+POT-descend-CL ‘I will go down’	<i>má-f̣t-ɔk</i> 1PIN+POT-descend-1PIN ‘We will go down.’ <i>ná-f̣t-ɔm</i> 1PIN+POT-descend-1PIN ‘We (exclusive) will go down.’
2	<i>káá-fāt-aj</i> 2S+POT-descend-CL ‘I would like you to go down (you should go down)’	<i>ká-f̣t-ɔm</i> 2P+POT-descend-2P ‘You will all go down.’
3	<i>áá-fāt-aj</i> 3S+POT-descend-CL ‘He/she will go down.’	<i>táá-fāt-aj</i> 3P+POT-descend-CL ‘They will go down.’

Table 7.12 shows a conjugation of the low tone verb /*fat -j* / ‘descend’ in the Hortative form. In the Hortative form, the 3S subject prefix is *màà-*. Compared with the Potential form, the Hortative form is a little stronger in terms of its hortatory force (see Section 10.4).

Table 7.13 shows the Possible form of the low tone verb /*fat -j* / ‘descend’.

Compare the realis imperfective (78), potential (79), and hortatory (80) forms of the high tone verb /*z m/* ‘eat.’ The subject prefixes are bolded.

(78) **Mázə**mok daf.

mó-zəm-ɔk^w daf

1PIN+IFV-eat-1P loaf

‘We are eating millet loaves.’

(79) Lomala **máazə**mok daf.

l-ɔm =ala **máá-zəm-ɔk^w** daf

go[IMP]-2P =to 1PIN+POT-eat-1PIN loaf

‘Come; I want us to eat food.’ (lit. millet loaf)

Table 7.12: Hortative form conjugation

Person	Singular	Plural
1	<i>nàà-fàt-aj</i> 1S+HOR-descend-CL 'I should go down'	<i>mà-fɔ̃t-ɔk</i> 1PIN+HOR-descend-1PIN 'I would like us (inclusive) to go down (we should go down).'
		<i>nà-fɔ̃t-ɔm</i> 1PIN+HOR-descend-1PIN 'I would like us (exclusive) to go down (we should go down).'
2	<i>kàà- fàt-aj</i> 2S+HOR-descend-CL 'I would like you to go down (you should go down)'	<i>kàà-fɔ̃t-ɔm</i> 2P+HOR-descend-2P 'I would like you all to go down (you should go down).'
3	<i>màà- fàt-aj</i> 3S+HOR-descend 'I would like him to go down (he should go down).'	<i>tàà- fàt-aj</i> 3P+HOR-descend-CL 'I would like them to go down (they should go down).'

- (80) Lomala **madərok** meher.
 l-ɔm =ala **mà-dɔ̃r-ɔk^w** meher
 go[IMP]-2P =to 1PIN+HOR-pray-1PIN forehead
 'Come; I want us to pray together.'

Table 7.14 (from Friesen & Mamalis 2008) shows the second and third person forms of a verb from each of the tone classes (H, L, toneless) in irrealis and realis moods.

Verb forms in irrealis mood occur in Moloko discourse to express events that might occur. In the Cicada text, some young men go out to bring back a tree that was desired by their chief. The men try but can't bring home the tree (which constitutes contrastive relief for the cicada's success in the end). A negative modal statement relates the unsuccessful attempt by the young men (81, from S.14). The lengthened subject prefix characterising irrealis mood is bolded in (81).

Table 7.13: Possible form conjugation

Person	Singular	Plural
1	<i>náà-fàt-aj</i> 1S+PBL-descend-CL 'I might go down.'	<i>máà-fɔ̃t-ɔk</i> 1PIN+PBL-descend-1PIN 'We will go down.' <i>náà-fɔ̃t-ɔm</i> 1PIN+PBL-descend-1PIN 'We (exclusive) might go down.'
2	<i>káà-fàt-aj</i> 2S+PBL-descend-CL 'You might go down.'	<i>káà-fɔ̃t-ɔm</i> 2P+PBL-descend-2P 'You might all go down.'
3	<i>áà-fàt-aj</i> 3S+PBL-descend-CL 'He/she might go down.'	<i>táà-fàt-aj</i> 3P+PBL-descend-CL 'They might go down.'

Table 7.14: Tone of realis and irrealis verb forms

Underlying tone of verb stem	Realis			Irrealis		
	Imperfective tone	Perfective tone	Potential	Hortative	Possible	
H	2s form	<i>kə-nzá-k-āj</i> 'you find'	<i>kə-nzá-k-āj</i> 'you found'	<i>ká-nzá-k-āj</i> 'I would like you to find'	<i>kà-nzá-k-āj</i> 'you should find'	<i>kàà-nzá-k-āj</i> 'you might find'
	3s form	<i>á-nzá-k-āj</i> 'he finds'	<i>à-nzá-k-āj</i> 'he found'	<i>á-nzá-k-āj</i> 'I would like him to find'	<i>mà-nzá-k-āj</i> 'he should find'	<i>màà-nzá-k-āj</i> 'he might find'
L	2s form	<i>kə-tàts-āj</i> 'you close'	<i>kə-tàts-āj</i> 'you closed'	<i>ká-tàts-āj</i> 'I would like you to close'	<i>kà-tàts-āj</i> 'you should close'	<i>kàà-tàts-āj</i> 'you might close'
	3s form	<i>á-tàts-āj</i> 'he closes'	<i>à-tàts-āj</i> 'he closed'	<i>á-tàts-āj</i> 'I would like him to close'	<i>mà-tàts-āj</i> 'he should close'	<i>màà-tàts-āj</i> 'he might close'
toneless	2s form	<i>kə-ǰáw-āj</i> 'you fear'	<i>kə-ǰáw-āj</i> 'you feared'	<i>ká-ǰáw-āj</i> 'I would like you to fear'	<i>kà-ǰáw-āj</i> 'you should fear'	<i>kàà-ǰáw-āj</i> 'you might fear'
	3s form	<i>á-ǰáw-āj</i> 'he fears'	<i>à-ǰáw-āj</i> 'he feared'	<i>á-ǰáw-āj</i> 'I would like him to fear'	<i>mà-ǰáw-āj</i> 'he should fear'	<i>màà-ǰáw-āj</i> 'he might fear'

(81) Cicada, S. 14

Albaya ahay tolo amazala agwazla na, **taazala** təta bay.

albaja =ahaj tɔ-lɔ ama-z=ala ag^waʒa na tãà-zad =ala
 young man =Pl 3P-go DEP-take=to spp. of tree PSP 3P+HOR-take =to

təta baj

ability NEG

‘And then, the young men left to bring back the tree; but they were not able to bring it.’

Also, dependent complement clauses represent things that were still future relative to the time of particular events on the eventline (see Section 7.7). They encode desired results that might not necessarily happen as illustrated in the examples below.

(82) Disobedient Girl, S. 13

Asa asok **aməhaya** na, kázad war elé háy bəlen.

asa à-s =ɔk^w amə-h =aja na ká-zad war élɛ
 if 3S+IFV-please =2S.IO DEP+PFV-grind =PLU PSP 2S+IFV-take child eye

haj bɛlɛŋ

millet one

‘If you want to grind, you take only one grain.’

(83) Cicada, S. 7

Agasaka kə mahay ango aka **aməmbese**.

a-gas =aka kə mahaj =aŋg^wɔ aka amɪ-mbɛf-ɛ
 3S-catch =on on door =2S.POSS on DEP-rest-CL

‘It would be good for you to have the tree at your door, so that you could rest under it.’ (lit. it catches on your door to rest)

7.4.4 Habitual iterative

The habitual iterative aspect²⁰ presents the actor(s) performing an action repeatedly as their usual habit. This aspect is formed by the gemination of the onset of

²⁰ Friesen & Mamalis (2008) called this ‘repetitive aspect.’ Note that Moloko has two other forms that involve repetition of the same actions – the intermittent iterative (marked by complete reduplication of the verb stem, see Section 7.4.5) and the pluractional (marked by a verbal extension =*aja* or =*ija*, see Section 7.5.2).

the final syllable of the verb word.²¹ In a one-consonant root, the root consonant is doubled (84). The verb words showing this aspect are bolded in each of the examples and the reduplicated consonant is underlined.

- (84) Kafta kosoko zlabā na, Məloko anga enen ahay **tóllo** a ləhe.
 kafta kɔsɔk^wɔ ʒaba na Mɔlɔk^wɔ anga ɛnɛŋ =ahaj **tɔ-llɔ** a
 day market Dogba PSP Moloko POSS another =Pl 3P+IFV-go+ITR at
 lɪhɛ
 bush
 ‘Each Sunday (the market of Dogba), some Molokos go to [work] their
 fields.’

In a CC root with no suffix, the first C of the stem is doubled (85, also see 86).

- (85) Tətərak angō nehe na, **káffɔd** ele angō a mogom waya azad merkwe bay.
 tətərak =aŋg^wɔ nɛhɛ na **ká-ffɔd** ɛɛ =aŋg^wɔ a mɔg^wɔm
 shoes =2S.POSS here PSP 2S+IFV-put+ITR thing =2S.POSS at home
 ‘Your shoes there, you should put them on (habitually, repeatedly, day
 after day) at home,’
 waja à-zad merk^wɛ baj
 because 3S+PFV-take travel NEG
 ‘because you can’t travel with them.’ (lit. it doesn’t take travel)

The fact that the reduplicated consonant is on the onset of the final syllable of the verb word (and not a particular consonant in the verb root) is illustrated by (86) and (87), which show the same verb / *z m* / in the 2S and 2P forms. The 2P form has an extra syllable in the verb word because of the 2P subject pronominal suffix. In the 2S form, the reduplicated consonant is *z* – the first consonant of the root. In the 2P form, the reduplicated consonant is *m* – the second consonant of the root. However in both cases, the reduplicated consonant is the consonant at the onset of the final syllable in the verb word.

- (86) A məjəvoko avā na, **kózzom** daf.
 a mɔdzɔvɔk^wɔ avā na **kɔ-zzom** daf
 at feast in PSP 2S+IFV-eat+ITR loaf
 ‘During a feast, you eat repeatedly (many times at many people’s houses).’

²¹ There are no examples in the corpus with verbal extensions.

- (87) A məjəvoko ava na, **kəzəmmom** dəf.

a mədzəvək^wə ava na **kə-zəmm-əm** dəf
at feast in PSP 2+IFV-eat+ITR-2P loaf

‘During a feast, you all eat (many times at many people’s houses).’

(88) and (89) also show the reduplication of the onset of the final syllable of the verb word with a /-j / suffix.

- (88) Kosoko molom na, ndam pəra ahay **təsse** gəzom.

kəsək^wə mələm na ndam pəra =ahaj **té-ff-é** gəzom
market home PSP person idol =Pl 3P+IFV-drink+ITR-CL wine

‘On market day, the traditionalists drink wine (many people, much wine).’

- (89) **Adarray** eteme waya gəvah gam.

à-dàrr-āj eteme waja gəvax gam
3S+PFV-plant+ITR-CL onion because field lots

‘He/she planted many onions because his field was large.’

7.4.5 Intermittent iterative

The intermittent iterative²² expresses the idea of the intermittent repetition of the same action, possibly by the same actor, over a period of time.²³ The intermittent iterative is formed by complete reduplication of the verb. (90) reflects a remark made by a friend concerning a situation where one duck died, then the owner bought another, and it died, and the situation was repeated four times. In the examples, the verb complex is delimited by square brackets.

- (90) Andəbaba ango amət amat.

andəbaba =aŋg^wə [a-mət a-mat]
duck =2S.POSS 3S-die 3S-die

‘Your ducks keep dying.’ (lit. your duck, it dies it dies)

In the elicited example below, the situation is that a group of people has gone to the market and has bought several items from several different vendors. Note that the directional extension *ala* occurs only once, following the second verb.

²² Friesen & Mamalis (2008) called this aspect simply “iterative.”

²³ Moloko has two other forms that involve repetition of the same actions – the habitual iterative (marked by reduplication of one consonant in the stem, see Section 7.4.4) and the pluractional (marked by a verbal extension =*aja* or =*ija*, see Section 7.5.2).

- (91) A kosoko ava na, nəskwəmom nəskwəmom ala.
 a kɔsɔk^{wɔ} ava na [nɔ-sɔk^{wɔ}m-ɔm nɔ-sɔk^{wɔ}m-ɔm =ala]
 at market in PSP 1-buy-1PEX 1-buy-1PEX =to
 ‘At the market, we buy and buy.’ (lit. at the market, we buy we buy)

7.5 Verbal Extensions

Friesen & Mamalis (2008) found that the six verbal extensions in Moloko are a class of morphemes that modify the meaning of the verb. They are clitics which cliticise to the right edge of the verbal complex to form a phonological word. The verb stem and the extensions may be separated syntactically by the indirect object pronominal clitics and third person DO pronominals (see Sections 7.3.2 and 7.3.3, respectively). The extensions will trigger the loss of any prosody on the verb stem.

In Moloko there are three categories of verbal extensions. Adpositionals (=aka ‘on’ and =ava ‘in’)²⁴ modify the meaning of the verb with particular reference to the location of the action. Directionals (=ala ‘toward,’ =ala ‘away,’ and =aja ‘back and forth’ or pluractional) add the idea of movement with respect to a particular point of reference. The third category is the Perfect =va.

7.5.1 Adpositionals

There are two adpositional enclitics:²⁵ =aka ‘on, on top of’ and =ava ‘in.’ These extensions give the verb an added sense of the location of the action in the discourse. The extension =aka ‘on, on top of’ (92) resembles the second element of the adposition *kə...aka* ‘on.’ In like manner, =ava ‘in’ (93) resembles the adposition *a...ava* ‘in’ (see Section 5.6.2). The corresponding adpositional phrases often co-occur with the adpositionals. In the examples, the adpositions and adpositionals are bolded.

- (92) Afəɗ**aka** war elé háy na, **kə** ver **aka**.
 a-fəɗ =**aka** war elɛ haj na **kə** ver **aka**
 3S-place =on child eye millet PSP on stone on
 ‘She put the grain of millet on the grinding stone.’

²⁴ These locational extensions are the same as the locational clitics on adpositional phrases; see Section 5.6.2.

²⁵ Friesen & Mamalis (2008) called these “locationals.”

- (93) Disobedient Girl, S. 26²⁶
 Məmətava alay a ver ava.
 mə-mət =ava =alaj a ver ava
 NOM-die =in =away at room in
 ‘She died in the room.’

Adpositional extensions are phonological enclitics at the right edge of the verb. Friesen & Mamalis (2008) showed them to be phonologically bound to the verb stem because the *-aj* suffix drops off when the clitic attaches ((95), see also Section 6.3). Compare (94) and (95) which illustrate the verb /g -j^e / ‘do.’ Note that the *-aj* suffix in the stem drops off when the extension =*aka* is attached (95). Another piece of evidence that the extension is phonologically bound to the verb stem is that the palatisation of the verb stem is neutralised by the extension. (94) has no adpositional extension, and the verb word is palatalised, whereas in (95) the locational extension =*aka* has neutralised the prosody of the entire verb complex.

- (94) Tege cəḏoy.
 tɛ-g-ɛ tsʊḏɔj
 3P-do-CL trick
 ‘They played a trick.’ (lit. they did trick)
- (95) Tagaka cəḏoy.
 ta-g =aka tsʊḏɔj
 3P-do =on trick
 ‘They played another trick.’ (lit. they did trick ‘on top’ [of when they did it before])

Another piece of evidence that the extensions are phonologically attached to the verb stem is that the word final allophones of /n/ and /h/, that is [ŋ] and [x], respectively, do not occur in the word final position in the verb word when the locational is attached. (96) illustrates that when the extension =*va* cliticises to the verb /r h/ ‘fill,’ word final alterations of /h/ do not occur. These allophones would be expected if the verb stem and Perfect extension were separate words.

- (96) Arahva pedede.

²⁶ Even though the verb in this example has verbal extensions, it is not conjugated for subject since it is a climactic point in the story where nominalised forms are often found (Section 7.6).

7 *The verb complex*

à-rah=va pɛdɛdɛ
3S+PFV-fill=PRF IDfull
'It had filled right to the rim.'

The adpositional does not cliticise to the verb in (97) and (98) since the indirect object pronominal enclitic and plural subject suffix both trigger a word-final boundary (see Section 7.1), rendering the adpositional in a separate phonological word. In the examples, the boundaries of the phonological words are indicated by square brackets.

- (97) Kanjaw **aka**.
 [ka-nz=aw] [=aka]
 2S-sit=1S.IO =on
 ‘You are better than me.’ (lit. you sit on me)
- (98) Nədozlom **ava** a cəvedʰava nə məze.
 [nə-dɔŋ-ɔm] [=ava] a tʃɪvedʰava nə mɪʒɛ
 1+PFV-intersect-1PEX =in in road in with person
 ‘We met a person on the road.’

The extension =*aka* ‘on’ or ‘on top of’ also has the metaphorical meaning of ‘in addition to,’ ‘again,’ or ‘even still’ when the action of the verb occurs ‘on top of’ something that occurred previously; compare the following pair of examples, and note how the =*aka* in (100) looks backward to another instance of the same action in (99).

- (99) Dərala.
 dər =ala
 move[2S.IMP] =to
 ‘Come closer (to me).’
- (100) Də**raka** ala.
 dər =aka =ala
 move[2S.IMP] =on =to
 ‘Come even still closer.’

Using =*aka* in a context where the addressee is eating renders the meaning ‘do you want any more ‘on top of’ what you have already eaten?’ (101).

- (101) Asok **aka** daw?
 a-s =ɔk^w =aka daw
 3S-want =2S.IO =on QUEST
 ‘Do you want any more?’ (lit. is it pleasing to you on?)

With the verb *mbad* ‘change,’ =*aka* gives an idiomatic meaning to mark a change of speaker; that is, he spoke ‘on top of’ what the other person had just said.

- (102) Ambadaŋ **aka**.
 a-mbad =aŋ =aka
 3S-change =3S.IO =on
 ‘He/she replied.’ (lit. he changed to him on)

7.5.2 Directionals

Friesen and Mamalis found three directional extensions =*ala* ‘towards’ (103, 104), =*alaj* ‘away from’ (105), and =*aja*/=*ija* ‘back and forth repeated movement’ (106). These directionals occur after the verb word and, if present, after the adpositional extensions as seen in (103) and (104). The directionals precede the Perfect (see Section 7.5.3), as seen in (106).

- (103) Kazaka **ala** hor ese.
 ka-zad̥ =aka =**ala** h^wɔr ɛʃɛ
 2S-take =on =to woman again
 ‘You take another wife’ (on top of the one you already have).²⁷ (lit. you take a wife on again)
- (104) Təjapata aka **ala** ana Məloko enen ahay.
 tə-dzap=ata =aka =**ala** ana Məloko^w ɛnɛŋ =ahaj
 3P-group=3S.IO =on =to DAT Moloko another =Pl
 ‘They grouped together again against some of the Molokos’ (point of reference is the Molokos)
- (105) Dəraka **alay**.
 dər =aka =**alaj**
 move[2S.IMP] =on =away
 ‘Move further away (from me).’
- (106) Race story²⁸
 Moktonok na, abək ta **aya** va məlama ahan ahay jəyga.
 mək^wtək^w na a-bək ta =**aja** =va məlama =ahanj =ahaj dzijga
 toad PSP 3S-invite 3P =PLU =PRF brothers =3P.POSS =Pl all
 ‘The toad, he had already invited all of his brothers.’ (i.e., he went back and forth to all his brothers, inviting each)

Like the adpositionals, the directionals are phonological clitics at the right edge of the verbal complex. The presence of the enclitics requires that the *-aj* suffix be dropped off (the verb stem in example (104) is /dzap-j/ ‘mix’). The neutral prosody of these extensions causes the palatalisation on the verb stem to neutralise. In (107) the verb stem is /nz-j^e/ ‘go’ with a 3S surface form of [ɛnzɛ].

²⁷ The root-final *d̥* of the verb *zad̥* ‘take’ drops off when affixes and clitics are added (Section 6.2).

²⁸ Friesen 2003.

- (107) **Anjala.**
 a-nz =**ala**
 3S-go =to
 ‘He/she is coming.’

Directional extensions orient the event expressed by the verb relative to a centre of reference. In speech, that point of reference is usually the speaker, so actions are seen as going towards the speaker (= *ala*), away from the speaker (= *alaj*), or back and forth repeatedly (= *aja*). Compare the following examples of the verb /s k^w m/ ‘buy/sell’ with a first person subject. When used with the directional =*ala* ‘toward,’ the verb means ‘buy’ (108). When it is used with the directional =*alaj* ‘away,’ it means ‘sell’ (109).

- (108) **Nəskomala awak.**
 nə-sək^wɔm =**ala** awak
 1S+PFV-buy/sell =to goat
 ‘I bought a goat.’
- (109) **Nəskomalay awak.**
 nə-sək^wɔm =**alaj** awak
 1S+PFV-buy/sell =away goat
 ‘I sold my goat.’

The directional =*ala* ‘toward’ indicates an action that moves toward the centre of reference (see 110 and 112). The directional =*alaj* ‘away’ indicates an action that moves away from that centre (see 111 and 113). Compare the example pairs for /d r/ ‘move’ (110 and 111) and for /z d/ ‘take’ (112 and 113). In each example pair, the first shows an action towards the speaker and the second shows an action away from the speaker.

- (110) **Dərala.**
 dər =**ala**
 move[2S.IMP] =to
 ‘Come closer (to me).’
- (111) **Dəralay.**
 dər =**alaj**
 move[2S.IMP] =away
 ‘Move away (from me).’

- (112) Zala eteme.

zaɗ =aɭa ɛtɛmɛ
take[2S.IMP] =to onion
'Bring the onion (to me).'

- (113) Zalay eteme.

zaɗ =aɭaj ɛtɛmɛ
take[2S.IMP] =away onion
'Take the onion away (from me).'

The third directional =*aja* or =*ija* gives the idea of repetitive movement back and forth. This repetitive back and forth movement is called pluractional.²⁹ A few verbs never occur without the pluractional and involve regular back and forth movements like sawing (114) or grinding (115). For other verbs, adding the directional adds a back and forth movement to the sense. (106) above involves the subject going from person to person to invite them to help.

- (114) Zar asəya memele.

zar a-s=iɭa memɛɭɛ
man 3S-saw=PLU tree
'The man saws the tree.'

- (115) Aban ahaya háy.

Aban̩ a-h =aɭa haj
Abang 3S-grind =PLU millet
'Abang grinds millet.'

Directionals are a device used in Moloko discourse to help provide cohesion.³⁰ Directionals keep the hearer oriented to the events of a story and how they relate to a particular spatial point of reference (a place or dominant character). The point of reference may remain constant throughout the whole story or it may change during the story. Selected lines from the Cicada text (116) illustrate how directionals relate main line events to the point of reference which is the chief (or

²⁹ A verbal extension or affix is one way of showing pluractional actions in other Chadic languages (Newman 1990). The other is reduplication of the verb root. Such verb root reduplication is also seen in Moloko for habitual iterative aspect Section 7.4.4 and intermittent iterative aspect Section 7.4.5.

³⁰ Other discourse devices which function in cohesion include demonstratives (Section 3.2), the adjectiviser *ga* (Section 5.3), the presupposition marker *na* (Chapter 11), and participant tracking (Section 7.3).

perhaps the place in his compound where he makes the wine). The directionals are bolded in the examples. The presence of the two directionals in (119) and (120) is the only way in the story that we know that the cicada brought the tree back to the chief (until the chief thanks him in line 34).

- (116) Cicada, S. 6

Albaya ahay ndana kəlen təngala**ala** ma ana bahay.

albaja =ahaj ndana kɪlɛŋ tɔ̀-ŋgala =**ala** ma ana bahaj

youth =Pl DEM then 3P+PFV-return =to word DAT chief

‘The above-mentioned young men then took the word (response) to the chief.’ (lit they returned the word to the chief)

- (117) Cicada, S. 12

Tolo taməŋjar na **ala** mama agwazla nəndəye.

tɔ̀-lɔ tɔ̀-məŋzar na =**ala** mama ag^waʒa nɪndijɛ

3P+PFV-go 3P+HOR-see 3S.DO =to mother spp. of tree DEM

‘They went to see [for the chief] that mother-tree.’

- (118) Cicada, S. 16

Kəlen albaya ahay tolo amaz**ala** agwazla na, taazala tɔ̀ta bay.

kɪlɛŋ albaja =ahaj tɔ̀-lɔ ama-z =**ala** ag^waʒa na

then youth =Pl 3P+PFV-go DEP-take =to spp. of tree PSP

‘And then, the young men left to bring back the tree [to the chief];’

tàà-z =**ala** tɔ̀ta baj

3P+HOR-take =to ability NEG

‘but they were not able to bring it [to the chief].’

- (119) Cicada, S. 30

Amag**ala** ləmes.

ama-g =**ala** lɪmɛʃ

DEP-do =to song

‘He was singing towards [the chief’s house].’ (lit. to do towards a song)

- (120) Cicada, S. 31

Sen **ala**.

ʃɛŋ =**ala**

ɪɔ̀walking =to

‘Walking along, he came [to the chief’s house].’

7 The verb complex

Sometimes the directional =*ala* ‘towards’ (see see Section 7.5.2) can carry a Perfect kind of idea (an event being completed before a temporal reference point with ongoing effects to that time) but which has a slightly different connotation to the Perfect extension =*va*. Compare (121) and (122). Use of the directional =*ala* ‘towards’ (121) with the verb /z m^o / indicates that the person has already eaten, but at some other location, since the directional gives the idea that food has come to the speaker. Use of the Perfect itself (122) indicates that the person has finished eating (at the place where he is sitting). As such, the directional =*ala* may be in the process of becoming grammaticalised for past tense or a subtype of Perfect.

(121) Nəzəməla toho.

nə-zəm =**ala** təh^wɔ

1S+PFV-eat =to DEM

‘I already ate over there (some other person’s house – before I arrived here).’

(122) Nəzəmvə pew.

nə-zəm =**va** pɛw

1S+PFV-eat =PRF enough

‘I already ate/ I have eaten enough (here in this place since I arrived here).’

Likewise, the verb /s k^w m/ ‘buy/sell’ is given a Perfect idea when it carries the =*ala* extension. In (108), the goat has come to the speaker. There is no Perfect extension (=va) but the idea is accomplished through the directional =*ala*.

(123) Nəskom na ala awak.

nə-sɔk^wɔm na =**ala** awak

1S+PFV-buy/sell 3S.DO =to goat

‘I bought the goat (and it is mine now).’

7.5.3 Perfect

The final extension is =*va*, the Perfect (Friesen & Mamalis 2008). The Perfect marks events or states as having occurred prior to a particular point of reference, with ongoing effect that continues to that point of reference (Comrie 1976). The Perfect extension is bolded in the examples.

- (124) Tawəy, “Ambəḏəva anga ləme.”
 tawij à-mbəd =va anga ləme
 3P+said 3S+PFV-change =PRF POSS 1PEX
 ‘They said, “It has become ours!”’ (lit. it has changed; belonging to us)
- (125) Nasar həraf ələ nəngehe asabay,
 nə-sar həraf ələ nəngehe asa-baj
 1S+PFV-know medicine thing DEM again-NEG
 ‘I didn’t know how to resolve the problem,’
 waya nəlva afa səwpərefe.
 waja nə-l =va afa suwpərefe
 because 1S+PFV-go =PRF at house of sub prefect
 ‘because I had already been to the sub-prefect [and he didn’t help me].’
- (126) Təta na, tanjakəva ələ məzəme.
 təta na tà-nzak =va ələ mī-ʒim-ε
 3P PSP 3P+PFV-find =PRF thing NOM-eat-CL
 ‘And so they had found something to eat.’
- (127) Arahəva pəḏəḏe.
 à-rah=va pəḏəḏe
 3S+PFV-fill=PRF IDfull
 ‘It had filled right to the rim.’
- (128) Nəzəmva.
 nə-zəm=va
 1S+PFV-eat=PRF
 ‘I already ate.’

Unlike the other extensions, the Perfect enclitic has two possible positions in the verb phrase. It can either be phonologically bound to the right edge of the verbal complex (see Section 7.1) or to the right edge of the clause (Chapter 8) after the direct object and adpositionals. In (124–127, 131), =va follows the adpositional and directional extensions in the verb complex and precedes other elements in the verb phrase. In (129) and (132), =va occurs at the end of the clause, a rarer construction that presumably occurs to underscore the idea that the event is already finished.

(129) Disobedient Girl, S. 17

Azla na, hor na, asərkala afa təta **va** na,
 aʒa na h^wɔr na à-sərk =ala afa təta =**va** na
 now PSP woman PSP 3S+PFV-habitually =to at house of 3P =PRF PSP
 ‘Now, that woman, her habit was (lit. now, the woman, she was in the
 habit of at their place)
 aməhaya háy na, gam.
 amə-h =aja haj na gam
 DEP-grind =PLU millet PSP a lot
 ‘to grind a lot of millet.’

The Perfect extension has neutral prosody itself and causes the loss of palatalisation of the verb stem (compare 130–131 where the stem is / s -j^e /). Also, verb stems drop their *-aj* suffix when this extension is present. These features all confirm that =*va* is an enclitic. In (130) without the Perfect, the verb stem is palatalised. (130) shows that when the verb carries the Perfect extension, the stem loses its palatalisation.

(130) Nese gəzom.

nè-ʃ-ε gʊzɔm
 1S+PFV-drink-CL millet beer
 ‘I drank millet beer.’

(131) Nasava gəzom.

nè-s-a =**va** gʊzɔm
 1S+PFV-drink-CL =PRF millet beer
 ‘I drank millet beer already.’

Notably, palatalisation is lost even when there are intervening words (132), even though the prosody of these words is unaffected.

(132) Nasa gəzom **va**.

nà-s-a gʊzɔm =**va**
 1S+PFV-drink-CL millet beer =PRF
 ‘I drank millet beer already.’

Likewise (133) illustrates the loss of palatalisation from the root / g -j^e / ‘do’ when the Perfect is added.

- (133) Ləho agava.
 ləh^wə à-g-a =va
 late afternoon 3S+PFV-do-CL =PRF
 ‘It is the cool of the day (after three o’clock).’ (lit. late afternoon has done)

Bow (1997a) established that the Perfect extension³¹ carries a floating tone. Its underlying tone is HL. She demonstrates the floating tone using two verbs with different tone melodies; the high tone verb /bal -j/ ‘wash’ (134–135) and the low tone verb /a-dar -j/ ‘plant’ (136–137), both with the object noun [háj] ‘millet.’ (134) and (136) show the two clauses without the Perfect for comparison. Comparing (135) with (137) demonstrates that the floating low tone on the Perfect has lowered the tone of ‘millet’ from high to mid since there is no other low tone apparent that could be responsible for the lowering.

- (134) Nəbalay háy.
 [nə-báláj háj]
 1S+IFV-wash millet
 ‘I wash the millet.’
- (135) Nəbalva háy.
 [nə-bál=vá hāj]
 1S+PFV-wash=PRF millet
 ‘I washed the millet already.’
- (136) Nədaray háy.
 [nə-dàrāj háj]
 1S+IFV-plant millet
 ‘I plant the millet.’
- (137) Nədarva háy.
 [nə-dàr=vā hāj]
 1S+PFV-plant=PRF millet
 ‘I planted the millet already.’

The Perfect extension can mark information in a relative clause (see Section 5.4.3) as having been accomplished before the information in the main clause, with relevance to the point of reference in the main clause (138).

³¹ Bow (1997a) called it an aspect or tense marker.

- (138) War elé háy ngəndəye nok ameze na va, bəlen ngəndəye na,
 war élə haj ɲgɪndijɛ [nɔk^w amɛ-ʒ-ɛ na =va] bɪlɛɲ ɲgɪndijɛ na
 child eye millet DEM 2S DEF-take-CL 3S.DO =PRF one DEM PSP

‘That grain that you have taken, that one [grain],’

káahaya kə ver aka.

káá-h =aja kə ver aka

2S+POT-grind =PLU on grinding stone on

‘grind it on the grinding stone.’

When the Perfect co-occurs with Perfective aspect (124–129, 135, 137), it indicates that the event expressed by the verb took place before the point of reference established in the discourse. When the Perfect co-occurs with Imperfective aspect (139–142), the verb is resultative, referring to an ongoing state that is the result of a previous completed event (filling, becoming tired, ripening, or becoming angry).

- (139) Árahəva.
 á-ráh =va
 3S+IFV-fill =PRF
 ‘It is full.’

- (140) Mana áyədəva.
 Mana á-jəd =va
 Mana 3S-tire PRF
 ‘Mana is tired.’

- (141) Háý ánahəva.
 haj á-nah =va
 millet 3S-ripen PRF
 ‘The millet is ripe.’

- (142) Disobedient Girl, S. 33
 Məloko ahay tawəy, “Hərməbəlom ága bərav va
 mɔlək^w =ahaj tawij Hərməbəlom á-g-a bərav =va
 Moloko =Pl 3P+said God 3S+IFV-do-CL heart =PRF
 ‘The Molokos say, “God had gotten angry’

kəwaja war dalaj na, amecen sləmay bay ngəndəye.”
 kuwaja war dalaj na amɛ-tʃɛŋ ʔəmaj baj ŋɡɪndijɛ
 because child girl PSP DEP-hear ear NEG DEM
 ‘because of that girl, that one that was disobedient.’”

In narrative discourse, the Perfect verbal extension =*va* marks events that occur prior to the events on the main story line, and which supply flashback information to the story. For example, in the setting of the Disobedient Girl story (S. 2), the Perfect marks God giving his blessing to the people. This blessing preceded the events of the story (143) and had an ongoing effect at the time of the story.

(143) Disobedient Girl, S. 3

Zlezle na, Məloko ahay na, Həmbəlom ávəlata barka *va*
 ʔləʔə na Mələkʷɔ =ahaj na Həmbəlom á-vəl =ata
 long ago PSP Moloko =Pl PSP God 3S+IFV-send =3P.IO
 barka =*va*
 blessing =PRF

‘Long ago, to the Moloko people, God had given his blessing.’

In the body of the Disobedient Girl story (129 above), the story flashes back to the woman’s prior situation, using the Perfect, in order to prepare the reader/hearer for what will happen next in the story. In the body of another fable (the race between the giraffe and the toad, Friesen 2003), the Perfect marks a flashback to a prior action of the toad.

(144) Macəkəmbay moktonok na, abək ta aya *va*

matsəkəmbaj məkʷtənəkʷ na a-bək ta =aja =*va*
 meantime toad PSP 3S-invite 3P.DO =PLU =PRF

‘In the meantime the toad, he had already invited’

mələma ahan ahay jəyga.
 məlama =ahan =ahaj dzijga
 brother =3S.POSS =Pl all
 ‘all of his brothers.’

7.6 Nominalised verb form

The nominalised verb form³² is derived from a verb stem by the addition of the prefix /*m-*/ plus a palatalised suffix [-*ε*].³³ Syntactically, the nominalised form can pattern as a noun (see Section 7.6.1), and in certain cases it can pattern as a verb, taking some inflectional components such as object suffixes and extensions (see Section 7.6.2). In the examples below, both underlying and nominalised forms are given. The nominalised form indicates an event (race, 145; betrayal, 146) or state (beauty, 147; coldness, 148).

- | | | |
|-------|-------------------------|------------|
| (145) | /h-m -j/ | mi-hm-ε |
| | ‘run’ | ‘race’ |
| (146) | /tʃaf ^e / | mi- tʃεf-ε |
| | ‘betray’ | ‘betrayal’ |
| (147) | /r b -j/ | mi-rɪb-ε |
| | ‘be beautiful’ | ‘beauty’ |
| (148) | /ndaɫ -j ^e / | mi-ndeɫ-ε |
| | ‘make cold’ | ‘coldness’ |

In the case where a verb stem consists of one single consonant, the nominalised form receives an additional syllable [-ijε].

- | | | |
|-------|----------------------|------------|
| (149) | /dz -j/ | mi-dʒ-ijε |
| | ‘say’ | ‘saying’ |
| (150) | /s -j ^e / | mi-ʃ-ijε |
| | ‘drink’ | ‘drinking’ |
| (151) | /l ^o / | mi-l-ijε |
| | ‘go’ | ‘going’ |

If present, the underlying *a-* prefix in a verb stem shows up in the prefix vowel of the nominalised form. The prefix vowel in an *a-* prefix verb is full; in (152) and (153), this full vowel is realised as [ε] due to the palatalisation prosody which is part of the nominalising morphology. Compare with (145–148) where [mi-] is the prefix for verb stems with no *a-* prefix.

³² Friesen and Mamalis called this form the ‘infinitive.’

³³ There is also an irregular nominalisation process that has already been discussed (Section 4.2).

- (152) /a- d a r -aj/ mɛ-dɛr-ɛ
 ‘plant’ ‘planting’
- (153) /a- d l/ mɛ-dɪl-ɛ
 ‘overtake’ ‘overtaking’

The tone pattern of the nominalised form reflects the underlying tone of the verb stem. Table 7.15 (from Friesen & Mamalis 2008) illustrates a few nominalised forms that suggest this pattern.

Table 7.15: Nominalised form tone patterns

Tone class	Underlying form	Nominalised form	Imperative	Gloss
High tone verb stems	/nz a k -j /	<i>mí -nʒék-è</i>	<i>nzák-áj</i>	‘find’
	/ z m ^o /	<i>mí-zùm-è</i>	<i>zóm</i>	‘eat’
Low tone verb stems without depressor consonants	/f d/	<i>mī-fīd-ē</i>	<i>fād</i>	‘put’
	/tats -j /	<i>mī-tētf-ē</i>	<i>tāts-áj</i>	‘close’
Low tone verb stems with depressor consonants	/v h n -j /	<i>mī-víhīn-ē</i>	<i>vàhàn-āj</i>	‘vomit’
	/a-dar -j /	<i>mē-dēr-ē</i>	<i>dār-āj</i>	‘plant’
Toneless verb stems	/d d /	<i>mì-díd-ē</i>	<i>dàd</i>	‘fall’
	/nd z /	<i>mì-ndéz-ē</i>	<i>ndàz</i>	‘pierce’

7.6.1 Nominalised form as noun

As a noun, the nominalised form takes modifiers the same as any abstract noun, i.e., quantifier (155), numeral (156), possessive pronoun (154), demonstrative (157), adjectiviser (158–160) but not plural (see Section 4.2.5). Any argument of the clause can be realised with a nominalisation. The noun phrase is marked off by square brackets and the nominalised form is bolded in the examples.

- (154) [Məhəme aloko na], epeley?
 [mɪ-hɪm-ɛ =alɔk^{wɔ} na] ɛpelej
 NOM-run-CL =1PIN.POSS PSP when
 ‘When is our race?’ (lit. our running [is] when)

- (155) Disobedient Girl, S. 4
 Āvata [məvəye hada.]

á-v=ata [mɪ-v-ije hada]
 3S+IFV-spend time=3P.IO NOM-spend time-CL many
 ‘It will last them many years.’ (lit. it will spend time for them many time-spending³⁴)

- (156) Ege [məvəye məko] ehe, nawas háy əwla.
 ɛ-g-ɛ [mɪ-v-ije məkʷɔ] ɛhe na-was haj =uwla
 3S-do-CL NOM-spend time-CL six here 1S-cultivate millet =1S.POSS
 ‘Six years ago (lit. it did six years), I cultivated my millet.’
- (157) [Medəre nehe na], səlom ga.
 [mɛ-dɪr-ɛ nehe na] səlɔm ga
 NOM-plant-CL DEM PSP goodness ADJ
 ‘This planting is good.’

Adjectives can be further derived from a nominalised verb form by adding *ga*, as is true of any noun (Section 4.3). Adjectives that are derived from nominalised verbs express resultant states. For example, the peanuts in (158) are already ground, the woman in (159) is already beautiful, the man is already seated in (160). The nominalised forms are bolded in the examples.

- (158) Nadok [andəra **məngəldɛ** ga.]
 na-d=ɔkʷ [andəra mɪ-ŋɡɪld-ɛ ga]
 1S-prepare=2S.IO peanut NOM-grind-CL ADJ
 ‘I made peanut butter (lit. ground peanuts) for you.’
- (159) Avəlaw [war dalay **mərəbe** ga.]
 a-vəl=aw [war dalaj mɪ-rɪb-ɛ ga]
 3S-give=1S.IO child female NOM-be beautiful-CL ADJ
 ‘He/she gave me a beautiful girl.’
- (160) Ndahan [mənɲəye ga.]
 ndahan [mɪ-nɜ-ijɛ ga]
 3S NOM-sit-CL ADJ
 ‘He/she [is] seated.’

It is interesting that noun phrases where the head noun is a nominalised verb behave like a clause when there is a noun modifier. The nominalised verb can

³⁴ The nominalised form of the verb ‘spend time’ has been lexicalized as ‘year.’

be the head of a genitive construction (see Section 5.4.1), a permanent attribution construction (see Section 5.4.2), or an argument in another clause (see Section 12.1.1). In the genitive construction (154 and 164), the second noun represents the subject of the verb stem. In the other constructions (161–162), the second noun represents the direct object of the nominalised verb.

- (161) mabeze háy
 mɪ-bɛʒ-ɛ haj
 NOM-harvest-CL millet
 ‘the millet harvest’
- (162) andəra mængəldɛ ga
 andəra mɪ-ŋɡɪld-ɛ ga
 peanut NOM-grind-CL ADJ
 ‘ground peanuts’
- (163) mənɲəye a Mana
 mɪ-nʒ-ijɛ a Mana
 NOM-sit-CL GEN Mana
 ‘Mana’s behaviour’ (lit. the sitting of Mana)
- (164) məhəme aloko
 mɪ-hɪm-ɛ =alɔk^{wɔ}
 NOM-run-CL =1PIN.POSS
 ‘our race’ (lit. the running of us)

7.6.2 Nominalised form as verb

The nominalised form can fill the verb slot in a clause (discussed further in Section 8.2.3 and Section 9.4). (165) and (166) are full (complete) clauses on the main event line where the verb is in nominalised form. Such clauses are found at the inciting moment and peak of a narrative. The nominalised form is not conjugated for subject or direct object, but the clause may have a subject (the 3s pronoun *ndahan* in 165) or direct object (*jam* ‘water’ in 165) and other clausal elements. The nominalised form can take verbal extensions (3p indirect object =*ata*, adpositional =*aka* and Perfect =*va* in 165; the adpositional =*ava* and the directional =*alaj* in 166).

- (165) Ndahan ngah mangəhata aka va yam a ver ahan ava.

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ndahanŋ ŋgah **ma-ŋgəh=ata=aka=va** jam a ver =ahanŋ ava
 3S hide NOM-hide=3P.IO=ON=PRF water in room =3S.POSS in
 ‘He had hidden the water in his room’ (lit. he hide-hiding water in his room)

- (166) Məmətava alay a ver ava.
 mə-mət =ava =alaj a ver ava
 NOM-die =in =away in room in
 ‘[She] died in the room.’ (lit. death in the room)

7.6.3 Verb focus construction

The nominalised form of a verb is used in an idiomatic construction that functions to bring focus on the verb. The verb focus construction is composed of an inflected verb followed by an adpositional phrase (see Section 5.6.1) containing the same verb in nominalised form. (167) shows the construction *nʊ-sʊkʷɔm nə mɪ-sʊkʷɔm-ɛ* ‘I really did buy it’ (lit. I bought [it] with buying). This construction specifies that the action is done ‘by means of’ or ‘by actually’ doing something (to the exclusion of all other possibilities). It is used by the speaker to contest a real or implied challenge of the validity of what has been said. In (167), the speaker is saying that he actually bought a particular item, i.e. he didn’t steal it and nobody gave it to him. Likewise, (168)–(170) illustrate other verbs in this construction.

- (167) Awəy, “Nəskom **nə məsəme.**”
 awij nʊ-sʊkʷɔm nə mɪ-sʊkʷɔm-ɛ
 said 1S-buy with NOM-buy-CL
 ‘He said, “I actually bought it.”’ (lit. I bought it with buying)
- (168) Káslay awak **nə məsləye.**
 ká-ɬ-aj awak nə mɪ-ɬ-ije
 2S+IFV-slay-CL goat with NOM-slay-CL
 ‘You kill goats by cutting their throat and not by any other way’ (lit. you slay a goat with slaying)
- (169) Kákaf okfom **nə məkəfe.** Káslay bay.
 ká-kaf ɔkʷfɔm nə mɪ-kɪf-ɛ ka-ɬ-aj baj
 2S+IFV-kill(club) mouse with NOM-kill(club)-CL 2S+IFV-slay-CL NEG
 ‘You kill mice by smashing their head; you don’t cut their throats.’

- (170) Kándaz **nə məndəze** awak anga pəra.
ká-ndaz nə mɪ-ndɪʒ-ɛ awak anga pəra
2S+IFV-kill(pierce) with NOM-kill(pierce)-CL goat POSS idol
‘You kill a goat for the idols by piercing it (you don’t cut its throat).’ (lit.
you kill with killing a goat that belongs to an idol)

7.7 Dependent verb forms

A dependent verb form is formed by prefixing *am-* to the verb stem, palatalisation, and the suffix *-ɛ* (or *-ijɛ* for verb roots of one syllable). Historically, this construction may involve the nominalised form (see Section 7.6) preceded by the preposition *a* ‘to.’³⁵ In any case it acts as a single unit now. Table 7.16 shows examples of the dependent verb form for stems of each underlying prosody. The table gives the underlying form, the third person singular form, the nominalised form, and the dependent form.

Table 7.16: Dependent verb forms

Underlying form	Gloss	3s form	Nominalised form	Dependent form
/h-m -j/	‘run’	<i>a-həm-aj</i>	<i>mɪ-hɪm-ɛ</i>	<i>amɪ-hɪm-ɛ</i>
/d -j ^e /	‘prepare’	<i>ɛ-d-ɛ</i>	<i>mɪ-d-ijɛ</i>	<i>amɪ-d-ijɛ</i>
/sk ^w m/	‘buy’/‘sell’	<i>a-sək^wəm</i>	<i>mɪ-sək^wəm-ɛ</i>	<i>amɪ-sək^wəm-ɛ^a</i>

^a Note that the labialised consonant /k^w/ keeps its labialisation even when the word is palatalised (Section 2.2.2).

There are no subject inflections on the dependent verb form; the subject is determined either by the subject of the matrix clause (a gap for subject is marked as Ø in 171, 173, and 174) or a pronoun within the dependent clause indicating subject (172 and 176). The dependent form of the verb may receive object suffixes and extensions. The dependent verb form is used when clauses that carry an imperfective or unfinished idea are embedded in other constructions. The clause structure is illustrated in Figure 7.5.

³⁵ Crosslinguistic studies reveal that locatives can give rise to Imperfectives (Comrie 1976: 103; Bybee, Perkins & Pagliuca 1994: 142; Heine & Kuteva 2002: 99).

(subject pronoun)	Dependent verb plus extensions expressing event	(direct object noun phrase)	(oblique adposi- tional phrase)	(adverb)
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Figure 7.5: Constituent order in dependent clauses

The types of clauses that employ dependent verb forms are:

- Relative clauses (Section 5.4.3)
- Adverbial clauses (Section 12.2)
- Complement clauses (Section 12.1)

The relative clause is a noun phrase modifier (171–176). In the examples in this section, the dependent verb is bolded and the dependent clause is marked with square brackets.

(171) Disobedient Girl, S. 38

War dalay ga ngendäye [**amazata aka ala** avəya nengehe
war dalaj ga ngendije [Ø **ama-z=ata** =aka =ala avija
child girl ADJ DEM DEP-carry=3P.IO =on =to suffering
nɛŋgɛhɛ
DEM

‘this female child that had brought this suffering’

ana mæze ahay na.]
ana mɪʒɛ =ahaj na]
DAT person =Pl PSP
‘to the people.’

(172) Tasan oko ana hay [ata **aməgəye na va.**]

ta-s-aŋ ɔkʷɔ ana haj [=atəta **amɪ-g-ijɛ na** =va]
3P-cut=3S.DO fire DAT house =3P.POSS DEP-do-CL 3S.DO =PRF

‘They (the attackers) set fire to the house that the others had built (lit. their house to prepare).’

Adverbial clauses in Moloko are subordinate temporal clauses that are embedded in the main clause as the first (173) or last (174) element.

(173) [**Aməhaya həmbo na**], anday asakala wəsekeke.

[Ø **amə-h** =aja hũmbɔ na] a-ndaj a-sak =ala wufɛkɛkɛ
 DEP-grind =PLU flour PSP 3S-PRG 3S-multiply =to IDmultiply
 ‘While [she] was grinding the flour, [the millet] was multiplying.’

(174) Cicada, S. 16

Kəlen albaya ahay tolo [**amazala** agwazla na.]
 kılɛŋ albaja =ahaj tɔ-lɔ [Ø **ama-z=ala** ag^waʒa na]
 then young men =Pl 3P-go DEP-take=to spp. of tree PSP
 ‘Then the young men went to try to bring back the tree [to the chief].’

The complement clause can function as the subject (175) or the direct object (176) of the matrix verb.

(175) Asaŋ [amadata aka va azan.]

a-s =aŋ [Ø ama-d=ata =aka =va azan]
 3S-want =3S.IO DEP-prepare=3P.IO =on =PRF temptation
 ‘He wanted to tempt them.’ (lit. to prepare a temptation for them [is]
 pleasing to him)

(176) Məkəɖ va azla tazlan [aləme **aməzləge** va.]

mə-kəɖ va aʒa ta-ʒ =aŋ [alɪmɛ **amɪ-ʒɪg-ɛ** va]
 NOM-kill body now 3P-begin =3S.IO 1PEX.POSS DEP-plant-CL body
 ‘Combat now, they began to fight with us.’ (lit. killing body now, they
 started it, our planting bodies)

8 Verb phrase

The verb phrase is the third of four chapters that concern the Moloko verb. Chapter 6 explores the structural features of the verb root and stem. Chapter 7 discusses what we have called the verb complex, which is a phonological unit consisting of the verb stem plus the pronominal affixes and enclitics, aspect/mood markings, and verbal extensions. These components are closely phonologically bound even though they may comprise from one to three phonological words. The chapter also covers derived forms. Chapter 9 describes verb types and transitivity. Moloko has a flexible valence system which allows variations in the transitivity of a given verb with no morphological marking. This chapter¹ concerns the structure and functions of the verb phrase. Section 8.1 describes the constituents of the verb phrase and their order. Section 8.2 shows auxiliary verb constructions where two verbs form a syntactic unit.

8.1 Verb phrase constituents

The verb phrase in Moloko is centred around the verb complex (bolded in Figure 8.1, cf. Chapter 7). Other elements are all optional and occur in the order diagrammed in Figure 8.1.

(Auxiliary)	Verb complex	(Noun phrase or 'body-part')	(Adpositional phrases)	(Adverb)	(Ideophone or negative)
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Figure 8.1: Moloko verb phrase constituents

The auxiliary verbs include the progressive (see Section 8.2.1), the verb *lɔ* 'go' when used as an auxiliary (see Section 8.2.2), and the verb stem or ideophone in its construction (see Section 8.2.3).

Direct objects follow immediately after the verb complex and are expressed as noun phrases (bolded in 1 and 5) or 'body-part' incorporated nouns (bolded in 2; see Section 9.2.5). Adpositional phrases (underlined in 2–6, see Section 5.6) and then adverbs (italicised in 4; see Section 3.5 and 5) or ideophone (italicised in 1

¹ This chapter is adapted from Friesen & Mamalis 2008.

and 6; see Section 3.6) follow after the direct object. The verb phrase is delimited by square brackets in the examples below.

- (1) Həmbo ga [anday asak **ele ahan** wəsekeke.]
 həmbɔ ga [a-ndaj a-sak **ɛle =ahan** wʊfɛkɛkɛ]
 flour ADJ 3S-PRG 3S-multiply thing =3S.POSS 1Dmultiply
 ‘The flour was multiplying all by itself (lit. its things), ushekeke.’
- (2) [Tandalay talala təzləgə **va ana Məloko ahay.**]
 [ta-nd=alaj ta-l =ala tə-ʒəg-ə **va ana Mʊlɔk^{wɔ} =ahaj**]
 3P-PRG=away 3P-go =to 3P-throw-CL body DAT Moloko =Pl
 ‘They were coming and fighting with the Molokos.’ (lit. they were coming they threw body to Molokos)
- (3) [Enjé **kə delmete aka a slam enen.**]
 [ɛ-ndʒ-ɛ ulpkə **delmetɛ aka a ʃam ɛnɛŋ**]
 3S-leave-CL on neighbor on at place another
 ‘He left to go to his neighbor at some other place.’
- (4) [Názad **a dəray ava sawan.**]
 [ná-zad **a dəraj ava sawaŋ**]
 1S+1FV-carry at head in without help
 ‘I can carry it on my head myself!’
- (5) [Nəvəlan **yam ana Mana zayəhha.**]
 [nə-vəl=aŋ **jam ana Mana zəjəx=xa**]
 1S+PFV-give=3S.IO water DAT Mana care=ADV
 ‘I gave water to Mana carefully.’
- (6) [Azləgalay **a vəlo zor.**]
 [à-ʒəg =alaj **a vʊlɔ zor**]
 3S-throw =away at above 1Dthrowing
 ‘She threw [the pestle] up high, zor.’

Radford (1981: 69) gives diagnostic criteria for determining whether a given string of words is a sentence constituent or not. Following these criteria, all of the above elements are part of the verb phrase as a constituent of the clause. The elements of the verb phrase behave distributionally as a single structural unit that does not permit intrusion of parenthetical elements internally, but rather only

at the boundaries. For Moloko, the distribution of adverbs, emphatic interrogative pronouns, ideophones, the Perfect enclitic, and the manner of fronting all attest to the unity of the verb phrase as described above. Only the presupposition marker can intrude into the verb phrase, and only in a particular construction. Each of these factors is discussed below.

Some temporal adverbs can occur first in the clause or last in the verb phrase (7 and 8), but not in the interior of the verb phrase. Likewise, emphatic interrogative pronouns occur first or last in the clause (emphatic interrogative pronouns are bolded in 9, see Section 10.3.5).

- (7) **Egəne** [nólo a kosoko ava.]
ɛɡɪnɛ [nó-lo a kɔsɔkʷɔ ava]
 today 1S+IFV-go at market in
 ‘Today I will go to the market.’
- (8) [Nólo a kosoko ava **egəne**.]
 [nó-lo a kɔsɔkʷɔ ava **ɛɡɪnɛ**]
 1S+IFV-go at market in today
 ‘I will go to the market today.’
- (9) **Wa** [amazaw ala agwazla ana ne na] **way**?
wa [ama-z =aw =ala agʷaʒa ana ne na] **waj**
 who DEP-take =1S.IO =to spp. of tree DAT 1S PSP who
 ‘Who can I find to bring me this tree.’

Ideophones have only three slots within the clause: First in the clause (10),² first in verb phrase ((11), see Section 8.2.3),³ last in verb phrase (12). The ideophones are italicised in the examples.

- (10) Snake, S. 13
Kaləw [nazala ezlere əwla.]
kaluw [nà-z =ala ɛʒɛɛ =uwla]
 1DTake quickly 1S+PFV-take =to spear =1S.POSS
 ‘I quickly took my spear.’

² Note that an ideophone that is first in the clause is sometimes delimited by *na* (19).

³ When the ideophone is first in the verb phrase it necessitates the nominalised form of the verb Section 8.2.3.

8 Verb phrase

(11) Cicada, S. 15

Ndahan [gədok mədəye gəzom.]
 ndahan [gʊdɔk^w mɪ-d-ijɛ gʊzɔm]
 3S IDprepare wine NOM-prepare-CL wine
 ‘He gudok made wine.’

(12) Snake, S. 5

[Acar a hay kəre ava fo fo fo.]
 [à-tsar a haj kɪɾɛ ava fɔ fɔ fɔ]
 3S+PFV-climb at house beams in IDSound of snake
 ‘[The snake] climbed into the beams in the roof fofof.’

The distribution and influence of the Perfect enclitic =*va* also attests to the unity of the post-verbal elements in the verb phrase. The Perfect enclitic =*va* (bolded in 13–16), can either cliticise to the end of the verb complex (13) or the end of the entire verb phrase (14–16). The phonological influence of the Perfect extends across the entire verb phrase since its presence in either post-verbal or phrase-final position causes a neutralisation of the prosody on the verb stem (see Section 7.5.3).

(13) Values, S. 6

[Tahata na **va** kə dəftɛɾɛ aka.]
 [tə-h=ata na =**va** kə dəftɛɾɛ aka]
 3P+PFV-tell=3P.IO 3S.DO =PRF on book on
 ‘They have already told them in the book.’

(14) Disobedient Girl, S. 34

Waya ndana Hərmbəlom [ázata aka barka ahan **va**.]
 waja ndana Hərmbəlom [á-z =ata =aka barka =ahan
 because DEM God 3S+IFV-take =3P.IO =on blessing =3S.POSS
 =**va**]
 =PRF
 ‘Because of the above-mentioned, God had taken back his blessing from them.’

(15) Baba angó [avəlatá nók **va** a ahar ata ava.]

baba =aŋg^wɔ [a-vəl=ata nɔk^w =**va** a ahar =atəta ava]
 father =2S.POSS 3S-give=3P.IO 2S =PRF at hand =3P.POSS in
 ‘Your father gave you into their hands [to be a wife for one of them].’

- (16) Nde hor na, [asərkala afa tətə va]
 ndɛ h^wɔr na [a-sərk=ala afa tətə =va]
 so woman PSP 3S-habitually=to at house of 3P.POSS =PRF
 ‘Now, that woman, she was in the habit at their house.’

Only certain elements in the verb phrase can be fronted in the clause and marked with the presupposition marker *na* (see Section 11.2 for the explanation of this construction). The fact that some elements cannot be fronted indicates that they are closely bound to the verb phrase structure. These elements include the ‘body-part’ incorporated noun (cf. Section 9.3), the negative (see Section 10.2.1), and adverbs which are bound to the negative. Some of these elements are from the far right edge of the verb phrase. The elements that may be fronted are underlined in (17–19) and include direct object and oblique (17), derived adverb (18), indirect object and ideophone (19).

- (17) Values, S. 13
A məsəyon ava na ele ahay aməwəsle na, [tége bay.]
 a mɪsijɔŋ ava na elɛ =ahaj amɪ-wuɫ-ɛ na [tɛ-g-ɛ baj]
 at mission in PSP thing =Pl DEP-forbid-CL PSP 3P+IFV-do-CL NEG
 ‘In the mission, these things that they have forbidden, they don’t do.’
- (18) Values, S. 39
Pepenna na, [takad sla.]
 pɛpɛŋ =ŋa na [tə-kad ɬa]
 long ago =ADV PSP 3P+PFV-kill cow
 ‘Long ago, they killed cows.’
- (19) Values, S. 3
Səwat na, tətə a məsəyon na ava nəndəye na,
suwat na tətə a mɪsijɔŋ na ava nɪndijɛ na
 ɪɔdispɛrɛ PSP 3P at mission PSP in DEM PSP
 ‘As they disperse, those in that mission,’
 [pɛstɛr áhata], “Ey, ele nehe na, kógom bay!”
 [pɛɬtɛr á-h =ata] ɛj ɛlɛ nɛhɛ na kó-g^w-ɔm baj
 pastor 3S+IFV-tell =3P.IO hey thing DEM PSP 2+IFV-do-2P NEG
 ‘the Pastor told them, “Hey! These things, don’t do them!”’

The only construction where an external element can appear to break up the verb phrase is the focus construction ((20)–(22); see Section 11.5), the presupposition marker *na* can appear to break up parts of the verb phrase. However the

structural unity of the verb phrase unit is not challenged since *na* can occur only once within the verb phrase in this construction and only in one position – immediately before the final focussed element. It does not intrude into any other position. In each of (20–22), the penultimate placing of *na* functions to make the final element of the verb phrase more prominent. In each example, only the verb phrase containing *na* is delimited by square brackets and the part delimited by *na* is underlined. In (20), *na* occurs in the adverbial clause between the direct object (*haj* ‘millet’) and the verb phrase-final adverb (*gam* ‘much’). In (21), *na* occurs in the matrix clause between the verb complex and the verb phrase-final prepositional phrase (*ka mahaj* = *aŋg^{wɔ} aka* ‘by your door’). (21–22) shows two verb phrases which both contain *na*. In each case, *na* occurs immediately before the final element of the verb phrase.

(20) Disobedient Girl, S. 17

Azla **na**, hor **na**, asərkala afa tətə va **na**,
 aʒa **na** h^{wɔr} **na** [à-sərk =ala afa tətə =va **na**]
 now PSP woman PSP 3S+PFV-habitually =to at place of 3P =PRF PSP
 ‘Now, that woman, she was in the habit at their house’

[aməhaya háy **na** gam.]
 [amə-h=aʒa haj **na** gam]
 DEP-grind=PLU millet PSP a lot
 ‘[of] grinding a lot of millet.’

(21) Cicada, S. 7

Mama agwazla ava a ləhe **na**, malan ga **na**,
 mama ag^waʒa ava a lɪhe **na** malan ga **na**
 mother spp. of tree EXT at bush PSP large ADJ PSP
 ‘There is a mother-tree in the bush, a big one,’

[agasaka **na** ka mahaj angə aka] aməmbese.
 [à-gas=aka **na** ka mahaj =aŋg^{wɔ} aka] àmɪ-mbɛʃ-ɛ
 3S+PFV-get=on PSP on door =2S.POSS on DEP-rest-CL
 ‘[and] it would please you to have that tree at your door, [so that you could] rest [under it].’

(22) Values, S. 29

Hərməlom **na**, amadaslava ala məze **na**, ndahan ese **na**,

Hərmbəlōm **na** ama-daŋ =ava =ala mɪʒe **na** ndahaŋ ɛʃe **na**
 God PSP DEP-multiply =in =to person PSP 3S again PSP
 (lit. 'God, the one that multiplied the people, he again')

[kagas ma Hərmbəlōm **na**, asabay] **na**,
 [ka-gas ma Hərmbəlōm **na** asa-baj] **na**
 2S-catch word God PSP again-NEG PSP
 (lit. 'you catch God's word no longer')

[káagas **na** anga way?]
 [káá-gas **na** anga waj]
 2S+POT-catch PSP POSS who
 (lit. 'you will catch it [word] of whom?')

'And if you will never accept the word of God, the one that multiplied the people, whose word will you accept then?'

8.2 Auxiliary verb constructions

In an auxiliary verb construction in Moloko, two verbs (or a verb plus an ideophone) form a syntactic unit and, consequently, have the same subject. The second verb is the main verb in the construction. Together the two verbs comprise the head of just one clause, with only one set of core participants and obliques that semantically are related to the second (main) verb.

This section presents three auxiliary verb constructions. In the first two constructions, both main and auxiliary verbs are inflected. These constructions express progressive aspect (Section 8.2.1) and movement from one place to another (Section 8.2.2). The third construction consists of a verb stem or ideophone plus the main verb which is in the nominalised form (Section 8.2.3). We consider this third construction to be an auxiliary construction even though the verb stem/ideophone does not carry much of the inflectional information normally associated with auxiliaries (stems and ideophones carry neither subject and object agreement nor aspect and mode marking).⁴ However, the verb stem/ideophone construction demonstrates the same structure as the progressive and movement auxiliary constructions and the stem/ideophone functions as an auxiliary in that it adds grammatical information to the main verb.

8.2.1 Progressive auxiliary

⁴ These criteria for verb auxiliaries are given by Payne (1997: 84).

Friesen & Mamalis (2008) found that the progressive expresses the idea of an action in progress, an event that doesn't take place all at once.⁵ It is formed with *ndaj* 'to be' (see Section 9.2.1) plus the main verb (23–25). The auxiliary *ndaj* occurs as the first of two verbs in a verb phrase. The main verb takes all subject affixes and also any inflections or obliques. In the examples, the progressive is bolded and the verb phrase is delimited by square brackets.

- (23) Mala [**andaj** ége slərele.]
 Mala [**a-ndaj** é-g-é ɬɪɾɛɪɛ]
 Mala 3S-PRG 3S+IFV-do-CL work
 'Mala is working (in the process of doing work).'
- (24) Mana [**andaj** ólo a kosoko ava.]
 Mana [**a-ndaj** ʒ-ló a kɔsɔkʷɔ ava]
 Mana 3S-PRG 3S+IFV-go at market in
 'Mana is going to the market.' (lit. he is currently at...going to the market)
- (25) Apazan nanjakay nok, [**kandaj** kəhaya háy.]
 apazaŋ nə-nzak-aj nɔkʷ [**ka-ndaj** kə-h=aja haj]
 yesterday 1S+PFV-find-CL 2S 2S-PRG 2S+PFV-grind=PLU millet
 'Yesterday when I found you, you were grinding millet.'

Both of the verbs are marked for subject. In plural forms that take subject prefix and suffix (1P and 2P, 26 and 27), *ndaj* takes subject prefixes only.⁶

- (26) [**Nondoy** nombosom va.]
 [nɔ-ndɔj nɔ-mbɔs-ɔm va]
 1P-PRG 1P-rest-1PEX body
 'We are resting.'
- (27) [**Nondoy** nódorom amsoko.]
 [nɔ-ndɔj nɔ-dór-ɔm amsɔkʷɔ]
 1P-PRG 1P-plant-1PEX dry season millet
 'We (exclusive) are planting dry season millet.'

⁵ Note that the verb *ndaj* can occur alone as the main verb of a clause Section 9.2.1. When it does, the complement expresses the location of the subject. For example, *Hawa a-ndaj a mɔgʷɔm* 'Hawa is at home'.

⁶ Some Moloko say that the plural form is *nɔ-ndɔmɔj*, but most use the reduced form.

The progressive auxiliary does not co-occur with the Perfect enclitic (see Section 7.5.3), nor does the iterative reduplicative construction (see Section 7.4.5) combine with the progressive auxiliary.

In discourse, progressive aspect is used to mark an event that is in progress in a Moloko text. It is not necessarily in the background, but indicates durative or ongoing dynamic events. In the Cicada setting, sentences S. 3–5 (28), there is a progressive in a tail-head link (see Section 11.1.3) showing what the young men were doing when they found the tree.

(28) Cicada, S. 3-5

Albaya ahay aba.

albaja =ahaj aba

young man =Pl EXT

‘There were some young men.’

Tánday tatalay a ləhe.

tá-ndaj tá-tal-aj a lɪɛ

3P+IFV-PRG 3P+IFV-walk-CL at bush

‘They were walking in the bush.’

Tánday tatalay a ləhe na,

tá-ndaj tá-tal-aj a lɪɛ na

3P+IFV-PRG 3P+IFV-walk-CL at bush PSP

‘[as] they were walking in the bush,’

tolo tənjakay agwazla malan ga a ləhe.

tə-lə tá-nzak-aj ag^waʒa malar ga a lɪɛ

3P+PFV-go 3P+PFV-find-CL spp. of tree large ADJ at bush

‘they found a large tree (a particular species) in the bush.’

Also, progressives are used in expository texts that give the ongoing state of the world and show reasons for the way things are. (29) from the Disobedient Girl story shows the entire reported speech when the husband explains to his wife the way things work for the Moloko. For most of the explanation, the verbs are Imperfective (see Section 7.4.2). However, the reason that the millet multiplied – namely, that God used to multiply millet for the Moloko – is given in the final line of his speech. The verb form for the reason is progressive (bolded in the example). Here, the progressive is marking an important ongoing event.

(29) Disobedient Girl, S. 13

Awəy,

awij

‘He said,’

“Hor golo, afa ləme na, mənjoye aləme na, kəyga ehe:

h^wɔr g^wɔlɔ afa lɪmɛ na mɪ-nɜ-ijɛ =alɪmɛ na kijga
woman HONOUR at place 1PEX PSP NOM-sit-CL =1PEX.POSS PSP like this

ɛhɛ

here

“‘My dear wife, here at our (exclusive) place, it is like this:’

asa asok aməhaya na,

asa à-s=ɔk^w amə-h=aja na
if 3S+IFV-please=2S.IO DEP-grind=PLU PSP

‘If you want to grind,’

kázad war elé a háy bəlen.

ká-zad war ɛɛ a haj bɪɛŋ
2S+IFV-take child eye GEN millet one

‘you take only one grain.’

War elé a háy bəlen ga nəndəye nok amezəde na,

war ɛɛ a haj bɪɛŋ ga nɪndijɛ nɔk^w amɛ-ɜɪd-ɛ na
child eye GEN millet one ADJ DEM 2S DEP-take-CL PSP

‘That one grain that you have taken,’

káhaya na kə ver aka.

ká-h=aja na kə vɛr aka
2S+IFV-grind=PLU 3S.DO on grinding stone on

‘grind it on the grinding stone,’

Ánjalo de pew.

á-nz=alɔk^w dɛ pɛw
3S+IFV-suffice=1PIN.IO just enough

‘It will suffice for all of us just enough.’

Ádaloko ha ámbad ese.

á-d=alɔk^w ha á-mbad ɛfɛ
3S+IFV-prepare=1PIN.IO until 3S+IFV-left over again

‘It will make food for all of us, until there is some left over.’

Waya a məhaya ahan ava na,

waja a mǝ-h=aja =ahan̩ ava na
 because at NOM-grind=PLU =3S.POSS in PSP
 ‘Because, while you grind (lit. because in its grinding),
 Hǝmbǝlǝm **andaj** ásakalǝme na aka.”
 Hǝmbǝlǝm **a-ndaj** á-sak =alɪmɛ na aka
 God 3S-PROG 3S+IFV-multiply =2PEX.IO 3S.DO on
 ‘God is multiplying it for us.”

Progressives are also found in the peak section of a narrative where they function to slow down the events and draw the reader into the action. (30) shows the entire peak section of the Disobedient Girl. In the story (shown in its entirety in Section 1.5), there is a battle between the disobedient girl and the millet itself. The millet has a supernatural ability to expand, and eventually triumphs over the girl. Verbs in the progressive form (bolded in the example) mark the ongoing multiplication of the millet (S. 23) while the girl is grinding as well as the girl’s ongoing grinding (S. 25) while the room is filling up with flour.

(30) Disobedient Girl, S. 20

Jo madala háy na gam.
 dzɔ ma-d =ala haj na gam
 1Dtake NOM-prepare =to millet PSP a lot
 ‘She prepared lots of millet.’

S. 21

Ndahan bah mǝbehe háy ahan
 ndahan̩ bax mɪ-bɛh-ɛ haj =ahan̩ amadala na kǝ ver aka azla.
 3S 1Dpour NOM-pour-CL millet =3S.POSS

ama-d =ala na kǝ ver aka aʒa
 DEP-prepare =to 3S.DO on stone on now

‘She poured the millet on the grinding stone.’ (lit. she, pouring her millet to put it on the grinding stone)

S. 22

Njǝw njǝw njǝw amǝhaya azla.
 nzuw nzuw nzuw amǝ-h =aja aʒa
 1Dgrind DEP-grind =PLU now

‘Nzu nzu nzu [she] is grinding.’ (lit. nzu nzu nzu to grind now)

S. 23

Hǝmbo na dǝw **andaj** ásak ásak ásak.

hʊmbɔ na duw a-ndaj á-sak á-sak á-sak
 flour PSP also 3S-PRG 3S+IFV-multiply 3S+IFV-multiply 3S+IFV-multiply

‘The flour, it was multiplying multiplying.’

S. 24

Ndahan na, ndahan aka njəw njəw njəw.
 ndahanj na ndahanj aka nzuw nzuw nzuw
 3S PSP 3S EXT+on IDgrind

‘And she, she is grinding some more.’ (lit. she, she on nzu nzu nzu)

S. 25

Anday ahaya nə məzere ləmes ga.
 à-ndaj à-h=aja nə mɪ-ʒɛɪ-ɛ lɪmɛʃ ga
 3S+PFV-PRG 3S+IFV-grind=PLU with NOM-do well-CL song ADJ

‘She is grinding while singing well.’

S. 26

Alala na, ver na árah mbaf, nə həmbɔ na,
 a-l=ala na ver na á-rəx mbaf nə hʊmbɔ na
 3S-go=to PSP room PSP 3S+IFV-fill up to the roof with flour PSP

‘After a while, the room, it fills up to the roof with the flour.’

dək mədəkaka alay ana hor na,
 dək mə-dək=aka =alaj ana hʷɔr na
 IDstuff NOM-stuff=on =away DAT woman PSP

‘[It] stuffed [the room] [so there was no place] for the woman [to even breathe].’ (lit. *dik* stuffing for the woman)

nata ndahan dəfəsɔlək məmətəva alay a hod a hay na ava.
 nata ndahanj dɔbɔsɔlək mə-mət=ava=alaj a hʷɔd a haj
 and then 3S IDcollapse/die NOM-die=in=away at stomach GEN house
 na ava
 PSP in

‘And she collapsed, dying inside the house.’

8.2.2 Movement auxiliary

The verb *ɔ* ‘go’ is often found together with a second verb within the same verb phrase to express the idea of movement from one place to another, in order to accomplish the event expressed by the main verb (Friesen & Mamalis 2008). In (31–34), both verbs are conjugated, but only the second takes extensions or other

verb phrase elements. In the examples, the verb *lɔ* is bolded and the verb phrase is delimited by square brackets.

- (31) Cicada, S. 5
 [Tə-**lɔ** tənjakay agwazla malan ga a ləhe.]
 [tə-**lɔ** tən-zak-aj ag^waʒa malan ga a lɪhɛ]
 3P+PFV-go 3P+PFV-find-CL spp. of tree large ADJ to bush
 ‘They went and found a large tree (a particular species) in the bush.’
- (32) Values, S. 18
 [O**lɔ** aban ana baba ahan.]
 [ɔ-**lɔ** a-b=aŋ ana baba =ahan]
 3S-go 3S-hit=3S.IO DAT father =3S.POSS
 ‘He goes and hits his father.’
- (33) Values, S. 19
 [O**lɔ** apadɔy məze nə madan.]
 [ɔ-**lɔ** a-pad-aj mɪʒɛ nə madan]
 3S-go 3S-crunch-CL person with magic
 ‘He goes and eats someone with sorcery.’
- (34) [Lohom komənjɔrom na ala gəvəh na.]
 [lɔh-ɔm kɔ-mɔnzɔr-ɔm na ala gəvax na]
 go[IMP]-2P 2P-see-2P 3S.DO to field PSP
 ‘Go and you will see that field.’

8.2.3 Stem plus ideophone auxiliary

Friesen & Mamalis (2008) discovered that pivotal events at the high points in a narrative may be coded with a particular verb phrase construction in which an ideophone or the uninflected stem form of a verb is followed by the main verb in its nominalised form (35–37, see Section 7.6.2). In the stem plus verb construction, the stem and main verb are normally formed from the same verb root. Note that it is the stem that is used in the construction (not the root); (37) shows the *-aj* suffix. Neither the main verb nor the auxiliary is inflected for subject, and the clause often has no noun phrase to indicate subject (35, 38–40, 44). When a subject noun phrase is present, it can only be a full free pronoun (36–37, 41–43, 45). The main verb can have direct and indirect object pronominals and other extensions (36 and 37). In the following examples, the verb phrase is delimited by square brackets and the verb stem or ideophone is bolded.

- (35) [Bah məbehe kə ver aka azla.]
[bax mɪ-bɛh-ɛ kə vɛr aka aʒa]
pour NOM-pour-CL on stone on now
‘[She] poured [the grains of millet] on the grinding stone.’ (lit. pour,
pouring on the grinding stone now)

- (36) Ndahan [ngah mangəhata aka va yam a ver ahan ava.]
 ndahan [ŋgax ma-ŋgəh=ata =aka=va jam a ver =ahan ava]
 3S hide NOM-hide=3P.IO =on=PRF water at room =3S.POSS in
 ‘He had hidden the water in his room.’
- (37) Ndahan [ngay mangaka alay pərgom ahay.]
 ndahan [ŋg-aj ma-ŋg =aka=alaj pərg^wom
 3S make with grass-CL NOM-make with grass =on=away trap
 =ahaj]
 =Pl
 ‘He made the traps out of grass.’
- (38) Disobedient Girl, S. 12
 Sen ala na zar ahan na,
 ʃɛŋ =ala na zar =ahan na
 IDGO =to PSP man =3S.POSS PSP
 ‘Then, her husband,’
 [dək mədəkan na mənɲəye ata.]
 [dək mə-dək =aŋ na mɪ-nɜ-ijɛ =atəta]
 instruct NOM-instruct =3S.IO 3S.DO NOM-sit-CL =3P.POSS
 ‘instructed her [about] their ways (lit. their sitting).’
- In the case that there is an ideophone auxiliary (39–42), the ideophone occurs in the same slot as the verb stem auxiliary. Note that these ideophones are from entirely different roots than the verb stems.
- (39) Disobedient Girl, S. 20
 [Jo madala háy na gam.]
 [dzɔ ma-d =ala haj na gam]
 IDtake NOM-prepare =to millet PSP a lot
 ‘[She] prepared lots of millet.’
- (40) Disobedient Girl, S. 28
 [Pok mapalay mahay na],
 [pɔk ma-p =alaj mahaj na]
 IDopen NOM-open =away door PSP
 ‘[He] opened the door [and looked around];’

həmbo [árah na a hof a hay ava].
 hʊmbɔ [á-rax na a hʷɔd a haj ava]
 flour 3S+IFV-fill 3S.DO at stomach GEN house in
 ‘the flour filled the house.’

- (41) Ndahan [vəh mængwəlvə a dəwɛr ahan ava].
 ndahan [vəh mə-ŋgʷul =va a dəwɛr =ahan ava]
 3S IDreturn NOM-return =PRF at sleep =3S.POSS in
 ‘He had already gone back to sleep.’
- (42) Nata ndahan [pək mapata aka va pərgom ahay na].
 nata ndahan [pək ma-p =ata=aka=va pɜrgʷɔm =ahaj na]
 also 3S IDopen NOM-open =3P.IO=on=PRF trap =Pl PSP
 ‘He opened the traps.’
- (43) Disobedient Girl, S. 26
 Nata ndahan [dɔbɔsolək məmətava alay a hof a hay na ava].
 nata ndahan [dɔbɔsolək mə-mət=ava =alaj a hʷɔd a
 and then 3S IDcollapse/die NOM-die=in =away at stomach GEN
 haj na ava]
 house PSP in
 ‘And she collapsed, dying inside the house.’
- (44) Disobedient Girl, S. 31
 [Babək mələye na].
 [babək mɪ-l-ijɛ na]
 IDbury NOM-bury-CL 3S.DO
 ‘She was buried.’ (lit. burying it)
- (45) Snake, S. 18
 Ne [dəyday məkəde na aka].
 nɛ [dijɔdaj mɪ-kɪd-ɛ na =aka]
 1S approximately NOM-kill-CL 3S.DO =on
 ‘I clubbed it to death.’ (lit. I approximately killing it on)

The stem or ideophone plus verb constructions mark significant events at the inciting moment and in the peak of a Moloko narrative. (38) is from the inciting moment of the Disobedient Girl story when the man instructs his wife. In the

peak, the construction is seen when the woman prepares a lot of millet after having decided to disobey him (39), when she pours a lot of millet on the grinding stone (39), and when the millet suffocates her and she dies (43). In the dénouement there is another ideophone plus nominalised form construction when the husband opens the door and finds her (40). There are no other nominalised forms that fill the main verb slot in this text.

Because the subject, direct object, and indirect object are optional for this construction, the construction can be used in Moloko discourse as a narrative device to reduce the number of explicit grammatical relations in a clause (cf. Sections 3.6.3 and 9.4). The participants become indefinite in the construction and must be inferred by the context. The effect is to draw the hearer into the action of the moment. In (35), (39), and (40), the construction is completely non-inflected for subject and has zero grammatical relations. The narrative effect is that in (35) and (39), the hearer only knows that someone is pouring something onto the grinding stone. In (40), it is as if the hearer is with the husband, looking into the house to find the woman. Likewise, in (44), the verb *mr-l-ijε* ‘bury’ is non-conjugated for subject, making those who buried the dead woman ‘out of sight’ in the narrative.

9 Verb types and transitivity

Friesen & Mamalis (2008) reported that Moloko verb lexemes are underspecified with respect to transitivity. Almost every Moloko verb can occur in clauses which are intransitive, transitive, or bitransitive and therefore cannot be classed as belonging to any one transitivity type. Further study has allowed some of the ambiguity to be clarified. The unique way that the semantics of the verb are realised by the affixes and extensions is one of the things that shows the genius of the language.

It is important to understand four important features of Moloko verbs with respect to transitivity. The first is that there are two kinds of transitive constructions in Moloko and an Agent-Theme-Location semantic analysis is necessary to interpret these two constructions (Section 9.1). For transitive clauses, the grammatical relations of Moloko verbs directly and uniformly reflect the semantic picture. Subject expresses Agent. Direct object expresses semantic Theme, the core participant that literally or metaphorically changes state or position. Indirect object expresses semantic Location (LOC) which can be (depending on the verb type) either a literal or a metaphorical LOC (recipient or beneficiary).¹

The second feature is that most Moloko verbs are ambitransitive – the same verb may occur in clauses that are bitransitive, transitive, or intransitive. Moloko verbs are divided into classes based on the type of transitive and ditransitive construction(s) that the verb has (Section 9.2). The third feature of Moloko verbs with respect to transitivity is that some verbs exhibit noun incorporation (Section 9.3). The final feature of Moloko verbs is that there are clauses with zero transitivity (Section 9.4).

There are no affixes, extensions, or particles that express causative or passive as might be expected in a Chadic language (with the exception of reciprocal, see Section 9.2.5).² In Moloko, it is the number and type of grammatical relations that a verb has that reflects the semantics of the construction.

¹ This semantic picture holds for bitransitive clauses (Sections 9.2.4 and 9.2.5). For intransitive clauses, the subject can correspond to a range of semantic roles; it can be any one of Agent, Theme, or LOC (Sections 9.2.4.2 and 9.2.5).

² Causative verbal extensions, for example, are widespread in Chadic languages (Newman 1977: 276).

9.1 Two kinds of transitive clauses

Moloko has two kinds of transitive clauses – transitive clauses with subject and direct object (1 and 2) and transitive clauses with subject and indirect object (3 and 4). These two grammatically different transitive clauses illustrate that the semantics of Moloko verbs allows three core participants (represented by subject, direct object, and indirect object). Moloko verbs do not have just Agent-Patient semantic frames for events. In this work we follow an Agent-Theme-Location analysis, as developed by DeLancey (1991), in which ‘Location’ (LOC) has a particular definition. Indirect object always expresses semantic LOC – the participant that represents the place where the Theme is directed to. As such the indirect object can express (depending on the verb type, see Sections 9.2.3–9.2.5) the recipient or beneficiary of the event. Direct object always expresses semantic Theme, the core participant that changes position or state because of the event. Subject in transitive clauses expresses the Agent.

It is the verbal pronominals that best illustrate the grammar of the two types of transitive clauses because the grammatical distinction between direct and indirect object is expressed by a core pronominal (the direct object pronominal and the indirect object pronominal enclitic). For this reason, most of the examples are given in pairs in this chapter. The first example in each pair shows full noun phrase arguments for each core participant.³ The second example in each pair shows the same clause with all core participants represented by verbal pronominals. Pronominals are bolded in the second example in each pair.

(1) and (2) show a transitive clause with subject (*Mana*) and direct object (*awak* ‘goat’ in 1, *na* 3s direct object pronominal in 2).

- (1) Mana aslay awak.
 Mana a-t-aj awak
 Mana 3s-slay-CL goat
 ‘Mana slays a goat.’

- (2) Aslay **na**.
 a-t-aj **na**
 3s-slay-CL 3s.DO
 ‘He slays it.’

(3) and (4) show a transitive clause with subject (*Mana*) and indirect object (*ana kəra* ‘to dog’ in 3, *=aŋ* ‘to him’ in 4).

³ Note that the indirect object is inside a prepositional phrase. The indirect object prepositional phrases in Moloko is not a syntactic oblique, but represents a core participant of the event.

- (3) Mana aḃan ana kəra.
 Mana a-ḃ=aŋ ana kəra
 Mana 3S-hit=3S.IO DAT dog
 ‘Mana hits a dog.’ (lit. he hits to him to dog)
- (4) Aḃan.
 a-ḃ =aŋ
 3S-hit =3S.IO
 ‘He hits him.’ (lit. he hits to him)

Crosslinguistic studies might lead one to expect a verb like ‘hit’ to take a direct object; however verbs in Moloko require an Agent-Theme-LOC semantic model to explain their behaviour. The indirect object *kəra* ‘dog’ is the semantic LOC – here the recipient of the action – the participant that represents the place where the Theme (the hit) is directed to. The participant that changes position or state in this event (the hit) is implicit in verbs of this type (see Section 9.2.3).

Returning to the transitive clause with subject and direct object (1 and 2), the direct object *awak* ‘goat’ is the Theme – the participant that changes position or state because of an event (it is slain).

9.2 Verb types

Most Moloko verbs are ambitransitive (i.e., labile) in that they can occur in intransitive, transitive, and sometimes bitransitive clauses with no morphological change in the verb complex (except of course the addition of the appropriate pronominals, Section 7.3).⁴ Nevertheless, they can be divided up into classes that act differently morphologically and syntactically with respect to transitivity. They are classified here as to the maximum number of grammatical relations that the verb can take as well as the type of grammatical relations:

- Group 1: Verbs that can only be intransitive (Section 9.2.1)
- Group 2: Verbs that can be transitive direct object (Section 9.2.2)
- Group 3: Verbs that can be transitive with indirect object (Section 9.2.3)
- Group 4: Verbs that can be bitransitive (Section 9.2.4)

⁴ Some verbs in related Chadic languages can also be ambitransitive. These include Cuvok (Ndokobai 2006), Buwal (Viljoen 2013), and Vame (Kinnaird 2006).

- Group 5: Transfer verbs (Section 9.2.5)

Examples are given in pairs in this chapter, first with full noun phrase arguments and then the same clause is given with the noun phrases replaced by pronominals. Both full noun phrases and pronominals are necessary because the centrality of the distinction of verb types in Moloko is more apparent from the pronominals, especially for the indirect object. The indirect object can be expressed with a core pronominal within the verb complex, or a full noun phrase within an adpositional phrase.

9.2.1 Group 1: Verbs that can only be intransitive

Only one verb in Moloko can never take an object (neither direct nor indirect). The locational clause contains the verb *ndaj* and states that the subject is presently located somewhere (5–6). An explicit free noun phrase subject is not always required when this verb is the main predicate since the subject is indicated in the verb prefix; however the adpositional phrase giving the location is required and follows the verb. This same verb functions as a progressive aspect auxiliary (see Section 8.2.1).⁵

- (5) Hawa **andaj** a mogom.
 Hawa **a-ndaj** a mɔg^wɔm
 Hawa 3s-be located at home
 ‘Hawa is at home.’
- (6) **Andaj** a Marva.
a-ndaj a marva
 3s-be at Maroua
 ‘She is in Maroua.’

9.2.2 Group 2: Verbs that can be transitive with direct object

Clauses with reflexive-causative verbs can have either one core argument (subject) or two core arguments (subject and direct object). We have never found these verbs in a context where they take an indirect object as third core argument.

⁵ It is interesting that the locational extension *aka* is also used to express progressive aspect Section 7.5.1.

Verbs from this class express reflexive actions when in an intransitive clause (action is to self; 7) and causative actions when in a transitive clause with a direct object (action is to direct object; 8).

- (7) Mana enjé a mogom.
 Mana è-nʒ-é a mɔg^wɔm
 Mana 3S+PFV-leave-CL at home
 ‘Mana went home.’ (lit. Mana left to home)
- (8) Mana enjé awak a mogom.
 Mana è-nʒ-é awak a mɔg^wɔm
 Mana 3S+PFV-leave-CL goat at home
 ‘Mana took the goat home.’ (lit. Mana left goat to home)

Table 9.1 presents the morphology and clause structures for sample verbs in this category, across both intransitive and transitive clause constructions.

9.2.3 Group 3: Verbs that can be transitive with indirect object

Some transitive verbs in Moloko never take a direct object but rather have only what we call an indirect object in this work. These verbs express experience, feeling, or emotion. The indirect object expresses the semantic LOC (recipient, beneficiary, experiencer) of the event. A semantic core participant that moves or undergoes a change of state or is in a state (Theme) may be implicit or be lexicalised into the verb.

The verb *rəb-aj* ‘to be beautiful’ involves a thing and its quality (9 and 10), and the person whose opinion or perception is being cited is coded as the indirect object. In an intransitive clause, the subject (*dalaj* ‘girl’) is at the state of being beautiful. In a transitive clause (with an indirect object), the subject (*dalaj* ‘girl’) is felt to be beautiful by the indirect object (=aw ‘to me’).

- (9) Dalay arəbay.
 dalaj a-rəb-aj
 girl 3S-be beautiful-CL
 ‘The girl is beautiful.’
- (10) Dalay arəbaw.
 dalaj a-rəb=aw
 girl 3S-be beautiful=1S.IO
 ‘The girl is beautiful to me.’

Table 9.1: Reflexive-causative verbs

Intransitive	Transitive
<i>Hawa è-nɜ-é</i> Hawa 3S+PFV-leave-CL 'Hawa is gone.' (lit. Hawa left)	<i>Hawa è-nɜ-é awak a mɜg^wɜm</i> Hawa 3S+PFV-leave-CL goat at home 'Hawa took the goat home.'
<i>è-nɜ-é</i> 3S+PFV-leave-CL 'She left.'	<i>è-nɜ-é na a mɜg^wɜm</i> 3S+PFV-leave-CL 3S.DO at home 'She took it home.'
<i>Hawa à-həb-aj</i> Hawa 3S+PFV-dance-CL 'Hawa danced.'	<i>muwta à-həb-aj mɜze</i> car 3S+PFV-dance-CL person 'The car shook people up.' (lit. the car danced people)
<i>à-həb-aj</i> 3S+PFV-dance-CL 'She danced.'	<i>à-həb-aj na</i> 3S+PFV-dance-CL 3S.DO 'It shook him.'
<i>Hawa è-tɕik-ε</i> Hawa 3S+PFV-stand-CL 'Hawa stood up.'	<i>Hawa è-tɕik-ε zar</i> Hawa 3S+PFV-stand-CL man 'Hawa helped the man to stand up.' (lit. Hawa stood man)
<i>è-tɕik-ε</i> 3S+PFV-stand-CL 'She stood up.'	<i>è-tɕik-ε na</i> 3S+PFV-stand-CL 3S.DO 'She stood him up.'
<i>Hawa à-jədə =va</i> Hawa 3S+PFV-tire =PRF 'Hawa is tired.'	<i>ɬərəɛ à-jəd-aj Hawa</i> work 3S+PFV-tire-CL Hawa 'Work tired Hawa out.'
<i>Hawa á-jəd-aj</i> Hawa 3S+IFV-tire-CL 'Hawa can/might get tired.' (lit. Hawa tires)	

The experience verb /ts r/ ‘taste good’ is grammatically expressed in (11) as the subject *daf* ‘millet loaf tastes good at the semantic LOC expressed by the indirect object (the pronominal enclitic =aw ‘to me’).

- (11) Daf acaraw.
 daf à-tsar =aw
 millet loaf 3S+PFV-taste good =1S.IO
 ‘Millet loaf tasted good to me.’

Likewise with the verb /g r -j/ ‘fear’ (12), the elephant causes fear at the LOC ‘the children.’

- (12) Mbelele agarata ana babəza ahay.
 mbelele à-gar =ata ana babəza =ahaj
 elephant 3S+PFV-fear =3P.IO DAT children =PL
 ‘The children are afraid of the elephant.’

The verbs /dz n -j/ ‘help’ and /b -j/ ‘hit’ are also in this group of verbs. The receiver of the help or hit is expressed by the indirect object which is affected positively (in the case of help) or negatively (in the case of hit) by the event. For these verbs, the semantic Theme (the hit or the help) never appears as a direct object since it is part of the meaning of these verbs.

Table 9.2 presents examples of verbs of this type.⁶

Table 9.2: Verbs that occur in intransitive and transitive-IO clause constructions

Intransitive	Transitive
<i>Hawa à-rəb-aj</i> Hawa 3S+PFV-be beautiful-CL ‘Hawa was beautiful.’	<i>h^wər à-rəb=aŋ ana Mana</i> Hawa 3S+PFV-be beautiful =3S.IO DAT Mana ‘The woman was beautiful to Mana.’
<i>à-rəb-aj</i> 3S+PFV-be beautiful-CL ‘She was beautiful.’	<i>à-rəb=aŋ</i> Hawa 3S+PFV-be beautiful =3S.IO ‘She was beautiful to him.’
<i>daf à-tsar</i> millet loaf 3S+PFV-taste good ‘Millet loaf tasted good.’	<i>daf à-tsar=aŋ ana Mana</i> millet loaf 3S+PFV-taste good=3S.IO DAT Mana ‘Millet loaf tasted good to Mana.’

⁶ An intransitive clause appears to be ungrammatical for the verbs /b -j/ ‘hit’ and /s/ ‘please.’

9 Verb types and transitivity

Intransitive	Transitive
<i>à-tsar</i> 3S+PFV-taste good 'It tasted good.'	<i>à-tsar=aŋ</i> 3S+PFV-taste good=3S.IO 'It tasted good to him.'
<i>Mana à-gar-aj</i> Mana 3S+PFV-fear-CL 'Mana was afraid.'	<i>mbelele à-gar=aŋ ana Mana</i> elephant 3S+PFV-fear=3S.IO DAT Mana 'An elephant made Mana afraid.'
<i>à-gar-aj</i> 3S+PFV-fear-CL 'He was afraid.'	<i>à-gar=aŋ</i> 3S+PFV-fear-CL=3S.IO 'It made him afraid.'
<i>fat á-war</i> sun 3S+IFV-hurt 'The sun hurts.'	<i>fat á-wal=aŋ ana Mana</i> sun 3S+IFV-hurt=3S.IO DAT Mana 'The sun hurts Mana.' (lit. The sun hurts to Mana)
<i>á-war</i> 3S+IFV-hurt 'It hurts.'	<i>á-wal=aŋ</i> 3S+IFV-hurt=3S.IO 'It hurts him.'
<i>Mana á-das</i> Mana 3S+IFV-be heavy 'Mana is honourable.' (lit. Mana is heavy).	<i>Mana á-das=aŋ ana Hɔrmbɔlɔm</i> Mana 3S+IFV-be heavy=3S.IO DAT God 'Hawa honours God.' (lit. Hawa honours to God)
<i>á-das</i> 3S+IFV-be heavy 'He is honourable.'	<i>á-das=aŋ</i> 3S+IFV-be heavy=3S.IO 'He honours him.'
<i>Hawa á-dzən-aj</i> Hawa 3S+IFV-help-CL 'Hawa helps (Hawa is the kind of person who is helpful).'	<i>Hawa á-dzən=aŋ ana Mana</i> Hawa 3S+IFV-help =3S.IO DAT Mana 'Hawa helps Mana.'
<i>á-dzən-aj</i> 3S+IFV-help-CL 'She is a helpful person.'	<i>á-dzən=aŋ</i> 3S+IFV-help =3S.IO 'She helps him.'
	<i>Hawa á-b=aŋ ana kəra</i> Hawa 3S+IFV-hit =3S.IO DAT dog 'Hawa hits the dog.'
	<i>á-b=aŋ</i> 3S+IFV-hit =3S.IO 'She hits it.'
	<i>fɛfɛ á-s=aŋ ana Mana</i> meat 3S+IFV-please =3S.IO DAT Mana 'Meat is pleasing to Mana.'

Intransitive	Transitive
	<i>á-s=aŋ</i> 3S+IFV-please =3S.IO ‘It pleases him.’

9.2.4 Group 4: Verbs that can be bitransitive

Verbs that can be bitransitive with subject, direct object, and indirect object can occur in intransitive clauses (subject only), transitive clauses (subject and direct object), and bitransitive clauses (subject, object and indirect object). When present, the indirect object always expresses the benefactive or malefactive.

The semantics of transitive and bitransitive clauses is uniform for these verbs – subject always expresses semantic Agent, direct object always expresses semantic Theme, and indirect object always expresses semantic LOC (typically Beneficiary or Maleficiary). Intransitive clauses are more flexible in that the subject can express either Agent or Theme for some verbs. Transitive and bitransitive clauses are discussed for these verbs in Section 9.2.4.1 and intransitive clauses are discussed in Section 9.2.4.2.

9.2.4.1 Group 4 verbs in transitive and bitransitive clauses

The verb *p-aj* ‘open’ illustrates this verb type. In a transitive clause (13), the subject (*Mana*) performs the action on the direct object (*mahaj* ‘door’).

- (13) *Mana apay mahay.*
Mana à-p-aj mahaj
Mana 3S+PFV-open-CL door
‘He/she opened the door.’

In a bitransitive clause, the action done to the direct object is for the benefit of the indirect object.

- (14) *Mana apan mahay ana Hawa.*
Mana à-p=aŋ mahaj ana Hawa
Mana 3S+PFV-open=3S.IO door DAT Hawa
‘Mana opened the door for Hawa.’

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The verb *mənzar* ‘see’ occurs in intransitive, transitive, and bitransitive clauses. In a transitive clause (15), the subject (*Mala*) sees the direct object (*awak* ‘goat’).⁷

- (15) *Mala áməņjar awak.*
Mala á-məņzar awak
Mala 3S+IFV-see goat
‘Mala sees a goat.’

In a bitransitive clause (16), the subject (*Mala*) sees the direct object (*awak* ‘goat’) on behalf of the indirect object (*bahaj* ‘chief’). The chief is the metaphorical LOC to which the action is directed.

- (16) *Mala olo aməņjaran awak ana bahay.*
Mala ɔ-lɔ a-məņzar =aŋ awak ana bahaj
Mala 3S-go 3S-see =3S.IO goat DAT chief
‘Mala went to see a person’s goat in the chief’s place.’

For the verb /h/ ‘say’ (17), the subject *Mana* says the utterance (expressed by the direct object pronominal *na*) to *Hawa*.

- (17) *Mana ahan na ana Hawa.*
Mana à-h =aŋ na ana Hawa
Mana 3S+PFV-say =3S.IO 3S.DO DAT Hawa
‘Mana told it to Hawa.’

For some transitive verbs of this type, the indirect object (when present) marks the malefactive of the event. The indirect object will be negatively affected by the event. For the verb *pad-aj* ‘eat’ in (18) the subject (*awak* ‘goat’) ate the direct object (*haj* ‘millet’), incurring a negative effect on the indirect object (=aw ‘to me’). The indirect object expresses the participant who was affected by the loss of the millet who is the possessor of the direct object (the millet that was eaten).⁸

⁷ The indirect object ‘goat’ undergoes a change of state from being unseen to being seen at a particular LOC.

⁸ This phenomenon is also known as possessor raising or external possession. We consider that the semantics for this construction in Moloko are malefactive rather than possessive because a possessive construction can also be employed (without an indirect object): *awak a-pad-aj na haj uwla =va*, ‘the goat ate my millet’. The construction with an indirect object connects the millet to its owner with less precision than the possessive construction, and concentrates on the loss that the owner incurred (due to the damages done to his millet field) rather than the damage itself.

- (18) Awak apad
- ^{aw}
- na háy va.

awak a-pad^{=aw} na haj =va
goat 3S-crunch=1S.IO 3S.DO millet =PRF

‘The goat has eaten my millet.’ (lit. the goat has eaten to me the millet)

The malefactive also occurs with and for the verbs *mbrɜɛŋ* ‘ruin’ (19) and *tʃɛŋ* ‘understand.’ (20). In (19) the subject (*ʔa* = *ahaj* ‘the cows’) have ruined the direct object (*gəvah* ‘the field’) with a negative effect on the indirect object (= *alɔkʷɔ* ‘to us’).

- (19) Sla ahaj təmbəzaloko na gəvah va.

ʔa =ahaj tə-mbəz =alɔkʷɔ na gəvah =va
cow =Pl 3P+PFV-ruin =1PIN.IO 3S.DO field =PRF

‘The cows have ruined our field.’ (lit. The cows have ruined to us the field)

(20) shows a bitransitive clause with the verb *tʃɛŋ* ‘hear.’ The subject (*à*- 3S subject pronominal) didn’t understand the direct object (*ma* = *uwla* ‘my words’) with a negative effect on the indirect object (= *aw* ‘to me’).⁹

- (20) Acaw aka va ma əwla bay.

à-ts =aw =aka =va ma =uwla baj
3S+PFV-understand =1S.IO =on =PRF word =1S.POSS NEG

‘He/she didn’t understand my words.’ (lit. he had understood on my words not)

Table 9.3 presents examples of this verb type with benefactive indirect object.

Table 9.3: Group 4 verbs in transitive and bitransitive clauses where IO expresses benefactive

Intransitive	Transitive
<i>Hawa à-bax jam</i> Hawa 3S+PFV-pour water ‘Hawa poured water.’	<i>Hawa à-bah=aŋ jam ana Mana</i> Hawa 3S+PFV-pour=3S.IO water DAT Mana ‘Hawa poured water for Mana.’
<i>à-bax na</i> 3S+PFV-pour 3S.DO ‘She poured it.’	<i>à-bah=aŋ na</i> 3S+PFV-pour=3S.IO 3S.DO ‘She poured it for him.’
<i>Hawa à-p-aj mahaj</i> Hawa 3S+PFV-open door ‘Hawa opened the door.’	<i>Hawa à-p=aŋ mahaj ana Mana</i> Hawa 3S+PFV-open=3S.IO door DAT Mana ‘Hawa opened the door for Mana.’

⁹ Note that the word final /n/ drops off when the indirect object clitic attaches.

9 Verb types and transitivity

Intransitive	Transitive
<i>à-p-aj na</i> 3S+PFV-open 3S.DO ‘She opened it.’	<i>à-p=aŋ na</i> 3S+PFV-open=3S.IO 3S.DO ‘She opened it for him.’
<i>Mana à-t-aj awak</i> Mana 3S+PFV-slay-CL goat ‘Mana slaughtered a goat.’	<i>Mana à-t=aŋ awak ana bahaj</i> Mana 3S+PFV-slay=3S.IO goat DAT chief ‘Mana slaughtered the goat for the chief.’ (lit. Mana slay the goat to chief)
<i>à-t-aj na</i> 3S+PFV-slay-CL 3S.DO ‘He slaughtered it.’	<i>à-t=aŋ na</i> 3S+PFV-slay=3S.IO 3S.DO ‘He slaughtered it for him.’
<i>Hawa è-dɛ daf</i> Hawa 3S+PFV-make-CL millet loaf ‘Hawa made millet loaf.’	<i>Hawa à-d=aŋ daf ana Mana</i> Hawa 3S+PFV-make=3S.IO millet loaf DAT Mana ‘Hawa made millet loaf for Mana.’
<i>è-dɛ na</i> 3S+PFV-make-CL 3S.DO ‘She made it.’	<i>à-d=aŋ na</i> 3S+PFV-make=3S.IO 3S.DO ‘She made it for him.’
<i>Hawa à-bal-aj zana</i> Hawa 3S+PFV-wash-CL clothes ‘Hawa washed clothes.’	<i>Hawa à-bal=aŋ zana ana Mana</i> Hawa 3S+PFV-wash=3S.IO clothes DAT Mana ‘Hawa washed clothes for Mana.’
<i>à-bal-aj na</i> 3S+PFV-wash-CL 3S.DO ‘She washed it.’	<i>à-bal=aŋ na</i> 3S+PFV-wash=3S.IO 3S.DO ‘She washed it for him.’
<i>Hawa à-rax tsafəgal</i> Hawa 3S+PFV-fill bucket ‘Hawa poured the bucket.’	<i>Hawa à-rah=aŋ tsafəgal ana Mana</i> Hawa 3S+PFV-slay=3S.IO bucket DAT Mana ‘Hawa poured the bucket for Mana.’
<i>à-rax na</i> 3S+PFV-fill 3S.DO ‘She filled it.’	<i>à-rah=aŋ na</i> 3S+PFV-fill=3S.IO 3S.DO ‘She filled it for him.’
<i>Mala à-mənzar awak</i> Mala 3S+IFV-see goat ‘Mala sees a goat.’	<i>Mala a-mənzar =aŋ awak ana bahaj</i> Mala 3S-see=3S.IO goat DAT chief ‘Mala saw someone’s goat for the chief.’
<i>à-mənzar na</i> 3S+IFV-see 3S.DO ‘He sees it.’	<i>a-mənzar =aŋ na</i> 3S-see=3S.IO 3S.DO ‘He saw it for him.’

Table 9.4 provides examples of group 4 verbs where IO expresses malefactive.

Table 9.4: Group 4 verbs in transitive and bitransitive clauses where IO expresses malefactive

Transitive	Bitransitive
<i>awak à-pad-aj haj</i> goat 3S+PFV-crunch-CL millet ‘The goat ate the millet.’	<i>awak a-pad=aw na haj =va</i> goat 3S-crunch=1S.IO 3S.DO millet =PRF ‘The goat has eaten my millet.’ (lit. the goat has eaten to me the millet)
<i>à-pad-aj na</i> 3S+PFV-crunch-CL 3S.DO ‘He ate it.’	<i>a-pad=aw na =va</i> 3S-crunch=1S.IO 3S.DO =PRF ‘The goat has eaten it to me.’ (the goat has eaten it and I am affected)
<i>avar ε-mbezεη haj</i> rain 3S-ruin millet ‘The rain ruined the millet.’	<i>ɬa à-mbəz=alɔk^w na gəvah =va</i> cow 3S+PFV-ruin=1PIN.IO 3S.DO field =PRF ‘The cow has ruined our millet.’
<i>ε-mbezεη na</i> 3S-ruin 3S.DO ‘It ruined it.’	<i>à-mbəz=alɔk^w na =va</i> 3S+PFV-ruin=1PIN.IO 3S.DO =PRF ‘He has ruined it.’
<i>awak à-zɔm haj</i> goat 3S+PFV-eat millet ‘The goat ate millet.’	<i>awak à-zɔm=aη haj a Mana</i> goat 3S+PFV-eat=3S.IO millet GEN Mana ‘The goat ate Mana’s millet.’ (lit. the goat ate to him millet of Mana).’
<i>à-zɔm na</i> 3S+PFV-eat 3S.DO ‘He ate it.’	<i>à-zɔm=aη na</i> 3S+PFV-eat=3S.IO 3S.DO ‘It ate his thing.’

Moloko uses a transitive clause with a third person plural subject pronominal when the identity of the Agent is unimportant or unknown in the discourse. The literal meaning of (21) is ‘They are greeting you,’ but this construction is used even when the person greeting is singular and the speaker knows who it is but

doesn't want to say.¹⁰ (22) is from the Disobedient Girl text (see Section 1.5). The example literally means 'they brought her out' but the identity of those who carried her is unimportant in the story.

- (21) Tahok ma.
 ta-h=ɔk^w ma
 3P-tell=2S.IO mouth
 'You are being greeted.' (lit. they are telling word to you)
- (22) Disobedient Girl, S. 31
 Tazlɔrav na ala
 tà-ɣɔrav na =ala
 3P+PFV-exit 3S.DO =to
 'She was brought out [of the house].' (lit. they brought her out)

9.2.4.2 Group 4 verbs in intransitive clauses

The meaning of intransitive clauses of group 4 verbs changes depending on whether the subject expresses Agent or Theme (or either, for some verbs) and depending on the aspect of the verb.

There are two possible semantic possibilities for intransitive clauses in Perfective aspect. Subject can be the semantic Agent or the semantic Theme. Some verbs have both possibilities, but for other verbs, subject can express only Agent or only Theme.

For the verb 'prepare,' the subject of an intransitive clause is the semantic Agent (23).

- (23) Hawa ede.
 Hawa è-d-ε
 Hawa 3S+PFV-prepare-CL
 'Hawa made [something].'

With *tʃɛŋ* 'hear,' an intransitive clause in Perfective aspect (24) expresses an event where the subject hears and understands (what they hear/understand may not be explicit in the clause).

¹⁰ The verb /h-j/ 'say' shows incorporation of the 'body-part' noun *ma* 'word/mouth' (Section 9.3).

- (24) Mana ecen.
 Mana è-tʃɛŋ
 Mana 3S+PFV-understand
 ‘Mana heard/understood (something).’

For the verb *p-aj* ‘open,’ the subject of an intransitive clause is the semantic Theme which is affected by the action (25).

- (25) Mahay apay.
 mahaj à-p-aj
 door 3S+PFV-open-CL
 ‘The door opened.’

There is also a difference between the Imperfective and Perfective in an intransitive clause that doesn’t hold for transitive and bitransitive clauses.¹¹ In transitive and bitransitive clauses, Imperfective expresses an event that is happening but is incomplete or unfinished (see Section 7.4.2). Perfective on the other hand expresses an event that has been completed (see Section 7.4.1), and the Perfect expresses that the event was completed prior to a point of reference (see Section 7.5.3). In intransitive clauses for these verbs, Imperfective aspect indicates that the subject is at the state of being potentially able to do or submit to the action (more of an irrealis idea) while Perfect is a resultative state.

For example, an intransitive clause with the verb /p -j/ ‘open’ expresses an event with an unspecified Agent when the verb is Perfective: ‘the door opened’ (26).

- (26) Mahay apay.
 mahaj à-p-aj
 door 3S+PFV-open-CL
 ‘The door opened.’

Likewise with the verb /b h/ ‘pour,’ water ‘is poured’ (27).

- (27) Yam abah.
 jam à-bax
 water 3S+PFV-pour
 ‘Water poured.’

¹¹ Intransitive clauses with transfer verbs Section 9.2.5 also show this semantic picture.

9 Verb types and transitivity

If the verb is Imperfective, the clause means that the door is able to be opened, i.e., it is not locked (28).

- (28) Mahay ápay.
 mahaj á-p-aj
 door 3S+IFV-open-CL
 ‘The door opens.’

In the Perfect, the clause means that the door is open (i.e., someone has already opened it, 29).

- (29) Mahay apava.
 mahaj a-p-a =va
 door 3S-open-CL =PRF
 ‘The door is open.’

Imperfective aspect in an intransitive clause presents a situation where a state or capability is expressed. For the verb *mənzar* ‘see,’ an intransitive clause in Imperfective aspect (30) can have an ablative sense in that the subject ‘Mala’ is able to see. It can also mean that the subject is visible (subject expresses semantic Theme).

- (30) Mala áməɲjar.
 Mala á-məɲzar
 Mala 3S+IFV-see
 ‘Mala sees.’ (i.e. he is not blind) / ‘Mala can be seen.’

Table 9.5 presents examples of bitransitive Moloko verbs in intransitive clauses. The three columns show Perfective, Imperfective, and Perfect forms of the verbs. Perfective aspect (column 1) expresses either an action that the Agent did (with an unexpressed Theme) or an event that happened to the Theme (with an unexpressed Agent). Imperfective aspect (column 2) indicates readiness of the Agent to do the action or expresses ability of the Theme to submit to the action. The Perfect (column 3) expresses a resultative – a finished action or the state resulting from the event. For some verbs, the subject can express either Agent or Theme. For others, the subject of an intransitive clause can only express Theme.

Table 9.5: Intransitive clauses

Perfective	Imperfective	Perfect
<i>zəm</i> ‘eat’		
<i>Mana à-zəm</i> Mana 3S+PFV-eat ‘Mana ate [something].’	<i>Mana á-zəm</i> Mana 3S+IFV-eat ‘Mana is about to eat [something].’	<i>Mana à-zəm = va</i> Mana 3S+PFV-eat =PRF ‘Mana ate [something] already.’
	<i>haj á-zəm</i> millet 3S+IFV-eat ‘The millet is eating itself (There are insects in the millet).’ (lit. millet eats)	<i>haj á-zəm = va</i> millet 3S+IFV-eat =PRF ‘The millet has been eaten.’
<i>t-aj</i> ‘slaughter’		
<i>Mana á-t-aj</i> Mana 3S+PFV-slay-CL ‘Mana slaughtered [something].’	<i>Mana á-t-aj</i> Mana 3S+IFV-slay-CL ‘Mana is about to slaughter [something].’	<i>Mana à-t-a = va</i> Mana 3S+PFV-slay-CL =PRF ‘Mana has slaughtered [something].’
	<i>awak á-t-aj</i> goat 3S+IFV-slay-CL ‘The goat is good for slaughtering.’	<i>awak à-t-a = va</i> goat 3S+PFV-slay-CL =PRF ‘The goat has been slaughtered.’
<i>f-ε</i> ‘drink’		
<i>Mana é-f-ε</i> Mana 3S+PFV-drink-CL ‘Mana drank [something].’	<i>Mana é-f-ε</i> Mana 3S+IFV-drink-CL ‘Mana is about to drink [something].’	

Perfective	Imperfective	Perfect
	<i>jam é-f-ε</i> water 3S+IFV-drink-CL 'The water is drinkable.' (lit. water drinks)'	<i>jam à-s-ə =va</i> water 3S+PFV-drink-CL =PRF 'The water has been drunk.'
	<i>d-ε</i> 'prepare'	
<i>Hawa è-d-ε</i> Hawa 3S+PFV-make-CL 'Hawa prepared [something].'		
	<i>εléε é-d-ε</i> sauce 3S+IFV-make-CL 'Sauce can be made.' (lit. sauce makes)	<i>εléε à-d =va</i> sauce 3S+PFV-make =PRF 'Sauce is ready to be eaten.' (lit. sauce was prepared)
	<i>bal-aj</i> 'wash'	
<i>Hawa à-bal-aj</i> Hawa 3S+PFV-wash-CL 'Hawa washed [herself].'	<i>Hawa á-bal-aj</i> Hawa 3S+IFV-wash-CL 'Hawa washes [herself].'	<i>Hawa à-bal =va</i> Hawa 3S+PFV-wash =PRF 'Hawa is washed.'
	<i>zana á-bal-aj</i> cloth 3S+IFV-wash-CL 'The cloth can be washed.' (lit. the cloth washes)	<i>zana à-bal =va</i> cloth 3S+PFV-wash =PRF 'The cloth is clean.' (lit. cloth is washed)
	<i>p-aj</i> 'open'	
<i>mahaj à-p-aj</i> door 3S+PFV-open-CL 'The door opened.'	<i>mahaj á-p-aj</i> door 3S+IFV-open-CL 'The door opens.' (is able to open)	<i>mahaj a-p =va</i> door 3S-open =PRF 'The door is open.'

Perfective	Imperfective	Perfect
	<i>bax</i> ‘pour’	
<i>jam à-bax</i> water 3S+PFV-pour ‘Water poured.’	<i>jam á-bax</i> water 3S+IFV-pour ‘Water is able to be poured.’ (lit. water pours)	<i>jam a-bah =va</i> water 3S-pour =PRF ‘Water is poured out.’
	<i>mbɪʒɛŋ</i> ‘ruin’	
<i>haj à-mbɪʒɛŋ</i> millet 3S+PFV-ruin ‘The millet ruined.’	<i>haj á-mbɪʒɛŋ</i> millet 3S+IFV-ruin ‘The millet is ruining.’	<i>haj á-mbɔʒə =va</i> millet 3S+IFV-ruin =PRF ‘The millet has ruined.’
	<i>rax</i> ‘fill’	
	<i>tsafgal á-rax</i> bucket 3S+IFV-fill ‘The bucket will fill.’ (lit. the bucket fills)	<i>tsafgal á-rah =va</i> bucket 3S+PFV-fill =PRF ‘The bucket is full.’ (lit. something filled the bucket)

9.2.5 Group 5: Transfer verbs

Three transfer verbs in Moloko are notable. They are *dəbən-aj* ‘learn/teach,’ *səkʷəm* ‘buy/sell,’ and *vəl* ‘give.’ These verbs are especially labile in terms of their semantic expression in that a transitive clause can have *either* a direct or an indirect object.

(31) illustrates the verb *vəl* ‘give’ in a bitransitive clause. The subject (*bahaj* ‘chief’) transfers the direct object (*dalaj* ‘girl’) to the indirect object (*Mana*).

- (31) Bahay avəlan dalay ana Mana.
 bahaj à-vəl =aŋ dalaj ana Mana
 chief 3S+PFV-give =3S.IO girl DAT Mana
 ‘The chief gave the girl to Mana (in marriage).’

When *vəl* ‘give’ occurs in a transitive clause, the second core argument can be either a direct object (32) or an indirect object (33). In (32), the chief is marrying off his daughter to an unspecified suitor. The subject (*bahaj* ‘chief’) transfers the direct object (*dalaj* ‘girl’) to someone who is unspecified in the clause.

- (32) Bahay ávar dalay.
 bahaj á-var dalaj
 chief 3S+IFV-give girl
 ‘The chief is marrying off his daughter [to someone].’ (lit. chief gives girl)

In (33), the subject (*bahaj* ‘chief’) transfers something or someone to the indirect object (*Mana*). What he gave would probably be specified in the immediate context, but is out of sight in this clause.

- (33) Bahay avəlan ana Mana.
 bahaj à-vəl =aŋ ana Mana
 chief 3S+PFV-give =3S.IO DAT Mana
 ‘The chief gave [something] to Mana.’

When the verb *vəl* ‘give’ occurs in an intransitive negative clause (Imperfective, 34), it expresses that the subject is at the state of not giving anything to anyone, or not being the giving kind.¹² Without the negative marker, the meaning would probably be ‘the chief is the giving kind.’¹³

¹² Note the phonological change of the final consonant (Section 6.2).

¹³ This is a specific example from a text. We have not seen one-participant clauses for this verb type in Perfective aspect. The semantics of one-participant clauses for group four verbs is discussed in Section 9.2.4.2.

- (34) Bahay ávar bay.

bahaj á-var baj
chief 3S+IFV-give NEG

‘The chief is not the giving kind.’ (lit. chief doesn’t give)

The verb *dəbən-aj* ‘learn’ or ‘teach’ occurs in transitive and bitransitive clauses.¹⁴ In bitransitive clauses illustrated by (35), the subject (*bahaj* ‘chief’) transfers the direct object (*Mələkʷə* ‘Moloko language’) to the indirect object (*ana babəza =ahaj* ‘to the children’).¹⁵

- (35) Bahay adəbənata Məloko ana babəza ahaj.

bahaj a-dəbən =ata Mələkʷə ana babəza =ahaj
chief 3S-learn =3P.IO Moloko DAT children =Pl

‘The chief teaches Moloko to the children.’

In transitive clauses with subject and direct object (36), the subject (*babəza =ahaj* ‘children’) transfers the direct object (*Mələkʷə* ‘Moloko language’) to self.

- (36) Babəza ahaj tədəbənay Məloko.

babəza =ahaj tə-dəbən-aj Mələkʷə
children =Pl 3P-learn-CL Moloko

‘The children learn Moloko.’

(37) illustrates a transitive clause with subject and indirect object. The subject (*Mələkʷə* ‘Moloko language,’ the semantic Theme) is transferred to the indirect object (*=əkʷ* ‘to you’).

- (37) Məloko adəbənok na jajak.

Mələkʷə a-dəbən=əkʷ na dzadzak
Moloko 3S-learn=2S.IO PSP fast

‘Moloko is easy for you to learn.’ (lit. Moloko learns to you quickly)

The verb *səkʷəm* ‘buy’/‘sell’ is also a transfer verb with two semantic LOCs. The event of buy/sell is accomplished through transfer of the Theme from one LOC to another. In a bitransitive clause (38), the subject (*nə-* ‘I’) causes the direct object (*awak* ‘goat’) to go to the indirect object (*ana Mana* ‘to Mana’).

¹⁴ We found no clauses with one core participant for this verb.

¹⁵ The indirect object is also expressed as the verbal pronominal extension *=ata* ‘to them.’ The indirect object could also express the beneficiary of the event.

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- (38) Nəskoman awak ana Mana.
 nə-sək^wəm =aŋ awak ana Mana
 1S-buy/sell =3S.IO goat DAT Mana
 ‘I sell a goat to Mana.’

In a transitive clause with direct object (39), the subject (*nə*- ‘I’) transfers the direct object (*awak* ‘goat’) to self. We found no intransitive clauses for this verb.

- (39) Nəskomala awak.
 nə-sək^wəm =ala awak
 1S-buy/sell =to goat
 ‘I bought a goat.’

The verb *h-aj* ‘speak’ also appears to be in this class, but we have not found this verb in all contexts. In (40), Mana caused what he said (‘it’) to go to the men.

- (40) Mana àhata na va ana zawər ahay.
 Mana à-h =ata na =va ana zawər =ahaj
 Mana 3S+PFV-speak =3P.IO 3S.DO =PRF DAT men =Pl
 ‘Mana has already told it to the men.’

Table 9.6 presents examples of these transfer verbs in intransitive, transitive, and bitransitive clauses.

A fourth participant is possible for the verb *vəl* ‘give’ and appears as an oblique adjunct. In (41) the subject (‘you,’ 2S imperative verb) transfers the direct object (*dala* ‘money’) to the indirect object (*ana Mana* ‘to Mana,’ note the indirect object pronominal enclitic =aŋ) for the benefit of the person expressed by a possessive pronoun in the oblique prepositional phrase (*kəla* =*uwla* ‘my benefit’). Thus when there is both a Beneficiary and a Recipient (which is the core LOC), a preposition (*kəla*) plus one of the possessive pronouns (see Section 3.1.2) mark the benefactive.

- (41) Vəlan dala kəla əwla ana Mala.
 vəl=aŋ dala kəla =uwla ana Mala
 give=3S.IO money for (benefactive) =1S.POSS DAT Mala
 ‘Give Mala the money for me (lit. my benefit).’

In (42) the subject pronominal (*a*- ‘he’) transfers the direct object (*awak* ‘goat’) to the indirect object (pronominal enclitic =ək^w ‘to you’) for the benefit of the pronoun in the oblique (*kəla* =*uwla* ‘my benefit’).

Table 9.6: Transfer verbs

Intransitive	Transitive with direct object	Transitive with indirect object	Bitransitive
<i>Hawa á-var baj</i> Hawa 3S+IFV-give NEG 'Hawa is not the giving kind.' (lit. Hawa doesn't give)	<i>Hawa á-var jam</i> Hawa 3S+IFV-give water 'Hawa gives water [to someone].'	<i>Hawa á-val=atj ana Mana</i> Hawa 3S+PFV-give=3S.IO DAT Mana 'Hawa gave [something] to Mana.'	<i>Hawa á-val=atj jam ana Mana</i> Hawa 3S+PFV-give=3S.IO water DAT Mana 'Hawa gave water to Mana.'
<i>á-var baj</i> 3S+IFV-give NEG 'She is not the giving kind.'	<i>á-var na</i> 3S+IFV-give 3S.DO 'She gives it [to someone].'	<i>á-val=atj</i> 3S+PFV-give=3S.IO 'She gave [something] to him.'	<i>á-val=atj na</i> 3S+PFV-give=3S.IO 3S.DO 'She gave it to him.'
	<i>babaza =ahaj tá-dabən-aj Molok^w</i> children =Pl 3P-learn-CL Moloko 'The children learn Moloko.'	<i>Molok^w a-dabən=ak^w na dzadzak</i> Moloko 3S-learn=2S.IO PSP fast 'Moloko is easy for you to learn.' (lit. Moloko learns to you quickly)	<i>bahaj a-dabən=ata Molok^w</i> chief 3S-learn =3P.IO Moloko <i>ana babaza=ahaj</i> DAT children =Pl 'The chief teaches Moloko to the children.'
	<i>nə-sək^w m =ala awak</i> 1S-buy/sell =to goat 'I bought a goat.'		<i>nə-sək^w m =atj awak ana Mana</i> 1S-buy/sell =3S.IO goat DAT Mana 'I sell a goat to Mana.'
<i>Mana a-h-aj baj</i> Mana 3S-tell-CL NEG 'Mana doesn't say.'			<i>Hawa a-h=atj ma ana Mana</i> Hawa 3S-tell=3S.IO mouth DAT Mana 'Hawa greets Mana.'

- (42) Avələk awak kəla əwla
a-vəl=ək^w awak kəla =uwla
3S-give=2S.IO goat for (benefactive) =1S.POSS
‘He/she gave you the goat on my behalf (lit. my benefit).’

9.3 “Body-part” verbs (noun incorporation)

Friesen & Mamalis (2008) identified a unique group of verb constructions. In these constructions, a special, sometimes phonologically reduced noun form that represents a part of the body is incorporated into the verb phrase. This is a case of noun incorporation where these ‘body-part’ nouns are closely associated with the verb complex and their incorporation changes the lexical characteristics of the verb. These ‘body-part’ nouns include *ma* ‘mouth,’ (43, Section 9.3.3), *εε* ‘eye,’ (44, Section 9.3.1), *ləmaj* ‘ear,’ (45, Section 9.3.2), and *va* or *har* ‘body,’ (46, 47, Sections 9.3.4 and 9.3.5, respectively). These nouns can be incorporated into transitive or bitransitive verbs from the types in Sections 9.2.2 and 9.2.3.

- (43) Ataraŋ aka **ma** ana war ese.
a-tar =aŋ =aka **ma** ana war εε
3S-call =3S.IO =on mouth DAT child again
‘He/she calls the child again.’ (lit. he calls mouth to him to the child again)
- (44) Mala aməŋjar **εε**.
Mala a-mənzar εε
Mala 3S-see eye
‘Mala looks around attentively.’
- (45) Acaka va **sləmaj** ana mama ahan bay.
a-ts =aka =va **ləmaj** ana mama =ahaŋ baj
3S-hear =on =PRF ear DAT mother =3S.POSS NEG
‘He/she is disobedient to his mother.’ (he disobeys his mother)¹⁶
- (46) Tandalay talala təzləgə **va** ana Məloko ahay.
ta-ndalaj ta-l =ala tə-ʒəg-ə **va** ana Mələk^wə =ahaj
3P-PRG 3P-go =to 3P-throw-CL body DAT Moloko =Pl
‘They were coming and fighting with the Molokos.’ (lit. they were coming they threw body to Molokos)

¹⁶ Note that the word-final /n/ is deleted when the verbal extension is attached Section 2.6.1.

(47) *Ma ango agəsaw har.*

ma =aŋg^{wɔ} a-gəs =aw **har**
 word =2S.POSS 3S-catch =1S.IO body

‘It pleases me.’ (lit. it catches body to me)

The body-part noun follows directly after all other elements in the verb complex. It appears to be in the same position as any other noun phrase direct object in the verb phrase (see Chapter 8); however it is more tightly bound to the verb complex than a noun phrase. The body-part noun does not fill the DO pronominal slot, because verbal extensions that follow the DO pronominal in the Moloko verb complex occur before the body-part (see 43 and 45 which each have an adpositional extension, see Section 7.5.1). It is not phonologically bound to the verb since, unlike the Perfect verbal extension =*va* which is part of the verb complex, the ‘body-part’ *va* does not neutralise the prosody on the verb stem (46). However, the incorporated noun is grammatically closer to the verb complex than a noun phrase direct object would be because the ‘body-part’ can never be separated from the verb complex. The ‘body-part’ can never be fronted in the clause. Nor can the ‘body-part’ be separated from the verb complex by the presupposition marker. Both of these situations can occur for noun phrase direct objects and are illustrated in Section 10.1.2, (29 and 30).

Incorporation of the ‘body-part’ noun never co-occurs with another direct object or with the DO pronominal *na*. A transitive clause with subject, indirect object and incorporated ‘body-part’ noun can occur where the indirect object expresses semantic LOC (sometimes metaphorical).

This section is organised by ‘body-part’ plus verb collocations:

- *εε* ‘eye’ (Section 9.3.1). Used with verbs of seeing.
- *ɬəmaj* ‘ear’ (Section 9.3.2). Collocates with verbs of cognition.
- *ma* ‘mouth’ (Section 9.3.3). *Ma* also can mean ‘word’ or ‘language.’ Used with verbs of speaking.
- *va* ‘body’ (Section 9.3.4). *Va* is phonologically reduced from *hərva* ‘body.’ Used to form reciprocal actions.
- *har* ‘body’ (Section 9.3.5). *Har* is also phonologically reduced from *hərva* ‘body.’

Note that there are Moloko idioms that employ body parts with the verb *g-ε* ‘do’ which may be a case of noun incorporation. To get angry is to ‘do heart’ (48).

- (48) Ege bərav.
 ε-g-ε bərav
 3S-do-CL heart
 ‘He/she is angry.’ (lit. he/she does heart)

The idiom for ‘think’ is literally ‘do brain’ (49).

- (49) Ge endεb!
 g-ε endεb
 do[2S.IMP]-CL brain
 ‘Think!’ (lit. do brain)

9.3.1 *ελε* ‘eye’

The ‘body-part’ noun *ελε* ‘eye’ collocates with some verbs to lexicalise the engagement of the eyes and reduce the focus on what is seen. This body-part word is used in its full form. For example, the verb *mənzar* normally means ‘see’ (see Table 9.7). With the incorporation of *ελε* (50 and 51), the verb plus ‘body-part’ construction has a more active experiential meaning in that the subject of the clause (*Mala*) is looking around attentively. Since there can be no direct object, there is no explicit referential object as stimulus – the speaker is vague about what exactly Mala will look at.

- (50) Mala amənjər **ελέ**.
 Mala a-mənzar **ελε**
 Mala 3S-see eye
 ‘Mala looks around attentively.’
- (51) Mala olo aməmənzərə **ελέ** a ləhe.
 Mala ɔ-lɔ amɪ-mɪnzɪrɛ **ελε** a lɪhe
 Mala 3S-go DEP-see eye at bush
 ‘Mala went to see his fields.’ (lit. Mala went to see in the bush)

With the verb *har* ‘carry’ (52), the addition of *ελε* also gives an entirely new lexical item – expressing the idea of looking around intensively or studying every square inch (see Table 9.7.).

- (52) Nolo nahar **ελέ** a gəvah əwla ava jəyga.
 nɔ-lɔ na-har **ελε** a gəvax =uwla ava dzijga
 1S-go 1S-carry eye at field =1S.POSS in all
 ‘I go [and] look around my whole field.’ (lit. I carry eye in my field all)

Table 9.7 compares examples with and without the ‘body-part.’

Table 9.7: Selected verbs with and without the incorporation of the ‘body-part’ noun *elē* ‘eye’

Clause without ‘body-part’	Clause with ‘body-part’
<i>Mana a-mənzar war</i> Mana 3S-see child ‘Mana sees the child.’	<i>a-mənzar elē</i> 3S-see eye ‘He/she looks around intently.’
<i>Mana a-har etemē a dərāj ava</i> Mana 3S-carry onion in head in ‘Mana carries onions on [his] head.’	<i>ka-har =aka elē a gəvax =aŋgʷɔ ava dʒijga</i> 2S-carry=on eye at field =2S.POSS in all ‘You look around your whole field.’

9.3.2 *ləmaj* ‘ear’

A second ‘body-part’ noun is *ləmaj* ‘ear’ which collocates with some cognition verbs. This body-part noun is used in its full form. Like *elē* ‘eye,’ it adds a new, more active lexical meaning to the verb with which it collocates.

For example, the normal lexical meaning of the verb *tʃeŋ* is ‘hear’ or ‘understand’ (53) and the verb is bitransitive (see Section 9.2.4). The incorporation of the ‘body-part’ *ləmaj* ‘ear’ gives a much more active or intensive idea – not just hear and understand someone, but also listen to them or obey them (54). The focus is on the fact that the person is benefitting from using his ears to intently listen, rather than on the person speaking or the content of their message.

- (53) *Mana écen bay.*
Mana é-tʃeŋ baj
 Mana 3S+IFV-hear NEG
 ‘Mana is deaf/doesn’t understand.’

- (54) *Mana écen sləmay bay.*
Mana é-tʃeŋ ləmaj baj
 Mana 3S+IFV-hear ear NEG
 ‘Mana is deaf/disobedient.’

Examples are in Table 9.8.

Table 9.8: Selected verbs of cognition with and without *ləmaj* ‘ear’ as direct object

Clause without ‘body-part’	Clause with ‘body-part’
<i>Mana a-ts=aw =aka ma =uwla baj</i>	<i>Mana ε-tf =aka =va ləmaj ana mama =ahaŋ baj</i>
Mana 3S-hear=1S.IO =on word/mouth =1S.POSS NEG	Mana 3S-hear =on =PRF ear DAT mother =3S.POSS NEG
‘Mana didn’t understand my words.’	‘Mana is disobedient to his mother.’
	(lit. Mana doesn’t hear ear to his mother)

9.3.3 *ma* ‘mouth’

The ‘body-part’ noun *ma* ‘mouth’ (which also means ‘word’ and ‘language’) collocates with some speech verbs. It is found in its full form in the verb plus ‘body-part’ constructions. (55) shows the verb *h-aj* ‘say’ with the ‘body-part’ noun *ma* ‘mouth.’

- (55) Tahok ma.
ta-h=ɔk^w ma
3P-tell=2S.IO mouth
‘You are being greeted.’ (lit. they are telling word to you)

The example pairs shown in Table 9.9. illustrate its use with three speaking verbs; *tar-aj* ‘call,’ *h-aj* ‘say’ and *dz-aj* ‘speak.’ Examples are shown with the direct object pronominal *na* (column 1) and with *ma* ‘mouth’ (column 2). With the ‘body-part’ incorporation, there can be no other direct object.

A similar creation of new lexical meaning occurs with verbs that are normally not speech verbs but that become speech verbs when they collocate with *ma*. The verbs *sək^w-ɔj* ‘point,’ *zɔm* ‘eat,’ and *njak-aj* ‘find’ are shown in Table 9.10. The incorporation of *ma* with *sək-ɔj* ‘point’ gives a particular manner of communication: *sək^w-ɔj ma* ‘whisper.’ Incorporation of *ma* with the verb *zɔm* ‘eat’ gives the idea of helping someone else to eat. Incorporation of *ma* with *njak-aj* ‘find’ yields an expression to find trouble.

9.3.4 *va* ‘body’

There are two different phonologically reduced forms of the word *hərva* ‘body’ – *va* and *har*. These reduced forms are only found associated with certain verbs. When collocated with these verbs, the verb plus incorporated ‘body-part’ takes on a new lexical meaning. This is a non-productive process found with only a few verbs.

9.3 “Body-part” verbs (noun incorporation)

Table 9.9: Selected speech verbs with and without *ma* ‘mouth’ as direct object

Transitive clause	Clause with ‘body-part’ incorporation
<i>Mana a-tar-aj</i> Mana 3S-call-CL ‘Mana calls out.’	<i>Mana a-tar=aj ma ana Hawa</i> Mana 3S-call=3S.IO mouth/word DAT Hawa ‘Mana calls to Hawa.’
<i>a-tar-aj</i> 3S-call-CL ‘He calls out.’	<i>a-tar=aj ma</i> 3S-call=3S.IO mouth/word ‘He calls to her.’
<i>Mana a-h-aj baj</i> Mana 3S-tell-CL NEG ‘Mana doesn’t say.’	<i>Mana a-h=aj ma ana Hawa</i> Mana 3S-tell=3S.IO mouth/word DAT Hawa ‘Mana greets Hawa.’
<i>a-h-aj baj</i> 3S-tell-CL NEG ‘He doesn’t say.’	<i>a-h=aj ma</i> 3S-tell=3S.IO mouth/word ‘He greets her.’
<i>Mana à-dz-aj</i> Mana 3S+PFV-speak-CL ‘Mana speaks!’	<i>Mana à-dz-aj ma</i> Mana 3S+PFV-speak-CL mouth/word ‘Mana greets.’
<i>à-dz-aj</i> 3S+PFV-speak-CL ‘He speaks!’	<i>à-dz-aj ma</i> 3S+PFV-speak-CL mouth/word ‘He greets.’

The first reduced form of *hərva* ‘body’ is *va*.¹⁷ This ‘body-part’ is used for forming reciprocals with plural subjects of a few verbs in a context of killing and loving (*gig-ε* ‘throw’ 56–57, *kad* ‘kill by clubbing’ 58, and *ndad-aj* ‘need,’ 59). The ‘body-part’ *va* indicates that the plural subjects are performing the actions against one another.

¹⁷ Note that there are three homophones of *va* which one must take care to distinguish: [=va] ‘perfect,’ [va] ‘body,’ and [ava] ‘in’. They all can occur immediately following the verb stem.

Table 9.10: Selected non-speech verbs that collocate with *ma*.

Transitive clause	Clause with ‘body-part’ incorporation
<i>Hawa a-sək^w-ɔj ahar</i> Hawa 3S-point-CL hand ‘Hawa points.’ ^a	<i>Hawa a-sək^w-ɔj ma</i> Hawa 3S-point-CL mouth/word ‘Hawa whispers.’
<i>Hawa ɔ-zəm dəf</i> Hawa 3S-eat millet loaf ‘Hawa eats millet loaf.’	<i>Hawa a-zəm=aŋ ma ana bahaj</i> Hawa 3S-eat=3S.IO mouth/word DAT chief ‘Hawa fed the chief.’ (made him eat)
<i>ɔ-zəm na</i> 3S-eat 3S.DO ‘She eats it.’	<i>a-zəm=aŋ ma</i> 3S-eat=3S.IO mouth/word ‘She fed him.’
<i>Hawa a-njak-aj asak =aħaŋ</i> Hawa 3S-find-CL foot =3S.POSS ‘Hawa gives birth.’ (lit. Hawa finds her feet) ^b	<i>Hawa a-njak-aj ma</i> Hawa 3S-find-CL mouth/word ‘Hawa is in trouble.’ (lit. she finds mouth/word)
<i>a-njak-aj na</i> 3S-find-CL 3S.DO ‘She finds it.’	<i>a-njak-aj ma</i> 3S-find-CL mouth/word ‘Here comes trouble.’

^a Perhaps *ahar* ‘hand’ is another ‘body-part’ direct object that acts as semantic Theme. We found no other verbs that collocate with *ahar*.

^b Although *asak* ‘foot’ is another body part, this is not a case of noun incorporation since *asak* is a noun (in a possession construction with *=aħaŋ*) and not within the verb complex as is *ma* ‘mouth.’

- (56) Tandalay talala təzləgə **va** ana Məloko ahay.
 ta-nd=alaj ta-l =ala tɪ-ḱɪg-ə **va** ana Məloko^wɔ =ahaj
 3P-PRG=away 3P-go =to 3P-throw-CL body DAT Moloko =Pl
 ‘They were coming and fighting with the Molokos.’ (lit. they were coming
 they threw body to Molokos)
- (57) Kafta məze ahay təzləgə **va** va na, nəwəfokom ala dəraj.
 kafta mɪzɛ =ahaj tɔ-ḱəg-ə **va** =va na nu-wudɔk^w-ɔm =ala
 day person =Pl 3P-throw-CL body =PRF PSP 1P-separate-1PEX =to
 dəraj
 head
 ‘On the day that they had finished fighting each other, we separated as
 equals.’
- (58) Takad **va**.
 ta-kad **va**
 3P-kill body
 ‘They kill each other.’ (lit. they kill-by-clubbing body)

The ‘body-part’ *va* ‘body’ occurs twice in the clause expressing the reciprocal idea of loving one another in (59) – as incorporated noun and also as the noun phrase within an adpositional phrase (*va* is bolded in the example).

- (59) Kondofom **va** a **va** ava.
 kɔ-ndɔf-ɔm **va** a **va** ava
 2P-need-2P body at body in
 ‘Love one another.’ (lit. need body in the body)

Table 9.11 compares transitive clauses with a direct object and clauses with the same verbs collocated with the ‘body-part.’ To facilitate comparison between the incorporated ‘body-part’ *va* and the direct object pronominal extension *na*, the examples in the table are given in pairs. The first example in each pair shows the full noun phrase, and the second example in the pair shows the same clause with only pronominal affixes and extensions. The ‘body-part’ *va* is bolded.

The verb *zad* ‘take’ also can incorporate the ‘body-part’ *va* ‘body.’ The normal lexical meaning of the verb *zad* is ‘take’ but the combination *zad va* (60 and 61) carries the idea of ‘resemble’ or ‘look like’ and occurs with singular as well as plural subjects. With a plural subject (61), the clause has a reciprocal idea – the subjects resemble each other.

Table 9.11: Selected verbs with and without the ‘body-part’ *va* ‘body’

Transitive clause	Clause with ‘body-part’ incorporation
<i>Mələkʷə = ahaj tə-ɣɪg-ɛ haj</i> Moloko =Pl 3P-sow-CL millet ‘Moloko people sow/throw millet.’	<i>kəra = ahaj tə-ɣɪg-ɛ va</i> dog =Pl 3P-sow-CL body ‘Dogs fight each other.’
<i>tə-ɣɪg-ɛ na</i> 3P-sow-CL 3S.DO ‘They sow/throw it.’	<i>tə-ɣɪg-ɛ va</i> 3P-sow-CL body ‘They fight each other.’
<i>babəza = ahaj ta-kadʰ kəra</i> children =Pl 3P-club dog ‘The children kill a dog.’	<i>mɪʒɛ = ahaj ta-kadʰ va</i> person =Pl 3P-club body ‘The people kill each other.’
<i>ta-kadʰ na</i> 3P-club 3S.DO ‘They kill it.’	<i>ta-kadʰ va</i> 3P-club body ‘They kill each other.’
<i>ləkʷə na kə-ndədʰ-ɔm baba = ələkʷə</i> 1PIN PSP 1PIN-love-1PIN father =1PIN.POSS ‘We (for our part) love our father.’	<i>ləkʷə na kə-ndədʰ-ɔm va</i> 1PIN PSP 1PIN –love-1PIN body ‘We (for our part) love one another.’
<i>kə-ndədʰ-ɔm na</i> 1PIN –love-1PIN 3S.DO ‘We love him.’	<i>kə-ndədʰ-ɔm va</i> 1PIN –love-1PIN body ‘We love one another.’

- (60) *Mələma angə azadʰ va nə nok.*
mələma = aŋgʷə a-zadʰ va nə nəkʷ
 sibling =2S.POSS 3S-take body with 2S
 ‘Your sibling resembles you.’ (lit. your sibling takes body with you)
- (61) *Mələma angə ahay jəyga tazadʰ va.*
mələma = aŋgʷə = ahaj dʒijga ta-zadʰ va
 sibling =2S.POSS =Pl all 3P-take body
 ‘All your siblings look alike.’ (lit. siblings take [each other’s] body)

The body part *va* can also collocate with other verbs. For example *ɛ-mbeʃɛŋ* means ‘he/she breathes,’ but *ɛ-mbeʃɛŋ va* means ‘he/she is resting’ (62).

- (62) Embesen va kə cəvəd aka.
 ɛ-mbɛʃɛŋ va kə tʃɪvəd aka
 3S-breathe body on road on
 ‘He rests enroute (to somewhere).’

9.3.5 *har* ‘body’

A second reduced form of *hərva*, *har* ‘body,’ demonstrates another non-productive collocation with some verbs. With the verb *wudak-aj*, which normally means ‘divide,’ the incorporation of *har* gives a new lexical meaning containing the idea of the participants ‘dividing themselves up’ (a reflexive meaning, 63).

- (63) Values, S. 16
 Təlala, a həlan ga ava ese, təwəɖakala **har** a məsyon ava.
 tə-l=ala a həlan ga ava ɛʃɛ, tu-wudak=ala **har** a mɔsɔŋ ava
 3P-go=to at back ADJ in again 3P-divide=to body at mission in
 ‘Later, after (lit. at the back of) again, they separate [to go home] from the mission (lit. they divide body).’

With the verb *gas* which normally means ‘catch,’ *har* gives the lexical idea of pleasing, which is located at the indirect object (64).

- (64) Membese va nə nok egəne na, agəsaw **har** ava gam.
 mɛ-mbɛʃ-ɛ va nə nɔk^w ɛɡɪnɛ na a-ɡəs=aw **har** =va gam
 NOM-breathe-CL body with 2S today PSP 3S-catch=1S.IO body =PRF a lot
 ‘Spending time with you today pleased me a lot.’ (lit. it catches body to me)

9.4 Clauses with zero grammatical arguments

Sometimes in Moloko verbal clauses built around any verb can also carry zero transitivity – clauses where there are no grammatically explicit participants.¹⁸ Nominalised and dependent verb forms are not inflected for subject (see Sections 7.6 and 7.7, respectively). When they also carry no DO or indirect object pronominal, the clause has zero transitivity. The use of verb forms with no grammatical relations has a discourse function to temporarily take participants out of sight. In the Disobedient Girl story peak episode S. 21 (65), the dependent verb *amə-h=aja*

¹⁸ The ideophone clause can also carry zero transitivity Section 3.6.3.

‘grinding,’ is unconjugated for subject, direct object, and indirect object. The effect is to keep the participants out of sight as the events unfold and increase vividness as the audience is drawn into the story. All the audience hears is the sound of grinding. The millet is expanding, filling the room and the disobedient girl is lost inside it as she is being suffocated by the millet.

- (65) Disobedient Girl, S. 21
 Njəw njəw njəw aməhaya azla.
 nzuw nzuw nzuw amə-h=aja aʒa
 1Dgrind DEP-grind=PLU now
 ‘Nzu, nzu, nzu [she] ground [the millet] now.’

Likewise in line S. 15 of the Snake story (66), the nominalised form of the verb ‘to penetrate’ occurs with neither DO nor indirect object pronominals. This climax moment where the storyteller spears the snake is in a clause with zero transitivity. Participants are out of sight in the discourse.

- (66) Snake story, S. 15
 Mecesle mbəraʔ!
 mɛ-tʃɛʔ-ɛ mbəraʔ
 NOM-penetrate-CL 1Dpenetrate
 ‘It penetrated, mburab!’

10 Clause

Moloko is a SVO language, which means that the default order of clausal constituents in a simple clause is subject, followed by verb (or predicate), and finally object.¹ Clause types in Moloko cannot be very meaningfully discussed apart from verb types, which have been described in Chapter 9. In this chapter the basic structure of declarative clauses for all verb subclasses will be discussed (Section 10.1) followed by the negation constructions (Section 10.2), interrogative constructions (Section 10.3), imperative constructions (Section 10.4), and exclamatory constructions (Section 10.5). The constructions discussed in this chapter are each monoclausal, but are specific constructions superimposed on a clause to add a functional element. The *na* construction is also a construction that can be superimposed on a single clause. However since it is more complex, *na* constructions is discussed in a separate chapter (Chapter 11). Clause combining is discussed in Chapter 12.

10.1 Declarative clauses

Moloko has two basic types of declarative clauses, depending on whether the clause contains a verb or not. The verbal clause is described in Section 10.1.1. Clauses where an existential or an ideophone is the central element are a subtype of verbal clauses. The special features of their structure have already been discussed in Section 3.4 and Section 3.6, respectively. The non-verbal clauses are described in Section 10.1.2. These include predicate nominal, predicate adjective, and predicate possessive clauses.

There is not a lot of variation in the word order of the elements of the basic clause, but the number of grammatically explicit core participants controls the semantic roles assigned to the subject, direct object, and indirect object (Chapter 9). The presupposition construction (discussed in Chapter 11) can be superimposed upon the basic clause structure, changing the word order. Negation, interrogative, command, and exclamatory clause structures can be further superimposed (Sections 10.2–10.5).

¹ Elements can be fronted only in a special construction described in Chapter 11.

10.1.1 Verbal clause

The basic structure of Moloko verbal clauses includes the following elements in the order shown in Figure 10.1. The order of clause constituents for all clause types is always SVO (with V and O being within the verb phrase). The verb phrase (Chapter 8) is the centre of the clause (and also its final element) and can contain information concerning the subject, direct object, indirect object, aspect, mood, direction, location, repetition, and discourse-importance of the event or state expressed by the verb (see Sections 7.3–7.5). Every Moloko verbal clause has a verb complex, and may consist simply of a verb complex. All other elements are optional. The temporal adverb gives locational information concerning the event. If a full subject noun phrase is present, it precedes the verb phrase, and any other core clause constituents follow the verb in the verb phrase (direct object, indirect object, obliques). The subject controls the subject inflections on the verb word. Elements whose inclusion in the clause is optional are in parentheses.

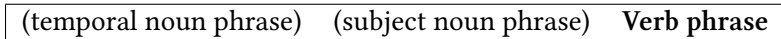


Figure 10.1: Order of constituents for verbal clause

The first element in the clause can be a temporal noun phrase (5, 1).

- (1) **Apazan** albaya ahay tolo a ləhe.
 apazaŋ albaja =ahaj tɔ-lɔ a lɪhɛ
 yesterday youth =Pl 3P+PFV-go at bush
 ‘Yesterday the youths went to the bush.’

The subject is expressed by the subject pronominal on the verb (see Section 7.3.1). A coreferential noun phrase can be present for discourse functions (2 and 3). The coreferential noun phrase precedes the verb.

- (2) **Hawa** ahəmay.
 Hawa à-həm-aj
 Hawa 3S+PFV-run-CL
 ‘Hawa ran.’
- (3) **Ne ahan** nozom na.
 nɛ =ahaŋ nɔ-zɔm na
 1S =3S.POSS 3S+PFV-eat 3S.DO
 ‘I myself ate it.’

The simplest form of the verbal clause type consists of a verb complex only. A verb complex can stand alone as a clause because, in addition to the verb stem, it contains information on grammatical relations (subject in the subject prefix, direct object and indirect object in a verb extension or suffix). The verb complex also includes directional and (non-core) locational information and indicates whether or not the verb is Perfect (via a verbal extension). It is interesting that the SVO order is maintained in the affixes (s-v-o), as seen in Figure 7.2. (from Section 7.1).

The examples below are clauses consisting of just a verb complex. They all have information on the subject (from subject inflections, 4, 6, 7, 8) or the form of the imperative (5 and 9). Some have information on the direct object (6–9), indirect object (8), direction of the action (5, 7, 9), and discourse information (5).

- (4) Nəhəmay.
 nə-həm-aj
 1S+PFV-run-CL
 ‘I ran.’
- (5) Dəraka alay.
 dər =aka =alaj
 move =on =away
 ‘Move over again!’
- (6) Nozom na.
 nə-zəm na
 1S+PFV-eat 3S.DO
 ‘I ate it.’
- (7) Nəbah na alay.
 nə-bax na =alaj
 1S+PFV-pour DO =away
 ‘I poured it away from myself.’
- (8) Nəvəlan na.
 nə-vəl=aj na
 1S+PFV-give=3S.IO 3S.DO
 ‘I gave it to him.’

- (9) Zaw na ala.
 z =aw na =ala
 give[2S.IMP] =1S.IO 3S.DO =to
 ‘Give it to me!’

10.1.2 Predicate nominal, predicate adjective, and predicate possessive clauses

Predicate nominal (10–12), predicate adjective (13), and predicate possessive (14 and 15) clauses lack any verb and consist of a juxtaposition of two noun phrases, in an order shown in Figure 10.2.



Figure 10.2: Constituent order of predicate nominal/adjective/possessive clauses

Predicate nominal clauses typically express the notions of proper inclusion, i.e., the clause indicates that the subject is a member of the particular class of items indicated by the predicate (10); or equation, i.e., the clause indicates that the subject is identical to the predicate (11 and 12). In the following examples, each noun phrase is delimited by square brackets.

- (10) [Mana] [zar mehere.]
 [Mana] [zar mɛ-hɛr-ɛ]
 Mana man NOM-build-CL
 ‘Mana [is] a builder.’ (lit. Mana, building-man)
- (11) [Sləmay əwla] [Abangay.]
 [ʔəmaj =uwla] [Abangaj]
 name =1S.POSS Abangay
 ‘My name [is] Abangay.’
- (12) [Zar nehe] [baba əwla.]
 [zar nɛhɛ] [baba =uwla]
 man DEM father =1S.POSS
 ‘The man [is] my father.’

Predicate adjective clauses consist of a subject noun phrase and a derived adjective (Section 5.3) as the predicate noun phrase. These clauses express an attribute of the subject.

- (13) [Ndahan] [malan ga.]
 [ndahan] [malan ga]
 3S largeness ADJ
 ‘He/she [is] big.’

Predicate possessive clauses have a subject noun phrase and a possessive prepositional phrase (see Section 5.6.1) as the predicate phrase. The participant named in the possessive phrase is expressed via a full noun phrase. These clauses express that the subject noun phrase is associated with the participant named in the possessive phrase. The semantic range for the predicate possessive clauses is the same as that of any possessive or genitive construction (see Sections 3.1.2.1 and 5.4.1).

- (14) [Babəza ahay nəndəye] [anga bahay.]
 [babəza =ahaj nɪndiɛ] [aŋga bahaj]
 children =Pl DEM POSS chief
 ‘The children here belong to the chief.’ / ‘The children here[are] belonging to the chief.’

- (15) [Dəray ga] [anga ləme.]
 [dəraj ga] [aŋga lɪmɛ]
 head ADJ POSS 1PEX
 ‘The head belonged to us.’ / ‘The head [was] belonging to us.’

For all three of these clause types, the subject may be marked as presupposed (see Section 11.2). For a predicate nominal construction, fronting and marking the predicate with *na* can express inclusion (10), equation (16–17) or attribution (13 and 18).

- (16) [Zar mehere na], [Mana.]
 [zar mɛ-her-ɛ] na [Mana]
 man NOM-build-CL PSP Mana
 ‘The builder [is] Mana.’
- (17) [Bahay a Laway na], [Ajəva.]
 [bahaj a Lawaj na] [Adzəva]
 chief GEN Lalaway PSP Adzava
 ‘The chief of Lalaway [is] Adzava.’

- (18) [Malan ga na], [ndahan.]
 [malan ga] na [ndahan]
 largeness ADJ PSP 3S
 ‘The biggest one [is] him.’ (lit. big, him)

10.2 Negation constructions

Negation constructions are specific constructions superimposed on a clause to create negation of the entire proposition (clausal negation construction, see Section 10.2.2) or negation of one element of the clause (constituent negation, see Section 10.2.3). For both, Moloko uses a negative particle *baj* at the end of the clause (see Section 10.2.1).

10.2.1 Negative particles

The all-purpose negative is the particle *baj*, which occurs clause-finally (20, 21) but before any interrogative word (see Section 3.1.4). In (19–21) the negative is bolded and the negated element is in square brackets.

- (19) [Alala **bay**.]
 [à-l =ala **baj**]
 3S+PFV-go =to NEG
 ‘He/she didn’t come.’
- (20) [War ga ecen sləmay **bay**.]
 [war ga ε-tʃɛŋ ʃəmaj **baj**]
 child ADJ 3S-hear ear NEG
 ‘That child did not obey.’ (lit. that child, he hears ear not)
- (21) [Táazləgalay avəlo **bay**.]
 [táá-ʒəg =alaj avʊlo **baj**]
 3P+POT-throw =away above NEG
 ‘They should not throw it too high.’

In (22–23) the negative is clause final and may have semantic scope over the entire proposition. See especially (23) where it is clear that the entire proposition is being negated, and not just the information within the constituent closest to the negative. The meaning is ‘don’t insult a small person.’ If the information in only one constituent was being negated, the meaning would have been ‘insult a person who is not small.’

- (22) [Tagaw ele lala **bay**.]
 [ta-g=aw εε lala **baj**]
 3P-do=1S.IO thing good NEG
 ‘They do bad things to me.’ / ‘They don’t do good things to me.’
- (23) [Kárasay mæze cəfəw ga **bay**.]
 [ká-ras-aj mɪʒε tʃɪfəw ga **baj**]
 2S+IFV-minimise-CL person smallness ADJ NEG
 ‘Don’t insult one of the little people.’
- (24) [Anday dəren **bay**.]
 [à-ndaj dɪrɛŋ **baj**]
 3S+PFV-PRG far NEG
 ‘He/she was not far.’

In (25), *baj* follows a noun phrase within the clause and negates the information expressed within the noun phrase itself; *εε lala baj* ‘a bad thing.’

- (25) Nde [ele lala **bay**] kə təta aka.
 ndε [εε lala **baj**] kə təta aka
 so thing well done NEG on them on
 ‘So, a bad thing was upon them.’

When relative clauses are negated, the negative may have semantic scope over the entire relative clause (26, 27).

- (26) Values, S. 7
 Ele ahay [aməgəye **bay**] nəngehe pat tahata na va.
 εε =ahaj [amɪ-g-ije **baj**] nɪŋgɛhɛ pat ta-h=ata na =va
 thing =Pl DEP-do-CL NEG DEM all 3P-tell=3P.IO 3S.DO =PRF
 ‘All these things that [we] are not supposed to do, they have already told us.’
- (27) Kəra [aməmənɟere εε **bay**] táslay na gəraw.
 kəra [amɪ-mɪndʒɛr-ε εε **baj**] tá-ɬ-aj na gəraw
 dog DEP-see-CL eye NEG 3P+IFV-slay-CL 3S.DO IDcut through middle
 ‘The dog that couldn’t see they slew it through the middle.’

The negative can form a compound with some adverbs. Table 10.1. shows negated and non-negated clauses with four adverbs. The negative *asa-baj* ‘never

again’ is a compound of the adverb *εfe* ‘again’ and *baj*. The evidence of phonological binding is that the adverb *εfe* loses its palatalisation when it compounds with *baj* (line 1 in Table 10.1.). The other adverbs are considered to be separate phonological words since there are no other indications that the negative is phonologically bound to the adverb since the prosody of other adverbs is not affected (*kʊlɔ* ‘before,’ line 3 in Table 10.1.). There are word-final changes between the adverb *faŋ* ‘already’ and the negative. For example, line 2 shows that the word-final /n/ in [faŋ] is deleted (a word-final change prompted in some contexts, see Section 2.6.1).

Table 10.1: Negation of clauses with adverbs

Line	Non-negated clause with adverb	Negated clause
1	<i>nóó-lɔ εfe</i> 1S+POT-go again ‘I will go again.’	<i>nóó-lɔ asa-baj</i> 1S+POT-go again-NEG ‘I will not go again.’
2	<i>né-g-ε na faŋ</i> 1S+IFV-do-CL 3S.DO already ‘I have done it already.’	<i>né-g-ε na faŋ baj</i> 1S+IFV-do-CL 3S.DO already NEG ‘I haven’t done it yet.’
3	<i>nə-mənzar ndahan kʊlɔ</i> 1S-see 3S before ‘I have seen her before.’	<i>nə-mənzar ndahan kʊlɔ baj</i> 1S-see 3S before NEG ‘I have never seen her before.’
4	<i>káá-z =ala tətə</i> 2S+POT-take =to ability ‘You can bring [it].’	<i>káá-z =ala tətə baj</i> 2S+POT-take =to ability NEG ‘You can’t bring [it].’

10.2.2 Clausal negation construction

For clausal negation, there is no change in word order and no change in clause constituents. A negative clause asserts that some event or state does not hold. (28–43) illustrate various types of clausal negation in Moloko. Each pair of examples represents a positive and a negative assertion for comparison.

(28) and (29) illustrate negation of an intransitive clause:

- (28) Ahəmay.
a-həmaj
3S-run
'He/she runs.'

- (29) Ahəmay bay.
a-həmaj baj
3S-run NEG
'He/she doesn't run.'

(30–35) illustrate negation of a transitive clause:

- (30) Aməñjar Hawa.
a-məñzar Hawa
3S-see Hawa
'He/she sees Hawa.'

- (31) Aməñjar Hawa bay.
a-məñzar Hawa baj
3S-see Hawa NEG
'He/she doesn't see Hawa.'

- (32) Akad awak.
a-kad awak
3S-kill goat
'He/she kills a goat.'

- (33) Akad awak bay.
a-kad awak baj
3S-kill goat NEG
'He/she doesn't kill a goat.'

- (34) Asaw sese.
a-s=aw ʃɛʃɛ
3S-divide=1S.IO meat
'I want meat.'

- (35) Asaw sese bay.
a-s=aw ʃɛʃɛ baj
3S-divide=1S.IO meat NEG
'I do not want meat.'

(36–39) illustrate negation of existentials.

- (36) Babəza əwla ahay aba.
 babəza =uwla =ahaj aba
 children =1S.POSS =Pl EXT
 ‘I have children.’
- (37) Babəza əwla ahay **abay**.
 babəza =uwla =ahaj **abaj**
 children =1S.POSS =Pl EXT+NEG
 ‘I have no children.’
- (38) Dala anaw aka.
 dala an=aw aka
 money DAT=1S EXT+on
 ‘I have money.’
- (39) Dala anaw aka **bay**.
 dala an=aw aka **baj**
 money DAT=1S EXT+on NEG
 ‘I have no money.’

(40–43) illustrate negation of a predicate adjective.

- (40) Ndahan zləle ga.
 ndahanj kɪlɛ ga
 3S richness ADJ
 ‘He/she is rich.’
- (41) Ndahan zləle ga **bay**.
 ndahanj kɪlɛ ga **baj**
 3S richness ADJ NEG
 ‘He/she is not rich.’
- (42) Ndahan gədan ga.
 ndahanj gədanj ga
 3S strength ADJ
 ‘He/she is strong.’

- (43) Ndahan gədan ga **bay**.
 ndahan gədan ga **baj**
 3S strength ADJ NEG
 ‘He/she is not strong.’

10.2.3 Constituent negation

Most frequently, it seems that the element closest to the negative that is under the scope of negation, even though a clause-final negative marker can have scope over the whole verb phrase or even over the entire clause. To negate only one constituent in a clause, the clause is sometimes rearranged so that the constituent that is negated is placed in the clause-final position adjacent to the negation particle. (44–46) show a question (44) with two responses (45–46) where each of the two ambiguous elements is negated. The subject (Mana) is part of the presupposition (marked off by *na* in the question, see Section 11.2). In (45) the oblique is negated and in (46) the entire predicate. The clauses were not restructured since the elements in question were already clause-final. In the following examples, the element that is negated is delimited by square brackets and the negative is bolded.

- (44) Mana na, olo [a kosoko ava] daw?
 Mana na ɔ-lo [a kɔsɔkʷɔ ava] daw
 Mana PSP 3S-go at market in QUEST
 ‘As for Mana, is he going to the market?’
- (45) Ehe, olo [a kosoko ava] **bay**; olo afa bahay.
 ɛhe ɔ-lo [a kɔsɔkʷɔ ava] **baj** ɔ-lo afa bahaj
 no 3S-go at market in NEG 3S-go house of chief
 ‘No, he isn’t going to the market; rather he is going to the chief’s house.’
- (46) Ehe, olo [a kosoko ava] **bay**; enjé a mogom.
 ɛhe, [ɔ-lo a kɔsɔkʷɔ ava] **baj** ɛ-nɜ-ɛ a mɔgʷɔm
 no 3S-go at market in NEG 3S-stay-CL at home
 ‘No, he isn’t going to the market; rather he is staying at home (or going to the chief’s house).’

(47–50) show some restructuring when different constituents are negated. (47) illustrates a question and (48) to (50) illustrate three possible answers, each negating a different constituent. Normal SVO structure is maintained for all answers.

The responses each use two clauses. The first clause expresses the negation of the element in final position, and the second restates the clause giving the corrected information. In each case the first clause is restructured so as to move the element to be negated to the clause-final position. The response in (48) indicates that the hearer accepts that Mana gave the guitar to someone, but it was not his father. In this clause, *kɪndɛw* ‘guitar’ is realised as the 3S DO pronominal. The response in (49) indicates that Mana gave something to his father, but not a guitar. In this case, the adpositional phrase *ana baba =ahan* ‘to his father’ is replaced by the indirect object pronominal so that the negated element *kɪndɛw* ‘guitar’ can be placed next to the negative.

- (47) Mana àvəlan kəndɛw ana baba ahan dāw?
 Mana à-vəl =aŋ kɪndɛw ana baba =ahan dāw
 Mana 3S+PFV-give =3S.IO guitar DAT father =3S.POSS QUEST
 ‘Did Mana give the guitar to his father?’
- (48) Ehe, àvəlan na [ana baba ahan] baj, àvəlan na ana gəmsodo ahan.
 ɛhɛ à-vəl =aŋ na [ana baba =ahan] baj à-vəl =aŋ na
 no 3S-give =3S.IO 3S.DO DAT father =3S.POSS NEG 3S-give =3S.IO 3S.DO
 ana gəmsɔdɔ =ahan
 DAT mother’s brother =3S.POSS
 ‘No, Mana didn’t give it to his father, he gave it to his mother’s brother.’
- (49) Ehe, àvəlan [kəndɛw] baj, àvəlan cecɛwk.
 ɛhɛ à-vəl =aŋ [kɪndɛw] baj à-vəl =aŋ tʃɛtʃœk^w
 no 1S-give =3S.IO guitar NEG 1S-give =3S.IO flute
 ‘No, Mana didn’t give a guitar to his father, he gave him a flute.’

The fourth possible reply to the question in (47) negates the subject. Moloko clause structure does not allow the subject to occupy the clause final position; to specifically negate the subject of a clause (52), a predicate nominal clause structure is used. The predicate is recast as a relative clause (see Section 5.4.3) with the presupposed information that someone gave a guitar to his father marked with *na*. The nominal is the negated subject *Mana baj* ‘not Mana.’

- (50) Ehe, aməvəlan kəndɛw ana baba ahan na, [Mana] baj;
 ɛhɛ amə-vəl=aŋ kɪndɛw ana baba =ahan na [Mana] baj
 no DEP-give=3S.IO guitar DAT father =3S.POSS PSP Mana NEG
 ‘No, Mana didn’t give the guitar to his father. (lit. the one that gave guitar to his father, not Mana)’

aməvəlan na, Majay.
 amə-vəl=aŋ na Madzaj
 DEP-give=3S.IO PSP Madzay
 ‘The person that gave [it was] Madzay.’

(51–52) show a similar restructuring of a verbal clause into a predicate nominal in order to negate the subject of a clause. (51) shows a question with a verbal clause structure. In order to negate the subject, the clause is restructured to put all of the known information in a predicate that is a relative clause delimited by *na*, and the negated subject becomes the final nominal (52).

- (51) Hawa àdan daf ana Mana daw?
 Hawa à-d =aŋ daf ana Mana daw
 Hawa 3S+PFV-prepare =3S.IO loaf DAT Mana QUEST
 ‘Did Hawa prepare food for Mana?’
- (52) Amadan daf ana Mana na, [Hawa] bay.
 ama-d =aŋ daf ana Mana na [Hawa] baj
 DEP-prepare =3S.IO loaf DAT Mana PSP Hawa NEG
 ‘The one that prepared the loaf for Mana [was] not Hawa.’

10.3 Interrogative constructions

Interrogative constructions can be superimposed on top of the other clausal construction types. Like the case for the negation construction (see Section 10.2.3), the element closest to the interrogative pronoun or question word seems most frequently under the scope of interrogation. Types of interrogative constructions include content questions (see Section 10.3.1), yes/no questions (see Section 10.3.2), tag question construction, to clarify a particular statement (see Section 10.3.3), rhetorical question constructions (see Section 10.3.4), and emphatic question constructions (see Section 10.3.5).

10.3.1 Content question construction

Information questions use interrogative pronouns which must be clause-final. The interrogative pronouns (see Section 3.1.4) each fill a slot in the clause according to the element they each are questioning. All elements in a clause can be questioned including subject, direct object, indirect object, verb, oblique, and

noun modifier. The clause structure will always be arranged such that the element questioned is clause-final. Three main clause structures are employed in order to achieve clause-final interrogative pronouns. Table 10.2. shows the interrogative forms used for content questions.

Table 10.2: Content information constructions

Construction	Structure and example
Verbal clause structure Questions clausal element	<i>clause – interrogative word</i> <i>zar à-mənzar waj</i> man 3S+PFV-see who ‘Who did the man see?’
Predicate nominal Questions subject	<i>dependent clause marked with na – interrogative word</i> <i>hʷər amr-d-ije daf na waj</i> woman DEP-make-CL loaf PSP who ‘Who is making loaf?’ (lit. the woman that is making loaf [is] who?)
Right-shifted <i>na</i> marked element Questions internal element	<i>clause – interrogative word – right-shifted <i>na</i> marked element</i> <i>Mala a-vəl=aŋ almaj ana məlama =aħaŋ na</i> Mala 3S-give=3S.IO what DAT sibling =3S.POSS PSP ‘Mala gave what to his brother?’

The first clause structure that is employed is the verbal clause structure (SV(O)), but with substitution of a question word. The verbal clause structure is rearranged in the same manner as for constituent negation (see Section 10.2.3) in order to position the questioned element in the clause-final position so that it is replaced by the interrogative pronoun. (53–57) and (64) are information questions in verbal clauses.

The direct object is questioned in (53). The presupposed information is that the man saw someone. Note that there are no other elements that follow the direct object in the verb phrase. The interrogative pronoun fills the direct object slot (identified by square brackets). The first example in each pair is the interrogative construction. Examples in this section are given in pairs. The first example in the pair shows the content question. The second example is the clause with the information filled in for comparison.

- (53) Zar aməŋjar [**way?**]
 zar à-mənzar [**waj**]
 man 3S+PFV-see who
 ‘Who did the man see?’

- (54) Zar amənjər [Mana.]
 zar à-mənzər [Mana]
 man 3S+PFV-see Mana
 ‘The man saw Mana.’

(55) questions a noun modifier. The presupposed information is that the woman made some kind of sauce, and the question seeks to find out what kind of sauce. The interrogative pronoun *wɛləj* ‘which’ is within the noun phrase delimited by square brackets in the example. Even though the interrogative pronoun is inside a noun phrase, that noun phrase is clause-final so the interrogative pronoun is the final word in the clause.

- (55) Hor ede [elele **wɛləj**?]
 h^wɔr ɛ-dɛ [ɛləɛ **wɛləj**]
 woman 3S-prepare sauce which
 ‘The woman is making which kind of sauce?’

- (56) Hor ede [elele kələf.]
 h^wɔr ɛ-dɛ [ɛləɛ kələf]
 woman 3S-prepare sauce fish
 ‘The woman is making fish sauce.’

(57) questions the direct object of a subordinate clause, in this case a purpose adverbial clause (delimited by square brackets). The presupposed information is that the listener has come to do something. The interrogative pronoun *almaj* ‘what’ is clause-final since the adverbial clause has no other elements following the direct object.

- (57) Kəlala [aməgəye **almaj**?]
 kə-l =ala [amɪ-g-ijɛ **almaj**]
 2S+PFV-go=to DEP-do-CL what
 ‘What have you come to do?’ (lit. you have come to do what?)

- (58) Nəlala [aməgəye slərele.]
 nə-l=ala [amɪ-g-ijɛ slərele]
 1S+PFV-go=to DEP-do-CL work
 ‘I came to do work.’

- (59) Nəlala [aməjənok.]
 nə-l=ala [amə-dzən-ɔkʷ]
 1S+PFV-go=to DEF-help-2S
 ‘I came to help you.’

In (60), the indirect object is questioned. The presupposed information is that Mala gave a book to someone. The interrogative pronoun *waj* ‘who,’ is located within a prepositional phrase identified by square brackets. That prepositional phrase is clause-final, so that again the interrogative pronoun is the final element in the clause.

- (60) Mala avəlan dələywer [ana waj?]
 Mala à-vəl=aŋ dəlijwɛr [ana waj]
 Mala 3S+PFV-give=3S.IO paper DAT who
 ‘Mala gave the book to whom?’

- (61) Mala avəlan dələywer [ana Hawa.]
 Mala à-vəl=aŋ dəlijwɛr [ana Hawa]
 Mala 3S+PFV-give=3S.IO paper DAT Hawa
 ‘Mala gave the book to Hawa.’

In (62) and (64), an oblique is questioned. The presupposed information is that the woman plans to go to market sometime. The interrogative pronoun is the temporal element in the clause in (62). While temporal noun phrases can occur clause-initially, the interrogative pronoun is again found in the clause-final position.

- (62) Hor olo a kosoko ava [epeley?]
 hʷɔr ɔ-lɔ a kɔsɔkʷɔ ava [ɛpɛlɛj]
 woman 3S-go at market in when
 ‘When is the woman going to market?’

- (63) Hor olo a kosoko ava [hajan.]
 hʷɔr ɔ-lɔ a kɔsɔkʷɔ ava [hadzan]
 woman 3S-go at market in tomorrow
 ‘The woman is going to market tomorrow.’

The elements within adpositional phrases are questioned using the generic location question word *amtamaj* ‘where’ (64). This generic location question word

does not need to be located inside an adpositional phrase, eliminating the possibility that the enclitic would follow the interrogative pronoun in the clause allowing the interrogative pronoun to be clause-final. The presupposed information is that the hearer is going somewhere.

- (64) Kolo [amtamay?]
 kɔ-lɔ [amtamaj]
 2S+PFV-go where
 ‘Where did you go?’
- (65) Nolo [a kosoko ava.]
 nɔ-lɔ [a kɔsɔkʷɔ ava]
 1S+PFV-go at market in
 ‘I went to market.’

The second clause structure that is employed is the predicate nominal. The predicate nominal structure is employed for questioning an element of a predicate nominal clause (66–71). The nominal in the following predicate nominal construction is questioned with the interrogative pronoun in a prepositional phrase. The prepositional phrase is delimited by square brackets.

- (66) Mogom nehe [anga way?]
 mɔgʷɔm nehe [aŋga waj]
 house DEM POSS who
 ‘This house here belongs to whom?’
- (67) Mogom nehe [anga Mana.]
 mɔgʷɔm nehe [aŋga Mana]
 house DEM POSS Mana
 ‘This house here belongs to Mana.’ (the house here, belonging to Mana)

In (68) and (70), the interrogative word itself is the predicate.

- (68) Mogom ango [amtamay?]
 mɔgʷɔm =aŋgʷɔ [amtamaj]
 home =2S.POSS where
 ‘Where is your home?’

- (69) Mogom əwla [a Laway.]
 mɔg^wɔm =uwla [a Lawaj]
 home =1S.POSS to Lalawaj
 ‘My home is in Lalaway.’
- (70) Bahay a slala aləkwəye na [way?]
 bahaj a ɬala =alɔk^wɔjɛ na [waj]
 chief GEN village =2P.POSS PSP who
 ‘The chief of your village is who?’
- (71) Bahay a slala əwla na [Ajəva.]
 bahaj a ɬala =uwla na [Adzəva]
 chief GEN village =1S.POSS PSP Adziva
 ‘The chief of my village is Adziva.’

The predicate nominal clause is also used for questioning the subject in what would otherwise be a normal verbal clause (paralleling the case for the negative, see Section 10.2.3). (66) and (68) are information questions in a predicate nominal construction. The subject of what would be a verbal clause in a declarative speech act cannot be questioned using the SV(O) verbal clause construction in Moloko, because the clause can never be simply rearranged so that the subject is clause final. For example, it is impossible to question the subject in the following clause, using the SV(O) verbal clause construction.²

- (72) Hor ede daf.
 h^wɔr ɛ-d-ɛ daf
 woman 3S-make-CL loaf
 ‘The woman is making loaf’

To question the subject (73–74), the verbal clause must be reformed into a predicate nominal interrogative construction. The clause is reformed into a noun phrase with a relative clause so that the interrogative pronoun questioning the subject can be in clause-final position.

- (73) Hor amədəye daf na way?
 h^wɔr amɪ-d-ijɛ daf na waj
 woman DEP-make-CL loaf PSP who
 ‘Who is making loaf?’ (lit. the woman that is making loaf [is] who?)

² Unless the emphatic question construction is used Section 10.3.5.

- (74) Hor amədəye daf na weley?
 h^wɔr amə-d-ijɛ daf na wɛlɛj
 woman DEP-make-CL loaf PSP which
 ‘Which woman is making loaf?’ (lit. the woman that is making loaf [is] which one?)

(75) and (77) show two other predicate nominal clauses that question what would be the subject of an otherwise verbal clause.

- (75) Məze amanday aməzəme daf na way?
 mɪzɛ ama-ndaj amɪ-zum-ɛ daf na waj
 person DEP-PRG DEP-eat-CL loaf PSP who
 ‘Who is eating loaf?’ (lit. the man that is eating loaf [is] who?)

- (76) Mana anday ozom daf.
 Mana a-ndaj a-zɔm daf
 person 3S-PRG 3S-eat loaf
 ‘Mana is eating loaf.’

- (77) Aməzəde dəray na way?
 amɪ-zɪd-ɛ dərɔj na waj
 DEP-take-CL head PSP who
 ‘Who will win?’ (lit. the one that takes the head [is] who?)

- (78) Mana azad dəray.
 Mana a-zad dərɔj
 Mana 3S-take head
 ‘Mana won.’ (lit. Mana took head)

The third structure for content information questions uses a right-shifted *na*-marked element. This structure is employed in cases where it is impossible for a questioned verb phrase element to be clause final. In (79), the direct object is questioned. In this case the direct object cannot be clause final since it is necessary to include the information *ana mələma =ahaŋ* ‘to his brother,’ and the prepositional phrase must follow the direct object in the verb phrase (Chapter 8). Thus in the interrogative structure, the interrogative pronoun replaces the direct object and the rest of the clause is put into a post-posed *na*-marked phrase (underlined in this example, see Section 11.3).

- (79) Mala avəlan **almaj** ana mələma ahan na
 Mala a-vəl=aŋ **almaj** ana mələma =ahan na
 Mala 3S-give=3S.IO what DAT sibling =3S.POSS PSP
 ‘Mala gave what to his brother?’
- (80) Mala avəlan dala ana mələma ahan.
 Mala a-vəl=aŋ dala ana mələma =ahan
 Mala 3S-give=3S.IO money DAT sibling =3S.POSS
 ‘Mala gave money to his brother.’

10.3.2 Yes-No question construction

Yes/no questions are interrogative clauses which can be answered by a simple ‘yes’ or ‘no’ – they are not asking for content in the reply. Moloko uses the interrogative particle *daw* at the end of what is otherwise a declarative clause to create yes/no interrogatives. Pure yes-no questions can be answered with either yes or no, but in Moloko there is often a degree of expectation to the question.³ When a speaker asks a yes/no question (81–82, 86, 88), they are usually expecting an affirmative reply.

- (81) Zar na ndahan baba a Mala **daw**?
 zar na ndahan baba a Mala **daw**
 man PSP 3S father GEN Mala QUEST
 ‘That man, is he Mala’s father?’

In (82), the speaker expects that Mana is on his way; he is asking for confirmation (but a negative response is always possible). Likewise in (83), he expects that the referent *zar* =aŋg^w ‘your husband’ is well.

- (82) Mana na álala **daw**?
 Mana na á-l=ala **daw**
 Mana PSP 3S+IPV-go=to QUEST
 ‘Mana, is he coming?’

³ Expectation is a central element in understanding Moloko grammar (see Section 7.4.3), as is what constitutes shared information with the hearer (see Chapter 11). Questions are constructed in Moloko with that knowledge and expectation in mind, even when seeking new information. Tag questions are discussed in Section 10.3.3.

- (83) Zar ango ndahan aba **ɗaw**?

zar =aŋg^wɔ ndahan aba **ɗaw**

man =2S.POSS 3S EXT QUEST

‘Is your husband well?’ (part of a greeting; lit. your husband, does he exist?)

There is often an even stronger affirmative expectation when the question is negated. Compare the positive and negative pairs of questions (84–89). Some of the negated questions can be used rhetorically (see Section 10.3.4), since the speaker already knows that the answer is yes. In the examples, the interrogative particle is bolded.

- (84) Baba ango, ndahan ava a mogom **ɗaw**?

baba =aŋg^wɔ ndahan ava a mɔg^wɔm **ɗaw**

father =2S.POSS 3S EXT+in at home QUEST

‘Is your father in?’

- (85) Baba ango, ndahan ava a mogom bay **ɗaw**?

baba =aŋg^wɔ ndahan ava a mɔg^wɔm baj **ɗaw**

father =2S.POSS 3S EXT+in at home NEG QUEST

‘Is your father not in?’

- (86) Ólo a kosoko ava **ɗaw**?

ɔ-lɔ a kɔsɔk^wɔ ava **ɗaw**

3S+IFV-go at market in QUEST

‘Is he going to the market?’

- (87) Ólo a kosoko ava bay **ɗaw**?

ɔ-lɔ a kɔsɔk^wɔ ava baj **ɗaw**

3S+IFV-go at market in NEG QUEST

‘Is he not going to the market?’

- (88) Mələma ango alala **ɗaw**?

mələma =aŋg^wɔ à-l=ala **ɗaw**

sibling =2S.POSS 3S+IFV-go=to QUEST

‘Is your brother coming?’

- (89) Mələma ango alala bay **ɗaw**?

mələma =aŋg^wɔ à-l=ala baj **ɗaw**

sibling =2S.POSS 3S+IFV-go=to NEG QUEST

‘Is your brother not coming?’

As is the case for the negation construction (see Section 10.2.3), it could be that the entire proposition in the clause is being questioned. However, it is often the case that only the final constituent is being questioned. Often the clause is re-structured when a constituent of the clause is questioned so that the constituent is in final position. In (90) the direct object is fronted and marked as presupposed (it is the topic of discussion) so that the other elements in the clause are questioned (see Section 10.3.2). See also (82) where the subject is marked as presupposed.

- (90) Awak angó na, káaslay na **ɖaw**?
 awak =ang^{wɔ} na káá-ɬ-aj na **ɖaw**
 goat =2S.POSS PSP 2S+POT-slay-CL 3S.DO QUEST
 ‘Your goat, are you going to slaughter it?’

10.3.3 Tag question construction

Question tags can be attached at the end of what would otherwise be the construction used for a declarative clause to seek confirmation of a particular statement. In Moloko, a question tag is *kijga baj ɖaw* ‘is that not so?’ The response is *kijga* ‘it is so’ for affirmation. The negative response is *kijga baj* ‘it is not so’ with a statement to explain why the negative answer. Some rhetorical questions have a special question tag *ɛɪmɛj* ‘isn’t that so’ (see Section 10.3.4). In the examples below, what is under the scope of questioning is put in square brackets.

- (91) [Kolo a Marva hajan] *kɛyga bay daw?* Kɛyga.
 [kɔ-lɔ a Marva hadzaŋ] *kijga baj daw* *kijga*
 2S+IFV-go at Maroua tomorrow like that NEG QUEST like that
 ‘You are going to Maroua tomorrow, not so?’ ‘I will’ (lit. like that)
- (92) [Apazan kolo a kosoko ava] *kɛyga bay daw?*
 [apazaŋ kɔ-lɔ a kɔsɔk^{wɔ} ava] *kijga baj daw*
 yesterday 2S+PFV-go at market in like that NEG QUEST
 ‘You went to the market yesterday, right?’
- (93) Nə alməmar na, [avar abay] *kɛyga bay daw?*
 nə alməmar na [avar abaj] *kijga baj daw*
 with dry season PSP rain EXT+NEG like this NEG QUEST
 ‘In dry season, there is no rain, right?’

Other question tags are evaluative. (94) is a question asked in a context where the speaker is examining something physically (perhaps at the market as he is considering to buy it) or analysing and evaluating an event.

- (94) [Səlom ga] **ɖaw**?
 [sɔlom ga] **ɖaw**
 goodness ADJ QUEST
 ‘[Is that] good?’

10.3.4 Rhetorical question construction

In a rhetorical question, the speaker is not pragmatically asking for information. Rather, the questions can be evaluative, may carry an element of reproach, or may be a mild command. The context gives the rhetorical force. Some rhetorical questions have a special emphatic structure (see Section 10.3.5) but many have normal interrogative structure. Rhetorical question constructions can be identical in structure to a content question (95–96, see Section 10.3.1) but the speaker is not seeking information. For example, the speaker is not seeking an explanation when he asks *kamaj* ‘why’ in (95). More probably he is making a strong statement, ‘the people had no reason to do this bad thing to me.’ Likewise in (96), the speaker is saying that the listener will listen to no one.

- (95) Məze ahay tagaw ele lala bay **kamay**?
 mɪʒɛ =ahaj ta-g=aw ɛɛ lala baj **kamay**
 person =Pl 3P-do=1S.IO thing good not why
 ‘Why did the people do this bad thing to me?’ (lit. the people did the bad thing to me why?)
- (96) Values, 29
 Hərmbəlom na, amadaslava ala məze na, ndaha ese na,
 Hərmbəlom na ama-ɖaɬ=ava=ala mɪʒɛ na ndahan ɛʃɛ na
 God PSP DEP-multiply=in=to person PSP 3S again PSP
 ‘(lit. God, the one who multiplied the people, him again)’
 kagas ma Hərmbəlom na, asabay na,
 ka-gas ma Hərmbəlom na asa-baj na
 2S-catch word God PSP again-NEG PSP POSS
 (lit. ‘you catch God’s word no longer’)

káagas na anga way?
 káá-gas na anga waj
 2S+POT-catch PSP who

(lit. ‘you will catch it [word] of whom?’)

‘And if you will never accept the word of God, the one that multiplied the people, whose word will you accept then?’

Other rhetorical questions have the same structure as a yes/no tag question (97–96, see Section 10.3.2). However either there is no expected answer or the expected answer is the opposite of that for a normal yes/no tag question. For example, during the telling of the text from which (97) is taken, when the storyteller asked the rhetorical question *lala daw* ‘[is that] good?’ the people in the audience replied “*lala baj*” ‘[it is] not good.’ (even though the answer was obvious from the story). In (98), the audience replied “*səlom ga*” ‘[it is] good’ to the rhetorical question *səlom ga baj daw* ‘[is that] not good?’

- (97) Kólo kagas anga məze kək, lala daw?
 kɔ-lɔ kà-gas anga mɪzɛ kək lala daw
 2S+IFV-go 2S+PFV-catch POSS person IDcatch by throat good QUEST
 ‘If you catch [something] belonging to someone else [and steal it], [is that] good?’

- (98) Kólo ele angɔ, səlom ga bay daw?
 kɔ-lɔ ɛɛ =aŋg^wɔ səlom ga baj daw
 2S+IFV-go thing =2S.POSS good ADJ NEG QUEST
 ‘[If] you mind your own business (lit. go to your things), [is that] not good?’

A particular question tag, *ɛfimej* ‘isn’t that so’ has an element of reproach to it. There is no expected answer to the question in (99). The message is a strong declaration that the speaker had already told something to the hearer.

- (99) [Nahok ma fan] esəmey?
 [nà-h=ɔk^w ma fan] ɛfimej
 1S+PFV-tell=2S.IO word already isn’t that so
 ‘I already told you, didn’t I?’

10.3.5 Emphatic question construction

Emphatic questions ask emphatically for information. They can be used in a crisis situation where important information is needed immediately. In other contexts, these questions carry imperatival force and are therefore a sub-type of rhetorical questions (see Section 10.3.4). The emphatic question construction uses two interrogative pronouns, a reduced emphatic pronoun within the clause in the normal slot for the element questioned, and the other a sometimes reduced pronoun at the end of the clause.

These reduced interrogative pronouns are *wa* (from *waj* ‘who’) in (100), (102), (103), *maj* and *alma* (from *almaj* ‘what’) in (101) and (104), respectively, *malma* (from *malmaj* ‘what’) in (101), (105), and *mεmε* and *mεj* (from *mεmεj* ‘how’) in (106).

- (100) **Wa** aməgok na way?

wa amə-g=ɔk na waj
who DEP-do=2S.IO 3S.DO who

‘What is wrong?’ / ‘Stop crying!’ (lit. who the one that did that to you, who)

- (101) Kege **may** ana war ga **may**?

ka-gɛ maj ana war ga maj
2S-do what DAT child ADJ what

‘What are you doing to the child, what?’ / ‘Stop doing that!’

- (102) Cicada, S. 18

Nánjakay na **wa** [amazaw ala agwazla ana ne na] **way**?
ná-nzak-aj na wa [ama-z =aw =ala ag^waʒa ana nɛ na]
1S+POT-find-CL PSP who DEP-take =1S.IO =to spp. of tree DAT 1S PSP

waj
who

‘Who can I find to bring to me this tree for me? Who?’ / ‘Someone should be able to bring me this tree.’

- (103) **Wa** andaɗay way?

wa a-ndaɗ-aj waj
who 3S-love-CL who

‘There is no love [for that one].’ (lit. who loves him?)

- (104) **Alma** amədəvala okfom na **may**?
 alma amə-dəv=ala ɔk^wfɔm na **maj**
 what DEP-trip=to mouse PSP what
 ‘What was it that made that mouse fall? *What?* / ‘What else [but a snake] makes a mouse fall?’
- (105) **Malma** awəlok **may**?
 malma a-wəl=ɔk^w **maj**
 what 3S-hurt=2S.IO what
 ‘What is bothering (hurting) you? *What?*’ / ‘Nothing should be bothering you.’
- (106) **Meme** ege **mey**?
 mɛmɛ ɛ-g-ɛ **mɛj**
 how 3S-do-CL how?
 ‘What happened?’ / ‘Why did you do that?’ / ‘Stop the foolishness.’ (lit. how did it do?)

10.4 Imperative constructions

There are several types of imperative constructions in Moloko, which are used in different situations, sometimes to express different degrees of obligation. So far eight different constructions have been identified, each with a different force of exhortation. They are shown in Table 10.3. Some constructions use the imperative mood form of the verb (see Section 7.2), others use Imperfective aspect or irrealis mood or are in the form of a rhetorical question (see Section 10.3.4). Table 10.3 illustrates all of the imperative constructions for the verb /*lɔ* / ‘go.’ The verb forms are also shown in Perfective and Imperfective aspect (lines 1 and 2) for comparison.

The imperative form of the verb is used for an immediate command (line 3). The verb is in the imperative mood (see Section 7.2) and can be preceded by a vocative. The addressee is expected to carry out the order in the immediate future as opposed to commands that demand reflection before carrying them out. In hortatory texts, imperatives are not usually found in the body of the exhortation since the hearer is expected to wait until the discourse is finished before carrying out the instructions.

Table 10.3: Imperative constructions

Line	2S forms	3S forms
1 Declarative, Perfective aspect	<i>kà-l=àlá</i> 2S+PFV-go=to 'You came.'	<i>à-l= àlá</i> 3S+PFV-go=to 'He/she came.'
2 Declarative, Imperfective aspect	<i>ká-l=álà</i> 2S+IFV-go=to 'You come.'	<i>á-l=álà</i> 3S+IFV-go=to 'He/she comes.'
3 Imperative	<i>l=àlá</i> go[2S.IMP]=to 'Come (now)!'	
4 Polite request	<i>ká-l=ál εε dáw</i> 2S+IFV-go=to polite QUEST 'Please come.'	
5 Negative expectation	<i>ká-l=ál baj</i> 2S+IFV-go=to NEG 'Don't come.' (I don't expect you to come)	<i>á-l=ál baj</i> 3S+IFV-go=to NEG 'He/she is not coming.' (I don't expect him to come)
6 Hortative	<i>kàà-l=àlá</i> 2S+HOR-go=to 'You come now!' (I want you to come)	<i>mà-l= àlá</i> 3S+HOR-go=to 'He/she should come.' (I want him to come)
7 Adverb of obligation	<i>sij kà-l=àl =vá</i> only 2S+PFV-go=to =PRF 'You must come.'	<i>sij mà-l=àlá</i> only 3S+HOR-go=to 'He/she must come.'
8 Rhetorical question	<i>ká-l=ála bàj dáw</i> 2S+IFV-go=to NEG QUEST 'You should come.' (lit. Are you not coming?)	<i>á-l=ála bàj dáw</i> 3S+IFV-go=to NEGQUEST 'He should come.' (lit. Is he not coming?)

10 Clause

- (107) Lohom a mogom.
 loh^w-ɔm a mɔg^wɔm
 go-2P at home
 'Go home!'
- (108) Zəmək dəf.
 zɔm-ɔk^w dəf
 eat-1PIN loaf
 'Let's eat!'
- (109) Cəke.
 tʃik-ɛ
 stand[2S.IMP] -CL
 'Stand up!'

The word *ɛtɛj* or *ɛtɛ* 'please' can be added to other clause types (line 5 in Table 10.3) to achieve a milder pragmatic imperative force than the use of the construction without the polite adverb.

- (110) Nde na asaw na, gaw na **ɛtɛj**?
 ndɛ na a-s=aw na g=aw na **ɛtɛj**
 so PSP 3S-please=1S.IO PSP do=1S.IO 3S.DO please
 'So I want that you do that for me, please.'
- (111) Nənjakay yam **ɛtɛ** dəw?
 nə-nzak-aj jam **ɛtɛ** dəw
 1S+IFV-find-CL water please QUEST
 'Could you please get me some water?' (lit. can I find water please)

A negated clause in the Imperfective aspect expresses a negative exhortation or statement of expectation (line 5 in Table 10.3). In second person (112), the negative expectation carries a weak hortative force. The speaker is expressing that he/she expects the addressee not to carry out the action. In third person (113) the negative expectation is not hortatory, but rather simply expresses that the speaker does not expect that the action will be performed.

- (112) Káməñjar fabay.
 ká-mənzār fá-bàj
 2S+IFV-see already-NEG
 'Don't look at it yet.' (I don't expect you to look at it).

- (113) Á-məɲjar fabay
 á-mənzār fá-bàj
 3S+PFV-see already-NEG
 ‘I don’t think he looked at it.’ (I don’t expect that he looked at it).

A clause with a verb in the Hortative mood (line 6 in Table 10.3, see Section 7.4.3) concentrates on the will of the speaker – the speaker wishes the action done. (114) illustrates this form for 3s.

- (114) Maməɲjar fabay.
 mà-mənzār fá-bàj
 2S+HOR-see already-NEG
 ‘He/she shouldn’t look at it yet.’ / ‘Don’t let him/her look at it.’ (I don’t expect him/her to look at it).

An even stronger deontic form is made by the addition of an adverb of obligation (*dewele* ‘obligation,’ *sij* ‘only’) preceding the clause, with the verb in Hortative mood (line 7 in Table 10.3). Imperative forms with an adverb of obligation indicate that the hearer is obligated to do something (he/she has no choice, there is no other way). These forms are used to give an order with insistence, a strong counsel (115–117).

- (115) Səy koogom endeḅ.
 sij kɔɔ-g^w-ɔm endeḅ
 only 2P-do-2P wisdom
 ‘You must be wise (lit. do only wisdom).’
- (116) Dewele səy keege na.
 dewele sij kee-gɛ na
 obligation only 2S+HOR-do 3S.DO
 ‘You are obligated to do that.’ (lit. obligation: you must only do it)
- (117) Səy keege anga dewele.
 sij kee-gɛ anga dewele
 only 2S+HOR-do POSS obligation
 ‘You must do that obligation.’ (lit. you must only do the thing that belongs to obligation)

10.5 Exclamatory constructions

Exclamatory sentences have either an interjection at the initial position (118) or one of several exclamatory adverbs at the final position (119–122). In the examples, the interjections and exclamatory adverbs are bolded.

- (118) **Kay**, nege na bay.
 kaj ne-g-ε na baj
 interj. 1S+PFV-do-CL 3S.DO NEG
 ‘No, I didn’t do it!’
- (119) Apazan nok awəy Məwsa álala;
 apazan nək^w awij Muwsa á-l=ala
 yesterday 2S said Moses 3S+IFV-go=to
 ‘Yesterday you said that Moses would come;’
 macakəmbay aməlala na ndahan bay **nəy**.
 matsakəmbaj amə-l=ala na ndahan baj **nij**
 meanwhile DEP-go=to PSP 3S NEG exclamation
 ‘but the one that came was not him after all!’
- (120) Enje bay dedən **dey**.
 ε-nʒ-ε baj dɛdɛŋ **dɛj**
 3S+PFV-suffice-CL NEG truth exclamation
 ‘It really wasn’t enough!’
- (121) Gaw endeɓ **dey**.
 g=aw endeɓ **dɛj**
 do[2S.IMP]=1S.IO brain exclamation
 ‘Be careful!’ (lit. do brain for me)
- (122) Values, 50
 Epele epele na me, Hərməbəlom anday agas tətə a ahar **ava re**.
 epele epele na mɛ Hərməbəlom a-ndaj a-gas tətə a ahar
 in the future PSP opinion God 3S-PROG 3S-catch 3P at hand
ava re
 in in spite
 ‘And so in the future (in my opinion), God is going to accept them [the elders] in his hands, in spite [of what the church says].’

11 The *na* marker and *na* constructions

Expectation is a concept that is fundamental for Moloko. Within the irrealis world, this concept has already been discussed (mood, see Section 7.4.3). Within the realis world, expectation is shown in other forms. One of these forms is the *na* construction or presupposition construction. Known or expected elements are marked with *na*, which is found at the right edge of the element it modifies.

Knowledge of how the particle *na* works in Moloko is foundational to understanding information flow and interpreting a Moloko text. A very basic knowledge of *na* can be gained from studying the example pair below. (1) illustrates how a person would tell another person her name during a conversation. However, if the addressee first asked the person to give her name, then ‘name’ will be marked with *na* in the response (2). Structurally, *na* isolates or separates some element in a clause or sentence from the rest of the clause. In (2), it separates the predicate *ɬəmaj =uwla* ‘my name’ from the nominal *Abangaj* ‘Abangay.’ In the examples in this chapter, *na* is bolded and the element marked by *na* is underlined.

- (1) *Sləmay əwla Abangay.*
ɬəmaj =uwla Abangaj
name =1S.POSS Abangay
‘My name is Abangay.’
- (2) *Sləmay əwla **na**, Abangay.*
*ɬəmaj =uwla **na** Abangaj*
name =1S.POSS PSP Abangay
‘My name is Abangay.’

Na is a separate phonological word that positions at the end of a noun phrase (3), time phrase (33), discourse particle (34), or clause (4) that is being marked. *Na* has semantic scope over the preceding construction. When an element in a clause, or the clause itself, is marked with *na*, it is marked as being known or expected information that is somehow a prerequisite to the information that

follows.¹ This structure for marking information as presupposed is a basic organisational structure with a major function in certain Moloko clause structures and discourse.²

- (3) Həmbo na, anday ásəkala azla wəsekeke.
 həmbə na à-ndaj á-sək =ala aḷa wufɛkɛkɛ
 flour PSP 3S+PFV-PRG 3S+IFV-multiply =to now IDmultiplication
 ‘The flour, it is multiplying.’
- (4) Cicada, S. 5
Tánday tótalay a ləhe na,
 tá-ndaj tót-tal-aj a lɛhe na
 3P+IFV-PRG 3P-walk-CL at bush PSP
 ‘[As] they were walking in the bush,’
 tolo tənjakay agwazla malan ga a ləhe.
 tə-lə tə-nzak-aj ag^waḷa malan ga a lɛhe
 3P+PFV-go 3P+PFV-find-CL spp. of tree large ADJ at bush
 ‘they found a large tree (a particular species) in the bush.’

Pragmatic presupposition is defined by Lambrecht (1994: 52) as “the set of presuppositions lexicogrammatically evoked in a sentence which the speaker assumes the hearer already knows or is ready to take for granted at the time the sentence is uttered.” In Moloko, *na*-marked elements indicate information that the speaker shares with the hearer in that the element has been previously mentioned in the discourse, is the expected part of the situation, is the expected outcome of an event, or is assumed to be common knowledge or a cultural assumption. *Na*-marked elements are the way that the speaker presents any information that he thinks the hearer should not be able to (or would not want to) challenge.

The partitioning that *na* produces results in the clause being split into two parts: the presupposition (followed by *na*) and the assertion. The assertion is that part of the sentence which the speaker expects the hearer “to know or take for granted as a result of hearing the sentence uttered” (Lambrecht 1994: 52), but not necessarily before hearing it. In the following example groups,³ the first gives

¹ The presupposition marker and the 3s direct object pronominal Section 7.3.3 are homophones and have a similar function to mark previously identified information.

² Bow (1997a) called *na* a focus marker. We have found that the function of *na* is not limited to focus. In related languages, a similar particle has often been referred to as a ‘topicalisation’ marker, but the fronting and special marking that Levinsohn (1994) describes as topic marking is only one of the functions of this particle in Moloko.

³ Adapted from Boyd 2002.

the normal SVO clause structure without any *na*-marked element. The rest have *na*-marked elements (underlined). In the first triplet, (5) represents a context where there is no specific presupposed information. There is also no *na* marker. (6) represents a situation where the presupposed information is ‘I like X’ and the topic of the discourse is what is liked. (7) represents a context where the presupposed information is ‘beans.’

- (5) Hahar asaw.
 hahar a-s=aw
 beans 3s-like=1s.IO
 ‘I like beans.’ (lit. beans are pleasing to me)
 Presupposition: Nothing specific.

- (6) Asaw na, hahar.
 a-s=aw na hahar
 3s-like=1s.IO PSP beans
 ‘[what] I like [is] beans.’
 Presupposition: I like something (X).
 Assertion: X=beans.
 Focus of assertion: Beans.

- (7) Hahar na asaw.
 hahar na a-s=aw
 beans PSP 3s-like=1s.IO
 ‘As for beans, I like them.’
 Presupposition: Beans are the topic of this part of the discourse. Beans have some attribute (X).
 Assertion : X=I like them.
 Focus of assertion: I like them

The rearranging of the construction to front the presupposed information in the clause is shown by another set of examples (8–11). (8) has no specific presupposition (and no *na* marker). (9) represents a situation where Hawa is presupposed – the hearer knows who she is and Hawa is the topic of discussion. (10) is similar to (9) except that the relative clause also indicates known information (see Section 5.4.3) so the fact that someone prepared the food is also presupposed. In (11), the presupposed information is ‘someone made the food’ (or ‘X made the food’).

11 The *na* marker and *na* constructions

- (8) Hawa adan daf ana Mana.
 Hawa a-d=aŋ daf ana Mana
 Hawa 3S-prepare=3S.IO loaf DAT Mana
 ‘Hawa prepared food for Mana.’
 Presupposition: No specific presupposition
 Assertion: Hawa prepared food for Mana
- (9) Hawa na, adan daf.
Hawa na a-d=aŋ daf
 Hawa PSP 3S-prepare=3S.IO food
 ‘Hawa [is] the one who prepared the loaf for him.’
 Presupposition 1: The hearer knows who Hawa is.
 Presupposition 2: Hawa is the topic of this section of discourse, or Hawa did something (X).
 Assertion: X= prepared the food
- (10) Hawa na, amadan daf.
Hawa na ama-d=aŋ daf
 Hawa PSP DEP-prepare=3S.IO loaf
 ‘Hawa [is] the one that prepared the food for him.’
 Presupposition 1: The hearer knows who Hawa is.
 Presupposition 2: Hawa is the topic of this section of discourse (a contrastive topic).
 Presupposition 3: Someone (X) prepared the food.
 Assertion: Hawa is the person who prepared the food
- (11) Amadan daf na, Hawa.
 ama-d=aŋ daf na Hawa
 DEP-prepare=3S.IO food PSP Hawa
 ‘The preparer of his food [is] Hawa.’
 Presupposition: Someone (X) prepared the food
 Assertion: X=Hawa (the hearer may not know who Hawa is)

Na constructions in Moloko can be divided into five main structural types, depending on which element is presupposed and which element is the assertion. These structural types fit the main ways that *na* constructions function in Moloko discourse. The five structural types are:

1. **Presupposition-assertion construction: fronted *na*-marked clause.** A whole clause is marked with *na*, separating it from the clause which follows and

11.1 *Presupposition-assertion construction: na-marked clause*

marking it as presupposed (see Section 11.1). These constructions function in text cohesion.

2. **Presupposition-assertion construction: fronted *na*-marked clausal element.** One element in a clause is fronted and delimited by *na*, separating it from the rest of the clause and marking the fronted element as presupposed (see Section 11.2). Such constructions function in tracking participants and marking boundaries in a text.
3. **Assertion-presupposition construction: right-shifted *na*-marked element.** The element that is marked by *na* is right-shifted to the end of a clause (see Section 11.3).
4. **The definite construction: *na*-marked clausal element.** The element that is marked by *na* is in its normal clausal position (see Section 11.4). The definite construction functions to specify the element that is marked by *na* in the text.
5. **Presupposition-focus construction: *na* precedes the final element of the verb phrase.** The final element of a clause is immediately preceded by one or more *na*-marked elements (see Section 11.5). This construction makes prominent the final element of the clause.

Note that in the examples, *na* is always glossed as PSP ‘presupposition marker,’ even if its more specific function in a particular utterance might be argued to be for focus or definiteness, as marking presupposition is its overall function. It is probable that the different functions of *na* overlap, since structurally, it is often difficult if not impossible to determine whether *na* is at the end of a noun phrase or a clause. It is also likely that the functions of *na* overlap with those of the 3s direct object pronominal (see Section 7.3.3) since in certain contexts, it is difficult to determine with certainty whether *na* is PSP or the 3s DO pronominal. The examples used in the text are chosen to clearly illustrate the function of *na*.

11.1 **Presupposition-assertion construction: *na*-marked clause**

There are two presupposition-assertion constructions depending on if the entire clause is marked with *na* or if just one clausal element is marked (see Section 11.2). The *na*-marked clause presupposition-assertion construction consists of an entire

clause marked with *na* and fronted with respect to another clause (12–14). The *na*-marked clause presupposition-assertion construction functions in discourse in inter-clausal relations and is involved in discourse cohesion. The clause marked with *na* expresses presupposed or shared information, and the main clause that follows contains asserted information. The precise relation between the *na* clause and the main clause is determined by context (see Section 12.4). In the examples in this section, the *na*-marked clause is underlined.

(12) Cicada, S. 5

Tándaŋ tátalay a ləhe na,
 tá-ndaŋ tá-tal-aj a ləhe na
 3P+IFV-PRG 3P-walk-CL at bush PSP

‘[As] they were walking in the bush,’

tolo tənjakay agwazla malan ga a ləhe.

tə-lə tə-nzak-aj ag^waʒa malaŋ ga a ləhe
 3P+PFV-go 3P+PFV-find-CL spp. of tree large ADJ at bush

‘[As] they were walking in the bush, they found a large tree (a particular species) in the bush.’

(13) Tándaŋ táhaya na, həmbə ga

tá-ndaŋ tá-h=aja na həmbə ga
 3P+IFV-PRG 3P+IFV-grind=PLU PSP flour ADJ

‘They were grinding it, and the flour’

ándaŋ ásak ele ahan wəsekeke.

á-ndaŋ á-sak ele =ahaŋ wuʃekeke
 3S+IFV-PRG 3S+IFV-multiply thing =3S.POSS IDmultiply

‘was multiplying all by itself, wushekeke.’

(14) Disobedient Girl, S. 36

Talay war elé háy bəlen kə ver aka na, ásak asabay.

talaj war elé haj bələŋ kə ver aka na á-sak asa-baj
 1Pput child eye millet one on stone on PSP 3S+IFV-multiply again-NEG

‘[If] they put one grain on the grinding stone, it doesn’t multiply anymore.’

A *na*-marked clause in Moloko can function adverbially, because it is marked as subordinate (in a way) to the main clause, but it gives no explicit signal as to the nature of the semantic relationship between the two clauses. The only thing it indicates is that the *na*-marked clause is presented as presupposed, and somehow

relevant to the following clause. The relations that *na* clauses are employed in are temporal or logical sequence (see Section 11.1.1), simultaneous or coordinated events (see Section 11.1.2), and tail-head linking for cohesion (see Section 11.1.3).

11.1.1 Temporal or logical sequence

The default relation between a *na*-marked clause and the matrix clause in a *na* construction is that there is a sequence (temporal or logical) and the event/state expressed by the *na*-marked clause precedes the event/state in the main clause. (15) and (16) are both taken from a Moloko legend Friesen 2003 where some domestic animals are fleeing their owners because the owners are constantly killing the animals' children in order to satisfy the demands of the spirits. (15) shows a reason-result construction. A hen begins the story with her lament expressing the reason why she is fleeing. She first states that 'they have killed my children,' then uses a *na* construction to say that because they have killed her children, she is fleeing in anger. The *na*-marked clause repeats the information she just declared in the first clause. This now presupposed information ('they are killing my children') is followed by the matrix clause containing the assertion of new information (I am fleeing in anger). Connecting the two clauses in a presupposition-assertion construction influences the hearer to deduce a logical or temporal connection between the two clauses; here reason-result.

- (15) Tanday taslaw aka babəza ahay va.
 ta-nd-aj ta-ɬ=aw =aka babəza =ahaj =va
 3P-PROG-CL 3P-kill=1S.IO =on children =Pl =PRF
 'They have killed my children.'

Nde, taslaw aka babəza ahay va na,
ndɛ ta-ɬ =aw =aka babəza =ahaj =va na
 so 3P-kill =1S.IO =on children =Pl =PRF PSP
 'So, [because] they are killing my children,'

nəhəmay mogo ele əwla.
 nə-həm-aj mɔg^{wɔ} ɛle =uwla
 1S-run-CL anger thing =1S.POSS

'I am running [in] anger.' (lit. I am running my anger thing).

(15) shows a temporal sequence (or perhaps another reason-result construction) from a little later in the same legend. The group of animals is joined by a dog. The dog expresses that whenever a person in the family gets sick, the family will be advised to kill a dog, because dog meat is thought to be especially good

to help a sick person get stronger. The dog's speech uses a *na* construction to express this relation. The *na*-marked clause indicates the condition for the event expressed in the main clause. In this case the clause marked by *na* ('a person gets sick') is not previously mentioned in the discourse, but rather is a fact of life, a cultural presupposition.

- (16) Cəje agan ana mæze na, tawəy "Kədom kəra."
 tʃidʒɛ a-g =aŋ ana mɪʒɛ na tawij kʊd-əm kəra
 disease 3S-do =3S.IO DAT person PSP 3P+said kill[IMP]-2P dog
 '[If] a person gets sick (lit. sickness does to person), they say, "Kill a dog!"
 [for the sick person to eat].'

(17) and (18) are from another legend where God used to live very close to people. However one day, a woman did something that made God angry, and so he moved far away from them. The narrator expresses the relation between God becoming angry and his moving away using a *na* construction (17) where the *na*-marked clause indicates God's anger (the reason for his leaving) and the main clause indicates the result.

- (17) Hərmbəlom na bərav ahan atəkam alay na, avahay ele ahan botot.
 Hərmbəlom na bərav =ahaŋ a-təkam =alaj na a-vah-aj ɛɛ
 God PSP heart =3S.POSS 3S-taste =away PSP 3S-fly-CL thing
 =ahaŋ bətət
 =3S.POSS IDflying
 '[It is like this that] God got angry; [and so] he went away.' (lit. God, he tasted his heart, he flew his thing)

(18) is from the conclusion where the narrator uses a *na* construction to express a counterexpectation. Although people may seek paradise, they won't find it because God has gone far away (because of what the woman did). In the *na* construction, the *na*-marked clause expresses what people seek, and the main clause expresses that they won't find it.

- (18) Mənjokok egəne sləlay mbəlom na, Hərmbəlom enjé daren.
 mə-nʒək=ɔk^w ɛgɪnɛ ʃələj mbəlom na Hərmbəlom ɛ-nʒ-ɛ
 1PIN-seek/find-2PIN today root sky PSP God 3S-left-CL
 dɪrɛŋ
 far
 '[Although] today we seek paradise, God has gone far away.' (lit. we seek today the root of the sky, God has gone far away.)

11.1 Presupposition-assertion construction: *na*-marked clause

(19) is from the Values exhortation and illustrates a reason-result connection. There is no connecting conjunction in either of the clauses; however the reader can discern that there is a logical connection between the first clause (marked in five places with *na*, see Section 11.5) and the second (a rhetorical question, see Section 10.3.4).

(19) Values, S. 29

Hərmbəlom *na*, amadaşlava ala məze *na*, ndahan ese *na*,
Hərmbəlom *na* ama-daʃ=ava=ala mɪʒe *na* ndahan ɛʃɛ *na*
 God PSP DEP-multiply=in=to person PSP 3S again PSP
 (lit. ‘God, the one that multiplied the people, him again’)

kagas ma Hərmbəlom *na*, asabay *na*,
ka-gas ma Hərmbəlom *na* asa-baj *na*
 2S-catch word God PSP again-NEG PSP
 (lit. ‘you catch God’s word no longer’)

[káagas *na* anga way?]
 [káá-gas *na* anga waj]
 2S+POT-catch PSP POSS who
 (lit. ‘you will catch it [word] of whom?’)

‘And if you will never accept the word of God, the one that multiplied the people, whose word will you accept then?’

11.1.2 Simultaneous events

When the verb in the *na* clause is progressive aspect, the events/states in both clauses are simultaneous. (20) (from the Leopard story, Friesen 2003) shows a *na* clause that indicates a presupposed event that is occurring while the event in the main clause happens.⁴ The verb *a-ndaj ɛ-tuw-ɛ* ‘she is crying’ is progressive aspect. Also see (12), (13).

(20) Atəwalay “Bababa kəlak kəlak kəlak.” Anday etəwe *na*, anjakay awak.
 a-tuw=alaj bababa kəlak kəlak kəlak a-ndaj ɛ-tuw-ɛ *na* a-nzak-aj
 3S-cry=away sound of hen 3S-PRG 3S-cry-CL PSP 3S-find-CL
 awak
 goat

‘She cried, “Bababa kuluk kuluk.” While she was crying, she found a goat.’

⁴ (20) is an example of tail-head linking Section 11.1.3.

11.1.3 Tail-head linking for cohesion

In a discourse, the speaker will use several devices to ensure that the hearers can follow what is being said; i.e., to help track participants through the narrative, connect events, and understand logical connections. One of the ways cohesion is achieved in Moloko discourse is by the use of the presupposition marker *na* to mark presupposed (including previously-introduced) information. Cohesion is also created using a special construction that Longacre calls “tail-head repetition” (Longacre 1976: 204). In this construction, an element previously mentioned in a discourse is repeated in a subsequent sentence in order to provide a cohesive link between new information and the preceding discourse. In Moloko, a clause on the eventline is first asserted and then at the beginning of the next sentence the same propositional content is repeated almost word for word and marked at the end by *na*. Several examples are shown below. (21) comes from a different retelling of the Disobedient Girl text than is shown in Section 1.5. The final element of *tə-h=aja na kə ver aka* ‘they ground it on the grinding stone’ is repeated in the next line and marked with *na* as the first element of the next sentence *tə-ndaj tə-h=aja na* ‘they were grinding it *na*’. In (21–26), the clause containing the element to be repeated is delimited by square brackets and the *na*-marked clause in the next sentence is underlined. The element that is repeated in both clauses is bolded.

- (21) Tázad na háy, war elé háy bəlen na,
tá-zad na haj, war elé haj bɛlɛn na
3P+IFV-take 3S.DO millet child eye millet one PSP
‘They would take one grain of millet;’
[təhaya na kə ver aka.]
[tə-h =aja na kə ver aka]
3S+IFV-grind =PLU 3S.DO on stone on
‘they ground it on the grinding stone.’
Tənday təhaya na,
tə-ndaj tə-h =aja na
3P+IFV-PRG 3P+IFV-grind =PLU PSP
‘As they were grinding it,’
həmbə ga ánday ásak ele ahan wəsekeke.
hʊmbə ga á-ndaj á-sak elé =ahan wʊfɛkɛkɛ
flour ADJ 3S+IFV-PRG 3S+IFV-multiply thing =3S.POSS IDmultiply
‘the flour was multiplying all by itself.’

Another tail-head link can be seen a little further in the same narrative in (22).

- (22) [Ánday ásakaka.]
 [á-ndaj á-sak =aka]
 3S+IFV-PRG 3S+IFV-multiply =on
 ‘It is multiplying.’
Ánday ásakaka wəsekeke na,
á-ndaj á-sak =aka wufekεε na
 3S+IFV-PRG 3S+IFV-multiply =on IDmultiplication PSP
 ‘As it is multiplying,’
 ver árəhva mbaf.
 ver á-rəh =va mbaf
 room 3S+IFV-fill =PRF up to the roof
 ‘the room filled completely up.’

Likewise, other tail head links can be seen in (23) (from lines 3-5 in the Cicada text), (24) (from lines 9-10 in the Snake story), and (25) (from the Leopard story, Friesen 2003).

- (23) Cicada, S. 3
 Albaya ahay aba.
 albaja =ahaj aba
 youth =Pl EXT
 ‘There were some young men.’
 Cicada, S. 4
 [Tánday tótalay a ləhe.]
 [tá-ndaj tó-tal-aj a lɪɛ]
 3P+IFV-PRG 3P+IFV-walk-CL to bush
 ‘They were walking in the bush.’
 Cicada, S. 5
Tánday tótalay a ləhe na, tolo tənjakay agwazla malan ga a ləhe.
tá-ndaj tó-tal-aj a lɪɛ na
 3P+IFV-PRG 3P-walk-CL at bush PSP
 ‘[As] they were walking in the bush,’
 tə-lə tə-nzak-aj ag^waʒa malan ga a lɪɛ
 3P+PFV-go 3P+PFV-find-CL spp. of tree large ADJ at bush
 ‘they found a large tree (a particular species) in the bush.’

(24) Snake, S. 9

Nazala təystəlam əwla,
 nə-z =ala tijstəlam =uwla
 1S+PFV-take =to torch =1S.POSS
 ‘I took my flashlight,’
 [nabay cəzlarr.]
 [nə-b-aj tsəlgarr]
 1S+PFV-light-CL 1Dshining the flashlight up
 ‘I shone it up.’

Snake, S. 10

Nabay na, náməñjar na mbajak mbajak mbajak
nə-b-aj na ná-məñzar na mbajak mbajak mbajak
 1S-light-CL 3S.DO 1S+IFV-see PSP 1Dsomething big and reflective
 ‘I shone [it], I was seeing (I wanted to see / I was trying to see),
 something big and reflective,’
 gogolvan.
 g^wɔg^wɔlvən
 snake
 ‘a snake!’

(25) [Atəwalay ”Bababa kəlak kəlak kəlak.”]

[a-tuw=alaj bababa kəlak kəlak kəlak]
 3S-cry=away sound of hen
 ‘She cried, “Bababa kuluk kuluk.”’
Anday etəwe na, anjakay awak.
a-ndaj ɛ-tuw-ɛ na a-nzak-aj awak
 3S-PRG 3S-cry-CL PSP 3S-find-CL goat
 ‘As she was crying, she found a goat.’

Sometimes the tail and head elements are not identical. For example, the expected (but not overtly-named) result of a previous proposition can be expressed in a subsequent clause and that result marked with *na*. (26) is from lines 27 and 28 of the Disobedient Girl text shown in Section Section 1.5. The first sentence (*zar =ahan à-ŋgala*) tells of the return of the husband. The next sentence is *pək ma-p=alaj mahaj* ‘opening the door,’ which is an expected event when a person returns home. The *na*-marked clause in the second sentence is presupposed information since although it does not literally repeat the information in the previous sentence, it refers to information which is a natural outcome of it. The

construction still provides cohesion to the text because subsequent events are linked together.

(26) Disobedient Girl, S. 27

[Embesen cacapa na, zar ahan angala.]

[ε-mbɛfɛŋ tsatsapa na, zar =ahan à-ŋgala]

3S-rest some time PSP man =3S.POSS 3S+PFV-return

'After a while, her husband came back.'

Disobedient Girl, S. 28

Pok mapalay mahaj na, hɔmbo arah na a hɔf a hay ava.

pɔk ma-p=alaj mahaj na hɔmbo á-rax na a h^wɔf

IDopen NOM-open=away door PSP flour 3S+IFV-fill 3S.DO at stomach

a haj ava

GEN house in

'Opening door, the flour filled the stomach (the interior) of the house.'

11.2 Presupposition-assertion construction: *na*-marked clausal element

The second type of presupposition-assertion construction occurs when a single clausal element is fronted and marked with *na*. *Na* marks (occurs immediately after): a) presuppositions and b) topics (including contrastive topics). In both cases the clausal element immediately preceding *na* is part of an understood presupposition. The part of the clause following *na* is the assertion which contains new information the speaker wants to communicate.

The normal order of elements in a Moloko clause (without *na*) is SVO. Figure 11.1. illustrates the constituents in a declarative clause, combining Figure 8.1. and Figure 10.1. so that the verb phrase constituents are also shown.

(Discourse particle)	(Subject NP)	Verb phrase					
(Temporal adverb)		(Auxiliary)	Verb complex	(noun phrase or 'body-part')	(Adpositional phrases)	(Adverb)	(Ideophone)

Figure 11.1: Constituents of the clause

In a presupposition-assertion construction, one (or more) of the clause or verb phrase elements is marked with *na* and fronted with respect to the subject noun phrase and the verb phrase. The fronted construction is illustrated in Figure 11.2.

(Discourse particle or temporal adverb)	Fronted element + <i>na</i>	(Subject noun phrase)	Verb phrase
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Figure 11.2: Constituent order of Presupposition construction

The examples below show the presupposed element can be almost any element of the clause: the subject (27–28), the direct object (29–30), or an oblique (31 and 32). A discourse conjunction or temporal can also be marked as being presupposed (33–35, 49). In each case, the fronted element is presupposed in the discourse – it is a known or culturally expected participant, location (spatial or temporal), or object. It is noteworthy that neither verbs by themselves, nor an existential word, nor ‘body-part’ incorporated nouns, nor ideophones can be fronted and marked as presupposed. In the following examples, the presupposed element is underlined and the presupposition marker *na* is bolded. The *na*-marked element and the assertion are marked in (27).

- | <i>Na</i> -marked element | Assertion |
|---|--|
| (27) Cicada, S. 19
Kəlen <u>bahay</u> na ,
kɪlɛŋ <u>bahaj</u> na
then chief PSP | olo kə mətəðe aka.
ɔ-lɔ kə mɪtɪðe aka
3S+PFV-go on cicada on
‘Then the chief, he went to the cicada.’ |
| (28) <u>Həmbo</u> na , anday áśəkala azla wəsekeke.
<u>hɔmbɔ</u> na à-ndaj á-sək =ala aɣa wufɛkeke
flour PSP 3S+PFV-PRG 3S+IFV-multiply =to now 1Dmultiplication
‘The flour, it is multiplying.’ | |
| (29) <u>Ele ahay nendəye</u> na , nagala kəyga bay.
ɛɛ =ahaj <u>nɛndijɛ</u> na nə-g =ala kijga baj
thing =Pl DEM PSP 1S+PFV-do =to like this NEG
‘These things, I have never done like this.’ | |
| (30) <u>Ne</u> na , kónjokom ne asabay.
nɛ na kɔ-nzók-óm nɛ asa-baj
1S PSP 2P+IFV-find-2P 1S again-NEG
‘As for me, you will never find me again.’ | |

- (31) Cicada, S. 18

Kə mahay aka na, námbasaka na, mama agwazla səlom ga lala.
kə mahaj aka na ná-mbas =aka na mama ag^waʒa səlom ga
 on door on PSP 1S+IFV-rest =on PSP mother spp. of tree good ADJ
 lala
 well

‘By my door, I will be able to rest well; the mother tree [is] good.’

- (32) Values, S. 13

A məsəyon ava na, ele ahay aməwəsle na, tege bay.
a mɪsijɔŋ ava na elɛ =ahaj amu-wuɫ-ɛ na tɛ-g-ɛ baj
 at mission in PSP thing =Pl DEP-forbid-CL PSP 3P-do-CL NEG

‘In the mission, these things that they have forbidden, they don’t do.’

Although the presupposition-assertion construction is structurally a clause level phenomenon, it can function in information structuring at the proposition level both to mark a boundary in a discourse, to set topic, and in participant tracking. When a discourse conjunction or temporal adverb is marked as presupposed (33–35,49), the clause as a whole marks a boundary in the discourse. Such a clause often indicates a time change or an episode boundary. Most of the episodes in the Disobedient Girl story (see Section 1.5) begin with a conjunction marked with *na* (34) or a *na*-marked temporal phrase (33, 35). All *na*-marked elements are underlined in the examples.

- (33) Disobedient Girl, S. 3 (the beginning of the setting)

Zlezle na, Məloko ahay na, Hərməbəlom ávəlatə barka va.
ʒɛʒɛ na Məlɔk^wɔ =ahaj na Hərməbəlɔm á-vəl=ata barka
 long ago PSP Moloko =Pl PSP God 3S+IFV-send=3S.IO blessing
 =va
 =PRF

‘Long ago, to the Moloko people, God had given his blessing.’

- (34) Disobedient Girl, S. 9 (the beginning of the episode 1)

Nde ehe na, albaya ava aba.
ndɛ eɦɛ na albaja ava aba
 so here PSP young man EXT+in EXT

‘And so, there once was a young man.’

- (35) Disobedient Girl, S. 27 (the beginning of the *dénouement*)

Embesen cacapa *na*, zar ahan angala.

è-mbɛfɛŋ tsatsapa *na* zar =ahan à-ŋgala

3S-rest after some time PSP man =3S.POSS 3S+PFV-return

‘After a while, her husband came back.’

The presupposition-assertion construction is also used to mark topic for participant shifts.⁵ The *na*-marked element will be the main participant of the clauses that follow it, until there is another *na*-marked clause-initial element.⁶ *Na* can be thought of as a kind of spotlight, drawing attention to that already-known participant as one to which new or asserted information will be somehow related. (36) shows lines S. 12, 14, and 15 in the Disobedient Girl text. In S. 12, *zar =ahan* ‘her husband’ is marked with *na*.⁷ He is the subject of all of the clauses until *h^wɔr* ‘the woman’ is marked with *na* in S.14. Then, the woman is the subject of all the clauses until the flour is marked with *na* in S.23. *Na*-marking thus functions here in shifting the spotlight from one participant as topic to another. In these examples, only the *na*-marked participants are underlined.

- (36) Disobedient Girl, S. 12

Sen ala na, zar ahan *na*, dək medakan na mənəye ata.

fɛŋ =ala na zar =ahan *na* dək mɛ-dak=aŋ na

IDgo =to PSP man =3S.POSS PSP IDshow NOM-show=3S.IO 3S.DO

mɪ-nɜ-ijɛ =atəta

NOM-sit-CL =3P.POSS

‘Then her husband instructed her in their habits.’ (lit. going, her husband instructing their ways)

⁵ Called ‘subject’ in Chafe (1976).

⁶ Lambrecht (1994: 151) says “what is presupposed in a topic-comment relations is not the topic itself, nor its referent, but the fact that topic referent can be expected to play a role in a given proposition, due to its status as a center of interest or matter of concern in the conversation. It is this property that most clearly distinguishes topic arguments from focus arguments, whose role in the proposition is always unpredictable at the time of utterance...One therefore ought not to say that a topic referent “is presupposed” but that, given its discourse status, it is presupposed to play a role in a given proposition”

⁷ The double *na*-marked elements *fɛŋ=ala na* ‘later’ and *zar =ahan na* ‘her husband’ function to build up tension (see Section 11.5 for further discussion).

- (37) Disobedient Girl, S. 14-15

Hor na, ambədan aka awəy, “Ayokon zar golo.”

h^wɔr na a-mbəd=an =aka awij ajək^wɔŋ zar g^wɔlɔ
woman PSP 3S-change=3S.IO =on said agreed man voc

‘The woman replied. She said, “Yes, my dear husband.”’

Marking with *na* can also mark contrastive topic.⁸ (38), which comes from a Moloko song, marks a participant shift but also functions to contrast the speaker’s situation with others just mentioned in the discourse.⁹

- (38) Ndam akar ahay ténje a avəya ava.

ndam akar =ahaj tɛ-nɜ-ɛ a avija ava
people theft =Pl 3P+IFV-sit-CL at suffering in

‘(On that day) thieves will be in suffering;’

Ne na, nénje nə memle ga.

nɛ na nɛ-nɜ-ɛ nə mɛmlɛ ga
1S PSP 1S+IFV-sit-CL with joy ADJ

‘[but] as for me, I will rest in joy.’

11.3 Assertion-presupposition construction: right-shifted *na*-marked element

The assertion-presupposition construction occurs when the (*na*-marked) presupposed element is placed after the main clause. This construction is found in concluding statements that explain what has happened in a discourse.¹⁰ In (39), from the concluding lines of a narrative, the *na*-marked elements that occur in a dependent clause that occurs after the matrix clause explain the problem that the discourse deals with – the fact that cows have destroyed a field.¹¹

- (39) Kógom ala na memey, sla ahay na aməzəme gəvah na.

kɔ-g^w-ɔm =ala na mɛmɛj ʔa =ahaj na àmɪ-zum-ɛ gəvax na
2+IFV-do-1PIN =to PSP how cow =Pl PSP DEP-eat-CL field PSP

‘What are you going to do [since] the cows ate up the field?’ (lit. you will do how, the cows having eaten the field)

⁸ I.e., a section of discourse will be ‘about’ that participant, instead of whatever the preceding section of discourse was about.

⁹ This is called ‘contrastiveness’ in Chafe (1976).

¹⁰ It is also seen in some information questions Section 10.3.1.

¹¹ Note that the other two occurrences of *na* in this example function in focus (Section 11.5) and definiteness (Section 11.4), respectively.

In (40), the *na*-marked final element is a relative clause explaining that the woman had (by her act in the body of the narrative) brought a curse onto the Moloko people.

(40) Disobedient Girl, S. 38

Metesle anga war dalay ngəndəye,
 mɛ-tɛɬ-ɛ anga war dalaj ŋɡndije
 NOM-curse-CL POSS child girl DEM

‘The curse [is] belonging to that young woman,’

amazata aka ala avəya nengehe ana məze ahay na.

ama-z=ata =aka =ala avija nengehe ana mɪʒɛ =ahaj na
 DEP-take=3P.IO =on =to suffering DEM DAT person =Pl PSP

‘the one that brought that suffering onto the people.’

11.4 Definite construction: *na*-marked clausal element

The Definite construction occurs when a non-fronted noun phrase is marked by *na*. Figure 11.1 (in Section 11.2) shows the default order of constituents in a clause. In the definite construction, the *na*-marked element is in its normal clausal position. In this construction, *na* functions in the realm of definiteness. Definiteness is defined by Lambrecht (1994: 79) as signalling when “the referent of a phrase is assumed by the speaker to be identifiable to the addressee.” While definiteness is a separate function than presupposition, Lambrecht points out that definiteness is related to presupposition in that the definite article is a grammatical symbol for an assumption on the speaker’s part that the hearer is able to identify the definite element in a sentence – the speaker presupposes that the addressee can identify the referent designated by that noun phrase.

In (41) from the *Cows in the Field* story, the *na* marker is not cliticised at the end of a verb phrase or clausal element but is attached to the noun *gəvax* ‘field’ within an adpositional phrase. This construction is simply identifying the field to be the one that the cows destroyed, definite and previously mentioned in the story, and not some other unidentified field. In the examples in this section, the *na*-marked noun phrase is underlined and the adpositional phrase is delimited by square brackets.

- (41) Təzlərav ta ala va [a gəvah na ava.]
tə-ʒərav ta =ala =va [a gəvax na ava]
3P+PFV-move out 3P.DO =to =PRF at field PSP in
‘They had driven them out of the field.’

(42) is from the Disobedient Girl story. The house is marked as definite with *na*.

- (42) Disobedient Girl, S. 26
Nata ndahan dəbəsələk məmətava alay
nata ndahan dəbəsələk mə-mət=ava =alaj
and then 3S IDcollapse/die NOM-die=in =away
‘And she collapsed dubusoluk, dying’
a hod [a haj na ava.]
a h^wɔd [a haj na ava]
at stomach GEN house PSP in
‘inside the house.’

Likewise in (43), the noun *mɪsijən* ‘church’ is marked as definite within the adpositional phrase *a mɪsijən na ava* ‘in the church.’

- (43) Values, S. 3
Səwat na, tətə [a məsəyon na ava] nəndəye na,
suwat na tətə [a mɪsijən na ava] nındije na
IDdisperse PSP 3P at mission PSP in DEM PSP
‘As they disperse, those in that mission,’
pester áhata, “Ey, ele nehe na, kógom bay!”
peʃter á-h =ata ej ɛɛ nehe na kó-g^w-ɔm baj
pastor 3S+IFV-tell =3P.IO hey thing DEM PSP 2+IFV-do-2P NEG
‘the Pastor told them, “Hey! These things, don’t do them!”’

(44) is from line S. 21 of the Snake story. The *na*-marked element *g^wɔg^wɔlvən na* ‘the snake’ follows the verb complex in its normal position of a direct object noun phrase within the verb phrase.

- (44) Snake, S. 21
Alala, nəzlərav na ala gogolvən na a amata ava.
a-l =ala nə-ʒərav na =ala g^wɔg^wɔlvən na a amata ava
3S-go =to 1S+PFV-exit 3S.DO =to snake PSP at outside in
‘Sometime later I caused the snake to exit outside.’

11.5 Presupposition-focus construction: *na* precedes the final element of the verb phrase

The presupposition-focus construction in Moloko makes prominent the final element of a clause.¹² *Na* precedes the final element in the verb phrase. This is the only *na* construction where the *na*-marker follows the verb complex. In effect, all of that information that precedes the final element in the clause is marked as presupposed with *na*. The result is that the final element in the clause is highlighted in the discourse.

(45) is from line S. 20 of the Disobedient Girl text. The placement of *na* postverbally, just before the final element in the clause (*gam* ‘a lot’) functions to highlight that the woman prepared *a lot* of millet. The fact that she prepared a lot of millet instead of just one grain (as she was instructed) is critical to the outcome of the story. An added effect of the *na* plus pause before the final element is to slow down the narrative just a bit, resulting in heightened attention on the final element *gam* ‘a lot.’ In the examples in this section, the prominent final element is bolded and the *na*-marked elements are underlined.

(45) Disobedient Girl, S. 20

Jo madala háy *na*, **gam**.

dzɔ ma-d=ala haj *na* **gam**

ɪɔtake NOM-prepare=to millet PSP a lot

‘She prepared lots of millet.’

Multiple elements in a clause or sentence that are marked with *na* will add even more prominence to the final element. This kind of construction is seen at summation points in a narrative. It is also seen in a hortatory text when the speaker is reiterating his or her argument to make an important point. The many marked elements seem to slow down the action and build up tension towards the final element in the clause, thus putting even more emphasis on the focused item. In (46), the fact that the woman’s habit where she came from was to grind a *large amount* of millet at a time is crucial to the story. Three *na*-marked elements (a subject noun phrase, the verb phrase, and the complement without its final element) precede the adverb *gam* ‘a lot.’

¹² Longacre & Hwang (2012: 221) define prominence as “spotlighting, highlighting, or drawing attention to something.”

(46) Disobedient Girl, S. 17

Nde hor na, asərkala afa təta va na,
 nde h^wɔr na à-sərk=ala afa təta =va na
 so woman PSP 3S+PFV-habitually=to at place of 3P =PRF PSP
 ‘Now that woman, she was in the habit at their house,’

aməhaya háy na, gam.
amə-h=aja haj na gam
 DEP-grind=PLU millet PSP alot
 ‘[of] grinding a lot of millet.’

In (47), there are a series of six *na*-marked elements that reiterate some of the main points of argument that the speaker used. The final element *anga waj* ‘whose [word]’ is made prominent and the effect is to cause the hearer to think about whose word the people accept (based on their behaviour).

(47) Values, S. 29

Həmbəlɔm na, amadaslava ala mæze na, ndahan ese na,
Həmbəlɔm na ama-dat=ava=ala mɪʒɛ na ndahan ɛʃɛ na
 God PSP DEP-multiply=in=to person PSP 3S again PSP
 (lit. ‘God, the one that multiplied the people, him again’)

kagas ma Həmbəlɔm na asabay na,
ka-gas ma Həmbəlɔm na asa-baj na
 2S-catch word God PSP again-NEG PSP
 (lit. ‘you catch God’s word no longer’)

káagas na, anga waj?
káá-gas na anga waj
 2S+POT-catch PSP POSS who
 (lit. ‘you will catch it [word] of whom?’)
 ‘And if you will never accept the word of God, the one that multiplied the people, *whose* word will you accept then?’

In both (48) and (49), the final prominent element is *dziɣa* ‘all.’ The effect is to emphasise the totality of the events. In (48), the fact that *all* of the field was destroyed by the cows is important to the story. In (49), the story teller is emphasising that it was important that *everyone* fought against the Mbuko. In fact, people who did not fight were beaten after the skirmish with the Mbuko ended.

- (48) Waya sla ahay na, tozom gəvah na, jəyga anga ləme zlom.
 waja ɬa =ahaj na tɔ-zɔm gəvax na dzijga anga lɪmɛ ʒɔm
 because cow =Pl PSP 3P+PFV-eat field PSP all POSS 1PEX five
 ‘Because those cows, they ate all of that field that belonged to the five of us.’ (lit. because the cows, they ate the field, all of it, belonging to us five)
- (49) Nde na, ləme dɛw, nəzləgom va na, jəyga.
 ndɛ na lɪmɛ dɛw nə-ʒɔg-ɔm va na dzijga
 so PSP 1PEX also 1+PFV-plant-1PEX body PSP all
 ‘So, we also, we fought (lit. planted body), all of us.’

In (50), two *na*-marked elements leave a negative particle highlighted at the end. The fact that the storytellers did not eat the people’s food was important since they would have been expected to eat.

- (50) Nde kəy elé na, nəzəmom ele ata na, bay.
 ndɛ kij ɛɛ na nə-zɔm-ɔm ɛɛ =atəta na baj
 so IDlooking eye PSP 1+PFV-eat-1PEX thing =3P.POSS PSP NEG
 ‘So, one could see that we had not eaten their food.’ (lit. looking, we ate their thing, not)

In the Disobedient Girl peak, four *na*-marked elements precede the expression of the most pivotal event in the narrative – the death of the girl (bolded in 51).

- (51) Disobedient Girl, S. 26
Alala na, ver na, árah mbəf nə həmbo na,
 a-l=ala na ver na á-rax mbəf nə həmbo na
 3S-go=to PSP kitchen PSP 3S+IFV-fill to the roof with flour PSP
 ‘Later, the kitchen, it filled to the roof with flour,’
- dək mədəkaka alay ana hor na,
 dək mə-dək=aka=alaj ana h^wɔr na
 suffocate NOM-suffocate=on=away DAT woman PSP
 ‘it suffocated the woman,’
- nata ndahan mat mə-mətava alay a hod a hay na ava.**
nata ndahan mat mə-mət=ava =alaj a h^wɔd a haj na ava
 then 3S die NOM-die=in=away at stomach GEN house PSP in
 ‘and then she died in the stomach of that house.’

The 3S DO pronominal *na* (Section 7.3.3) is identical to the presupposition marker *na* and some ambiguity can be encountered in contexts where *na* immediately follows a verb that has no locational or directional extensions. (52–53) show two such examples. In (52), even though without a context the underlined *na* could be interpreted as the 3S DO pronominal for the verb *mədak=an* ‘instructing to him,’ we consider it to be the presupposition marker since there are multiple *na*-marked elements in the clause and this final underlined *na* appears immediately before the final focussed element *mɪ-nɜ-ije =ata* ‘their habits.’

(52) Disobedient Girl, S. 12

Sen ala na, zar ahan na, dək mədakan na mənɟəye ata.

ʃɛŋ =ala na zar =ahan na dək mə-dək =an na mɪ-nɜ-ije

IDgo =to PSP man =3S.POSS PSP IDshow NOM-show =3S.IO PSP NOM-sit-CL

=atəta

=3P.POSS

‘Then her husband instructed her their habits.’ (lit. going, her husband, instructing to her, their sitting)

In contrast, in (53) we consider the two underlined *na* markers to be the 3S DO pronominal since even though there are multiple the *na*-marked elements in the clause, these underlined markers are not immediately before the final focussed element. We found no unambiguous instance of the presupposition marker *na* breaking up a verb phrase except for the purpose of isolating the final focussed element in a verb phrase (cf. integrity of the VP, Section 8.1). Thus the first underlined *na* is 3S DO for the verb *tozom* ‘they eat.’ Likewise, we found no unambiguous instance of the presupposition marker breaking up a noun phrase in any context and so consider the second underlined *na* as 3S DO pronominal for the nominalised verb *mɪ-g-ije* ‘doing’ within the noun phrase *mɪ-g-ije na =ahan* ‘his doings.’ The verb and noun phrases in question are each delimited by square brackets in the example.

(53) Nde asa bahay a sla na, ndahan aka bay na, asa sla ahay na,

ndɛ asa bahaj a ʎa na ndahan aka baj na asa ʎa =ahaj na

so if chief GEN cow PSP 3S on NEG PSP if cow =Pl PSP

‘So, if the owner of the cows wasn’t there, [and] that the cows

[tozom na gəvax] na, dɛdɛn na, ndahan na,

[tò-zom na gəvax] na dɛdɛŋ na ndahan na

3P+PFV-eat 3S.DO field PSP truth PSP 3S PSP

‘really destroyed the fields is true, [then] he,

11 *The na marker and na constructions*

áməɲjar nə elé ahan bay **na**, [məgəye na ahan] **na** memey?

á-məɲzar nə elé =ahan baj **na** [mɪ-g-ijɛ na =ahan] **na**
 3S+IFV-see with thing =3S.POSS NEG PSP NOM-do-CL 3S.DO =3S.POSS PSP

mɛmɛj

how

‘[since] he hasn’t seen it for himself, what is he supposed to do?’ (lit. his doing, how)

12 Clause combining

In Moloko, clauses combine within sentences and larger structures in one of six main ways:

- Complement clause (Section 12.1). The complement clause is an argument within the matrix clause (subject, direct object, or indirect object).
- Dependent adverbial clause (Section 12.2). A clause giving adverbial information concerning the verb in the matrix clause.
- Relative clause. Relative clauses are clauses embedded in a noun phrase within the matrix clause. These are discussed in Section 5.4.3.
- A clause linked to another clause by a conjunction (Section 12.3).
- A clause marked with *na* or other expectation marker. The *na*-marked clause contains known or presupposed information. This construction is discussed in Chapter 11.
- Juxtaposition of two independent clauses (Section 12.4).

12.1 Complement clauses

A complement clause is a clause that is an argument in the matrix clause. Complement clauses in Moloko can contain one of three verb forms: dependent, nominalised or finite. When the complement clause has the same subject as the main clause, the complement clause has a dependent or nominalised verb form (Section 7.6). When the subject of the complement clause is different than that in the main clause, the verb in the complement clause is finite and the clause has a noun phrase subject (Section 12.1.2).

12.1.1 Dependent and nominalised verb complement clauses

The complement clause is embedded in the verb phrase as a subject, direct object, or indirect object within the matrix clause. Nominalised and dependent verb

forms collocate with constructions that carry different modal/aspectual values. The nominalised form collocates with constructions that carry a finished, accomplished idea or imply a state,¹ e.g., *ndav* ‘finish,’ (1) (see Section 7.6). In contrast, the dependent form is found in constructions that have an incomplete or unachieved idea at the time of the matrix situation, e.g., the verb of inception *ɣaŋ* ‘begin’ (7, see Section 7.7). In the examples in this section, the subject of the complement clause is the same as the subject of the matrix clause (and is indicated by \emptyset in the examples). The clauses are delimited by square brackets and the verb is bolded.

In (1) the nominalised form is the direct object of the matrix verb *ndav* ‘finish.’

- (1) [Nəndavalay [**məwəce**.]]
 [nə-ndav =alaj [\emptyset **mu-wuf-ε**]]
 1S-finish =away NOM-write-CL
 ‘I finish writing.’

A clause with the nominalised form can function as an argument of another verb. It is the subject in (2) and the direct object in (3–6). In each case, the nominalised form gives a completed idea to the action on the verb.

- (2) [[**Məmbəde** ahan na], asaw.]
 [[**mɪ-mbɪd-ε** =ahan na] a-s=aw]
 NOM-remain-CL =3S.POSS PSP 3S-please=1S.IO
 ‘I want the leftovers.’ (lit. its remains pleases me)
- (3) [Bahay amakay [**məzəme** sese].]
 [bahaj à-mak-aj [**mɪ-ʒəm-ε** ʃε[ε]]]
 chief 3S+PFV-leave-CL NOM-eat-CL meat
 ‘The chief stopped eating meat.’ (lit. the chief left the eating of meat)
- (4) [Nasar [**mədəye** daf] bay.]
 [na-sar [**mɪ-d-ijε** daf] baj]
 1S-know NOM-prepare-CL loaf not
 ‘I don’t know how to make millet loaves.’ (lit. I don’t know the preparing of millet loaf).

¹ The situation refers to something that occurred in the past with ongoing effects to the point of reference.

- (5) Disobedient Girl, S. 4
 [Ávata [mǝvǝye hada.]]
 [á-v=ata [mǝ-v-ijǝ hada]]
 3S+IFV-spend time=3P.IO NOM-spend time-CL many
 ‘It will last them many years.’ (lit. it will spend time for them enough
 time-spending; the nominalised form of the verb ‘spend time’ has been
 lexicalized as ‘year’)
- (6) [Ege [mǝvǝye mǝko] ehe,] [nawas háy əwla.]
 [ǝ-g-ǝ [mǝ-v-ijǝ mǝkʷɔ] ǝhe] [na-was haj =uwla]
 3S-do-CL NOM-spend time-CL six here 1S-cultivate millet =1S.POSS
 ‘Six years ago (lit. it did six years), I cultivated my millet.’

In contrast, the dependent form is found in adverbial clauses that have an incomplete or unachieved idea at the time of the matrix situation, e.g., the verb of inception *kaŋ* ‘begin’ (7 and 8, see Section 7.7) and habitual aspect (9 and 10). The writing hasn’t started in (7); the referent isn’t necessarily eating at the moment of (9); the fight was just beginning at the time of (8). In each case, the dependent form is the direct object of the matrix clause.

- (7) [Nazlan [amǝwǝce.]]
 [na-kaŋ [∅ amǝ-wutʃ-ǝ]]
 1S-begin DEP-write-CL
 ‘I begin to write.’
- (8) [Tazlan a lǝme [amǝzlǝge va.]]
 [ta-kaŋ a lǝme [∅ amǝ-kaŋ-ǝ va]]
 3P-begin at 1PEX DEP-plant-CL body
 ‘We started to fight.’ (lit. they started to us planting bodies)
- (9) [Asarkva [amǝpǝde sese.]]
 [a-sark =va [∅ amǝ-pǝd-ǝ ʃǝʃǝ]]
 3S-habitually =PRF DEP-crunch-CL meat
 ‘He usually eats meat.’ (lit. He had a habit to eat meat)
- (10) Disobedient Girl, S. 17
 [Hor na, asǝrkala afa tǝta va na,
 [hʷor na a-sǝrk =ala afa tǝta va na
 woman PSP 3S-habitually =to at house 3P PRF PSP
 ‘The woman, she was in the habit at their house,’

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[**aməhaya** háy na gam.]]
 [Ø **amə-h=a**ja haj na gam]]
 DEP-grind=PLU millet PSP lots
 ‘[of] grinding a lot of millet.’

Dependent clauses are also found in complement clauses for verbs of desire. For example, the complement clause for the verb /s/ ‘please’ in (12–13) expresses the unrealised object of the desire (with an incomplete or unfinished aspect). Note that the semantic LOC of the desire for the verb /s/ ‘please’ is the understood subject of the complement clause (=aw ‘me’ in 12).²

- (11) [Asaw [**aməpede** sese.]]
 [a-s=aw [Ø **amɪ-ped**-ε fεfε]]
 3S-want=1S.IO DEP-crunch-CL meat
 ‘I want to eat meat.’ (lit. It pleases me to eat meat)
- (12) [Asan [amadata aka va azan.]]
 [a-s=aŋ [Ø ama-d=ata =aka =va azan]]
 3S-want=3S.IO DEP-prepare=3P.IO =on =PRF temptation
 ‘He wanted to tempt them.’ (lit. to prepare a temptation for them [is] pleasing to him)
- (13) Race³
 [Asaw [**aməgəye** ambele mbele nə moktonok.]]
 [a-s=aw [Ø **amɪ-g-ijε** ambeɛ mbeɛ nə mək^wtɔnɔk^w]]
 3S-want=1S.IO DEP-do-CL race with toad
 ‘I want to race with the toad.’ (lit. to do a race with the toad [is] pleasing to me)

12.1.2 Finite complement clauses

Finite complement clauses are used with verbs that express propositional attitude, with verbs of speech, and with verbs of desire. The complement clause is the direct object of verbs of these propositional attitude (‘know,’ (14),⁴ ‘think,’ (15), ‘believe,’ (16), ‘doubt,’ (17), ‘forget,’ (18), or ‘worry,’ (19)). In the examples, the clauses are delimited by square brackets and the verb is bolded.

² Compare with (22) in Section 12.1.2 where the subject of the complement clause is different.

³ Friesen 2003.

⁴ Note that in this example, the complement clause and the DO pronoun *na* in the matrix clause are co-referential.

- (14) [Nasar na va, [bahay **apaḏəva** sese.]]
 [na-sar na =va [bahaj à-**paḏ-ə** =va ʃɛʃɛ]]
 1S-know DO =PRF chief 3S+PFV-crunch-CL =PRF meat
 ‘I know [that] the chief ate meat.’
- (15) [Nəḏəgalay na, [bahay **apaḏəva** sese.]]
 [nə-ḏəgal-aj na [bahaj à-**paḏ-ə** =va ʃɛʃɛ]]
 1S-think-CL PSP chief 3S+PFV-crunch-CL =PRF meat
 ‘I think [that] the chief ate meat.’
- (16) [Nafad na, [bahay **apaḏəva** sese.]]
 [na-fad na [bahaj à-**paḏ-ə** =va ʃɛʃɛ]]
 1S-place PSP chief 3S+PFV-crunch-CL =PRF meat
 ‘I believe [that] the chief ate meat.’ (lit. I place, the chief already ate meat)
- (17) [Nəkaḏ waya na, [bahay **apaḏəva** sese.]]
 [nə-kaḏ waja na [bahaj à-**paḏ-ə** =va ʃɛʃɛ]]
 1S-kill because PSP chief 3S+PFV-crunch-CL =PRF meat
 ‘I doubt [that] the chief ate meat.’ (lit. I counsel that)
- (18) [Acəkəzlaw a har ava [bahay **apaḏəva** sese.]]
 [a-tʃəkəz=aw a har ava [bahaj à-**paḏ-ə** =va ʃɛʃɛ]]
 3S-forget=1S.IO at body in chief 3S+PFV-crunch-CL =PRF meat
 ‘I forgot [that] the chief ate meat.’
- (19) [Nazlaway na, [bahay **apaḏəva** sese.]]
 [na-ʒaw-aj na [bahaj à-**paḏ-ə** =va ʃɛʃɛ]]
 1S-fear-CL PSP chief 3S+PFV-crunch-CL =PRF meat
 ‘I am afraid [that] the chief ate meat.’

Indirect speech is often expressed using a complement clause with a finite verb (20 and 21).

- (20) [Ne awəy [bahay **apaḏəva** sese.]]
 [nɛ awij [bahaj à-**paḏ-ə** =va ʃɛʃɛ]]
 1S said chief 3S+PFV-crunch-CL =PRF meat
 ‘I said [that] the chief ate meat.’

- (21) [Məloko ahay baba ahay tawəy na,
 [Məlɔkʷɔ =ahaj baba =ahaj tawij na
 Moloko =Pl father =Pl 3P+said PSP
 ‘The Moloko fathers say [that]’
 [Hərməbəlom ege bərav va kə war anga məze dedelen ga aka.]]
 [Hərməbəlɔm ɛ-g-ɛ bərav =va kə war anga mɪʒɛ dɛdɛlɛŋ ga
 God 3S+PFV-do-CL heart =PRF on child POSS person black ADJ
 aka]]
 on
 ‘God got mad at the black people.’ (lit. God did heart on the child that
 belongs to black person)

Complement clauses with irrealis verbs are used to express desires and actions connected with the will (‘wish,’ ‘want,’ ‘hope’). (22) shows a complement of the verb *a-s=aw* ‘it pleases me.’ The complement shows the object of the desire expressed in the matrix clause. The complement has a different subject than the LOC of the desire in the matrix clause. The verb is finite and the subject is made explicit.⁵ Note that almost all of the following examples are elicited, and therefore the first clause is followed by the presupposition marker *na* (Chapter 11). This marker indicates that the first clause contains presupposed (mutually known) information (in this case, the presupposition was established by the elicitation question).

- (22) Asaw na, [bahay mapadɔy sese.]
 a-s=aw na [bahaj ma-pad-aj ʃɛʃɛ]
 3S-please=1S.IO PSP chief 3S+HOR-crunch-CL meat
 ‘I want the chief to eat meat.’ (lit. it pleases me, the chief should eat meat).

In (22) above, the complement clause is the subject of the main verb; in (23), it is the indirect object.⁶

⁵ Compare with (11) from Section 12.1.1 which shows a complement with the same subject as the location of the desire in the matrix clause.

⁶ In Moloko the indirect object uniformly expresses the semantic LOC (e.g., recipient or beneficiary, see Chapter 9). In this case, the metaphorical location of the imploring is its purpose – where the speaker wants to go with his actions towards the chief. The semantic Theme (the chief) is being persuaded to the LOC (eating meat).

- (23) Nədəbakay bahay na ana [**mazom** sese.]
 nə-dəbak-aj bahaj na ana [**ma-zom** ʃɛʃɛ]
 1S-implore-CL chief PSP DAT 3S+HOR-eat meat
 ‘I persuaded the chief to eat meat.’ (lit. I implored the chief to he should eat meat)

12.2 Dependent adverbial clauses

Adverbial clauses give oblique information concerning the verb in the matrix clause. The adverbial clause containing a dependent verb is embedded in the main clause as the first or last element. Adverbial clauses before the matrix clause (24–26) function to express an event in progress at the time of the matrix event or situation. The entire adverbial clause is delimited by square brackets and the dependent verb is bolded in the examples. The subject of the dependent adverbial clause must be known in the context and will be marked with \emptyset (24) or a pronoun (25–26).

- (24) Disobedient Girl, S. 5
 [[**Aməhaya** kə ver aka na,] tázad war elé háy bəlen.]
 [[\emptyset **amə-h=aja** kə ver aka na] tá-zad war ɛɛ haj bɪlɛŋ]
 DEP-grind=PLU on stone on PSP 3P+IFV-take child eye millet one
 ‘While grinding (lit. to grind on the stone), they took one grain of millet.’
- (25) [[Ndahan **aməcen** məbele a mbəko ahay dəreffefe na,] awəy, “Almay?”]
 [[ndahan **amɪ-tʃɛŋ** mɪ-bɛl-ɛ a mbʊkʷɔ =ahaj dɪrɛffɛfɛ na]
 3S DEP-hear NOM-move-CL GEN Mbuko =Pl IDmovement PSP
 ‘He, hearing the movement of the Mbuko (lit. he to hear moving of Mbukos direfefe),’
 awij almaj]
 said what
 ‘he said, “What!”’
- (26) Disobedient Girl, S. 16
 [[Ndahan **amandava** bəl na,] zar ahan olo ametele
 [[ndahan **ama-nd=ava** bəl na] zar =ahan ɔ-lɔ amɛ-tɛl-ɛ
 3S DEP-sleep=in IDsome PSP man =3S.POSS 3S+PFV-go DEP-walk-CL
 ‘After she had been there for some time (lit. she, sleeping there for some time), her husband went away’

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kə dəlmetə ahan aka a slam enen.]
 kə dɪlmetɛ =ahan aka a ɬam ɛnɛŋ]
 on neighbor =3S.POSS on at place another
 ‘to walk in the neighborhood to some place.’

Adverbial clauses that occur after the main clause (27–29) occur with verbs of movement (/l^o/ ‘go,’ /nz^e/ ‘left’).⁷ The dependent clause expresses the (as yet unachieved) purpose of the going. The adverbial clause does not express whether the purpose was achieved or not – in (27) the reader does not know if he actually bought fish or not, although it is expected.

- (27) [Olo a kosoko ava [**aməsəkʷəme** kələf.]]
 [ɔ-lɔ a kɔsəkʷɔ ava [∅ **amɪ-səkʷəm-ɛ** kɪləf]]
 3S-go at market in DEP-buy/sell-CL fish
 ‘He/she went to the market [in order] to buy fish.’
- (28) [Kəlen zar ahan na, enjé ele ahan [**amətele**.]]
 [kɪləŋ zar =ahan na ɛ-nɜ-ɛ ɛɛ ahan [∅ **amɪ-tɛl-ɛ**]]
 then man =3S.POSS PSP 3S-leave-CL thing =3S.POSS DEP-walk-CL
 ‘Then her husband left to go walking [somewhere].’

Likewise, in (29), the reader does not know if the young men actually succeed at bringing back the tree (and indeed the story reveals that they do not succeed, Section 1.6).

- (29) Cicada, S. 16
 [Kəlen albaya ahay tolo [**amazala** agwazla na.]]
 [kɪləŋ albaja =ahaj tɔ-lɔ [∅ **ama-z=ala** agʷaɬa na]]
 then young men =Pl 3P-go DEP-take=to spp. of tree PSP
 ‘Then the young men went to try to bring back the tree [to the chief].’

A lengthened prefix vowel in the dependent form in an adverbial clause can also express mood (the desire of the speaker, see Section 7.4.3). The lengthened prefix vowel (bolded in 30) expresses potential actions which are not yet complete or even expected, but they are desired by the speaker.

- (30) [Bahay ata ahay dəw tólo daren [**amaakəwala** ele məzəme.]]
 [bahaj =atəta =ahaj dɪw tɔ-lɔ dɪrɛŋ [**amaa-kuw=ala** ɛɛ
 chief =3P.POSS =Pl also 3P+IFV-go far DEP+PBL-seek=to thing

⁷ We have not found adverbial clauses with other verbs.

mi-ʒum-ε]]

NOM-eat-CL

‘Their chiefs also, they will have to travel far in order to find something to eat [in a famine].’

12.3 Clauses linked by conjunctions and conjunctive adverbs

The verbs in clauses connected by a conjunction are always finite. The conjunction defines the way that the two linked clauses are related. Conjunctions can be either subordinating or coordinating. Clauses subordinated by a conjunction can be divided into two types, depending on whether the subordinate clause follows or precedes the main clause (discussed in Sections 12.3.1 and 12.3.2, respectively). Coordinating conjunctions link clauses that are not syntactically dependent on one another (Section 12.3.3). Conjunctive adverbs also function to link clauses (Section 12.3.4).

Table 12.1 shows the characteristics of all of the conjunctions and conjunctive adverbs in Moloko.

12.3.1 Final adverbial clauses introduced by a subordinating conjunction

When an adverbial clause introduced by a subordinating conjunction follows the main clause, the clause supplies new information to the discourse. The manner in which the new information relates to the matrix clause is controlled by the subordinate conjunction. Subordinating conjunctions include *bijna* ‘because,’ *waja* ‘because,’ and *kuwaja* ‘because,’ (all involved in reason-result constructions) and *ha* ‘until.’ Sentences in Moloko do not normally have multiple subordinate clauses. In the examples, each of the subordinate clauses is delimited by square brackets.

*Bijna*⁸ ‘because’ (31–34) is used in result-reason clause constructions that link only two clauses. The clause subordinated by *bijna* demonstrates the proof for the statement in the matrix clause.

⁸ *Bijna* ‘because’ may be a compound of the negative *baj* and the presupposition marker *na*.

Table 12.1: Subordinating and coordinating conjunctions

	Conjunction	Function
Subordinate conjunction that introduces an adverbial clause that follows the matrix clause. The adverbial clause is a constituent of the matrix clause.	<i>bijna</i> 'because'	Demonstrates the proof for the statement in the matrix clause.
	<i>waja</i> 'because'	Indicates the reason for something previously described. The previous clauses function to give a context for the statement in the <i>waja</i> clause
	<i>kuwaja</i> 'because' / 'that is'	Introduces clauses (or noun phrases) that give an explanation or reasoning behind the situation expressed in previous clauses.
	<i>ha</i> 'until'	Gives temporal information to that in the matrix clause, indicating that the event in the matrix clause continues up to the point in time or event expressed in the subordinate clause
Conditional conjunction Introduces a conditional clause that precedes the matrix clause. Makes a condition for the matrix clause.	<i>asa...na</i> 'if...psp'	Condition is presupposed or a real possibility.
	<i>asa...duw</i> 'if...psp'	Condition presents a new possibility.
	<i>ana asa ...na</i> 'to if...psp'	Condition presents a strong expectation to be fulfilled.
	<i>azana asa ...na</i> 'maybe if...psp'	Condition might be fulfilled.
Coordinate conjunction Links independent clauses.	<i>nata</i> 'and (then)'	Marks the clause(s) which contain the most pivotal event(s) in a narrative.
	<i>aḡana</i> 'but'	Contains an element of counterexpectation with something in the first clause.
Conjunctive adverb Function to express other logical relations between independent clauses.	<i>kileŋ</i> 'next'	Returns to the main event line, expressing the next main action, often after a digression from the main event line.
	<i>nde</i> 'therefore'	Marks conclusive statements.
	<i>matsakambaj</i> 'meanwhile'	Relates two clauses with respect to time of the events.

- (31) Snake, S. 19

Nəngehe na, Hərmbəlom aloko ehε, [bəyna anjakay nok
 nıŋgehe na Hərmbəlom =alok^w εhε [bijna à-nzak-aj nək^w
 DEM PSP God =1PIN.POSS here because 3S+PFV-find-CL 2S
 ‘Here, God is [really] with us, because he found you’
 ha a slam məndəye ango ava.]
 ha a ɬam mɪ-nd-ije =aŋg^w ava]
 until at place NOM-sleep-CL =2S.POSS in
 ‘even at the place where you slept.’

- (32) Náavəlaləkwəye səloy [bəyna kogom va slərele gam.]
 náá-vəl=alok^wəje sələj [bijna kə-g^w-əm =va ɬrele gam]
 1S+POT-give=2P.IO coin because 2-do-2P =PRF work much
 ‘I will give you money because you have done a lot of work.’

- (33) Nəzala məlama əwla a ləpəyɬal ava
 nə-z=ala məlama =uwla a ləpijɬal ava
 1S+PFV-take=to sibling =1S.POSS at hospital in
 ‘I took my brother to the hospital’
 [bəyna dəngo awəlan.]
 [bijna dəŋg^w a-wəl=aŋ]
 because throat 3S-hurt=3S.IO
 ‘because his throat was hurting.’

- (34) Cicada, S. 14
 Dəfen bahay, agwazla ngəndəye ágasaka ka mahay ango aka,
 dəfəŋ bahaj ag^waɬa ŋgındije á-gas =aka ka mahaj =aŋg^w aka,
 truth chief spp. of tree DEM 3S+IFV-get =on on door =2S.POSS on
 ‘True, chief, it is advisable that tree be would fit well by your door,’
 [bəyna agwazla ga səlom ga; aḃəsaj ava bay.]
 [bijna ag^waɬa ga sələm ga aḃəsaj ava baj]
 because spp. of tree ADJ good ADJ blemish EXT NEG
 ‘because this tree is good; it has no faults.’

A clause subordinated by *waja* ‘because’ (35–36) indicates the reason for something previously described in the previous clauses. The preceding clauses function to give a context for the statement in the *waja* clause. In (35) (from S. 7–8 of the Disobedient Girl story) the *waja* clause explains the reasoning behind the

entire paragraph before it (the entire story is in Section 1.5). S. 7 gives the result (one grain of millet would give enough food for a family) and S. 8 gives the reason behind it (because God multiplied the millet while the flour was being ground).

(35) Disobedient Girl, S. 7

War elé háy bəlen fan na,
 war ɛɛ haj bɛɛŋ faŋ na
 child eye millet one yet PSP
 ‘Just one grain of millet,’
 ánjata pew ha ámbaɗ ese.
 á-nz=ata pew ha á-mbaɗ ɛɛ
 3S+IFV-suffice=3P.IO enough until 3S+IFV-remain again
 ‘it sufficed for them, and there were leftovers.’

Disobedient Girl, S. 8

[Waya a məhaya ahan ava na,
 [waja a mə-h=aja =ahanɔ̃ ava na
 because at NOM-grind=PLU =3S.POSS in PSP
 ‘Because, during its grinding,’
 ásak kə ver aka nə məsəke.]
 á-sak kə ver aka nə mɪ-ʃɪk-ɛ]
 3S+IFV-multiply on grinding stone on with NOM-multiply-CL
 ‘it would really multiply on the grinding stone.’ (lit. multiply with multiplying)

Another result-reason construction with *waja* is shown in (36) (from part of a story not illustrated in this work). The clause subordinated by *waja* explains the reason why the speaker didn’t know how to proceed. It was important in the story that the speaker had already visited the sub-prefect.

(36) Nàsar həraf ele nəngehe asabay

nà-sar həraf ɛɛ nɪŋɛhɛ asa-baj
 1S+PFV-know medicine thing DEM again-NEG
 ‘I didn’t know how to resolve the problem (lit. I never knew the medicine for this particular thing),’
 [waya nəlva afa səwpərəfe.]
 [waja nə-l =va afa suwpərəfe]
 because 1S+PFV-go =PRF at house of sub prefect
 ‘because I had already been to the sub prefect [and he didn’t help me].’

The demonstrative *ndana* in the phrase *waja ndana* ‘refers the hearer to the previously-mentioned clauses to discover the reason behind the statement introduced by *waja ndana*. In the reason-result construction shown in (37) (from the Disobedient Girl story), S. 34 states that God had gotten angry (because of the girl that disobeyed). The *waja ndana* clause in S. 35 identifies that the information in S.34 is the reason for the statement in S. 35; it was because of God’s anger that God took back his blessing from the Moloko.

(37) Disobedient Girl, S. 34

Hərmbəlom ága bərav va kəwaya war dalaj na,
Hərmbəlom á-g-a bərav =va kuwaja war dalaj na
God 3S+IFV-do-CL heart =PRF because of child girl PSP
‘God had gotten angry because of that girl,’
amecen sləmay baj ngəndəye.
amɛ-tʃɛŋ ləmaj baj ŋɡɪndijɛ
DEP-hear ear NEG DEM
‘that one who was disobedient.

Disobedient Girl, S. 35

[Waya ndana Hərmbəlom ázata aka barka ahan va.]
[waja ndana Hərmbəlom á-z=ata =aka barka =ahan
because DEM God 3S+IFV-take=3P.IO =on blessing =3S.POSS
=va]
=PRF
Because of that previously-mentioned [event], God had taken back his
blessing from them.’

The conjunction *kuwaja* ‘because’ / ‘that is’ (38–39, also see 37) introduces clauses (or noun phrases) that give an explanation or reasoning behind the situation expressed in previous clauses. *Kuwaja* introduces the conditional construction in (38) (from the Disobedient Girl story S. 3-4) that gave the reasoning behind the blessing that the Molokos experienced in the past.

(38) Disobedient Girl, S. 3

Zlezle na, Məloko ahay na, Hərmbəlom ávəlata barka va.
ʒɛʒɛ na Mələkʷɔ =ahaj na Hərmbəlom á-vəl=ata barka
long ago PSP Moloko =Pl PSP God 3S+IFV-send=3S.IO blessing
=va
=PRF
‘Long ago, to the Moloko people, God had given his blessing.’

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Disobedient Girl, S. 4

[Kəwaya asa təwasva nekwen kəygehe dəw,]

[kuwaja asa tə-was =va nek^wɛŋ kijgehe duw]

that is if 3P+PFV-cultivate =PRF little like this also

‘That is, even if they had only sowed a little [millet] like this,’

ávata mənəye hada.

á-v=ata mɪ-v-iɛ hada

3S+IFV-spend time=3P.IO NOM-spend time-CL a lot

‘it lasted them enough for the whole year.’

In the conclusion of the same story (S. 34, 39), *kuwaja* introduces a noun phrase with a relative clause that gives the reasoning behind God’s anger.

(39) Disobedient Girl, S. 33

Hərmbəlom ága bərav va

Hərmbəlom á-g-a bərav =va

God 3S+IFV-do-CL heart =PRF

‘God had gotten angry (lit. did heart)’

[kəwaya war dalay amecen sləmay bay ngəndəye.]

[kuwaja war dalaj amɛ-tʃɛŋ ʔəmaj baj ŋgɪndijɛ]

because child female DEP-hear ear NEG that

‘because of that girl, the one that didn’t listen.’

The clause introduced by *ha* ‘until’ expresses a literal or metaphorical boundary that marks the termination or cessation of the activity or situation expressed by the matrix clause (31, 40,⁹ 41).

(40) Kərcece ahəmay ahəmay ahəmay

kɪrtʃɛtʃɛ a-həm-aj a-həm-aj a-həm-aj

giraffe 3S-run-CL 3S-run-CL 3S-run-CL

‘The giraffe ran and ran and ran’

[ha ayadəy ndele pəs pəssa.]

[ha a-jaɖ-aj ndelɛ pəs pəs =sa]

until 3S-tire-CL IDcompletely tired =ADV

‘until he was completely tired out.’

⁹ From the Race story, Friesen 2003.

In (41), the second clause begins with *ha* ‘until’ and gives adverbial information to the matrix clause concerning how that one grain of millet will satisfy their hunger.

- (41) Disobedient Girl, S. 7

War elé háy bəlen fan na, ánjata pew
war éle haj bíleŋ faŋ na á-nz =ata pew
child eye millet one already PSP 3S+IFV-suffice =3P.IO enough

‘One grain of millet, it sufficed for them’

[ha ambəð ese.]

[ha a-mbəð ɛʃɛ]

until 3S-remain again

‘even to leaving leftovers.’

12.3.2 Conditional construction

The subordinating conjunction *asa* ‘if’ subordinates a clause and indicates that the clause expresses a condition required for the main clause. Clauses subordinated by *asa* ‘if’ are neutral with respect to whether the speaker expects the condition to be fulfilled or not. The construction is *asa* plus the conditional clause.

The end of the subordinate clause is delimited by the presupposition marker *na* or new information marker *dɔw*. Which marker is employed depends upon the context. If the condition is known or expected in the context, the presupposition marker *na* delimits the condition (42–44). In the examples of this section, both the subordinating conjunction and presupposition or ‘unexpected’ information marker are bolded, and the subordinate clause is delimited by square brackets.

- (42) [**Asa** kége akar **na**,] náabok.

[**asa** kɛ-g-ɛ akar na] náá-6 =ɔk^w
if 2S+IFV-do-CL theft PSP 1S+POT-beat =2S.IO

‘If you steal, I will beat you.’

- (43) [**Asa** ások njəwelek **na**,] kándaɗay elele kəlen.

[**asa** á-s=ɔk^w nzuwelek na] ká-ndaɗ-aj élele kíleŋ
if 3S+PFV-cut=2S.IO leaf (spp.) PSP 2S+IFV-like-CL sauce then

‘If you like this kind of leaf, you will like this sauce.’

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- (44) [Asa taβan va ana mæze na,]

[asa tà-β =aŋ =va ana mɪʒɛ na]

if 3P+PFV-hit =3S.IO =PRF DAT person PSP

‘If someone has gotten beaten,’

ləkwəye na, gom ala sərtəfka medekal aləkwəye.

lək^wøje na g-ɔm =ala sərtfka mɛdɛkal =alək^wøje

2P PSP do[IMP]-2P =to certificate medical =2P.POSS

‘make a medical certificate for him.’

If a new idea or another option is added, the subordinated clause is marked by *dɯw*, the new information marker instead of *na* (45 and 46) and the meaning of *asa* shifts to more of a concessive idea.

- (45) Disobedient Girl, S. 4

[Asa tawasva nekwen kəygehe dɯw,]

[asa ta-was =va nək^wɛŋ kɪjgɛhɛ dɯw]

if 3P-cultivate =PRF little like this also

‘Even if they cultivated a little like this,’

ávata məvəye hada.

á-v=ata mɪ-v-ijɛ hada

3S+IFV-spend time=3P.IO NOM-spend time-CL many

‘it would last for them many years.’

- (46) [Asa mæze ahay təcahay ele dɯw,] Hərməbəlom ecen asabay.

[asa mɪʒɛ =ahaj tə-tsah-aj ɛlɛ dɯw] Hərməbəlɔm ɛ-tʃɛŋ asa-baj

if person =Pl 3P-ask-CL thing also God 3S-hear again-NEG

‘Even if people ask for anything, God doesn’t hear anymore.’

Normally the subordinated clause is followed by the main clause (47), however the clause expressing the condition can be right-shifted in some contexts (48). The *asa* clause is always delimited by *na*.

- (47) Disobedient Girl, S. 13

[Asa àsok aməhaya na,]

[asa à-s=ɔk^w amə-h=aja na]

if 3S+IFV-please=2S.IO DEP-grind=PLU PSP

‘If you want to grind,’

kázad war elé háy bəlen.
 ká-zad war ɛɛ haj bɪlɛŋ
 2S+IFV-take child eye millet one
 ‘you take only one grain.’

- (48) Gəbar anday agaw [asa bahay apad̪ay sese na.]
 gəbar a-ndaj a-g=aw [asa bahaj à-pad-aj ʃɛʃɛ na]
 fear 3S-PROG 3S-do=1S.IO if chief 3S+PFV-crunch-CL meat PSP
 ‘I am afraid that the chief ate meat.’ (lit. fear is doing me if the chief ate meat)

Other particles co-occurring with the conjunction *asa* ‘if’ can cause a shift in its meaning. Clauses subordinated by the dative marker plus ‘if’ *ana asa* have a strong expectation that the condition will be fulfilled (49), while clauses subordinated by *azana asa* ‘maybe if’ carry the expectation that the condition might be fulfilled, rendering the subordinating clause to have almost a temporal meaning (50).

- (49) [Ana asa kege akar bay na,] nábok bay.
 [ana asa kɛ-g-ɛ akar baj na] ná-b =ɔk^w baj
 DAT if 2S+PFV-do-CL theft NEG PSP 1S+IFV-beat =2S.IO NEG
 ‘If you don’t steal (and I don’t expect you to steal), I won’t beat you.’
- (50) [Azana asa tanday təzlabay ele memey na,]
 [azana asa ta-ndaj tə-ʒab-aj ɛɛ memɛj na]
 maybe if 3P-PROG 3P-pound-CL thing how PSP
 ‘When something is being pounded,’ (lit. if perhaps they are pounding something,)
 təzləgalay avəlo bay.
 tə-ʒəg =alaj avʊlo baj
 3P+IFV-throw =away high up NEG
 ‘the baton is not thrown too high.’ (lit. they don’t throw the baton too high)

12.3.3 Coordinate constructions

Coordinate constructions consists of two independent clauses linked by a coordinate conjunction. The coordinating conjunction specifies the way that the

clauses are connected. They include *nata* ‘and then’ and *aḡəna* ‘but.’ In the examples below, the conjunction is bolded and the coordinate clause is delimited by square brackets.

Nata ‘and then’ marks the clauses which contain the most pivotal events in a narrative. Two clauses from the Cicada narrative are marked with *nata* (S. 25 and S. 27 in (51)). These two clauses mark the peak event of the cicada’s success at transporting the tree for the chief. One clause in the peak of the Disobedient Girl narrative is marked with *nata* (52). This marked peak event is the death of the girl, the result of her disobedience.

(51) Cicada, S. 25

[**Nata** olo,]

[**nata** ɔ̌-lo]

and then 3S-go

‘And then he went’

Cicada, S. 26

albaya ahay tolo sen na,

albaja =ahaj tɔ̌-lo ʃɛŋ na

youth =Pl 3P-go IDgo PSP

‘The young men went,’

albaya ahay weley təh anan dəray na, abay.

albaja =ahaj welej təx an=an dəraj na abaj.

youth =Pl which IDput DAT=3S.IO head PSP EXT+NEG

‘No one could lift it.’ (lit. whichever young man put his head [to the tree in order to lift it], there was none)

Cicada, S. 27

[**Nata** mətəde təh anan dəray ana agwazla ngəndəye.]

[**nata** mətɔ̌de təx an=an dəraj ana ag^waḡa ŋgɪndijɛ]

and then cicada IDput on head DAT=3S.IO head DAT spp. of tree DEM

‘And then the cicada put his head to that tree.’

(52) Disobedient Girl, S. 26

Alala na, ver na árah mbəf nə həmbə na,

a-l=ala na ver na á-rax mbəf nə həmbə na

3S-go=to PSP kitchen PSP 3S+IFV-fill to the roof with flour PSP

‘Later, the kitchen, it filled to the roof with flour,’

dək mədəkaka alay ana hor na,
 dək mə-dək=aka =alaj ana h^wɔr na
 suffocate NOM-suffocate=on =away DAT woman PSP
 ‘it suffocated the woman,’

[nata ndahan mat məmətava alay a hod¹ a hay na ava.]
 [nata ndahan mat mə-mət=ava =alaj a h^wɔd¹ a haj na ava]
 then 3S die NOM-die=in =away at stomach GEN house PSP in
 ‘and then she died in the stomach of that house.’

*Ağəna*¹⁰ ‘but’ indicates that the clause that follows will contain an element of counterexpectation with something in the previous clause (53–55).

- (53) Disobedient Girl, S. 10 - 11

Olo azala hor. [Azləna war dalay ndana cekəzlere ga.]
 ɔ-lɔ a-z=ala h^wɔr [ağəna war dalaj ndana tʃekɪzɛrɛ ga]
 3S-go 3S-take=to woman but child female DEM disobedience ADJ
 ‘He went and took a wife, but the above-mentioned girl [was]
 disobedient.’

- (54) Avəyon agan va gəbar ana Abangay. Ahəman alay nekwen.

avijɔŋ a-g=aŋ =va gəbar ana Abangaj a-həm=aŋ =alaj nek^wɛŋ
 airplane 3S-do=3S.IO =PRF fear DAT Abangay 3S-run=3S.IO =to little
 ‘The airplane made Abangay afraid (lit. did fear to her), [so] she ran away
 a little;’

[Azləna na me, ləme nata babəza ahay na,
 [ağəna na mɛ lɪmɛ nata babəza =ahaj na
 but PSP opinion 1PEX and children =Pl PSP
 ‘but on the other hand, I and the children,’

ko məbele nekwen dəw, nobəlɔm bay.]
 k^wɔ mɪ-bɛl-ɛ nek^wɛŋ dɯw nɔ-bɔl-ɔm baj]
 even NOM-move-CL little also 1-move-1PEX NEG
 ‘we didn’t budge even a little (lit. even a little movement we didn’t move).’

- (55) Nahan ana hor əwla ne awəy majaw ala yam

na-h=aŋ ana h^wɔr =uwla nɛ awij ma-dz=aw =ala jam
 1S-tell=3S.IO DAT wife =1S.POSS 1S said 3S+HOR-help=1S.IO =to water
 ‘I said to my wife that she should bring me water’

¹⁰ *ağəna* ‘but’ may be a compound of *ağa* ‘now’ and the presupposition marker *na*.

12 Clause combining

aməbele; [azləna acahay bay.]
amɪ-bəl-ɛ [aɣəna a-tsah-aj baj]
DEP-wash-CL but 3S-obey-CL NEG
'to wash, but she didn't obey me.'

12.3.4 Conjunctive adverbs

Conjunctive adverbs are adverbs that function to connect clauses within a larger context. They include *kɪlɛŋ* 'next,' *ndɛ* 'therefore,' and *matsəkəmbaj* 'meanwhile.' With the exception of *kɪlɛŋ*, conjunctive adverbs are clause-initial. The examples give some of the surrounding context so that their function can be demonstrated. Many of the examples are from the Disobedient Girl story or the Cicada story. In order to study the larger context for the examples, the stories themselves can be found in Section 1.5 and Section 1.6, respectively.

Kɪlɛŋ 'next' indicates a subsequent mainline event that often follows a digression (often reported speech). This conjunction can either be clause-initial (57) or it may follow the first argument in the clause (56). (56) and (57) are from the Cicada story (Section 1.6). In (56), the *kɪlɛŋ* clause marks the first event in the eventline that concerns the tree.

(56) Cicada, S. 5-6

Tánday tótalay a ləhe na,
tá-ndaj tá-tal-aj a lihe na
3P+IFV-PROG 3P-walk-CL at bush PSP
'[As]they were walking in the bush,'
təlo tənjakay agwazla malan ga a ləhe.
tə-lə tə-nzak-aj ag^waɣa malan ga a lihe
3P+PFV-go 3P+PFV-find-CL spp. of tree large ADJ to bush
'they found a large tree (a particular species) in the bush.'

[Albaya ahay ndana **kəlen** təngalala ma ana bahay.]
[albaja =ahaj ndana **kɪlɛŋ** tə-ŋgala =ala ma ana bahaj]
youth =Pl DEM then 3P+PFV-return =to word DAT chief
'The above-mentioned young men then took the word (response) to the chief.'

Clauses S. 7 and 8 are shown in (57), where *kɪlɛŋ* coordinates the clause in S. 8 to the eventline after the speech in S. 7.

(57) Cicada, S. 7

Tawəy, “Bahay, mama agwazla ava a ləhe na, malan ga na,
 tawij bahaj mama ag^waʒa ava a lihə na malan ga na
 3P+said chief mother spp. of tree EXT at bush PSP large ADJ PSP
 ‘They said, “Chief, there is a mother-tree in the bush, a big one,’
 agasaka na ka mahay ango aka aməmbese.”
 à-gas =aka na ka mahaj =anɡ^wɔ̄ aka amɪ-mbɛʃ-ɛ.
 3S+PFV-get =on PSP on door =2S.POSS on DEP-rest-CL
 ‘[and] it would please you to have that tree at your door, so that you
 could rest under it.”’

Cicada, S. 8

[Kəlen albaya ahay ndana tolo.]
 [kɪlɛŋ albaja =ahaj ndana tɔ̄-lɔ̄]
 next youth =Pl DEM 3P+PFV-go
 ‘Then those above-mentioned young men went.’

A conclusion in a discourse or a concluding remark may be introduced by the conjunctive adverb *ndɛ* ‘so.’ (58) shows S. 32–34 from the conclusion of the Disobedient Girl narrative. *Ndɛ* introduces the concluding comments concerning the way that the present-day situation for the Molokos has changed from the way it was before the actions of the disobedient girl. (59) is from the Leopard story (Friesen 2003) and *ndɛ* marks the clause within the hen’s speech where she makes her concluding decision of what she should do. (60) shows *ndɛ* marking a concluding statement in an instruction.

(58) Disobedient Girl, S. 32–34

[Nde ko ala a dɛma ndana ava pɛw.] Məloko ahay tawəy
 [ndɛ k^wɔ̄ =ala a dɛma ndana ava pɛw] Məlɔk^wɔ̄ =ahaj tawij
 so until =to at time DEM in enough Moloko =Pl 3P+said
 ‘So, ever since the above-mentioned time, it’s done! The Molokos say,’
 Həmbəlom ága bərav va kəwaya war dalay na,
 Həmbəlom á-g-a bərav =va kuwaja war dalaj na
 God 3S+IFV-do-CL heart =PRF because of child girl PSP
 “God had gotten angry because of that girl,’
 amecen sləmay bay ngəndəye.
 amɛ-tʃɛŋ ləmaj baj ŋɡɪndijɛ
 DEP-hear ear NEG DEM
 ‘that one that was disobedient.’

12 Clause combining

Waya ndana Hərmbəlom ázata aka barka ahan va.

waja ndana Hərmbəlom á-z=ata =aka barka =ahan
because DEM God 3S+IFV-take=3P.IO =on blessing =3S.POSS

=va

=PRF

‘Because of that mentioned above, God had taken back his blessing from them.’

- (59) Tanday taslaw aka babəza ahay va.

ta-ndaj ta-ɬ=aw =aka babəza =ahaj =va
3P-PROG 3P-kill=1S.IO =on children =Pl =PRF

‘They were killing more of my children.

[Nde taslaw aka babəza ahay va na,

[nde ta-ɬ=aw =aka babəza =ahaj =va na
so 3P-kill=1S.IO =on children =Pl =PRF PSP

‘So [since] they killed more of my children,’

nəhəmay mogo ele əwla.]

nə-həm-aj mɔɡʷɔ ɛlɛ =uwlə]

1S-run-CL anger thing =1S.POSS

‘I ran away because of my anger (lit. I ran my anger thing).’

- (60) Nahok na va, kége akar bay.

nà-h=ɔkʷ na =va ké-g-ɛ akar baj
1S+PFV-tell=2S.IO 3S.DO =PRF 2S+IFV-do-CL theft NEG

‘I already told you, don’t steal,’

[Asabay na,] náabok.

[asa-baj na] náá-ɓ =ɔkʷ

again-NEG PSP 1S+POT-beat =2S.IO

‘otherwise (lit. if not) I will beat you.’

[Nde azləna kagəva akar náabok] azla.

[nde aɣəna kà-gə =va akar náá-ɓ=ɔkʷ] aɣa
so but 2S+PFV-do =PRF theft 1S+POT-beat=2S.IO now

‘But you have gone and stolen, so I will beat you now.’

Matskəmbaj ‘meanwhile’ indicates that the information in the clause so marked occurred off the main eventline. (61) is from the Race story (Friesen 2003). The clause with *matskəmbaj* marks what the toad had done before the race – he had

secretly invited his brothers to line the race route so that there would always be a toad ahead of the giraffe. The giraffe ran faster than the toad, but when he stopped running and called out to see how far behind him the toad was, one of the toad's friends ahead of him would call to him, making him run so hard that he collapsed, thereby losing the race.

- (61) Paraw tədəya məhəme, bərketem, bərketem, bərketem.

paraw tə-d=ija mɪ-him-ε bərketem bərketem bərketem
IDSudden start 3P-prepare=PLU NOM-run-CL IDrun IDrun IDrun

'Paraw, they started the race, running birketem, birketem, birketem.'

Kərcece enjé təf na, awəy, "Moktonok nok amta?"

kɪrtʃɛtʃɛ ε-nʒ-ε təf na awij mək^wtənək^w nək^w amta
giraffe 3S-leave-CL IDfar PSP said toad 2S where

'The giraffe went far away [along the race route]. He said, "Toad, where are you?"'

Moktonok awəy, "Ne ko ehe." Awəy, "Wa alma?"

mək^wtənək^w awij nɛ k^wɔ ɛhe awij wa alma
toad said 1S no matter here said what what

'A toad said, "I am way over here." [The giraffe] said, "What on earth?!" (lit. he said, "What what")'

[Macəkəmbay moktonok na, abək ta aya va

[matsəkəmbaj mək^wtənək^w na a-bək ta =ja =va
meanwhile toad PSP 3S-invite 3P.DO =PLU =PRF

'Meanwhile, the toad, he had already invited'

mələma ahan ahay jəyga.]

mələma =ahan =ahaj dzijga]

brother =3S.POSS =Pl all

'all his brothers [to line up along the race so that there would always be a toad ahead of the giraffe].'

12.4 Juxtaposed clauses

Many clauses in a Moloko discourse are independent and are not linked grammatically to a preceding or following clause by a connector or by the presupposition marker *na*. The semantic nature of the connection between these unmarked,

juxtaposed clauses is inferred from the context.¹¹ A juxtaposed clause can simply re-express the thought in the first clause. In (62), the second clause restates in the negative that God is near. In (63), the second clause makes more precise the general instruction in the first clause. In (64), the second clause expands on what the speaker sees about the chief. In the examples in this section, each clause is delimited by square brackets and the juxtaposed clause is bolded.

- (62) [Ndahan bəfa,] [**anday dāren bay.**]
 [ndahan bəfa] [a-ndaj dīrɛŋ baj]
 he IDclose 3S-PROG far NEG
 ‘So, he was close, he was not far.’
- (63) [Makay war;] [mapaday sese ahan.]
 [mak-aj war] [ma-pad-aj ʃɛʃɛ =ahan]
 leave[2S.IMP]-CL child 3S+HOR-crunch-CL meat =3S.POSS
 ‘Leave the child alone; let him eat his meat.’
- (64) [Nəmənjar bahay,] [**ndahan aka ozom sese.**]
 [nə-mənjar bahaj] [ndahan aka á-zɔm ʃɛʃɛ]
 1S-see chief 3S on 3S+IFV-eat meat
 ‘I see the chief, he is eating meat.’

(65) is from S. 8–10 in the peak episode of the Snake story. There is a series of three juxtaposed independent clauses. The second is a restatement of the first. The third follows chronologically.

- (65) Snake, S. 8
 [Mbadala ehe na, nabay oko,]
 [mbadala ɛhɛ na nə-b-aj ɔkʷɔ]
 then here PSP 1S+PFV-light-CL fire
 ‘Then, I turned on a light,’
- Snake, S. 9
 [nazala təystəlam əwla,]
 [nə-zad =ala tijstəlam =uwla]
 1S+PFV-take =to torch =1S.POSS
 ‘I took my flashlight,’

¹¹ The presupposition marker *na* aids in making a connection between two clauses, because it makes the precision that the first (*na*-marked) clause is known information. *Na* constructions have already been discussed in Section 11.1.

Snake, S. 10
 [nabay cəzlarr.]
 [nà-b-aj tsəʒarr]
 1S+PFV-light-CL IDshining the flashlight up
 ‘I shone it up tsilar.’

Two juxtaposed clauses can express a logical or chronological sequence. (66) illustrates a temporal (or logical) sequence from the Cicada fable. The two clauses are the chief’s command to bring the tree to his door. First (clause 1), the people are to bring the tree and next (clause 2), they are to place it by his door.

- (66) Cicada, S. 9
 [Kázədom anaw ala agwazla ndana ka mahay əwla aka.]
 [ká-zʊd-ɔm an=aw=ala ag^waʒa ndana ka mahaj =uwla aka]
 2P+POT-take-2P DAT=1S.IO=to spp. of tree DEM on door =1S.POSS on
 ‘You will bring that previously mentioned tree to my door for me.’
 [Káfədom anaw ka mahay əwla aka.]
 [ká-fʊd-ɔm an=aw ka mahaj =uwla aka]
 2P+POT-put-2P DAT=1S.IO on door =1S.POSS on
 ‘You will put it down by my door.’

(67) is a longer sequence from the peak of the Snake story (S. 13–18). S. 13 links to the preceding discourse with a *na*-marked clause, but there are no conjunctions or discourse particles to indicate how the clauses are linked. He takes his spear (S. 13) hears the penetration (S. 14–15),¹² and the snake falls (S. 17). S. 18 is his concluding statement (or realisation) that he had actually killed the snake.

- (67) Snake, S. 13
 [Ne mbət məmbete oko əwla na.]
 [nɛ mbət mɪ-mbət-ɛ ɔk^wɔ =uwla na]
 1S IDturn off NOM-turn off-CL light =1S.POSS PSP
 [Kaləw nazala ezlere əwla.]
 [kəluw nə-zad =ala ɛʒere =uwla]
 IDtake quickly 1S+PFV-take =to spear =1S.POSS
 ‘I turned off my light. Quickly I took my spear,’

¹² S. 16 is a narrator’s comment.

12 Clause combining

Snake, S. 14-15

[Mək ava alay.] [Mecəsle mbərab.]

[mək =ava =alaj] [mə-tʃɛɪ-ε mbərab]

1Dpenetrate =in =to NOM-penetrate-CL 1Dpenetrate

‘Penetration muk! It penetrated, mburab!’

Snake, S. 16

[Ele a Hərmbəlom, ele ga ajənw ete

[ɛɛ a Hərmbəlom ɛɛ ga à-dzən=aw ɛɛ

thing GEN God thing ADJ 3S+PFV-help=1S.IO also

‘God helped me also’

kəl kəl kə ndahan aka.]

kəl kəl kə ndahan aka]

exactly on 3S on

‘[that the spear] went exactly on him’

Snake, S. 17

[Ádəḏala vbaḏ a wəyen ava.]

[á-dəḏ =ala vaḏ a wijen ava]

3S+1FV-fall =to 1Dfalling on ground at ground on

‘and he fell on the ground vaḏ.’

Snake, S. 18

[Ne dəyday məkəḏe na aka.]

[nɛ dijdaj mɪ-kɪɖ-ɛ na =aka]

1S approximately NOM-kill-CL 3S.DO =on

‘I clubbed it to death (approximately).’

Two clauses linked by juxtaposition can also express a comparison (68 and 69). The first clause is a predicate-adjective clause (see Section 10.1.2) that expresses the attribute being compared. The second clause establishes the comparison by means of the verb *dal* ‘pass.’

(68) [Kəra malan ga,] [adal pataw.]

[kəra malaŋ ga] [a-dal pataw]

dog largeness ADJ 3S-pass cat

‘The dog is bigger than the cat.’ (lit. the dog is big, it is greater than the cat)

- (69) [Ne mædehwer ga,] [nadal nok.]
 [nɛ mœdœh^wœr ga] [na-dal nɔk^w]
 1s old person ADJ 1s-pass 2s
 'I am older than you.' (lit. I am old, I am greater than you)

Appendix A: List of verbs

This list has been adapted from Friesen & Mamalis 2008 and Starr, Boyd & Bow 2000. Verbs are listed in their 2s imperative form (citation form). The table shows syllable structure, prosody, and underlying tone for each verb from Bow's research (1997).

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
<i>baj</i>	/C -j/	L	L	'light'
<i>badaj</i>	/a-CC -j/	L	LM	'marry'
<i>balaj</i>	/CaC -j/	H	HH	'wash in general'
<i>baʒaj</i>	/a-CC -j/	L	LM	'weed, breathe'
<i>bataj</i>	/a-CaC -j/	L	LM	'evaporate'
<i>baz</i>	/a-CC/	L?	L	'harvest'
<i>bədzakaj</i>	/CCCaC -j/	L	LLM	'dig shallow'
<i>bədzəgamaj</i>	/CCCaC -j/	L	LLLM	'crawl'
<i>bərkadaj</i>	/CCCaC -j/	L	LLM	'collect, squeeze'
<i>bərwadaj</i>	/CCCaC -j/	L	LLM	'drive'
<i>bəkaj</i>	/a-CC -j ^o /	L	LM	'cultivate second time, be bald'
<i>bəlaj</i>	/a-CaC -j ^o /	L?	LM	'knead, soak'
<i>baʒ</i>	/C -j/	H	H	'hit'
<i>bax</i>	/CaC/	L	M	'sew'
<i>bal</i>	/CC/	H	H	'stir'
<i>bar</i>	/CC/	H	H	'shoot (arrow)'
<i>baraj</i>	/CaC -j/	H	HH	'restless when sick'
<i>basaj</i>	/CC -j/	toneless	LM	'put up with'
<i>bələŋ</i>	/CaCC ^e /	L?	MH	'build up to'
<i>bələŋ</i>	/CaCC ^e /	L?	LL	'count'
<i>bərʒaj</i>	/CCC -j/	toneless?	LM	'throw a fit'
<i>bəʔaj</i>	/CC -j/	toneless	LM	'cough'
<i>bərɔj</i>	/a-CaC -j ^o /	L	LM	'go up, climb'
<i>bərtsɔj</i>	/CCC -j ^o /	L	MH	'first pounding, tear to pieces'
<i>dabaj</i>	/CC -j/	toneless	LM	'follow, look for, search for'

A List of verbs

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
<i>dad</i>	/CC/	toneless	L	'fall'
<i>dafaj</i>	/a-CaC -j/	L	LM	'bump'
<i>dal</i>	/a-CC/	L	L	'go beyond, go past, overtake, pass'
<i>damaj</i>	/CC -j/		LL?	'succeed (at work)'
<i>dar</i>	/CC/	toneless	L	'recoil ; back away, push away, recoil, approach, move (house)'
<i>dar</i>	/CC/	H	H	'burn, grill, to get on someone's nerves'
<i>daraj</i>	/a-CaC -j/	L	LM	'plant, snore, bow low, pray'
<i>daɬaj</i>	/a-CaC -j/	L	LM	'castrate, sterilize'
<i>daɬaj</i>	/CaC -j/	?	LM	'join, tie, cross, intersection'
<i>dav</i>	/CC/		L	'drop, throw, lay eggs'
<i>dɛ</i>	/C ɛ/	L	L	'cook'
<i>dəbakaj</i>	/CCaC -j/	L	LLM	'relieve'
<i>dəbanaj</i>	/CCC -j/	L	LLM	'teach, learn'
<i>dəŋgɔdaj</i>	/CCC -j/	L	LLM	'lean back'
<i>dija</i>	/C / =ija		HM	'take many'
<i>dɔkʷaj</i>	/a-CaC -j ʷ /	L	LM	'arrive'
<i>ɖak</i>	/CC/	H	H?	'block up'
<i>ɖakaj</i>	/CaC -j/	L	MH	'show, tell'
<i>ɖas</i>	/CC/	L	M	'weigh, respect'
<i>ɖaɬaj</i>	/a-CaC -j/	L	MH	'reproduce, multiply'
<i>ɖaɬ</i>	/CC/	toneless	L	'spread for building'
<i>dɛ</i>	/C ɛ/	L	M	'to soak in order to soften'
<i>dəgalaj</i>	/CCaC -j/	L	LLM	'think'
<i>dʊgʷɔtsɔj</i>	/CCaC -j ʷ /	L	LLM	'stalk'
<i>dʊtsɔj</i>	/a-CaC -j ʷ /	L	LM	'squeeze, juice'
<i>dzaj</i>	/C -j/	toneless?	L?	'speak'
<i>dzakaj</i>	/CaC -j/	toneless	LM	'lean'
<i>dzapaj</i>	/CaC -j/	toneless	LM	'mix, stir'
<i>dzav</i>	/CC/	toneless	L	'plant'
<i>dzʊdɔkʷaj</i>	/CCaC -j ʷ /	L	LLM	'mash'
<i>dzʊgʷɔr</i>	/CCC ʷ /	L?	LL	'watch, care'

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
<i>dzənaj</i>	/CC -j/	L?	LL	'help'
<i>dzəh^wɔj</i>	/a-CaC -j ^o /	L	LM	'save, economise'
<i>dzək^wɔj</i>	/a-CC -j ^o /	L	LM	'pack down'
<i>dzərɔɔj</i>	/CCC -j ^o /	toneless?	LM	'wash clothes'
<i>fad</i>	/CC/	L	M	'put, down'
<i>fadaɔj</i>	/CaC -j/	H	HH	'fold, create'
<i>fakaj</i>	/CaC -j/	L	MH	'uproot, knock down tree'
<i>far</i>	/CC/	H	H	'scratch'
<i>fat</i>	/CC/	L	M	'grow, sprout'
<i>fataj</i>	/CaC -j/	L	MH	'lower, go down, land'
<i>fɛ</i>	/C -j ^e /	L	M	'blow in an instrument, play an instrument'
<i>fətadaɔj</i>	/CCCaC -j/	L	MMH	'sharpen to a point'
<i>fək^wɔj</i>	/a-CaC -j ^o /	L	MH	'whistle with your lips'
<i>gabaj</i>	/a-CC -j/	L	LM	'constipate'
<i>gar</i>	/CC/	H	H	'grow up'
<i>garaj</i>	/CaC -j/	toneless	LM	'own, measure, order'
<i>garaj</i>	/a-CC -j/	L	LM	'frighten, tremble'
<i>gas</i>	/CC/	toneless	L	'take hold of, catch, accept, stop, accept, obey'
<i>gazaj</i>	/a-CaC -j/	L	LM	'nod'
<i>gɛ</i>	/C -j ^e /	H	H	'make, do'
<i>gəɖəgalaj</i>	/CCCaC -j/	L	LLLM	'get fat'
<i>gəɖəgaraj</i>	/CCCaC -j/	L	LLLM	'granulate, weave'
<i>gəɖzax</i>	/CCCaC/	L?	LL	'pull'
<i>gəɖzakaj</i>	/CCCaC -j/	L	LLM	'hang'
<i>gəɖzar</i>	/CCCaC/	L?	MM	'take or steal by force'
<i>gəzamaɔj</i>	/CCCaC -j/	L	LLM	'lose weight'
<i>g^wɔɖək^wɔj</i>	/CCCaC -j ^o /	L	LLM	'bend over'
<i>g^wɔtsɔj</i>	/CC -j ^o /	toneless	LM	'throw, sow'
<i>g^wɔh^wɔj</i>	/a-CaC -j ^o /	L	LM	'brush'
<i>g^wɔlɔj</i>	/a-CaC -j ^o /	L	LM	'to silence'
<i>g^wɔrɔj</i>	/a-CaC -j ^o /	L	LM	'strip leaves from stalk'

A List of verbs

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
<i>g^wɔrtsɔj</i>	/CCC -j ^o /	toneless?	LM	‘sniff, slurp’
<i>g^wɔrvɔj</i>	/a-CC -j ^o /	L	LM	‘rot meat or skin to flavour food’
<i>g^wɔzɔj</i>	/a-CC -j ^o /	L	LM	‘tan’
<i>haj</i>	/C -j/	H	H	‘say’
<i>hab</i>	/CC/	L	M	‘break’
<i>habaj</i>	/CaC -j/	toneless	LM	‘dance’
<i>hakaj</i>	/CaC -j/	L	MH	‘push’
<i>halaj</i>	/CaC -j/	H	HH	‘gather, organise’
<i>hamaj</i>	/CaC -j/	H	HH	‘pay certain debt’
<i>həmaj</i>	/CC -j/	toneless	LM	‘run’
<i>har</i>	/CaC/	toneless	L	‘make, build’
<i>har</i>	/CaC/	L	M	‘carry, move’
<i>hərkaj</i>	/CCC -j/	toneless?	LM	‘beg’
<i>haɬ</i>	/CC/	L	M	‘swell, blow up, abcess, boil’
<i>haja</i>	/C/ =aja	?	HM	‘crush, grind with stone’
<i>hədzəgəɖaj</i>	/CCCaC -j/	L?	MMMh	‘limp’
<i>həraɖ</i>	/CCC/		MM	‘jump, pull out’
<i>h^wɔrvɔj</i>	/CCC -j ^o /	toneless?	LM	‘dissolve’
<i>h^wɔgɔj</i>	/a-CC -j ^o /	L	LM	‘rot’
<i>ɖaɖaj</i>	/CaC -j/	L	MH	‘tire’
<i>ɖamaj</i>	/CaC -j/	H	HH	‘spin’
<i>kaɖaj</i>	/a-CaC -j/	L	MH	‘cook/stir quickly next to fire’
<i>kaɖ</i>	/CC/	L	M	‘kill, beat’
<i>kaɖaj</i>	/a-CaC -j/	L	MH	‘prune, close eyes of dead’
<i>kapaj</i>	/CaC -j/	L	MH	‘roughcast (plaster)’
<i>karaj</i>	/CaC -j/	H	HH	‘steal’
<i>kaɬ</i>	/CC/	L	M	‘wait, watch’
<i>kəɖətsaj</i>	/CCC -j/	L	MMh	‘snap’
<i>kəɖətsaj</i>	/CCC -j/	L	MMh	‘blink quickly’
<i>kətsawaj</i>	/CCaC -j/	L	LLM	‘trap, seize’
<i>kərdawaj</i>	/CCCaC -j/	L	LLM	‘scrape’
<i>kərdaj</i>	/CCC -j/	L	MH	‘chew’
<i>kərkaj</i>	/CCC -j/	L	MH	‘kneel’
<i>kərwaj</i>	/CCC -j/	toneless?	LM	‘cultivate second time’

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
<i>kətaj</i>	/CC -j/	toneless	LM	‘punish’
<i>kuwaj</i>	/a-CC -j/	L	LM	‘search’
<i>kuwaj</i>	/CC -j/	?	MH?	‘inebriate’
<i>kʷɛmbɔhʷɔj</i>	/CCC -j ^o /	L	LLM’	‘wrap’
<i>kʷɔɔj</i>	/a-CaC -j ^o /	L	MH	‘dry’
<i>kʷɔɔj</i>	/a-CaC -j ^o /	L	LM	‘put’
<i>kʷɔɔsɔj</i>	/CCC -j ^o /	L	MH	‘sweep’
<i>kʷɔɔtɔj</i>	/CCC -j ^o /	toneless?	LM	‘undress, peel’
<i>kʷɔɔɔj</i>	/a-CC -j ^o /	L	LM	‘mount’
<i>laj</i>	/C -j/	L	M	‘dig’
<i>lagaj</i>	/CaC -j/	toneless	LM	‘accompany’
<i>lamaj</i>	/CaC -j/	H	HH	‘touch’
<i>lawaj</i>	/CaC -j/	L	MH	‘hang’
<i>lawaj</i>	/a-CaC -j/	L	MH	‘mate’
<i>lɔ</i>	/Ca ^o /	H	H	‘go’
<i>ɬaj</i>	/C -j/	L	M	‘hunt, slit throat’
<i>ɬahaj</i>	/CaC -j/	H	HH	‘mix grain and ashes to prevent insects from eating seeds’
<i>ɬapaj</i>	/a-CaC -j/	L	MH	‘plait’
<i>ɬar</i>	/CC/	H	H	‘send’
<i>ɬaraj</i>	/a-CaC -j/	L	MH	‘slip, slide’
<i>ɬəbataj</i>	/CCaC -j/	L	MMH	‘fix, repair’
<i>ɬəhʷɔj</i>	/a-CaC -j ^o /	L	MH	‘leave in secret, go shamefully’
<i>ɬəhʷɔj</i>	/a-CaC -j ^o /	L	MH	‘take leaves off stalk’
<i>ʒabaj</i>	/CaC -j/	toneless	LM	‘pound, beat, help up (boost), shelf’
<i>ʒax</i>	/CaC/	toneless	L	‘cry (dog, cock)’
<i>ʒəkaj</i>	/a-CC -j/	L	LM	‘suffer, pain, sorrow’
<i>ʒaŋ</i>	/CC/	L	L	‘start, beginning’
<i>ʒapaj</i>	/CaC -j/	toneless	LM	‘discuss’
<i>ʒar</i>	/CC/	H	H	‘pierce, inject’
<i>ʒar</i>	/a-CC/	L	L	‘kick’
<i>ʒavaj</i>	/a-CaC -j/	L	LM	‘swim’
<i>ʒawaj</i>	/CaC -j/	toneless	LM	‘fear’
<i>ʒɪɛ</i>	/CC -j ^e /	L?	LL	‘throw, sow’
<i>ʒərav</i>	/CCC/	L?	LL	‘go out, appear’
<i>ʒəkʷɔj</i>	/a-CaC -j ^o /	L	LM	‘gnaw’
<i>ʒəkʷɔj</i>	/a-CaC -j ^o /	L	LM	‘squeeze out’

A List of verbs

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
<i>makaj</i>	/CaC -j/	L	MH	'stop, let go, shut up'
<i>malaj</i>	/CaC -j/	L	MH	'leave'
<i>məlaɟ</i>	/a-CC -j/	L	LM	'enjoy, to be happy, happiness'
<i>mərtsaj</i>	/CCC -j/	L	MH	'put horizontally, horizontal'
<i>mat</i>	/CC/	L	M	'die'
<i>məndatsaj</i>	/CCaC -j/	L	LLM	'gather'
<i>mənzar</i>	/CCaC/		LL	'see, resemble'
<i>mbad</i>	/CC/	toneless	L	'transform, turn, change, become'
<i>mbadaɟ</i>	/CaC -j/	H	HH	'swear, jump'
<i>mbahaj</i>	/CaC -j/	toneless	LM	'call'
<i>mbar</i>	/CC/	H	H	'heal, care for'
<i>mbasaj</i>	/a-CaC -j/	L	LM	'smile, laugh'
<i>mbaɟ</i>	/CC/	toneless	L	'destroy'
<i>mbɛ</i>	/C -j ^ə /	L	M	'argue, scold'
<i>mbɛfɛŋ</i>	/CaCC ^ə /	?	HM	'rest, breathe, live, last'
<i>mbɛtɛŋ</i>	/CaCC ^ə /	?	HM	'put out, extinguish'
<i>mbəramaj</i>	/CCC -j/	toneless?	LM	'blink slowly, break violently'
<i>mbərɟaj</i>	/CCC -j/	toneless?	LM	'pass'
<i>mbərwaj</i>	/CCC -j/	toneless?	LM	'destroy violently'
<i>mbɪɟɛŋ</i>	/CCC ^ə /		LL	'spoil'
<i>mbɔtsɔɟ</i>	/a-CaC -j ^ə /	L	LM	'beat lightly'
<i>mbɔldɔɟ</i>	/CCC -j ^ə /	toneless?	LM	'skin, peel'
<i>mbɔmɔɟ</i>	/a-CaC -j ^ə /	L	LM	'gather with a stick'
<i>mbɔrtsɔɟ</i>	/CCC -j ^ə /	toneless?	LM	'untie'
<i>nax</i>	/CaC/	L	M	'ripen, mature'
<i>ndaja</i>	/C / =aja	?	?	'in progress'
<i>ndadaɟ</i>	/CaC -j/	toneless	LM	'like, want'
<i>ndahaj</i>	/CaC -j/	toneless	LN	'reprimand, scold'
<i>ndar</i>	/CC/	H	H	'weave'
<i>ndavaj</i>	/CaC -j/	H	HH	'finish'
<i>ndawaj</i>	/CaC -j/	toneless	LM	'swallow'
<i>ndawaj</i>	/a-CaC -j/	L	LM	'insult, hurt'
<i>ndaz</i>	/CC/	toneless	L	'pierce'
<i>ndəraj</i>	/CC -j/		LL	'stay, leave'
<i>ndɛtɛŋ</i>	/CaCC ^ə /	?	HM	'make cold, cold'

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
<i>ndəlkadaɟ</i>	/CCCaC -j/	L	LLM	'lick'
<i>ndɔrdɔɟ</i>	/CCC -j ^o /	L	MH	'stretch'
<i>ndɔkɔɟ</i>	/CaC -j ^o /	H	HH	'explode'
<i>nzahaj</i>	/a-CaC -j/	L	LM	'roast'
<i>nzakaj</i>	/CaC -j/	H	HH	'find, receive, succeed, hope'
<i>nzaraj</i>	/a-CaC -j/	L	MH	'comb, separate'
<i>ndʒɛ</i>	/C-j ^e /	H	H	'suffice, leave'
<i>ndʒɛ</i>	/C -j ^e /	L	L	'sit, stay, live, attain, seated'
<i>ndʒɛrɛŋ</i>	/CaCC ^e /	?	HM	'groan, push baby in delivery'
<i>ŋgaj</i>	/C -j/	L	L	'to work with wood or grasses to make something'
<i>ŋgəɖaj</i>	/a-CC -j/	L	LM	'burn'
<i>ŋgax</i>	/CaC/	toneless	L	'hide, cover, protect'
<i>ŋgal</i>	/CaC/	toneless	L	'return'
<i>ŋgəɭaj</i>	/CC -j/	H	HH ¹	'defend'
<i>ŋgar</i>	/CC/	H	H	'prevent'
<i>ŋgaraj</i>	/a-CaC -j/	L	LM	'tear'
<i>ŋgərɕaj</i>	/CCC -j/	toneless?	LM	'to be in conflict'
<i>ŋgaɕaj</i>	/CaC -j/	toneless	LM	'show, introduce'
<i>ŋgaz</i>	/CC/	toneless	L	'flow, leak'
<i>ŋgəɖatsaj</i>	/CCaC -j/	L	MMH	'butt with horns'
<i>ŋgərdasaj</i>	/CCCaC -j/	L	LLM	'wrinkle the skin'
<i>ŋgərɔwaj</i>	/CCC -j ^o /	toneless?	LM	'break, tear away'
<i>ŋg^wəɖataɟ</i>	/CCaC -j ^o /	L	LLM	'simmer'
<i>paj</i>	/C -j/	L	M	'open'
<i>pətsaj</i>	/CC -j/	L	MH	'bring'
<i>paɖaj</i>	/a-CaC -j/	L	MH	'bite, chew'
<i>pahaj</i>	/a-CaC -j/	L	MH	'speak badly of someone for one's own interest'
<i>palaj</i>	/CaC -j/	H	HH	'choose'
<i>pəɭɖaj</i>	/CCC -j/	L	MH	'shell'
<i>pəɭtaɟ</i>	/CCC -j/	L	MH	'split in half'
<i>pamaj</i>	/a-CaC -j/	L	MH	'fan'
<i>par</i>	/CC/	H	H	'pay'

¹ the only non CaC/-aj HH verb

A List of verbs

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
<i>pəraj</i>	/a-CC -j/	L	LM	'spray'
<i>pərtaj</i>	/CCC -j/	L	MH	'remove forcibly'
<i>pasaj</i>	/a-CaC -j/	L	MH	'take away'
<i>paɬ</i>	/CC/	L	M	'break'
<i>paʒaj</i>	/a-CaC -j/	L	LM	'decimate, kill many'
<i>pataj</i>	/CaC -j/	L	MH	'wipe, rub'
<i>pətsahaj</i>	/CCaC -j/	L	MMH	'remove insides'
<i>pəɖakaj</i>	/CCaC -j/	L	MMH	'wake'
<i>pəɖakaj</i>	/CCaC -j/	L	LLM	'chop'
<i>pəsakaj</i>	/CCaC -j/	L	MMH	'detach'
<i>pətsəj</i>	/CaC -j ^o /			'wear something small (small article of clothing of leather)'
<i>pəɭəj</i>	/a-CaC -j ^o /	L	LM	'scatter'
<i>rəbəj</i>	/CC -j/	L	MH	'be beautiful'
<i>rax</i>	/CC/	H?	H?	'fill up'
<i>rax</i>	/CC/	L?	M?	'pluck'
<i>rətsəj</i>	/CC -j ^o /	L	MH	'block up'
<i>səbəj</i>	/CaC -j/	L	MH	'exceed'
<i>səhaj</i>	/a-CaC -j/	L	MH	'slander'
<i>sak</i>	/CC/	H	H?	'multiply'
<i>sakaj</i>	/a-CaC -j/	L	MH	'sift'
<i>səɖəj</i>	/CCC -j/	toneless?	LM	'cross ankles'
<i>sar</i>	/CC/	H	H	'know'
<i>sərkaj</i>	/CCC -j/	L	MH	'get used to'
<i>səbataj</i>	/CCaC -j/	L	MMH	'trick, tempt'
<i>sədaraj</i>	/CCaC -j/	L	LLM	'misbehave'
<i>sija</i>	/C/ =aja	?	HM	'cut'
<i>səɖəj</i>	/a-CaC -j ^o /	L	MH	'suck'
<i>sək^wəj</i>	/a-CaC -j ^o /	L	MH	'whisper'
<i>səɾəj</i>	/CaC -j ^o /	toneless	LM	'slide'
<i>sək^wəm</i>	/CCC ^o /	L?	MH	'buy, sell, pay'
<i>səɭəj</i>	/a-CC -j ^o /	L	MH	'cook on fire'
<i>fɛ</i>	/C -j ^e /	L	M	'drink'
<i>tatsaj</i>	/CaC -j/	L	MH	'close'
<i>tad</i>	/CC/	L	M	'fall'
<i>taf</i>	/CC/	L	M	'spit'
<i>tax</i>	/CaC/	toneless	L	'pile'
<i>tax</i>	/CaC/	L	M	'reach out'

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
<i>tahaj</i>	/CaC -j/	L	MH	'boost'
<i>talaj</i>	/CaC -j/	H	HH	'take a walk'
<i>tam</i>	/CC/	H	H	'save'
<i>tapaj</i>	/CaC -j/	L	MH	'stick'
<i>tar</i>	/CC/	H	H	'enter'
<i>taraj</i>	/CaC -j/	L	MH	'call'
<i>tərdaj</i>	/CCC -j/	L	MH	'tie off'
<i>taɬaj</i>	/a-CaC -j/	L	MH	'curse'
<i>təkam</i>	/CCaC/	L?	MH	'taste'
<i>təkaraj</i>	/CCaC -j/	L?	MH	'try, invite'
<i>təkasaj</i>	/CCaC -j/	L	LLM	'cross'
<i>tək^wɔsɔj</i>	/CCaC -j ^o /	L	MMH	'fold (legs)'
<i>təlbawaj</i>	/CCCaC -j/	L	LLM	'be sticky'
<i>təlɔk^wɔj</i>	/CCaC -j ^o /	L	LLM	'drip'
<i>təmbadaj</i>	/CCaC -j/	L	LLM	'twist'
<i>təmbalaj</i>	/CCaC -j/	L	LLM	'shake out stones'
<i>təvalaj</i>	/CCaC -j/	L	LLM	'hunt'
<i>tuwadaj</i>	/CCaC -j/	L	LLM	'cross'
<i>tuwe</i>	/CC -j ^e /	L	MH	'cry'
<i>təɖɔj</i>	/CC -j ^o /	L	MH	'wind, roll'
<i>təh^wɔj</i>	/a-CaC -j ^o /	L	MH	'trace'
<i>tək^wɔj</i>	/a-CaC -j ^o /	L	MH	'tap'
<i>tɔsɔj</i>	/a-CaC -j ^o /	L	MH	'bud, uproot'
<i>tsabaj</i>	/a-CaC -j/	L	MH	'skewer'
<i>tsadaj</i>	/a-CaC -j/	L	MH	'smooth'
<i>tsadaj</i>	/CC -j/	L	MH	'clear'
<i>tsadaj</i>	/a-CC -j/	L	LM	'castrate'
<i>tsahaj</i>	/CaC -j/	L	M	'get water'
<i>tsahaj</i>	/CaC -j/	H	HH	'ask'
<i>tsahaj</i>	/a-CaC -j/	L	MH	'scar'
<i>tsapaj</i>	/CaC -j/	L	MH	'drape, double'
<i>tsar</i>	/CC/	H	H	'climb'
<i>tsar</i>	/CaC/	L	M	'taste good'
<i>tsaraj</i>	/CaC -j/	H	HH	'tear up'
<i>tsarɣaj</i>	/CCC -j/	toneless?	LM	'fold (legs)'
<i>tsaɣaj</i>	/a-CaC -j/	L	MH	'pierce, cut'
<i>tsaɣaj</i>	/CaC -j/	toneless	LM	'have a headache'
<i>tsɔɖɔkaj</i>	/CCaC -j ^o /	L	MMH	'crouch, squat'
<i>tsəfadaj</i>	/CCC -j/	L	MMH	'ask'
<i>tsəkafaj</i>	/CCaC -j/	L	MMH	'get up'

A List of verbs

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
<i>tsəkalaj</i>	/CCaC -j/	L	MMH	‘assemble, unite’
<i>tsəkaʔaj</i>	/CCC -j/	L	LLM	‘forget’
<i>tsʊlək^waj</i>	/CCC -j ^o /	toneless?	LM	‘peel’
<i>tsəʔahaj</i>	/CCaC -j/	L	LLM	‘cut, chop’
<i>tsək^waj</i>	/CaC -j ^o /	L	MH	‘undress’
<i>tʃɛ</i>	/C -j ^e /	H	H	‘be small’
<i>tʃɛʃɛ</i>	/CaC -j ^e /	L?	MH	‘betray’
<i>tʃɛŋ</i>	/CC ^e /	H	H	‘understand’
<i>tʃidʒɛŋ</i>	/CCC ^e /		LL	‘lose , get lost’
<i>tʃike</i>	/CC -j ^e /	L	MH	‘stand up, standing’
<i>vaj</i>	/C -j/	L	L?	‘winnow’
<i>vahaj</i>	/a-CaC -j/	L	LM	‘fly’
<i>vakaj</i>	/a-CaC -j/	L	LM	‘burn, grill’
<i>vər</i>	/CC /	L?	L	‘give’
<i>vələj</i>	/CC -j/	H?	HH	‘boil’
<i>var</i>	/a-CC/	L	L	‘build roof’
<i>varaj</i>	/a-CaC -j/	L	LM	‘chase out’
<i>vərdaj</i>	/CCC -j/	toneless?	LM	‘boil’
<i>vasaj</i>	/a-CaC -j/	L	LM	‘wipe out, cancel’
<i>vawaj</i>	/CaC -j/	toneless	LM	‘twist, hang, twisted, lunacy, madness’
<i>vɛ</i>	/C -j ^e /	L	L	‘spend time, year’
<i>vənahaj</i>	/CCaC -j/	L	LLM	‘vomit’
<i>watsaj</i>	/CaC -j/	H	HH	‘write’
<i>wadaj</i>	/a-CaC -j/	L	MH	‘spread out’
<i>wahaj</i>	/a-CaC -j/	L	MH	‘waste’
<i>wal</i>	/CC/	H	H	‘attach, tie’
<i>wələj</i>	/CaC -j/	H	HH	‘dismantle’
<i>waraj</i>	/CaC -j/	H	HH	‘to take upon one-self’
<i>was</i>	/CC/	L	M	‘cultivate, weed, shave’
<i>wasaj</i>	/CaC -j/	H	HH	‘populate’
<i>waɫ</i>	/CC/	L	M	‘is forbidden’
<i>waɫaj</i>	/CaC -j/	H	HH	‘melt, liquidize’
<i>waʒaj</i>	/a-CaC -j/	L	LM	‘shine’
<i>wazaj</i>	/a-CaC -j/	L	LM	‘shake, shine light around’
<i>wɛ</i>	/C -j ^e /	L	M	‘give birth, be born’
<i>wurkaj</i>	/CCC -j/	L	MH	‘pay’

zs Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
<i>wutsadaɟ</i>	/CCaC -j/	L	MMH	‘shine’
<i>wudakaɟ</i>	/CCaC -j/	L	MMH	‘share, divide’
<i>wudɔɟ</i>	/CC -j ^o /	L	MH	‘populate’
<i>wuldɔɟ</i>	/CCC -j ^o /	toneless?	LM	‘devour’
<i>wuɟaɟ</i>	/CC -j/	toneless	LM	‘publish, announce’
<i>zaɗ</i>	/CC/	L	L	‘take, carry’
<i>zaraɟ</i>	/CaC -j/	H	HH	‘linger’
<i>zəɗaɟ</i>	/CCC -j/	toneless?	LM	‘watch intently’
<i>zəmbadaɟ</i>	/CCaC -j/	L	LLM	‘glorify’
<i>zək^waɟ</i>	/CaC -j ^o /	toneless	LM	‘try’
<i>zɔm</i>	/CC ^o /	H	H	‘eat’
<i>zʊɾɔɟ</i>	/a-CC -j ^o /	L	LM	‘notice, inspect’
<i>ʒɛ</i>	/C -j ^e /	H	H	‘smell, stink’

Appendix B: Verb paradigms

Table B.1: *zɔm* ‘eat’ (high tone)

Nominalised Form		Dependent Form		Imperative	
<i>mI-zɔm-ɛ</i>		<i>ámI-zɔm-ɛ</i>		2S	<i>zɔ́m</i>
				1PIN	<i>zɔ́m-ɔ́k^w</i>
				2P	<i>zɔ́m-ɔ́m</i>
	Perfective	Imperfective	Potential	Hortatory	Possible
1S	<i>nɔ̌-zɔ́m</i>	<i>nɔ́-zɔ́m</i>	<i>nɔ́ɔ́-zɔ́m</i>	<i>nɔ̌ɔ̌-zɔ́m</i>	<i>nɔ́ɔ̌-zɔ́m</i>
2S	<i>kɔ̌-zɔ́m</i>	<i>kɔ́-zɔ́m</i>	<i>kɔ́ɔ́-zɔ́m</i>	<i>kɔ̌ɔ̌-zɔ́m</i>	<i>kɔ́ɔ̌-zɔ́m</i>
3S	<i>ɔ̌-zɔ́m</i>	<i>ɔ́-zɔ́m</i>	<i>ɔ́ɔ́-zɔ́m</i>	<i>mɔ̌ɔ̌-zɔ́m</i>	<i>ɔ́ɔ̌-zɔ́m</i>
1PIN	<i>mɔ̌-zɔ́m-ɔ́k^w</i>	<i>mɔ́-zɔ́m-ɔ́k^w</i>	<i>mɔ́-zɔ́m-ɔ́k^w</i>	<i>mɔ̌-zɔ́m-ɔ́k^w</i>	<i>mɔ́ɔ̌-zɔ́m-ɔ́k^w</i>
1PEX	<i>nɔ̌-zɔ́m-ɔ́m</i>	<i>nɔ́-zɔ́m-ɔ́m</i>	<i>nɔ́-zɔ́m-ɔ́m</i>	<i>nɔ̌-zɔ́m-ɔ́m</i>	<i>nɔ́ɔ̌-zɔ́m-ɔ́m</i>
2P	<i>kɔ̌-zɔ́m-ɔ́m</i>	<i>kɔ́-zɔ́m-ɔ́m</i>	<i>kɔ́-zɔ́m-ɔ́m</i>	<i>kɔ̌-zɔ́m-ɔ́m</i>	<i>kɔ́ɔ̌-zɔ́m-ɔ́m</i>
3P	<i>tɔ̌-zɔ́m</i>	<i>tɔ́-zɔ́m</i>	<i>tɔ́ɔ́-zɔ́m</i>	<i>tɔ̌ɔ̌-zɔ́m</i>	<i>tɔ́ɔ̌-zɔ́m</i>

Table B.2: *fɛ* ‘drink’ (Low tone)

Nominalised Form	Dependent Form					Imperative
<i>mī-f-ījɛ</i>	<i>ámī-f-ījɛ</i>					2S <i>fɛ</i> 1PEX <i>sɔk^w</i> 2P <i>sɔm</i>
	Perfective	Imperfective	Potential	Hortatory	Possible	
1S	<i>nɛ-fɛ</i>	<i>nɛ-fɛ</i>	<i>nɛɛ-fɛ</i>	<i>nɛɛ-fɛ</i>	<i>nɛɛ-fɛ</i>	
2S	<i>kɛ-fɛ</i>	<i>kɛ-fɛ</i>	<i>kɛɛ-fɛ</i>	<i>kɛɛ-fɛ</i>	<i>kɛɛ-fɛ</i>	
3S	<i>ɛ-fɛ</i>	<i>ɛ-fɛ</i>	<i>ɛɛ-fɛ</i>	<i>mɛ-fɛ</i>	<i>ɛɛ-fɛ</i>	
1PIN	<i>mɔ-s-ɔk^w</i>	<i>mɔ-s-ɔk^w</i>	<i>mɔɔ-s-ɔk^w</i>	<i>mɔ-s-ɔk^w</i>	<i>mɔɔ-s-ɔk^w</i>	
1PEX	<i>nɔ-s-ɔm</i>	<i>nɔ-s-ɔm</i>	<i>nɔɔ-s-ɔm</i>	<i>nɔ-s-ɔm</i>	<i>nɔɔ-s-ɔm</i>	
2P	<i>kɔ-s-ɔm</i>	<i>kɔ-s-ɔm</i>	<i>kɔɔ-s-ɔm</i>	<i>kɔ-s-ɔm</i>	<i>kɔɔ-s-ɔm</i>	
3P	<i>tɛ-fɛ</i>	<i>tɛ-fɛ</i>	<i>tɛɛ-fɛ</i>	<i>ɛɛ-fɛ</i>	<i>tɛɛ-fɛ</i>	

Table B.3: *həmaj* ‘run’ (toneless)

Nominalised Form	Dependent Form					Imperative
<i>mīhīmɛ</i>	<i>ámīhīmɛ</i>					2S <i>həmāj</i> 1PEX <i>hɔmɔk^w</i> 2P <i>hɔmɔm</i>
	Perfective	Imperfective	Potential	Hortatory	Possible	
1S	<i>nə-həm-āj</i>	<i>ná-hám-āj</i>	<i>náá-hám-āj</i>	<i>nàà-həm-āj</i>	<i>náá-həm-āj</i>	
2S	<i>kə-həm-āj</i>	<i>ká-hám-āj</i>	<i>káá-hám-āj</i>	<i>kàà-həm-āj</i>	<i>káá-həm-āj</i>	
3S	<i>à-həm-āj</i>	<i>á-hám-āj</i>	<i>áá-hám-āj</i>	<i>màà-həm-āj</i>	<i>áá-həm-āj</i>	
1PIN	<i>mɔ-hɔm-ɔk^w</i>	<i>mɔ-hɔm-ɔk^w</i>	<i>mɔ-hɔm-ɔk^w</i>	<i>mɔ-həm-ɔk^w</i>	<i>mɔɔ-həm-ɔk^w</i>	
1PEX	<i>nɔ-hɔm-ɔm</i>	<i>nɔ-hɔm-ɔm</i>	<i>nɔ-hɔm-ɔm</i>	<i>nə-həm-ɔm</i>	<i>nɔɔ-həm-ɔm</i>	
2P	<i>kɔ-hɔm-ɔm</i>	<i>kɔ-hɔm-ɔm</i>	<i>kɔ-hám-ɔm</i>	<i>kə-həm-ɔm</i>	<i>kɔɔ-həm-ɔm</i>	
3P	<i>tə-həm-āj</i>	<i>tá-hám-āj</i>	<i>táá-hám-āj</i>	<i>tàà-həm-āj</i>	<i>táá-həm-āj</i>	

Table B.4: *lɔ* ‘go’ (Low tone Irregular)

Nominalised Form		Dependent Form		Imperative	
<i>mí-l-íjɛ</i>		<i>ámí-l-íjɛ</i>		2S	<i>lɔ</i>
				1PIN	<i>tɔk^wɔ</i>
				2P	<i>lɔh^wɔm</i>
	Perfective	Imperfective	Potential	Hortatory	Possible
1S	<i>nɔ-lɔ</i>	<i>nɔ-lɔ</i>	<i>nɔɔ-lɔ</i>	<i>nɔɔ-lɔ</i>	<i>nɔɔ-lɔ</i>
2S	<i>kɔ-lɔ</i>	<i>kɔ-lɔ</i>	<i>kɔɔ-lɔ</i>	<i>kɔɔ-lɔ</i>	<i>kɔɔ-lɔ</i>
3S	<i>ɔ-lɔ</i>	<i>ɔ-lɔ</i>	<i>ɔɔ-lɔ</i>	<i>mɔɔ-lɔ</i>	<i>ɔɔ-lɔ</i>
1PIN	<i>mɔ-tɔ-k^wɔ</i>	<i>mɔ-tɔ-k^wɔ</i>	<i>mɔɔ-tɔ-k^wɔ</i>	<i>mɔɔ-tɔ-k^wɔ</i>	<i>mɔɔ-tɔk^wɔ</i>
1PEX	<i>nɔ-lɔ-hɔm</i>	<i>nɔ-lɔh^w-ɔm</i>	<i>nɔɔ-lɔh^w-ɔm</i>	<i>nɔɔ-lɔ-hɔm</i>	<i>nɔɔ-lɔ-hɔm</i>
2P	<i>kɔ-lɔ-hɔm</i>	<i>kɔ-lɔh^w-ɔm</i>	<i>kɔɔ-lɔh^w-ɔm</i>	<i>kɔɔ-lɔ-hɔm</i>	<i>kɔɔ-lɔ-hɔm</i>
3P	<i>tɔ-lɔ</i>	<i>tɔ-lɔ</i>	<i>tɔɔ-lɔ</i>	<i>tɔɔ-lɔ</i>	<i>tɔɔ-lɔ</i>

Appendix C: Moloko-English Lexicon

A - a

a- vpx. 3*s* subject.

a adp. *at, to*.

a...ava adp. *in*.

aba ext. *there is*.

abalak n. *hangar to give shade in front of a house*.

Aban n.pr. *name of child following twins*. Cf.: **Masay**, **Aləwa**.

abangay n. *large bright star; planet Venus*.

abangay dedew n. *star of the morning*.

abangay aləho n. *star of the night*.

abay ext. *there is not*.

abəlgamay ID. n. *the way a sick person walks*.

afalan n. *goat horn*.

afəsay n. *blemish*.

adama n. *adultery*.

adamay n. *spouse's sibling*.

adangay n. *stick*.

adan bay adv. *perhaps*.

afa adp. *at the house of*.

agaban n. *sesame seeds/plant*.

agwazla n. *special tree for chief's house*.

agwazlak n. *rooster*.

agwəjer n. *grass*.

ahakay adv. *here*.

ahan nclitic. 3*s* possessive.

ahar n. *hand*.

baba ahar n. *thumb*.

war ahar n. *finger*.

bəbəza ahar ahay n. *fingers*.

ahay nclitic. *plural*.

aka vclitic. *on (top of)*.

akar n. *theft*.

ala vclitic. *towards*.

alahar n. *weapon, bracelet*.

alay vclitic. *away*.

albaya n. *young man*.

almamar n. *dry season*.

aloko nclitic. 1*PIN* possessive.

aloko vclitic. 1*PIN* indirect object.

aləkwəye nclitic. 2*P* possessive.

aləkwəye vclitic. 2*P* indirect object.

aləme nclitic. 1*PEX* possessive.

aləme vclitic. 1*PEX* indirect object.

Aləwa n.pr. *name of the second twin*.

Cf.: **Masay**.

almay pn. *what*.

- amar** n. *oil*.
amata n. *outside*.
ambay n. *manioc*.
ambəlak n. *cut, sore*.
amtamay pn. *where*.
an vclitic. *3s indirect object*.
ana adp. *to*.
andakay interj. *what's his/her name*.
andəbaba n. *duck*.
andəra n. *peanut*.
anga adp. *possessive*.
ango nclitic. *2s possessive*.
angolay v. *take courage*.
angwərzla n. *sparrow*.
anjakar n. *chicken*.
apazan adv. *yesterday*.
asa conj. *if*.
asabay adv. *never again*.
asak n. *foot, leg*.
asara n. *Westerner*.
asəbo adv. *below*.
aslar n. *tooth*.
ata vclitic. *3p indirect object*.
ata nclitic. *3p possessive*.
atəko n. *okra*.
ava n. *arrow*.
ava vclitic. *in*.
ava adp. *in*.
ava ext. *there is (in a place)*.
avar n. *rain*.
avəlo adv. *above*.
avəya n. *suffering*.
-aw vclitic. *1s indirect object*.
awak n. *goat*.
awəy v. *saying*.
ayah n. *squirrel*.
ayaw adv. *yes*.
ayokon adv. *agreed*.
ayva n. *inside house*.
azana adv. *perhaps*.
azan n. *temptation, trap*.
azay n. *excrement, faeces*.
azay andəra n. *deep-fried pastry made from peanuts after the oil is removed*.
azəbat n. *a dish made of bean leaves*.
azlam n. *vulture*.
azla adv. *now*.
azla na conj. *but*.

B - b

- baba** n. *father*.
babək ID. *idea of burying*.
babəza n. *children*.
baɖay v. *marry*.
bah v. *pour*.
bahay n. *chief*.
bakaka ID. *spicy hot taste*.
bal v. *move*.
balon n. *soccer ball/soccer*.
balay v. *wash*.
bamba n. *story*.
barka n. *blessing (from Fulfuldé)*.
baskwar n. *bicycle*.
batay v. *evaporate*.
bay NEG. *not*.
bay v. *light*.

baya n. *one time, occasion.*
baybojo n. *lizard.*
baz v. *harvest.*
bazlay v. *breathe.*
beke n. *slave.*
bəfa ID. *idea of being close.*
bəjakay v. *dig shallow.*
bəjəgamay v. *crawl.*
bəlay n. *sea.*
bəlen num. *one.*
bərkaday v. *collect, squeeze.*

bərwaday v. *drive.*
bəway n. *baboon.*
bəwce n. *mat.*
bəwdfere ID. *idea of foolishness.*
bəyaw n. *next year.*
bəyna conj. *because.*
bokay v. *cultivate a second time;*
be bald.
bolay v. *knead, soak.*
botot ID. *idea of flying away.*
bozlom n. *cheek.*

B - b

bəh v. *sew.*
bəl v. *stir.*
bəlay v. *build.*
bəar v. *shoot an arrow.*
bəaray v. *toss and turn while sick.*
bəasay v. *tolerate.*
bəvb ID. *sound/idea of something falling.*
bəvbaw ID. *sound or idea of men running.*
bəy v. *hit.*
bəlen v. *build up to.*

bəzlen v. *count.*
bəl ID. *some.*
bəra n. *granary.*
bərav n. *heart, self.*
bərketem bərketem ID. *idea/sound of race.*
bərzlan n. *mountain.*
bərzlay v. *throw a fit.*
bəslay v. *cough.*
bəray v. *climb.*
bərcay v. *first pounding, tear to pieces.*

C - c

cabay v. *skewer.*
caday v. *smooth*
caday v. *clear.*
caday v. *castrate.*

cafgal n. *bucket.*
cahay v. *get water.*
cahay v. *ask.*
cahay v. *scarify.*

cacapa ID. *idea of later on.*

capay v. *drape, double.*

car v. *climb.*

car v. *taste good.*

caray v. *tear up.*

carzlay v. *fold legs.*

caslay v. *pierce.*

caway v. *cut off head.*

caway v. *grow.*

cazlay v. *pierce, cut.*

cazlay v. *have a headache.*

ce v. *lack, be insufficient.*

cece n. *all.*

cece n. *louse.*

cecekem n. *first.*

cecew n. *friend.*

cecewk n. *flute.*

cefe v. *betray.*

celelew n. *chain.*

cen v. *hear, understand.*

cew num. *two.*

cezler n. *disobedience.*

cəbay v. *overwhelm.*

cəcəngehe adv. *now.*

cəđew n. *smallness.*

cəđoy n. *trick.*

cəđokay v. *crouch, squat.*

cəfəday v. *ask for.*

cəje n. *disease.*

cəjen v. *lose, get lost.*

cəjen n. *mortar.*

cəkafay v. *get up.*

cəkalay v. *assemble, unite.*

cəke v. *stand.*

cəkele n. *price.*

cəkəzlay v. *forget.*

cəlokoy v. *peel.*

cərr ID. *idea of guinea fowl running.*

cəved n. *road.*

cəzlahay v. *cut, chop.*

cəzlar ID. *idea of shining upwards.*

coco ID. *sound/idea of cutting with axe.*

cokoy v. *undress.*

cokor n. *fish net.*

D - d

dabay v. *follow.*

dad v. *fall.*

dafay v. *bump.*

dal v. *surpass.*

dala n. *money.*

dalay n. *girl.*

damay v. *succeed.*

danday n. *intestines.*

danjəw ID. *idea of someone balancing something on head.*

dar v. *fake.*

dar v. *withdraw, recoil.*

dar v. *burn.*

daray v. *plant, snore.*

daslay v. *castrate, sterilize.*

dav v. *drop.*

daz adv. *one complete year.*

dazlay v. *join, tie.*

de v. *cook, prepare.*

debezem n. *jawbone.*

dede n. *grandmother.*

dedew n. *morning.*

dedewe n. egret.
dedəlen n. blackness.
deftere n. book (from Fulfuldé).
dergwecik ID. idea of lifting on head.
dewe n. obligation.
dey adv. emphasis.
dəbakay v. persuade, relieve.
dəbənay v. learn, teach.
dəbo num. 1000.
dəbəsolək ID. idea of collapsing, dying.
dəgəlay n. thigh.
dəl ID. idea of insulting.
dəlmete n. neighbour.
dəlov n. lake.
dəndara n. lamp.
dəngadəy v. lean back.

dəngo n. neck, voice.
dəray n. head.
dəreffefe ID. sound/idea of movement.
dəren adv. far.
dəres ID. idea of many.
dərlenge n. hyena.
dəwa n. debt.
dəwlay n. millet drink.
Dəwlek n. Thursday market day in the village of Doulek.
dəwnəya n. earth.
dəyday ID. approximately.
dəya v. take many.
dəkay v. arrive.
dəlokoy n. syphilis.
dozloy v. intersect, meet.

D - d

daf n. millet porridge, food.
dak v. plug.
dakay v. indicate.
das v. be heavy/honourable.
daslay v. multiply.
daw pn. question marker.
daz dəz n. redness.
dazl v. spread for building.
də v. flourish, soak in order to soften.
dəden n. truth.
dədew n. pot.

dələywel n. paper.
dən ID. idea of putting.
dəgalay v. think.
dəgocoy v. stalk.
dəgom n. nape.
dəma n. time.
dəw adv. also.
dəwa n. milk, breast.
dəwer n. sleep.
dəwge adv. actually.
dəcay v. squeeze, juice.

E - e

edəyen n. <i>bird.</i>	epele epele ID. <i>in the future, forever.</i>
edongwered n. <i>type of tree.</i>	ercece n. <i>compassion.</i>
egəne adv. <i>today.</i>	erkece n. <i>ostrich.</i>
ehe adp. <i>here.</i>	ese adv. <i>again.</i>
ehe adv. <i>no.</i>	esew n. <i>laziness.</i>
ehwəde n. <i>nail, claw.</i>	esəmey adv. <i>not so?.</i>
elé n. <i>eye.</i>	eslesleḅ n. <i>saliva.</i>
ele n. <i>thing.</i>	eslesled n. <i>egg.</i>
elele n. <i>leaf; sauce made from edible leaves.</i>	ete adv. <i>also.</i>
eleməzləḅe n. <i>termites.</i>	eteme n. <i>onion.</i>
eləmene n. <i>treasure.</i>	etew n. <i>hawk.</i>
emelek n. <i>bracelet.</i>	etey adv. <i>polite demand.</i>
endeḅ n. <i>brain; wisdom.</i>	eyewed n. <i>whip.</i>
enen n. <i>snake.</i>	eyewk n. <i>ground nut.</i>
enen pn. <i>another.</i>	ezewed n. <i>cord.</i>
engeren n. <i>insect.</i>	ezewk n. <i>misfortune.</i>
epeley pn. <i>when.</i>	ezlegweme n. <i>camel.</i>
	ezlere n. <i>spear.</i>

Ə - ə

əwde adv. <i>first.</i>	əwla nclitic. <i>1s possessive.</i>
əwfad num. <i>four.</i>	

F - f

fabay NEG. <i>not yet.</i>	fan adv. <i>already.</i>
fad v. <i>put, set down.</i>	far v. <i>scratch.</i>
faday v. <i>fold.</i>	fat n. <i>sun, daytime.</i>
fakay v. <i>uproot a tree.</i>	fat v. <i>germinate.</i>

fatay v. descend.
fe v. play a wind instrument.
fefen n. millet leaf.
fenge n. termite mound.
fətaɗay v. sharpen to a point.
fəhh ID. sound/idea of truck engine humming.

Fətak n. name of a village and a clan of Moloko.
fofofo ID. sound/idea of a snake slithering.
fokoy v. whistle.
fowwa ID. sound/idea of wind blowing.

G - g

ga nclitic. *adjectiviser*.
gabay v. constipate.
gala n. yard.
galay v. herd, chase.
gam quant. *much*.
gar n. difficulty
gar v. grow.
garay v. command, frighten.
gas v. catch, accept.
gazay v. nod.
ge v. do.
gembəre n. bride price.
gəbar n. fear.
gəbokoy v. bend over.
gədan n. strength.
gədaɗalay v. get fat.
gədaɗar v. granulate, weave.
gədo gədo gədo ID. sight/idea of man running.
gədok ID. make beer.
gədaɗaɗl ID. idea of setting down something heavy.
gəgəmay n. cotton.
gəgoro n. ram.
gəjah v. pull.

gəjakay v. hang.
gəjar v. take or steal by force.
gəlan n. kitchen.
gəlan n. threshing floor.
gəlo n. left.
gəlo n. firstborn son.
gəmsodo n. maternal uncle.
gənaw n. animal.
gəraw ID. idea of cutting something through the middle.
gəraɗ gəraɗ ID. sight/idea of something heavy running (cows).
gəsan n. bull.
gəvah n. cultivated field.
gəver n. liver.
gəvoy v. rot meat to flavour food.
gəzamay v. lose weight.
gəzo n. hip.
gəzom n. millet beer.
gəbay n. a lot.
gəcoy v. throw, sow.
gəgolvon n. snake.
gəgor n. elder.
gəgwez n. redness.
gəhoy v. brush.

goloy v. *silence.*
golo n.voc. *dear.*
goroy v. *strip leaves from stalk.*
gorcoy v. *sniff, slurp.*
goro n. *kola nut.*

gwədar n. *youngest child.*
gwədədek n. *frog.*
gwəla n. *son.*
gwəlek n. *small axe.*
gwəzoy v. *tan, treat animal skin.*

H - h

ha adp. *until.*
haɓ v. *break.*
haɓay v. *dance.*
hadak n. *thorn.*
haɗa quant. *enough, many.*
hahar n. *straw granary.*
hahar n. *bean.*
hajan adv. *tomorrow.*
hakay v. *push.*
halay v. *gather.*
hamay v. *pay a debt.*
hambar n. *skin.*
har n. *body.*
har v. *construct.*
har v. *collect.*
hara n. *iron, metal.*
hara n. *hour.*
harac n. *scorpion.*
hasl v. *swell.*
háy n. *millet.*
hay n. *house.*
hay v. *tell, greet someone.*
haya v. *grind.*
azak n. *smoke.*
heɓek heɓek ID. *hardly breathing.*
hehen n. *owl.*
hereɓ n. *heat.*

heyew n. *grasshopper.*
hədo n. *wall.*
həjəɗaɗay v. *limp.*
həlan n. *place behind.*
hələf n. *hoe.*
həlfe n. *seeds.*
həmaɗ n. *wind.*
həmay v. *run.*
həmbo n. *flour.*
hənder n. *nose.*
həraɗ v. *jump, pull out.*
həraf n. *medicine.*
hərɓoy v. *heat up, dissolve. Cf.: hereɓ.*
hərdedem n. *knee.*
hərdesl n. *grave.*
hərəngezl n. *joint.*
hərgov n. *baboon.*
hərkay v. *beg.*
hərmbəlom n. *god, sky.*
hərnek n. *tongue.*
hərnje n. *hate, quarrel.*
hərov n. *fig tree.*
hərva n. *body.*
hərzloy v. *rot.*
hoɗ n. *stomach.*
hohom n. *beetle.*
holombo num. *nine.*

homboh n. *pardon.*
 hor n. *woman, wife.*
 hawər ahay n. *women.*
 hwəða n. *dregs.*

hwəlen n. *back.*
 hwəsese n. *smallness.*
 hwəter n. *tail.*
 hwəzlay v. *destroy.*

J - j

jajak adv. *fast.*
 jajay n. *dawn, light.*
 jakay v. *lean.*
 japay v. *mix.*
 jav v. *plant.*
 javar n. *guinea fowl.*
 jay v. *speak.*
 jed jed jed ID. *sight/idea of ostrich running.*
 jegwer n. *limpness.*
 jen n. *luck.*
 jere n. *truth*
 jəbe n. *tribe.*
 jəb jəb ID. *completely wet.*

jəðokoy v. *mash.*
 jəgəlen n. *stable.*
 jəgor n. *shepherd; stake.*
 jəgor v. *shepherd.*
 jənay v. *help.*
 jəway n. *fly.*
 jəwk jəwk adv. *suddenly.*
 jəyga quant. *all.*
 jo ID. *take.*
 jogo n. *hat.*
 johoy v. *save, economize.*
 jokoy v. *pack down.*
 jorboy v. *wash clothes.*

K - k

k- vpx. *2s subject.*
 kə...aka adp. *on.*
 ka adv. *like.*
 ka nehe dem. *like this.*
 ka ngəhe dem. *like this here.*
 kabay v. *cook or stir quickly next to fire.*
 kað v. *kill by clubbing.*
 kaðay v. *prune.*

kaləw ID. *quickly.*
 kamay pn. *why.*
 kapay v. *be roughcast.*
 karay v. *steal.*
 akar n. *theft.*
 kasl v. *wait ; watch over.*
 kay interj. *exclamation when surprised.*
 kekəðkekeð ID. *sharpness.*
 kəbəcay v. *snap.*

- kəbəcay** v. *blink quickly.*
kəcaway v. *trap, seize.*
kək ID. *idea of catching someone by the throat.*
kəkəf kəf ID. *idea of someone who hasn't any weight (an insult).*
kəlakasl n. *bone.*
kəlbawak n. *bird.*
kələf n. *fish.*
kəlen n. *seer.*
kəlen disc. *then.*
kəl kəl ID. *exactly.*
kəla conj. *Benefactive.*
kəlo adv. *before.*
kəmbəhoy v. *wrap.*
kəmeje n. *clothes.*
kəndal ID. *sound/idea of pounding millet.*
kəndew n. *stringed instrument.*
kəra n. *dog.*
kəramba n. *crocodile.*
kəray adv. *everywhere.*
kərcece n. *giraffe.*
kərday v. *chew.*
kərdaway v. *scrape.*
kəre n. *rafter.*
kərkadaw n. *monkey.*
kərkay v. *kneel.*
kərkayah n. *turtle.*
kəro num. *ten.*
kəroy v. *mount.*
kərpasla n. *wings.*
kərsay n. *cucumber.*
kərsoy v. *sweep.*
kərtoy v. *undress, peel.*
kərway v. *cultivate second time.*
kərwəd wəd kərwəd wəd ID. *sight/idea of an old person trying to run.*
kətay v. *punish.*
kətefer n. *scoop.*
kəway v. *look for.*
kəway v. *get drunk.*
kəwaya conj. *because, that is.*
kəwna ID. *idea of grasping.*
kəy ID. *idea of looking.*
kəya n. *moon.*
kəyga dem. *like that.*
kəygehe dem. *like this.*
ko adv. *even.*
kokofoy n. *newborn baby.*
kokolo n. *leprosy.*
kokor n. *gourd.*
koloy v. *dry.*
kondon n. *banana.*
koroy v. *put.*
kosoko n. *market.*
kwede kwede n. *shakers.*
kwəcesl n. *viper.*
kwəledede n. *smooth.*
kwəsay n. *haze.*

L - 1

- lagay** v. *accompany.*
lala adv. *good.*
lamay v. *touch.*
lamba n. *number.*
laway v. *hang.*
laway v. *mate with.*

lay v. *dig*.
 layaw n. *large squash*.
 lekWel n. *school*.
 ləbara n. *news*.
 ləhe n. *bush, fields*.
 ləho n. *evening*.
 ləkwəye pn. *2P*.

ləme pn. *1PEX*.
 ləmes n. *song*.
 ləpəre n. *needle*.
 ləvan n. *night*.
 lo v. *go*.
 loko pn. *1PIN*.
 lolokoy n. *mouse trap*.

M - m

ma n. *mouth, language, word*.
 maʁasl n. *pumpkin*.
 macəkəmbay conj. *meanwhile*.
 madan n. *sorcery*.
 madəras n. *pig*.
 mahaw n. *snake*.
 mahay n. *door*.
 makala n. *donut*.
 makar num. *three*.
 makay v. *leave, let go*.
 malay v. *leave*.
 malan n. *greatness*.
 malgamay n. *jawbone*.
 malmay pn. *what?*
 mama n. *mother*.
 mana n. *so and so*.
 mangasl n. *fiancé*.
 manjara n. *termite*.
 manjaw n. *donut made from ground
nuts*.
 marasl n. *hail*.
 margaba n. *ant*.
 Masay n.pr. *name of first twin*.
 Cf.: Aləwa.
 maslalam n. *sword*.

maslar n. *front teeth*.
 mat v. *die*.
 matabasl n. *cloud*.
 mavaʁ n. *sickle*.
 mawar n. *tamarind*.
 may n. *hunger*.
 may pn. *what? (emphatic)*.
 mazlərpapan n. *spider*.
 mazloko n. *lion*.
 mba ID. *a short time*.
 mbaʁ v. *change*.
 mbaʁay v. *swear*.
 mbahay v. *call*.
 mbaf ID. *idea of full up to the roof*.
 mbajak ID. *something big and reflective*.
 mbar v. *heal*.
 mbasay v. *smile*.
 mbat v. *turn off*.
 mbay n. *manioc*.
 mbay v. *follow*.
 mbazl v. *demolish*.
 mbe v. *argue, scold*.
 mbedfem n. *centre, middle*.
 mbəlele n. *elephant*.
 mbesen v. *rest, breathe*.

- mbeten** v. *extinguish*.
mbezlen v. *count*.
mbəldoy v. *skin, peel*.
mbəraf ID. *idea of penetration*.
mbəramay v. *blink slowly, break violently*.
mbərcay v. *untie*.
mbərkala n. *red millet*.
mbərlom n. *throat*.
mbərway v. *destroy violently*.
mbərzlay v. *pass*.
mbəzen v. *ruin*.
mbocoy v. *beat lightly*.
Mboko n.pr. *Mbuko people/language*.
mbomoy v. *gather with a stick*.
mebebek n. *bat*.
mecekwed n. *larva, worm*.
medələngwez n. *leopard*.
meher n. *forehead*.
mekec n. *knife*.
mekəlewez n. *mongoose*.
Meme n. *market day in the village of Meme*.
memele n. *tree*.
memey pn. *how*.
memle n. *joy*.
mepetəpete n. *butterfly*.
merkwe n. *stranger, traveler*.
mesesewk n. *ant*.
meslenen pn. *no one*.
metesle n. *curse*.
mey pn. *how (emphatic)*.
mədara n. *fire*.
mədegen n. *cold/flu*.
mədəhwer n. *old person*.
mədəga n. *older sibling*.
mədəger n. *hoe*.
mədəra n. *bicep*.
məf interj. *get away !*
məfad num. *four*.
məjəvoko n. *celebration (lit. planting fire)*.
mək ID. *idea of positioning self for throwing something (spear)*.
məko num. *six*.
mələma n. *sibling*.
məlay v. *enjoy*.
Məloko n.pr. *Moloko people/language*.
məndacay v. *gather*.
məndəye n. *day*.
məndocay v. *gather*.
məngahak n. *crow*.
məngamak n. *wild cat*.
mənjad adp. *without*.
məjar v. *see*.
mənjəye n. *habits*.
məpapar n. *grass fence*.
məray n. *shame*.
mərcay v. *put horizontally*.
məsek n. *pot*.
mətenen n. *bottom*.
mətəde n. *cicada*.
mətəmbətəmbezl viper.
mətəmey pn. *how much/how many*.
mətərak n. *pap, hot drink made with rice*.
məvəye n. *year*.
məwta n. *truck*.
məyek n. *deer*.
məze n. *person*.
məzlelem n. *trumpet*.
mogo n. *anger*.
mogodok n. *hawk*.
mogom n. *house, home*.
Mokəyo n.pr. *Market day of the village of Mokəyo*.

moktonok n. *toad*.
molo n. *vulture*.
molo n. *twin*.
molom n. *home market day*.
mombærkotok n. *fish*.

mongom n. *horn*.
mongoro n. *mango*.
morkoyo n. *oldest child*.
mosokoy n. *vegetable sauce*.
mozongo n. *chameleon*.

N - n

n- vpx. 1s subject.
na disc. *presupposition marker*.
na vclitic. 3s direct obj.
nə conj. *with*.
nah v. *ripen*.
nata conj. *and ; marks the climactic moment in a narrative*.
nday v. *be in process of*.
ndaḅay v. *wet, whip*.
ndaḅay v. *want, love*.
ndahay v. *reprimand, scold*.
ndahan pn. 3s.
ndam n. *people*.
ndana dem. *this*.
ndar v. *weave*.
ndavay v. *finish*.
ndawan adv. *maybe*.
ndaway v. *insult*.
ndaway v. *swallow*.
ndaz v. *kill by piercing*.
nde v. *lie down*.
nde conj. *therefore*.
ndeslen v. *make cold*.
ndəlkaday v. *lick*.
ndən nden n. *traditional sword*.
ndəray v. *stay, leave*.
ndərdoy v. *stretch*.

ndozlay v. *explode*.
ne pn. 1s.
nehe dem. *here*.
nekwen quant. *a small amount*.
nendəye dem. *there*.
nəngehe dem. *there*.
ngala v. *come back*.
ngama adv. *better*.
ngar v. *prevent*.
ngaray v. *rip*.
ngay v. *set, work with wood or grasses*.
ngaz v. *flow, leak*.
ngazlay v. *introduce*.
ngəḁacay v. *butt with horns*.
ngəḁay v. *burn*.
ngəhe dem. *this particular one here*.
ngəmmgam n. *mouse trap*.
ngəlay v. *defend*.
ngəlday v. *grind (peanuts)*.
ngərḁasay v. *wrinkle the skin*.
ngərakaka n. *heron*.
ngərway v. *break, tear away*.
ngərzlay v. *be in conflict*.
ngəvəray n. *tree*.
ngomna n. *government*.
ngwəḁaslay v. *simmer*.
njahay v. *roast*.

njakay v. *find*.
njaray v. *comb, separate*.
njavar n. *young man over 18*.
nje v. *leave*.
nje v. *sit, suffice*.
njeren v. *groan*.
njəda n. *power*.

njəl njəl ID. *sight/idea of youth running*.
njəfok njəfok ID. *sight/idea of child running*.
njəwelek n. *leaf for making a sauce*.
njəw njəw njəw ID. *idea of grinding*.
nok pn. 2S.

O - o

obor n. *lust*.
obolo n. *yam*.
ocom n. *hyrax*.
ogəro n. *gold*.
ok vclitic. 2S indirect object.
-ok vsfx. 1PIN, 2P subject.
aw vclitic. 1S indirect object.
okfom n. *mouse*.
oko n. *fire*.
okor n. *rock*.
okos n. *fat*.
oloko n. *wood*.
-om vsfx. 1PEX/2P subject.

ombodoc n. *sugar cane*.
ombolo n. *sack; thousand francs*.
omom n. *honey*.
war omom n. *bee*.
omsoko n. *sorghum, dry season millet*.
ongolo n. *liar*.
opongo n. *mushroom*.
oroh n. *pus*.
orov n. *thorny tree*.
otos n. *hedgehog*.
ovolom n. *ladle*.
ozəngo n. *donkey*.
ozlargo n. *axe*.

P - p

paday v. *crunch*.
pahay v. *speak badly of someone for one's own interest*.
pahav n. *lungs*.
palay v. *choose*.
pamay v. *fan*.

par v. *pay*.
pasay v. *detach, spread out*.
pasl v. *break*.
pat adv. *all*.
Patatah n. *Wednesday market*.
pataw n. *cat*.

patay v. *wipe, rub.*
pay v. *open.*
pazlay v. *decimate, kill many.*
pedede ID. *fullness.*
pedewk n. *razor.*
pembez n. *blood.*
pepen n. *immediately.*
pepenna adv. *long ago.*
pew adv. *enough.*
pəcahay v. *remove insides.*
pəcay v. *bring.*
pəcəkəḏək ID. *sight/idea of a toad*
hopping.
pəḏakay v. *wake up.*
pəḏakay v. *chop.*
pəḏak v. *melt.*
pəḏe n. *hole.*
pək ID. *sound/idea of bottle opening.*
pəḏay v. *shell.*

pəlsay v. *split in half.*
pəles n. *horse.*
pəra n. *spirit, idol.*
pəraḏ n. *large rock.*
pəray v. *spray.*
pərgom n. *trap.*
pərtay v. *remove forcibly.*
pəsakay v. *detach.*
pəvban ID. *start of a race.*
pəvbəw pəvbəw ID. *sight/idea of rabbit*
hopping.
pəyecece ID. *coldness.*
pəyted ID. *idea of barely escaping.*
pək ID. *idea of opening door.*
pəcoy v. *wear small leather article of*
clothing.
pəḏococo ID. *sweetness.*
pəloy v. *scatter.*

R - r

rah v. *fill, satisfy.*
rah v. *pluck.*
rasay v. *minimize.*
re adv. *in spite of.*
reke n. *sugar cane.*

rəbok n. *hiding place.*
rəbok rəbok ID. *idea of hiding.*
rəbokay v. *hide.*
rəbay v. *be beautiful.*
rəcoy v. *block up.*

S - s

sabay v. *exceed.*
sahay v. *slander.*
sak v. *multiply.*

sakay v. *sift.*
sar v. *know.*
savah n. *rainy season.*

say v. *cut, want.*
 sawan adv. *without help.*
 se v. *drink.*
 sebetəy v. *repair.*
 sede n. *witness.*
 sen ID. *idea of going.*
 serəya n. *judgement.*
 sese n. *meat.*
 səber n. *height.*
 səbatay v. *trick, tempt.*
 sədaray v. *misbehave.*
 səkar n. *spirit being.*
 səkat n. *hundred.*
 səkom v. *buy/sell.*
 səkoy n. *clan.*
 səlday v. *cross ankles.*
 səlek n. *jealousy.*
 səlew k n. *broom.*
 səlom n. *good.*
 səloy n. *money.*
 səloy v. *cook on fire.*
 səmbetew k n. *hair.*
 sənew k n. *shadow, spirit.*
 sərkay v. *do something habitually.*
 səsayak n. *wart.*
 səsarə num. *seven.*
 səwat ID. *idea of dispersing.*
 səwse n. *thanks.*

səy conj. *except.*
 səya v. *cut.*
 səyfa n. *life.*
 səysay n. *5 francs.*
 sla n. *cow.*
 slahay v. *mix grain with ashes to prevent insects from eating seeds.*
 slala n. *village.*
 slalakar num. *eight.*
 slam n. *place.*
 slapay v. *braid.*
 slar v. *send.*
 slaray v. *slide.*
 slay v. *slay.*
 sləbatay v. *repair.*
 sləlay n. *root.*
 sləmay n. *ear, name.*
 slərah n. *board.*
 slərele n. *work.*
 slohoy v. *leave in secret.*
 slohoy v. *take leaves off stalk.*
 sloko n. *earring.*
 sofoy v. *suck.*
 sokoy v. *whisper.*
 solay v. *fry.*
 sono n. *joke.*
 soroy v. *slide.*

T - t

t- vpx. *3p.*
 ta vclitic. *3P direct object.*
 tacay v. *close.*
 tad v. *fall.*

taf v. *spit.*
 tah v. *pile something.*
 tah v. *reach out.*
 tahay v. *boost.*

talay v. *walk*.
tam v. *save*.
tapay v. *stick*.
tar v. *enter*.
taray v. *call*.
taslay v. *curse*.
tenjew n. *mosquito*.
tere n. *another, a different one*.
tertere ID. *idea of something different*.
tezeh n. *boa*.
tezl tezl ID. *idea of hollowness*.
təde n. *good*.
tədo n. *leopard*.
tədoj v. *roll, wind*.
təf ID. *idea of going far*.
təh ID. *idea of putting on head*.
təkam v. *taste*.
təkaray v. *try, invite*.
təkasay v. *cross*.
təkosoy v. *fold, cross*.

təkwərak n. *partridge*.
təlbaway v. *be sticky*.
təlokoy v. *drip*.
təmak n. *sheep*.
təmbaday v. *twist*.
təmbalay v. *shake out stones*.
tərday v. *tie off*.
təta pn. *3p*.
təta adv. *is able to*.
tətərak n. *shoes*.
təvalay v. *hunt*.
təwaday v. *go across*.
təway v. *cry*.
təwe n. *cry*.
toho dem. *far*.
tohoj v. *trace*.
tokoy v. *tap*.
Tokombere n.pr. *Tuesday market*.
tololon n. *heart, chest*.
tosoy v. *bud, uproot*.

V - v

va vclitic. *Perfect*.
va n. *body*.
vahay v. *fly away*.
vakay v. *burn*.
var v. *put on a roof*.
varay v. *chase away*.
vərdaj v. *boil*.
vasay v. *wipe out, cancel*.
vaway v. *twist, hang*.
vay v. *winnow*.
vbaḥ ID. *sound or idea of something soft hitting the ground (a snake, or a mud wall)*.

vbənbənbə ID. *rapidly*.
ve v. *spend time*.
ver n. *room*.
ver n. *grinding stone*.
vəḍ vad n. *all night*.
vəlalay v. *oyster*.
vəlay v. *boil*.
vənahay v. *vomit*.
vər v. *give*.
vəy n. *rib*.
vəymete n. *neighbour*.
vəya n. *rainy season*.

W - w

wacay v. <i>write.</i>	weley pn. <i>which.</i>
wad̥ay v. <i>spread out.</i>	wewer n. <i>cunning.</i>
wahay v. <i>waste.</i>	wəcad̥ay v. <i>shine.</i>
wal v. <i>attach, hurt.</i>	wəɖakay v. <i>divide, share.</i>
walay v. <i>dismantle.</i>	wəɖoy v. <i>populate.</i>
war n. <i>child.</i>	wəldoy v. <i>devour.</i>
babəza ahay n. <i>children.</i>	wəle n. <i>potash.</i>
waray v. <i>take upon oneself.</i>	wərkay v. <i>pay.</i>
was v. <i>cultivate.</i>	wərge n. <i>bad spirit.</i>
wasay v. <i>populate.</i>	wərs̥la n. <i>butter.</i>
wasl v. <i>be forbidden.</i>	wərz̥la n. <i>star.</i>
way pn. <i>who.</i>	wəse n. <i>thank you.</i>
waya conj. <i>because.</i>	wəsekeke ID. <i>sight/idea of something multiplying.</i>
wazay v. <i>shake.</i>	wəyen n. <i>land.</i>
wazlay v. <i>shine.</i>	wəzlay v. <i>publish, announce.</i>
we v. <i>give birth.</i>	

Y - y

ya nsfx. <i>respectful vocative.</i>	yamay v. <i>spin.</i>
yad̥ay v. <i>tire.</i>	Yerəyma n. <i>prince ; Monday market.</i>
yam n. <i>water.</i>	

Z - z

zad̥ v. <i>take, carry</i>	zaray v. <i>linger.</i>
zana n. <i>clothes, cloth.</i>	zay n. <i>peace, wholeness.</i>
zar n. <i>male ; husband.</i>	zayəh n. <i>care.</i>
zawər ahay n. <i>men.</i>	zazay n. <i>peace, wholeness.</i>

ze v. *smell*.
zetene n. *salt*.
zəgogom n. *tree (sp.)*.
zəmbadɔy v. *glorify*.
zənof n. *naivety, kindness*.
zən zan n. *mouse*.
zən zen n. *darkness*.
zən zon n. *gourd*.
zəraka n. *river*.
zərdɔy v. *watch intently*.
zəroy v. *notice, inspect*.
zəva n. *net*.
Zlaba n. *Sunday market*.
zlabay v. *pound/crush*.
zlah v. *cry (dog or rooster)*.
zlakay v. *suffer pain*.
zlan v. *start*.
zlapay v. *talk with someone*.
zlar v. *pierce*.

zlar v. *kick*.
zlavay v. *swim*.
zlaway v. *fear*.
zlevek n. *rabbit*.
zlezle ID. *time long ago*.
zləge v. *throw, plant*.
zlək zlak n. *termite*.
zləle n. *richness*.
zlərav v. *remove*.
zləray v. *go out, appear*.
zlərgo v. *axe*.
zlokoy v. *gnaw*.
zlokoy v. *squeeze out*.
zlom num. *five*.
zokoy v. *try*.
zom v. *eat*.
zor ID. *sight/idea of something thrown up high*

Appendix D: English-Moloko Lexicon

A - a

able to *tāta*.

above *avəlo*.

accept, catch *gas*.

accompany *lagay*.

actually *dəwge*.

adultery *adama*.

again *ese*.

agreed *ayokon*.

all *cece, jəyga, pat*.

all night *vəd vad*.

already *fan*.

also *dəw*.

also, as well *ete*.

and *nata*.

anger *mogo*.

animal *gənaʷ*.

announce, publish *wəzlay*.

another *enen*.

ant species *margaba, mesesewk*.

appear, go out *zləray*.

argue, scold *mbe*.

arrive *dokay*.

arrow *ava*.

ask *cahay*.

ask for *cəfəday*.

assemble, unite *cəkalay*.

at the house of *afa*.

attach, hurt *wal*.

axe *ozlargo, zlargo*.

axe, small *gwəlek*.

B - b

baboon *bəway*.

baboon *hərgov*.

back *hwəlen*.

banana *kondon*.

bat *mebebek*.

be bald, cultivate a second time
bokay.

be beautiful *rəbay*.

be heavy/honourable *das*.

be in conflict *ngərzlay*.

be in process of *nday*.

be insufficient, lack *ce*.

be roughcast *kapay*.

be sticky *təlbaway*.

bean *hahar*.
beat lightly *mbocoy*.
because *bəyna*, *waya*.
because, that is *kəwaya*.
become drunk *kəway*.
bee *war omom*.
before *kəlo*.
beetle *hohom*.
beg *həkay*.
behind *həlan*.
below *asəbo*.
bend over *gəbokoy*.
benefit of *kəla*.
betray *cefe*.
better *ngama*.
bicep *mədara*.
bicycle *baskwar*.
bird species *kəlbawak*, *edəyen*.
birth *we*.
blackness *dedəlen*.
blemish *abəsay*.
blessing *barka*.
blink quickly *kəbəcay*.
blink slowly, break violently
mbəramay.
block up *rəcoy*.
blood *pembez*.
boa *tezeh*.
board *slərah*.
body *hərva*.
body *har*.
body *va*.
boil *vəlay*, *vəday*.

bone *kəlakasl*.
book *deftere*.
boost *tahay*.
bottom *mətenen*.
bracelet *emelek*.
bracelet, weapon *alahar*.
braid *slapay*.
brain; wisdom *endeḅ*.
break *haḅ*, *pasl*.
break, tear away *ngərway*.
break violently, blink slowly
mbəramay.
breast, milk *dəwa*.
breathe *bazlay*.
breathe, rest *mbesen*.
bride price *gembere*.
bring *pəcay*.
broom *səlewkw*.
brush *gohoy*.
bucket *cafgal*.
bud, uproot *to soy*.
build *balay*.
build up to *belen*.
bull *gəsan*.
bump *dafay*.
burn *dar*, *ngədəy*, *vakay*.
bush, fields *ləhe*.
but *azla na*.
butt with horns *ngədəcay*.
butter *wərsla*.
butterfly *mepetəpete*.
buy/sell *səkom*.

C - c

call *mbahay, taray*.
 camel *ezlegweme*.
 cancel, wipe out *vasay*.
 care *zayəh*.
 carry, take *zad*.
 castrate *caday*.
 castrate, sterilize *daslay*.
 cat *pataw*.
 cat, wild *məngamak*.
 catch, accept *gas*.
 celebration (lit. planting fire)
 məjəvoko.
 centre, middle *mbedem*.
 chain *celelew*.
 chameleon *mozongo*.
 change *mbad*.
 chase, herd *galay*.
 chase away *varay*.
 cheek *bozlom*.
 chest, heart *tololon*.
 chew *kərday*.
 chicken *anjakar*.
 chief *bahay*.
 child *war*.
 child, oldest *morkoyo*.
 child, youngest *gwədar*.
 children *babəza ahay*.
 choose *palay*.
 chop *pədakay*.
 chop, cut *cəzlahay*.
 cicada *mətəde*.
 clan *səkoy*.
 claw, nail *ehwəde*.
 clear *caday*.
 climb *boray*.

climb *car*.
 close *tacay*.
 clothes *kəmeje*.
 clothes, cloth *zana*.
 cloud *matabasl*.
 coin (5 francs) *səysay*.
 cold/flu *mədegen*.
 collect *har*.
 collect, squeeze *bərkaday*.
 comb, separate *njaray*.
 co me back *ngala*.
 command, frighten *garay*.
 compassion *ercece*.
 constipate *gabay*.
 construct *har*.
 cook, prepare *de*.
 cook on fire *səloy*.
 cook or stir quickly next to fire *kabay*.
 cord *ezewed*.
 cotton *gəgəmay*.
 cough *bəslay*.
 count *bezlen, mbezlen*.
 cow *sla*.
 crawl *bəjəgamay*.
 crocodile *kəramba*.
 cross *təkasay*.
 cross, fold *təkosoy*.
 cross ankles *səlday*.
 crouch, squat *cədokay*.
 crow *məngahak*.
 crunch *paday*.
 crush, pound *zlabay*.
 cry (noun) *təwe*.
 cry (verb) *təway*.
 cry (dog or rooster) *zlah*.

cucumber *kərsay*.
cultivate *was*.
cultivate second time *kərway*.
cultivate a second time; be bald
bokay.
cultivated field *gəvah*.
cunning *wewer*.

curse *taslay*.
cut *səya*.
cut, chop *cəzlahay*.
cut, sore *ambəlak*.
cut, pierce *cazlay*.
cut, want *say*.
cut off head *caway*.

D - d

dance *habay*.
darkness *zən zen*.
dawn, light *jajay*.
day *məndəye*.
dear *golo*.
debt *dəwa*.
decimate, kill many *pazlay*.
deer *məyek*.
defend *ngəlay*.
demolish *mbazl*.
descend *fatay*.
destroy *hwəzlay*.
destroy violently *mbərway*.
detach *pəsakay*.
detach, spread out *pasay*.
devour *wəldoy*.
die *mat*.
different *tere*.
difficulty *gar*.
dig *lay*.
dig shallow *bajakay*.

disease *cəje*.
dismantle *walay*.
disobedience *cezlere*.
divide, share *wədəkay*.
do *ge*.
dog *kəra*.
donkey *ozəngo*.
donut *makala*.
donut made from ground nuts
manjaw.
door *mahay*.
double, drape *capay*.
drape, double *capay*.
dregs *hwəda*.
drink *se*.
drip *təlokoy*.
drive *bərwaday*.
drop *dav*.
dry *koloy*.
dry season *almamar*.
duck *andəbaba*.

E - e

ear, name *slamay*.
 earring *sloko*.
 earth *dəwnəya*.
 eat *zom*.
 economize, save *johoy*.
 egg *eslesled*.
 egret *dedewe*.
 eight *slalakar*.
 elder *gogor*.
 elephant *mbəlele*.
 emphasis *dey*.
 enjoy *məlay*.
 enough *pew* !
 enough, many *hada*.
 enter *tar*.

evaporate *batay*.
 even *ko*.
 evening *ləho*.
 everywhere *kəray*.
 exceed *sabay*.
 except *səy*.
 exclamation when surprised *kay*.
 excrement, faeces *azay*.
 existential *aba*.
 existential *abay*.
 existential *ava*.
 explode *ndozlay*.
 extinguish *mbeten*.
 eye *elé*.

F - f

faeces, excrement *azay*.
 fake *dar*.
 fall *dad, tad*.
 fan *pamay*.
 far *toho*.
 far away *dəren*.
 fast *jajak*.
 fat *okos*.
 father *baba*.
 fatten *gədəgalay*.
 fear (noun) *gəbar*.
 fear (verb) *zlaway*.
 fiancé *mangasl*.
 fields, bush *ləhe*.

fig tree *hərov*.
 fill, satisfy *rah*.
 find *njakay*.
 finger *war ahar*.
 fingers *bəbəza ahar ahay*.
 finish *ndavay*.
 fire *oko, mədara*.
 first (adv) *əwde*.
 first *cecekem*.
 first pounding, tear to pieces *borcay*.
 fish *kəlef*.
 fish net *cokor*.
 fish species *mombərkotok*.
 five *zlom*.

flour <i>həmbo</i> .	food, millet porridge <i>daf</i> .
flourish, soak in order to soften <i>dē</i> .	foot, leg <i>asak</i> .
flow, leak <i>ngaz</i> .	forbid <i>wasl</i> .
flu, cold <i>mədegen</i> .	forget <i>cəkəzlay</i> .
flute <i>cecewk</i> .	forehead <i>meher</i> .
fly <i>jəway</i> .	four <i>əwfaɗ, məfaɗ</i> .
fly away <i>vahay</i> .	friend <i>cecew</i> .
fold <i>faɗay</i> .	frighten, command <i>garay</i> .
fold, cross <i>təkosoy</i> .	frog <i>gwədədek</i> .
fold legs <i>carzlay</i> .	fry <i>solay</i> .
follow <i>dabay, mbay</i> .	

G - g

gather <i>halay, məndacay, məndocay</i> .	gourd <i>kokor, zən zon</i> .
gather with a stick <i>mbomoy</i> .	government <i>ngomna</i> .
germinate <i>fat</i> .	granary <i>ḡara</i> .
get away! <i>məf</i> .	granary for straw <i>hahar</i> .
get lost, lose <i>cəjen</i> .	grandmother <i>dede</i> .
get up <i>cəkafay</i> .	granulate, weave <i>gəɗəgar</i> .
get water <i>cahay</i> .	grass <i>agwəjer</i> .
giraffe <i>kərcece</i> .	grass fence <i>məpapar</i> .
girl <i>dalay</i> .	grasshopper <i>heyew</i> .
give <i>vər</i> .	grave <i>hərdesl</i> .
glorify <i>zəmbaɗay</i> .	greatness <i>malan</i> .
gnaw <i>zlokoy</i> .	greet someone <i>hay</i> .
go <i>lo</i> .	grind <i>haya</i> .
go across <i>təwaɗay</i> .	grind (peanuts) <i>ngəɗday</i> .
go out, appear <i>zləray</i> .	grinding stone <i>ver</i> .
goat <i>awak</i> .	groan <i>njerən</i> .
goat horn <i>abalan</i> .	ground nut <i>eyewk</i> .
god, sky <i>hərmbəlom</i> .	grow <i>caway</i> .
gold <i>ogəro</i> .	grow <i>gar</i> .
good <i>lala, səlom, təde</i> .	guinea fowl <i>javar</i> .

H - h

habits *mənjəye*.
 habitually do something *sərkay*.
 hail *marasl*.
 hair *səmbetewk*.
 hand *ahar*.
 hang *gəjakay*, *laway*.
 hang, twist *vaway*.
 hangar to give shade in front of a
 house *abalak*.
 harvest *baz*.
 hat *jogo*.
 hate, quarrel *hərnje*.
 have a headache *cazlay*.
 hawk *etew*, *mogodok*.
 haze *kwəsay*.
 head *dəray*.
 heal *mbar*.
 hear, understand *cen*.
 heart, self *bərav*.
 heat *hereb*.
 hedgehog *otos*.
 heart, chest *tololon*.
 heat up, dissolve *hərboy*.
 height *səber*.
 help *jənay*.
 herd, chase *galay*.

here *ahakay*, *ehe*, *nehe*.
 heron *ngərkaka*.
 hide *rəbokay*.
 hiding place *rəbok*.
 hip *gəzo*.
 hit *bay*.
 hoe *hələf*, *mədager*.
 hole *pəde*.
 home *mogom*.
 honey *omom*.
 horn *mongom*.
 horse *pəles*.
 hot drink made with rice, pap
 mətərak.
 hour *hara*.
 house *hay*.
 how *memey*.
 how (emphatic) *mey*.
 how much/how many *mətəmey*.
 hundred *səkat*.
 hunger *may*.
 hunt *təvalay*.
 hurt, attach *wal*.
 husband, male *zar*.
 hyena *dərlenge*.
 hyrax *ocom*.

I - i

idea of approximately *dəyday*.
 idea of barely escaping *pəyted*.
 idea of being close *bəfa*.
 idea of being completely wet *jəb jəb*.

idea of burying *babək*.
 idea of catching someone by the throat
 kək.
 idea of coldness *pəyecece*.

idea of collapsing, dying *dəbəsələk*.

idea of cutting something through the middle *gəraw*.

idea of dispersing *səwat*.

idea of exactly *kəl kəl*.

idea of flying away *botot*.

idea of foolishness *bəwðere*.

idea of forever, in the future *epele epele*.

idea of full up to the roof *mbaf*.

idea of fullness *pedede*.

idea of going *sen*.

idea of going far *təf*.

idea of grasping *kəwna*.

idea of grinding *njəw njəw njəw*.

idea of guinea fowl running *cərr*.

idea of hardly breathing *hebek hebek*.

idea of hiding *rəbok rəbok*.

idea of hollowness *tezl tezl*.

idea of insulting *dəl*.

idea of later on *cacapa*.

idea of lifting on head *dergwecik*.

idea of long ago *zlezle*.

idea of looking *kəy*.

idea of making beer *gədok*.

idea of many *dəres*.

idea of opening door *pok*.

idea of penetration *mbərab*.

idea of positioning self for throwing spear *mək*.

idea of putting down *dən*.

idea of putting on head *təh*.

idea of quickly *kaləw*.

idea of rapidly *bəvbəvbə*.

idea of redness *daz dəz*.

idea of setting down something heavy *gədgəzəl*.

idea of sharpness *kekəb kekeb*.

idea of shining upwards *cəzlar*.

idea of a short time *mba*.

idea of some *bəl*.

idea of someone balancing something on head *dənjəw*.

idea of someone who hasn't any weight (an insult) *kəkef kəf*.

idea of something big and reflective *mbajak*.

idea of something different *tertere*.

idea of spicy hot taste *bakaka*.

idea of the start of a race *pəvban*.

idea of sweetness *podococo*.

idea of taking *jo*.

idea of the way a sick person walks *abəlgamay*.

idea/sight of child running *njədok njədok*.

idea/sight of man running *gədo gədo gədo*.

idea/sight of old person trying to run *kərwəd wəd kərwəd wəd*.

idea/sight of ostrich running *jed jed jed*.

idea/sight of rabbit hopping *pəvbəw pəvbəw*.

idea/sight of something heavy running (cows) *gərap gərap*.

idea/sight of something multiplying *wəsekeke*.

idea/sight of something thrown up high *zor*.

idea/sight of a toad hopping *pəcəkədək*.

idea/sight of youth running *njəl njəl*.

idea/sound of bottle opening *pək*.

idea/sound of cutting with axe *coco*.

idea/sound of men running *bəvbaw*.

idea/sound of movement *dəreffefe*.
 idea/sound of pounding millet
kəndal.
 idea/sound of race *bərketem*
bərketem.
 idea/sound of snake slithering
fofofo.
 idea/sound of something falling
ḥavb.
 idea/sound of something soft hitting
 the ground (a snake, or a mud wall)
vbaḥ
 idea/sound of truck engine
 humming *fəhh*.
 idea/sound of wind blowing *fowwa*.
 idol, spirit *pəra*.

if *asa*.
 immediately *pəpen*.
 in *ava*, *a...ava*.
 in spite of *re*.
 indicate *dakay*.
 insect *engeren*.
 inside house *ayva*.
 inspect, notice *zəroy*.
 insult *ndaway*.
 intersect, meet *dozloy*.
 intestines *danday*.
 introduce *ngazlay*.
 instrument, stringed *kəndew*.
 invite, try *təkaray*.
 iron, metal *hara*.

J - j

jawbone *debezem*, *malgamay*.
 jealousy *səlek*.
 join, tie *dazlay*.
 joint *hərəngezl*.
 joke *sono*.

joy *memle*.
 judgement *serəya*.
 juice, squeeze *dokay*.
 jump, pull out *hərad*.

K - k

kick *zlar*.
 kill by clubbing *kad*.
 kill by piercing *ndaz*.
 kill many, decimate *pazlay*.
 kindness, naivety *zənof*.
 kitchen *gəlan*.

knead, soak *bolay*.
 knee *hərdedem*.
 kneel *kərkay*.
 knife *mekec*.
 know *sar*.
 kola nut *goro*.

L - l

lack, be insufficient <i>ce</i> .	lick <i>ndəlkaday</i> .
ladle <i>ovolom</i> .	lie down <i>nde</i> .
lake <i>dəlov</i> .	life <i>səyfa</i> .
lamp <i>dəndara</i> .	light, dawn <i>jajay</i> .
land <i>wəyen</i> .	light <i>bay</i> .
language, word, mouth <i>ma</i> .	like <i>ka</i> .
larva, worm <i>mecekwed</i> .	like that <i>kəyga</i> .
laziness <i>esew</i> .	like this <i>kəygehe, ka nehe, ka ngəhe</i> .
leaf for making a sauce <i>njəwelek</i> .	limp <i>həjəgaday</i> .
leaf ; sauce made from edible leaves <i>elele</i> .	limpness <i>jegwer</i> .
leak, flow <i>ngaz</i> .	linger <i>zaray</i> .
lean <i>jakay</i> .	lion <i>mazloko</i> .
lean back <i>dəngaday</i> .	liver <i>gəver</i> .
learn, teach <i>dəbənay</i> .	lizard <i>baybojo</i> .
leave, let go <i>makay</i> .	long ago <i>pepenna</i> .
leave, stay <i>ndəray</i> .	look for <i>kəway</i> .
leave <i>malay</i> .	lose, get lost <i>cəjen</i> .
leave in secret <i>slohoy</i> .	lose weight <i>gəzamay</i> .
left <i>gəlo</i> .	lots <i>gobay</i> .
left (gone) <i>nje</i> .	louse <i>cece</i> .
leg, foot <i>asak</i> .	love, want <i>ndaday</i> .
leopard <i>medələngwez, tədo</i> .	luck <i>jen</i> .
leprosy <i>kokolo</i> .	lungs <i>pahav</i> .
liar <i>ongolo</i> .	lust <i>obor</i> .

M - m

make cold <i>ndeslen</i> .	mango <i>mongoro</i> .
male, man, husband <i>zar</i> .	manioc <i>ambay</i> .
man, young <i>albaya</i> .	many, enough <i>hada</i> .
man (young, over 18) <i>njavar</i> .	market <i>kosoko</i> .

market day at home *molom*.
 market day at the village of Doule
Dəwlek.
 market day at the village of Mokəyo
Mokəyo.
 market day in the village of Meme
Meme.
 marry *baday*.
 mash *jədokoy*.
 mat *bəwce*.
 mate with *laway*.
 maybe *ndawan*.
 Mbuko people/language *Mboko*.
 meanwhile *macəkəmbay*.
 meat *sese*.
 medicine *həraf*.
 meet, intersect *dozloy*.
 melt *pədak*.
 men *zawər ahay*.
 metal, iron *hara*.
 middle, centre *mbedem*.
 milk, breast *dəwa*.
 millet *háy*.
 millet, dry season; sorghum *omsoko*.
 millet, red *mbərkala*.
 millet beer *gəzom*.
 millet drink *dəwlay*.
 millet leaf *fefen*.

millet porridge, food *daf*.
 minimize *rasay*.
 misbehave *sədaray*.
 misfortune *ezewk*.
 mix *japay*.
 mix grain with ashes to prevent insects
 from eating seeds *slahay*.
 Moloko people/language *Məloko*.
 Monday market, prince *Yerəyma*.
 money *dala, səloy*.
 mongoose *mekələwez*.
 monkey *kərkadaw*.
 moon *kəya*.
 morning *dedew*.
 mortar *cəjen*.
 mosquito *tenjew*.
 mother *mama*.
 mount *kəroy*.
 mountain *bərzlan*.
 mouse *okfom*.
 mouse species *zən zan*.
 mouse trap *lolokoy, ngəmgam*.
 mouth, language, word *ma*.
 move *bal*.
 much *gam*.
 multiply *daslay, sak*.
 mushroom *opongo*.

N - n

nail, claw *ehwəde*.
 naivety, kindness *zənof*.
 name, ear *sləmay*.
 name of child following twins *Aban*.

name of first twin *Masay*.
 name of second twin *Aləwa*.
 name of a village and a clan of Moloko
Fətak.

nape *dəgom*.
neck, voice *dəngo*.
needle *ləpəre*.
neighbour *dəlməte*, *vəymete*.
net *zəva*.
never again *asabay*.
newborn baby *kokofoy*.
news *ləbara*.
next year *bəyaw*.
night *ləvan*.
nine *holombo*.
no *ehe*.
no one *meslenen*.
nod *gazay*.
nose *hənder*.
not *bay*.

not so? *esəmey*.
not yet *fabay*.
notice, inspect *zəroy*.
noun clitic, plural *ahay*.
noun clitic, 1s possessive *əwla*.
noun clitic, 2s possessive *ango*.
noun clitic, 3s possessive *ahan*.
noun clitic, 1PEX possessive *aləme*.
noun clitic, 1PIN possessive *aloko*.
noun clitic, 2P possessive *aləkwəye*.
noun clitic, 3P possessive *ata*.
noun clitic, adjectiviser *ga*.
noun suffix, respectful vocative *-ya*.
now *cəcəngehe*, *azla*.
number *lamba*.

O - o

obligation *dewele*.
oil *amar*.
okra *atəko*.
old person *mədehwer*.
older sibling *mədəga*.
on *kə...aka*.
one *bəlen*.
one complete year *daz*.

one time, occasion *baya*.
onion *eteme*.
open *vpay*.
ostrich *erkece*.
outside *amata*.
overwhelm *cəbay*.
owl *hehen*.
oyster *vəlalay*.

P - p

pack down *jokoy*.
pap, hot drink made with rice
mətərak.

paper *dələywel*.
pardon *homboh*.
partridge *təkwərak*.

pass *mbərzlay*.
 pay *par*, *wərkay*.
 pay a debt *hamay*.
 peace, wholeness *zay*, *zazay*.
 peanut *andəra*.
 peanut cookie, deep fried *azay andəra*.
 peel *cəlokoy*.
 peel, skin *mbəldoy*.
 peel off, undress *kərtoy*.
 people *ndam*.
 Perfect *va*.
 perhaps *azana*, *adan bay*.
 person *məze*.
 persuade, relieve *dəbakay*.
 pierce *caslay*, *zlar*.
 pierce, cut *cazlay*.
 pig *madəras*.
 pile something *tah*.
 place *slam*.
 plant *jav*.
 plant, snore *daray*.
 plant, throw *zləge*.
 play a wind instrument *fe*.
 pluck *rah*.
 plug *dak*.
 polite demand *etey*.
 populate *wasay*, *wədoj*.
 possessed by *anga*.

pot *dedew*, *məsek*.
 potash *wəle*.
 power *njəda*.
 prepare, cook *de*.
 presupposition marker *na*.
 prevent *ngar*.
 price *cəkele*.
 pronoun, 2S *nok*.
 pronoun, 3S *ndahan*.
 pronoun, 1S *ne*.
 pronoun, 1PEX *ləme*.
 pronoun, 1PIN *loko*.
 pronoun, 2P *ləkwəye*.
 pronoun, 3P *təta*.
 pound, crush *zlabay*.
 pour *bah*.
 prince, Monday market *Yerəyma*.
 prune *kaday*.
 publish, announce *wəzlay*.
 pull *gəjah*.
 pull out, jump *hərad*.
 pumpkin *mabasl*.
 punish *kətay*.
 pus *oroh*.
 push *hakay*.
 put *koroy*.
 put, set down *fad*.
 put horizontally *mərcay*.
 put on a roof *var*.

Q - q

quarrel, hate *hərnje*.

question marker *daw*.

R - r

rabbit *zlevek*.
rafter *kære*.
rain *avar*.
rainy season *savah, vəya*.
ram *gəgoro*.
razor *pedewk*.
reach out *tah*.
redness *gogwez*.
recoil, withdraw *dar*.
relieve, persuade *dəbakay*.
remove *zlərav*.
remove forcibly *pərtay*.
remove insides *pəcahay*.
repair *sebetəy, sləbatay*.
reprimand, scold *ndahay*.
rest, breathe *mbesen*.
rib *vəy*.

richness *zləle*.
rip *ngaray*.
ripen *nah*.
river *zəraka*.
road *cəved*.
roast *njahay*.
rock *okor*.
rock, large *pərad*.
roll, wind *tədoj*.
room *ver*.
rooster *agwazlak*.
root *sləlay*.
rot *hərzloy*.
rot meat to flavour food *gəvoy*.
rub, wipe *pətatay*.
ruin *mbəzen*.
run *həmay*.

S - s

sack; thousand francs *ombolo*.
saliva *eslesleḃ*.
salt *zetene*.
satisfy, fill *rah*.
sauce made from edible leaves, leaf
elele.
sauce made of bean leaves *azəbat*.
save *tam*.
save, economize *johoy*.
saying *awəy*.
scarify *cahay*.
scatter *poloy*.

school *lekwel*.
scold, argue *mbe*.
scold, reprimand *ndahay*.
scoop *kətefer*.
scorpion *harac*.
scrape *kərdaway*.
scratch *far*.
sea *bəlay*.
see *mənjər*.
seeds *həlfə*.
seer *kəlen*.
seize, trap *kəcaway*.

self, heart *ḥarav*.
 sell/buy *səkom*.
 send *slar*.
 separate, comb *njaray*.
 sesame seeds/plant *agaban*.
 set, work with wood or grasses *ngay*.
 set down, put *fad*.
 seven *səsəre*.
 sew *bah*.
 shadow, spirit *sənewk*.
 shake *wazay*.
 shake out stones *təmbalay*.
 shakers *kwede kwede*.
 shame *məray*.
 share, divide *wəḍakay*.
 sharpen to a point *fətaday*.
 sheep *təmak*.
 shell *pəlday*.
 shepherd; stake *jəgor*.
 shepherd *jəgor*.
 shine *wazlay*.
 shine *wəcaday*.
 shoes *tətərak*.
 shoot an arrow *bar*.
 sibling *mələma*.
 sibling, spouse's *adamay*.
 sickle *mavad*.
 sift *sakay*.
 silence *goloy*.
 simmer *ngwəḍaslay*.
 sit, suffice *nje*.
 six *məko*.
 skewer *cabay*.
 skin *hambar*.
 skin, peel *mbəldoy*.
 sky, god *hərmbəlom*.
 slander *sahay*.
 slave *beke*.

slay *slay*.
 sleep *dəwer*.
 slide *slaray*.
 slide *soroy*.
 slurp, sniff *gorcoy*.
 small amount *nekwen*.
 smallness *cəḍew, hwəsese*.
 smell *ze*.
 smile *mbasay*.
 smoke *azak*.
 smooth *caday*.
 smoothness *kwəlede*.
 snake *enen, gogolvon, mahaw*.
 snap *kəbəcay*.
 sniff, slurp *gorcoy*.
 snore, plant *daray*.
 so and so *mana*.
 soak, knead *bolay*.
 soak in order to soften, flourish *də*.
 soccer ball/soccer *balon*.
 son *gwəla*.
 son, firstborn *gəlo*.
 song *ləmes*.
 sorcery *madan*.
 sore, cut *ambəlak*.
 sorghum, dry season millet *omsoko*.
 sow, throw *gocoy*.
 sparrow *angwərzla*.
 speak *jay*.
 speak badly of someone for one's own
 interest *pahay*.
 spear *ezlere*.
 spend time *ve*.
 spider *mazlərpapan*.
 spin *yamay*.
 spirit being *səkar*.
 spirit, bad *wəge*.
 spirit, idol *pəra*.

spirit, shadow *sənewk*.
 spit *taf*.
 split in half *pəlslay*.
 spray *pəray*.
 spread for building *dazl*.
 spread out *waday*.
 spread out, detach *pasay*.
 squash, large *layaw*.
 squat, crouch *cədokay*.
 squeeze out *zlokoy*.
 squeeze, collect *bərkaday*.
 squeeze, juice *dəcay*.
 squirrel *ayah*.
 stable *jəgəlen*.
 stake, shepherd *jəgor*.
 stalk *dəgocoy*.
 stand *cəke*.
 star *wərzla*.
 star, large and bright; planet Venus
abangay.
 star of the morning *abangay*
dedew.
 star of the night *abangay aləho*.
 start *zlan*.
 stay, leave *ndəray*.
 steal *karay*.
 sterilize, castrate *daslay*.

stick (noun) *adangay*.
 stick (verb) *tapay*.
 stir *bal*.
 stomach *hod*.
 story *bamba*.
 stranger, traveler *merkwe*.
 strength *gədan*.
 stretch *ndərdoy*.
 strip leaves from stalk *goroy*.
 succeed *damay*.
 suck *səboy*.
 suddenly *jəwk jəwk*.
 suffer pain *zlakay*.
 suffering *avəya*.
 suffice, sit *nje*.
 sugar cane *ombodoc, reke*.
 sun, daytime *fat*.
 Sunday market *Zlaba*.
 surpass *dal*.
 swallow *ndaway*.
 swear *mbaday*.
 sweep *kərsəy*.
 swell *hasl*.
 swim *zlavay*.
 sword *maslalam*.
 sword, traditional *ndən nden*.
 syphilis *dolokoy*.

T - t

tail *hwəter*.
 take or steal by force *gəjar*.
 take, carry *zad*.
 take courage *angolay*.
 take leaves off stalk *slohoy*.

take many *dəya*.
 take upon oneself *waray*.
 talk with someone *zlapay*.
 tamarind *mawar*.
 tan (treat animal skin) *gwəzoy*.

tap *tokoy*.
 taste *təkam*.
 taste good *car*.
 teach, learn *dəbənay*.
 tear away, break *ngərway*.
 tear to pieces, first pounding *borcay*.
 tear up *caray*.
 teeth, front *maslar*.
 tell *hay*.
 tempt, trick *səbatay*.
 temptation, trap *azan*.
 ten *kəro*.
 termite mound *fenge*.
 termite species *manjara*, *zlək zlak*.
 termites *eleməzləbe*.
 thanks *səwse*, *wəse*.
 that is, because *kəwaya*.
 theft *akar*.
 then *kəlen*.
 there *nendəye*, *nəngehe*.
 therefore *nde*.
 thigh *dəgolay*.
 thing *ele*.
 think *dəgalay*.
 this *ndana*.
 this particular one here *ngəhe*.
 thorn *hadak*.
 thousand francs, sack *ombolo*.
 three *makar*.
 threshing floor *gəlan*.
 throat *mbərlo*.
 thousand *dəbo*.
 throw, plant *zləge*.
 throw, sow *gocoy*.
 throw a fit *bərzlay*.
 thumb *baba ahar*.
 Thursday, market day in the village
 of Doulek *Dəwlek*.

tie, join *dazlay*.
 tie off *tərdəy*.
 time *dəma*.
 tire out *yadəy*.
 to a, ana.
 toad *moktonok*.
 today *egəne*.
 tolerate *basay*.
 tomorrow *hajan*.
 tongue *hərnek*.
 tooth *aslar*.
 toss and turn while sick *baray*.
 touch *lamay*.
 trace *toho*.
 trap *pərgom*.
 trap, seize *kəcaway*.
 trap, temptation *azan*.
 traveler, stranger *merkwe*.
 treasure *eləmene*.
 tree *memele*.
 tree, thorny *orov*.
 tree species *agwazla*, *edongwered*,
ngəvəray, *zəgogom*.
 tribe *jəbe*.
 trick *cədo*.
 trick, tempt *səbatay*.
 truck *məwta*.
 trumpet *məzlelem*.
 truth *dəden*, *jere*.
 try *zokoy*.
 try, invite *təkaray*.
 Tuesday market *Tokombere*.
 turn off *mbat*.
 turtle *kərkayah*.
 twin *molo*.
 twist *təmbadəy*.
 twist, hang *vaway*.
 two *cew*.

U - u

uncle, maternal *gəmsodo*.
understand, hear *cen*.
undress *cokoy*.
undress, peel off *kərtoy*.
unite, assemble *cəkalay*.

untie *mbərcay*.
until *ha*.
uproot, bud *tosoy*.
uproot a tree *fakay*.

V - v

vegetable sauce *mosokoy*.
Venus, large and bright star *abangay*.
verb clitic, 3S direct object *na*.
verb clitic, 3P direct object *ta*.
verb clitic, 1S indirect object *aw*.
verb clitic, 2S indirect object *ok*.
verb clitic, 3S indirect object *an*.
verb clitic, 1PEX indirect object
aləme.
verb clitic, 1PIN indirect object
aloko.
verb clitic, 2P indirect object
aləkwəye.
verb clitic, 3P indirect object *ata*.
verb clitic, away *alay*.

verb clitic, in *ava*.
verb clitic, on (top of) *aka*.
verb clitic, towards *ala*.
verb clitic, Perfect *va*.
verb prefix, 1S/P subject *n-*.
verb prefix, 2S/P subject *k-*.
verb prefix, 3S subject *a-*.
verb prefix, 3P subject *t-*.
verb suffix, 1PEX subject *-om*.
verb suffix, 1PIN/2P subject *-ok*.
village *slala*.
viper *mətəmbətəmbezl*, *kwəcesl*.
voice, neck *dəngo*.
vomit *vənahay*.
vulture *azlam*, *molo*.

W - w

wait, watch over *kasl*.
wake up *pədakay*.
walk *talay*.

wall *hədo*.
want, cut *say*.
want, love *ndaday*.

wart *səsayak*.
 wash *balay*.
 wash clothes *jorboy*.
 waste *wahay*.
 watch intently *zərday*.
 watch over, wait *kasl*.
 water *yam*.
 weapon, bracelet *alahar*.
 wear small leather article of clothing
 pocoy.
 weave *ndar*.
 weave, granulate *gədəgar*.
 Wednesday market *Patatah*.
 Westerner *asara*.
 wet, whip *ndabay*.
 what *almay, malmay*.
 what (emphatic) *may*.
 what's his/her name *andakay*.
 when *epeley*.
 where *amtamay*.
 which *weley*.
 whip *eyewed*.
 whip, wet *ndabay*.
 whisper *sokoy*.
 whistle *fokoy*.

who *way*.
 wholeness, peace *zay, zazay*.
 why *kamay*.
 wife, woman *hor*.
 wind *həmad*.
 wind, roll *tədoy*.
 wings *kərpasla*.
 winnow *vay*.
 wipe, rub *patay*.
 wipe out, cancel *vasay*.
 wisdom, brain *endeḅ*.
 with *nə*.
 withdraw, recoil *dar*.
 without *mənjad*.
 without help *sawan*.
 witness *sede*.
 woman, wife *hor*.
 women *hawər ahay*.
 wood *oloko*.
 work *slərele*.
 work with wood or grasses, set *ngay*.
 worm, larva *mecekwed*.
 wrap *kəmbohoy*.
 wrinkle the skin *ngərdasay*.
 write *wacay*.

Y - y

yam *obolo*.
 yard *gala*.
 year *məvəye*.

yes *ayaw*.
 yesterday *apazan*.

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Moloko

Mana Samuel, Mana Isaac, and Ali Gaston have been involved in their communities in linguistics, language development and translation. They are Moloko speakers and between them they also speak French, Fulfulde, Guiziga, Muyang, and Hausa. Together with the Moloko Language and Translation committees they have produced several books in the Moloko language. Dianne Friesen, a linguist with SIL International, joined them in 1999, studied the language, and helped in producing the books. Together they produced this grammar. It came out of hours spent at friends' houses hearing and recording stories, hours spent listening to the tapes and transcribing the stories, then translating them and studying the language through them. Time was spent together and with others speaking the language and talking about it, translating resources and talking to people about them. Grammar discoveries were made in the office, in the fields while working, and at gatherings. In the process, the four have become more and more passionate about the Moloko language and are eager to share their knowledge about it with others.

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