Moloko

Dianne Friesen

with Mana Djeme Isaac, Ali Gaston,
and Mana Samuel

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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

"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

Acknowledgments

Abbreviations

/ verb stem /	underlying form	LOC	semantic location
1	1st person	n.	noun
2	2nd person	nclitic	noun clitic
3	3rd 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
		PRG	progressive aspect
EXT	existential	PSP	presupposition marker
GEN	genitive particle	quant.	quantifier
HOR	Hortative mood	QUEST	interrogative pronoun
ID	ideophone	R	realis mood
IFV	Imperfective aspect	S	singular
IMP	imperative	S. #	sentence number from text
IN	inclusive (first person plural)	spp.	species
		v.	verb
interj.	interjection	vclitic	verb clitic
IO	indirect object pronominal	vpfx.	verb prefix
		vsfx.	verb suffix
ITR	habitual iterative aspect		

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,

- 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 chosen from among many that were recorded while the first author lived in the Moloko region from 1999 to 2008. They are used with permission. 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.

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[1] 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 the term "extension" for Chadic languages has a different use than for Bantu languages. Verbal "extensions " in languages from the Niger-Congo, Nilo-Saharan, and Khoisan families have derivational or inflectional functions (Hyman 2007).

1.1 Linguistic classification

Moloko (or Melokwo, Molkore,[2] Mǝloko[3]) 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 (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. There are three villages on the summit itself. Moloko villages 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 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. Those with several years of education also speak French.

Men often marry women from neighboring language groups, so homes can be multilingual, but the spoken language at home tends to be the language of the father. Friends will often switch languages as they are conversing, perhaps when

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[2] Molkore is the Fulfulde name for Moloko.

[3] Mǝloko is the spelling for this name using the Moloko orthography. The orthography, described in Friesen (2001), is being used by the Moloko (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 subbranch, Wandala-Mafa group, Mafa-south sub-group (A5).

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

Afro-asiatic	Berber			
	Cushitic			
	Egyptian			
	Omotic			
	Semitic			
	Chadic	East		
		Masa		
		West		
		Biu-Mandara	**A**	A1
				A2
				A3
				A4
				A5	Baldemu

					Baldemu
					Cuvok
					Dugwor
					Giziga, North
					Giziga, South
					Zulgo-Gemzek
					Mafa
					Merey
					Matal
					Mefele
					Mofu, North
					Mofu-Gudur
					Vame
					Moloko
					Mbuko
					Muyang
					Mada
					Wuzlam
			A6	
			A7	
			A8	
		B		
		C		
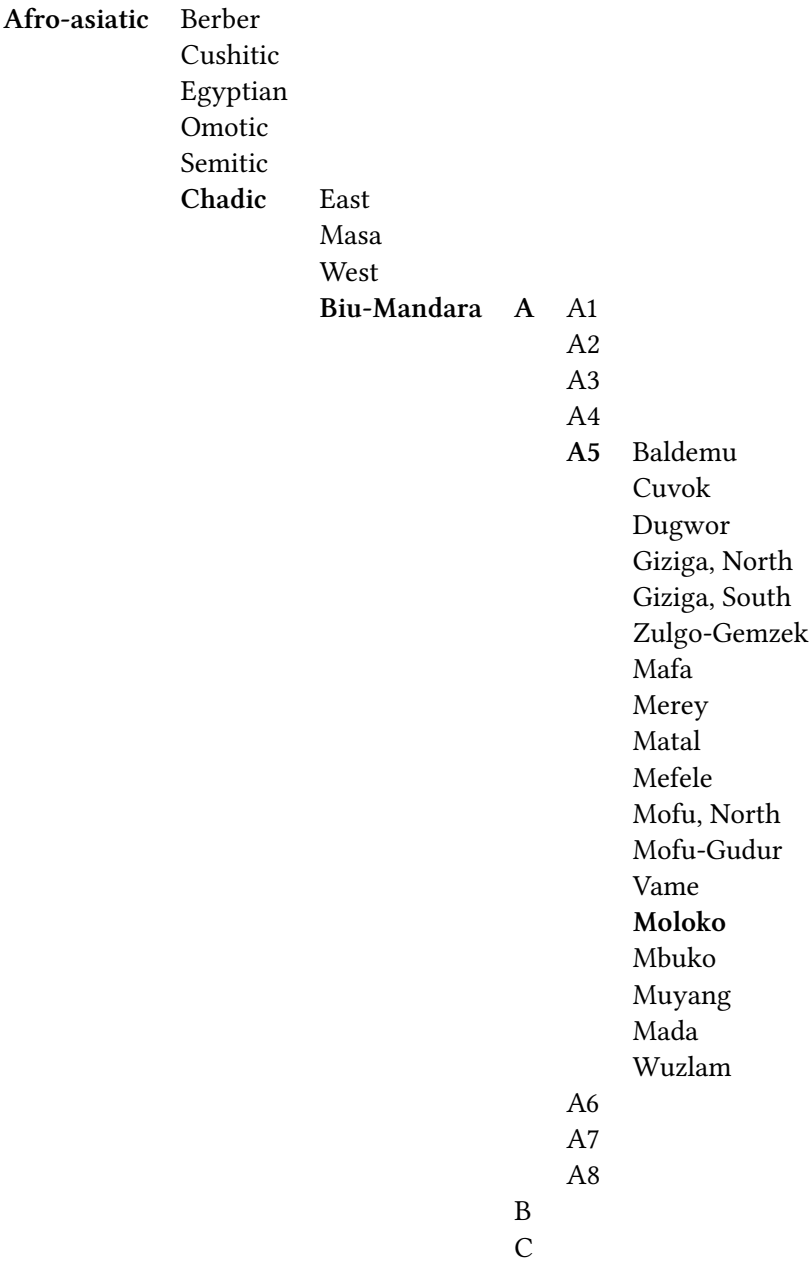
Figure 1.1: Classification of Moloko

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. Other works consulted include the following: Bow (1997b) presents the classification of Moloko.Bow (1997c) is a manuscript on labialisation and palatalisation in Moloko. 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. The Moloko translation committee has produced (among other work) two primers (Committee (2004a), Committee (2008)), transfer primers from French (Committee (2005a)) and Fulfulde (Committee (2007a)), as well as several booklets with fables (Committee (2004b), Committee (2005b), Committee (2007a)-Committee (2007d)).

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

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

Setting

(1) Ele ndana ege na, ne a Kosewa.
    ɛlɛ   ndana ɛ-g-ɛ   na nɛ a Kʷɔʃɛwa
    thing DEM   3s-do-CL PSP 1S at Kossewa,
    '[When] this thing happened, I was [living] at Kossewa.'

(2) Ne məndəye ga elé əwla.
    nɛ mɪ-nd-ijɛ   ga ɛlɛ =uwla
    1S NOM-lie down-CL ADJ eye =1S.POSS
    'I was lying down.'

(3) Ne ɗəwer ga.
    nɛ ɗuwɛr ga
    1S sleep   ADJ
    'I was sleeping.'

Episode 1

(4) Alala na, gogolvan na, olo alay.
    a-l=ala   na gʷɔgʷɔlvaŋ na ɔ̀-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   kɪrɛ   ava fɔ fɔ fɔ
    3s-climb at house wood in   IDsound of snake
    'It climbed into the beams in the roof of the house *fo fo fo*.'

(6) Sen ala na, okfom adaɗala ɓav!
ʃɛŋ =ala na ɔkʷfɔm à-dəɗ =ala ɓav
ɪᴅgo =to ᴘꜱᴘ mouse 3ꜱ+ᴘꜰᴠ-fall =to ɪᴅsound of falling
'And walking, a mouse fell *ɓav*!'

(7) Ne awəy, "Alma amədəvala okfom nehe may?"
nɛ awij alma amə-dəv=ala ɔkʷfɔm nɛhɛ maj
1ꜱ said what ᴅᴇᴘ-fall=to mouse ᴅᴇᴍ what
'[I woke up] I said [to myself], "What made that mouse fall?"'

Peak episode

(8) Mbaɗala ehe na, nabay oko,
mbaɗala ɛhɛ na nà-b-aj ɔkʷɔ
then here ᴘꜱᴘ 1ꜱ+ᴘꜰᴠ-light-ᴄʟ fire
'Then, I turned on a light,'

(9) nazaɗala təystəlam əwla.
nà-zaɗ =ala tijstəlam =uwla
1ꜱ+ᴘꜰᴠ-take =to torch =1ꜱ.ᴘᴏꜱꜱ
'I took my flashlight.'

(10) Nabay cəzlar.
nà-b-aj tsəg̱ar
1ꜱ+ᴘꜰᴠ-light-ᴄʟ ɪᴅshining the flashlight up
'I shone it up *cəzlar*.'

(11) Nábay na,
ná-b-aj na
1ꜱ-light-ᴄʟ ᴘꜱᴘ
'[As] I shone [it],'
námənjar na, mbajak mbajak mbajak gogolvan!
ná-mənzar na mbadzak mbadzak mbadzak gʷɔgʷɔlvaŋ
1ꜱ+ɪꜰᴠ-see ᴘꜱᴘ ɪᴅsomething big and reflective snake
'I was seeing it, something big and reflective, a snake!'

(12) Ne awəy, "A, enen baj na, memey na!"
nɛ awij a ɛnɛŋ baj na mɛmɛj na
1ꜱ said interj. snake ɴᴇɢ ᴘꜱᴘ how ᴘꜱᴘ
'I said to myself, "Wah! It's a snake!"' (lit. a snake, if not, how)

(13) Ne mbət məmbete oko əwla na,
      nɛ mbət   mɪ-mbɛt-ɛ   ɔkʷɔ =uwla   na
      1s ɪᴅturn off ɴᴏᴍ-turn off-ᴄʟ light =1s.ᴘᴏss ᴘsᴘ
      'I turned off my light,'

      kaləw nazaɗala ɛʤɛrɛ =uwla.
      kàluw   nà-zaɗ   =ala ɛʤɛrɛ =uwla
      ɪᴅtake quickly 1s+ᴘꜰᴠ-take =to spear =1s.ᴘᴏss
      '[and] quickly took my spear.'

(14) Mək ava alay,
      mək   =ava =alaj
      ɪᴅpositioning self for throwing =in   =to
      '[I] positioned [myself] *mək*!'

(15) Mecesle mbəraɓ!
      mɛ-tʃɛɬ-ɛ   mbəraɓ
      ɴᴏᴍ-penetrate-ᴄʟ ɪᴅpenetrate
      'It penetrated, *mbəraɓ*!'

(16) Ele a Hərmbəlom ele ga ajənaw ete
      ɛlɛ   a   Hʊrmbʊlɔm ɛlɛ   ga à-dzən   =aw ɛtɛ
      thing ɢᴇɴ God   thing ᴀᴅᴊ 3s+ᴘꜰᴠ-help =1s.ɪᴏ also
      'God helped me also'

      kəl kəl kə ndahan aka
      kəl kəl kə ndahaŋ aka
      exactly on 3s   on
      '[that the spear went] exactly on him.'

(17) Ádəɗala vbaɓ a wəyen ava.
      á-dəɗ   =ala vaɓ   a wijɛŋ ava
      3s+ɪꜰᴠ-fall =to ɪᴅfalling at ground on
      'He fell on the ground *vbaɓ*.'

(18) Ne dəyday məkəɗe na aka
      nɛ dijdaj   mɪ-kɪɗ-ɛ   na   =aka
      1s approximately ɴᴏᴍ-kill-ᴄʟ 3s.ᴅᴏ =on
      'I clubbed it to death (approximately).'

Dénouement

(19) Hor əwla olo alay awəy egege,
      hʷɔr   =uwla   ɔ̀-lɔ   =alaj awij ɛgɛgɛ
      woman =1S.POSS 3S+PFV-go =to   said that
      'My wife went and said,'

      "A a nəngehe na, Hərmbəlom aloko ehe.
      a a   nɪŋgɛhɛ na Hʊrmbʊlɔm =alɔkʷɔ ɛhɛ
      exclamation DEM   PSP God   =2S.POSS here
      '"Wah! This one here, our God [is] really here [with us].'

      Bəyna anjakay nok ha a slam məndəye ango ava,
      bijna   à-nzak-aj   nɔkʷ ha   a   ɬam mɪ-nd-ijɛ   aŋgʷɔ 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 to the place of
      your lying)

      alala Hərmbəlom ajənok na, səwse Hərmbəlom."
      a-l =ala   Hʊrmbʊlɔm à-dzən   =ɔkʷ na ʃuwʃɛ   Hʊrmbʊlɔm
      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.
      hʷɔr   =uwla   à-h=aw   kijgɛhɛ
      woman =1S.POSS 3S+PFV-tell=1S.IO like that
      'My wife said it like that.'

(21) Alala, nəzlərav na ala gogolvan na a amata ava.
      a-l=ala   nə̀-ɮərav   na   =ala gʷɔgʷɔlvaŋ 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.'

(22) Ko dedew babəza əwla ahay aməzləravala amata na, tawəy,
      kʷɔ dɛdɛw   babəza =uwla   =ahaj amə-ɮərav =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 ákaɗ gogolvan, baba ákaɗ gogolvan!"
      baba á-kaɗ   gʷɔgʷɔlvaŋ baba á-kaɗ   gʷɔgʷɔlvaŋ
      father 3S+IFV-kill snake   father 3S+IFV-kill snake
      '"Papa killed a snake, Papa killed a snake!"'

(23) Tájaka kəygehe.
      tá-dz   =aka kijgɛhɛ
      3P+IFV-say =on   like that
      'They said it like that.'

Conclusion

(24) Ka nehe ləbara a ma ndana ɗəwge.
      ka nɛhɛ ləbara a   ma   ndana ɗuwgɛ
      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 dərgoɗ!
      bamba bamba kʊlɔ   dʊrgʷɔɗ
      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 tʃɛʒɛrɛ   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 ahay na, Hərmbəlom ávəlata barka va.
      ʒɛʒɛ   na Mʊlɔkʷɔ =ahaj na Hʊrmbʊlɔm 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 təwasva nekwen kəygehe ɗəw,
kuwaja asa tə̀-was=va   nɛkʷɛŋ kijgɛhɛ ɗuw
that is if 3P+PFV-cultivate=PRF little   like this also
'That is, even if they had only cultivated a little [millet] like this,'

ávata məvəye haɗa.
á-v   =ata mɪ-v-ijɛ   haɗa
3S+IFV-spend time =3P.IO NOM-spend time-CL a lot
'it would last them enough for the whole year.'

(5) Aməhaya kə ver aka na, tázaɗ war elé háy bəlen.
amə-h =aja kə vɛr   aka na tá-zaɗ   war ɛlɛ haj   bɪlɛŋ
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 tə́nday táhaya na na,
ndɛ asa tə́-ndaj   tá-h   =aja na   na
so if 3P+IFV-PRG 3P+IFV-grind =PLU 3S.DO PSP
'So, whenever they were grinding it,'

həmbo na, ásak nə məsəke.
hʊmbɔ na á-sak   nə   mɪ-ʃɪk-ɛ
flour   PSP 3S+IFV-multiply with NOM-multiply-CL
'the flour, it multiplied with multiplying.'

(7) War elé háy bəlen fan na,
war ɛlɛ haj   bɪlɛŋ faŋ na
child eye millet one   yet PSP
'Just one grain of millet,'

ájata pɛw ha ámbaɗ ɛʃɛ.
á-nz=ata   pɛw ha á-mbaɗ   ɛʃɛ
3S+IFV-suffice=3P.IO enough until 3S+IFV-remain again
'it sufficed for them, even to leaving leftovers.' (lit. until it remained again)

(8) Waya a məhaya ahan ava na,
waja   a mə-h   =aja =ahaŋ ava na
because at NOM-grind =PLU =3S.POSS in PSP
'Because, during its grinding,'

ásak kə ver aka nə məsəke.

á-sak   kə vɛr   aka nə   mɪ-ʃɪk-ɛ
3S+IFV-multiply on grinding stone on   with NOM-multiply-CL

'it would actually multiply on the grinding stone.' (lit. multiply with multiplying)

Episode 1

(9) Nde ehe na, albaya ava aba.
     ndɛ ɛhɛ 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-lɔ   à-z   =ala dalaj
      3S+PFV-go 3S+PFV-take =to   girl

      'He went and took a wife.'

(11) Azləna, war dalay ndana, cezlere ga.
      aʒəna war dalaj   ndana tʃɛɟɛrɛ   ga
      but   child female DEM   disobedience ADJ

      'Now, that young girl was disobedient.'

(12) Sen ala na, zar ahan na,
      ʃɛŋ =ala na zar =ahaŋ   na
      IDgo =to PSP man =3S.POSS PSP

      'Then her husband'

      dək medakan na, mənjəye ata.
      dək   mɛ-dak=aŋ   na   mɪ-nʒ-ijɛ =atəta
      IDshow NOM-show=3S.IO 3S.DO NOM-sit-CL =3P.POSS

      'instructed her in their habits.' (lit. instructing their sitting)

(13) Awəy, "Hor golo, afa ləme na,
      awij hʷɔr   gʷɔlɔ   afa   lɪmɛ na
      said woman HONOUR at place of 1Pex PSP

      'He said, "My dear wife, here at our (exclusive) place,

mənjəye aləme na, kəygehe.
mɪ-nʒ-ijɛ =alɪmɛ   na kijgɛhɛ
NOM-sit-CL =2Pex.POSS PSP like this
'it is like this.'

Asa asok aməhaya na,
asa à-s=ɔkʷ   amə-h =aja na
if 3s+PFV-please=2s.IO DEP-grind =PLU PSP
'If you want to grind,'

kázaɗ war elé háy bəlen.
ká-zaɗ   war ɛlɛ haj   bɪlɛŋ
2s+IFV-take child eye millet one
'you take only one grain.'

War elé háy bəlen ga nəndəye nok amezəɗe na,
war ɛlɛ haj bɪlɛŋ ga nɪndijɛ nɔkʷ amɛ-ʒɪɗ-ɛ   na
child eye 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,'

Ánjaloko de pew.
á-nz   =alɔkʷɔ dɛ   pɛw
3s+IFV-suffice =1Pin.IO enough finished
'It will suffice for all of us just enough.'

Ádaloko ha ámbaɗ ese.
á-d   =alɔkʷɔ ha á-mbəɗ   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 məhaya ahan ava na,
waja   a mə-h=aja   =ahaŋ ava na
because at NOM-grind=PLU =3s.POSS in PSP
'because, during the grinding,'

Hərmbəlom anday ásakaləme na aka."
Hʊrmbʊlɔm 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,
hʷɔr na a-mbəɗ=aŋ =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 ɓəl na, zar ahan olo
ndahaŋ ama-nd =ava ɓəl na zar =ahaŋ ɔ̀-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 dɪlmɛtɛ =ahaŋ aka a ɬam ɛnɛŋ
DEP-walk-CL on neighbor =3S.POSS on at place another
'to walk in the neighborhood to some place.'

(17) Azləna, hor na, asərkala afa təta va na,
aʑəna hʷɔr na à-sərk =ala afa təta =va na
but 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),'

ɗen bəlen tə kə ver aka,
ɗɛŋ   bɪlɛŋ tə   kə vɛr   aka,
ɪᴅput one   ɪᴅput one on stone on
'[she put] one grain on the grinding stone.'

(19)   Awəy, "Gəlo ahay nehe azla na, malmay nəngehe na may?
awij gʊlɔ   =ahaj nɛhɛ aƙa na malmaj nɪŋgɛhɛ na maj
said fellow =Pl   ᴅᴇᴍ now ᴘsᴘ what   ᴅᴇᴍ   ᴘsᴘ what
'She said, "Friends, here, what is this?'

Háy bəlen azla na, náambəzaka məhaya əwla na,
haj   bɪlɛŋ aƙa na, náá-mbəz   =aka mə-h   =aja =uwla   na
millet one   now ᴘsᴘ 1s+ᴘᴏᴛ-ruin =on ɴᴏᴍ-grind =ᴘʟᴜ =1s.ᴘᴏss ᴘsᴘ
'One grain, [with it] I know I will ruin my grinding.'

Meme ege mey?
mɛmɛ ɛ-g-ɛ   mɛj
how   3s-do-ᴄʟ how
'What is happening?' (What should I do?)

Nehe na, məseɓete hərav əwla ɗaw?
nɛhɛ na mɪ-ʃɛɓɛt-ɛ   hərav =uwla   ɗaw
ᴅᴇᴍ ᴘsᴘ ɴᴏᴍ-deceive-ᴄʟ body =1s.ᴘᴏss ǫᴜᴇsᴛ
'This, am I deceiving my body?'

Bəy na, malmay?
bij na malmaj
ɴᴇɢ ᴘsᴘ what
'If not, what is it then?'

Aya jen ele ahay nendəye na, nagala kəyga bay."
aja dʒɛŋ ɛlɛ =ahaj nɛndijɛ na nà-g   =ala kijga   baj
so chance thing =Pl   ᴅᴇᴍ   ᴘsᴘ 1s+ᴘꜰᴠ-do =to like this ɴᴇɢ
'Above all, these things, I have never done like this."'

Peak episode

(20)   Jo madala háy na, gam.
dzɔ   ma-d   =ala haj   na gam
ɪᴅtake ɴᴏᴍ-prepare =to   millet ᴘsᴘ a lot
'[She] prepared lots of millet.' (lit. millet prepared, lots)

(21) Ndahan bah məbehe háy ahan
ndahaŋ bax   mɪ-bɛh-ɛ   haj   =ahaŋ
3s   ɪᴅpour ɴᴏᴍ-pour-ᴄʟ millet =3s.ᴘᴏss
'She poured her millet'

amadala na kə ver aka azla.
ama-d   =ala na   kə vɛr   aka aƙa
ᴅᴇᴘ-prepare =to 3s.ᴅᴏ on stone on now
'to prepare it on the grinding stone.'

(22) Njəw njəw njəw aməhaya azla.
nzuw nzuw nzuw amə-h   =aja aƙa
ɪᴅgrind   ᴅᴇᴘ-grind =ᴘʟᴜ now
'*Njəw njəw njəw* [she] ground [the millet] now.'

(23) Həmbo na ɗəw, anday ásak ásak ásak.
hʊmbɔ na ɗuw à-ndaj   á-sak   á-sak
flour   ᴘsᴘ also 3s+ᴘꜰᴠ-ᴘʀɢ 3s+ɪꜰᴠ-multiply 3s+ɪꜰᴠ-multiply

á-sak
3s+ɪꜰᴠ-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   ᴘsᴘ 3s   ᴇxᴛ ɪᴅgrind
'And she, she is grinding some more *njəw, njəw, njəw*.'

(25) Anday ahaya nə məzere ləmes ga.
à-ndaj   à-h   =aja nə   mɪ-ʒɛr-ɛ   lɪmɛʃ ga
3s+ᴘꜰᴠ-ᴘʀɢ 3s+ᴘꜰᴠ-grind =ᴘʟᴜ with ɴᴏᴍ-do well-ᴄʟ song ᴀᴅᴊ
'She 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   hʊmbɔ na
3s-go=to ᴘsᴘ room ᴘsᴘ 3s+ɪꜰᴠ-fill up to the roof with flour   ᴘsᴘ
'After a while, the room, it filled up to the roof with the flour,'

ɗək məɗəkaka alay ana hor na,
ɗək   mə-ɗək   =aka =alaj ana hʷɔr   na
ɪᴅstuff ɴᴏᴍ-plug =on =away ᴅᴀᴛ woman ᴘsᴘ
'[The flour] suffocated the woman.' (lit. plugged the room for the woman
[so there was no place for her to even breathe])

nata ndahan dəɓəsolək məmətava alay
nata   ndahaŋ dʊɓʊsɔlʊkʷ   mə-mət =ava =alaj
and then 3s   ɪᴅcollapse/die ɴᴏᴍ-die =in   =away
'and she collapsed *dəɓəsolək*, dying'

a hoɗ a haj na ava.
a hʷɔɗ   a   haj   na ava
at stomach ɢᴇɴ house ᴘsᴘ in
'inside the house.'

Dénouement

(27)   Embesen cacapa na, zar ahan angala.
       ɛ-mbɛʃɛŋ tsatsapa   na zar =ahaŋ   à-ŋgala
       3s-rest   some time ᴘsᴘ man =3s.ᴘᴏss 3s+ᴘғᴠ-return
       'After a while, her husband came back.'

(28)   Pok mapalay mahay na,
       pɔkʷ   ma-p   =alaj   mahaj na
       ɪᴅopen ɴᴏᴍ-open =away door   ᴘsᴘ
       'Opening the door,'

       həmbo árah na a hoɗ a hay ava.
       hʊmbɔ á-rax   na   a hʷɔɗ   a   haj   ava
       flour   3s+ɪғᴠ-fill 3s.ᴅᴏ at stomach ɢᴇɴ house in
       'the flour filled the stomach (the interior) of the house.'

(29)   Ndahan aməmənjere ele nendəye na, awəy,
       ndahaŋ amɪ-mɪnʒer-ɛ ɛlɛ   nɛndijɛ na awij
       3s   ᴅᴇᴘ-see-ᴄʟ thing ᴅᴇᴍ   ᴘsᴘ said
       'He, seeing the things, he said,'

       "Aw aw aw, hor ngehe na, acaw aka va
       aw aw aw   hʷɔr   ŋgɛhɛ na à-ts   =aw =aka =va
       cry of death woman ᴅᴇᴍ   ᴘsᴘ 3s+ᴘғᴠ-understand =1s.ɪᴏ =on =ᴘʀғ
       '"Ah, this woman, today, she didn't listen'

       ma əwla amahan na bay esəmey?
       ma   =uwla   ama-h   =aŋ   na   baj ɛʃɪmɛj
       word =1s.ᴘᴏss ᴅᴇᴘ-speak =3s.ɪᴏ 3s.ᴅᴏ ɴᴇɢ not so
       'to my instructions, did she?'

Agə na va ele ne amahan aməjəye
à-gə   na   =va ɛlɛ 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?
mɛ̀-g-ɛ   baj na ɛʃɪmɛj
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 tà-ɮərav   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
      IDbury NOM-bury-CL 3S.DO
      '[She was] buried.'

Conclusion

(32) Nde ko ala a ɗəma ndana ava pew!
      ndɛ kʷɔ   =ala a ɗəma ndana ava pɛw
      so   until =to at time DEM   in enough
      'So, ever since that time, it's done!'

(33) Məloko ahay tawəy, "Hərmbəlom ága ɓərav va
      Mʊlɔkʷɔ =ahaj tawij   Hʊrmbʊlɔm á-g-a   ɓərav =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 ɬəmaj baj ŋgɪndijɛ
      because of child girl PSP DEP-hear ear   NEG DEM
      'because of that girl, that one that was disobedient."'

(34) Waya ndana Hərmbəlom ázata aka barka ahan va.
waja   ndana Hʊrmbʊlɔm á-z   =ata =aka barka   =ahaŋ
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.'

(35) Cəcəngehe na, war elé háy bəlen na, ásak asabay.
tʃɪtʃɪŋgɛhɛ na, war ɛlɛ haj   bɪlɛŋ 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 ɛlɛ haj   bɪlɛŋ kə vɛr   aka na á-sak   asa-baj
IDput 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   nɛhɛ tawij   mɛ-tɛɬ-ɛ   aŋga war   dalaj ŋgɪndijɛ
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   nɛŋgɛhɛ 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   nɛhɛ 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 tə́talay a ləhe.
tá-ndaj   tə́-tal-aj   a lıhɛ
3P+IFV-PRG 3P+IFV-walk-CL at bush
'They were walking in the bush.'

Episode 1

(5) Tánday tə́talay a ləhe na,
tá-ndaj   tə́-tal-aj   a lıhɛ na
3P+IFV-PRG 3P-walk-CL at bush PSP
'[As] they were walking in the bush,'

təlo tənjakay agwazla malan ga a ləhe.
tə̀-lɔ   tə̀-nzak-aj   agʷaȥa   malaŋ ga a lıhɛ
3P+PFV-go 3P+PFV-find-CL spp. of tree large   ADJ at bush
'they went and found a large tree (a particular species) in the bush.'

Episode 2

(6) Albaya ahay ndana kǝlen tǝngalala ma ana bahay.
albaja =ahaj ndana kɪlɛŋ tǝ̀-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) Tawǝy, "Bahay, mama agwazla ava a lǝhe na,
tawij   bahaj mama agʷaɮa   ava a lɪhɛ na malaŋ 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 amǝmbese."
à-gas   =aka na ka mahaj =aŋgʷɔ 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) Kǝlen albaya ahay ndana tolo.
kɪlɛŋ albaja =ahaj ndana tǝ̀-lɔ
then youth =Pl   DEM   3P+PFV-go
'Then, those young men went.'

(9) Nde, bahay awǝy, "Nde na, sǝy slǝrom alay war.
ndɛ bahaj awij ndɛ na sij   ɬǝr-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.'

Káazǝɗom anaw ala agwazla ndana ka mahay ǝwla aka.
káá-zʊɗ-ɔm   an=aw   =ala agʷaɮa   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 tree to my door for me.'

Káafǝɗom anaw ka mahay ǝwla aka."
káá-fʊɗ-ɔm   an =aw   ka mahaj =uwla   aka
2P+POT-put-2P DAT =1S.IO on door   =1S.POSS on
'You will put it by my door."'

(10) Bahay kǝlen ede gǝzom.
bahaj kɪlɛŋ à-d-ɛ   gʊzɔm
chief then 3S+PFV-prepare-CL wine
'The king then made wine.'

(11) Aslar məze ahay.
à-ɬar   mɪʒɛ =ahaj
3s+pfv-send person =Pl
'He sent out the people.'

(12) Təlo tamənjar na ala mama agwazla nəndəye.
tə̀-lɔ   tà-mənzar na   =ala mama agʷaʐa   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 tà-ŋg   =ala ma   ana bahaj
person =Pl   3p+pfv-return =to word DAT chief
'The people brought back word to the chief.'

(14) Tawəy, "Ɗeɗen bahay, agwazla ngəndəye
tawij   ɗɛɗɛŋ bahaj agʷaʐa   ŋgɪndijɛ
3p+said truth   chief spp. of tree DEM

ágasaka ka mahay ango aka,
á-gas   =aka ka mahaj =aŋgʷɔ   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; aɓəsay ava bay."
bijna   agʷaʐa   ga sʊlɔm ga aɓəsaj 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 mədəye gəzom.
bahaj à-l=ala   a həlaŋ na ndahaŋ gʊdɔkʷ   mì-d-ijɛ
chief 3s+pfv-go=to at back PSP 3s   IDprepare wine NOM-prepare-CL

gʊzɔm
wine
'The chief then came behind [and] he made wine.'

(16) Kəlen albaya ahay tolo amazala agwazla na,
kɪlɛŋ albaja =ahaj tɔ̀-lɔ   ama-z =ala agʷaɮa   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,'

taazala təta bay.
tàà-z   =ala təta   baj
3P+HOR-take =to   ability NEG
'[but] they were not able to bring [it].'

(17) Mədəye gəzom makar.
mɪ-d-ijɛ   gʊzɔm 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 həlaŋ 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 agʷaɮa   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 will be able to rest well.'

Mama agwazla səlom ga lala."
mama agʷaɮa   sʊlɔm ga lala
mother spp. of tree good ADJ well
'The mother-tree is very good."'

Prepeak

(19) Kəlen bahay na, olo kə mətəɗe aka.
kɪlɛŋ bahaj na ɔ̀-lɔ   kə mɪtɪɗɛ aka
then chief PSP 3S+PFV-go on cicada on
'Then, the chief went to the cicada.'

(20) Mətəɗe awəy, "Bahay, toko!
      mɪtɪɗɛ awij bahaj tɔkʷɔ
      cicada said chief go[IMP.1PIN]
      'The cicada said, "Chief, let's go!'

      Náamənjar na alay memele ga ndana əwɗe."
      náá-mənzar na   =alaj mɛmɛlɛ ga ndana uwɗɛ
      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,
      mɪʒɛ =ahaj tawij   aa mɪʒɛ =ahaj sʊlɔm =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 mətəɗe azla, engeren azla, káazala təta na,
      aʒəna mɪtɪɗɛ aʒa ɛŋgɛrɛŋ 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) Mətəɗe awəy, "Náazala!"
      mɪtɪɗɛ 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]."'

(24) "Náazala! Nde toko əwɗe!"
    náá-z   =ala ndɛ tɔkʷɔ   uwɗɛ
    1S+POT-take =to so go[IMP.1PIN] first
    '"I will bring [it], but first, let's go!"'

Peak

(25) Nata olo.
    nata   ɔ̀-lɔ
    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 wɛlɛj 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 mətəɗe təh anan dəray ana agwazla ngəndəye.
    nata   mɪtɪɗɛ təx an=aŋ   dəraj ana agʷaʐa   ŋgɪndijɛ
    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 tepəɗek təvəw na tambəɗek…"
       ama-g=ala lɪmɛʃ Tɛ tɛ tɛ tɛ vɛr na tɛpɪɗɛk təvuw na tambɪɗɛk…
       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 gədəgəzl!
       mama   agʷaƙa   na ka mahaj aka afa   bahaj gədəgəƙ
       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, mətəɗe səwse, səwse, səwse!"
       bahaj na mɛ-mbɛʃ-ɛ   ʃuwʃɛ mɪtɪɗɛ ʃuwʃɛ ʃuwʃɛ ʃuwʃɛ
       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   agʷaƙa   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 təde kəyga!
     sʊlɔm   ga jawa tɪdɛ kijga
     goodness ADJ well good like this
     'Good, well, good, [it is] like this:'

(2) Ehe na, wəyen ambaɗala a jere azla.
     ɛhɛ na wijɛŋ à-mbaɗ   =ala a dʒɛrɛ aƙa
     here PSP earth 3S+PFV-change =to at truth now
     'Here, the earth has changed to truth now (sarcastic).'

(3) Səwat na, təta a məsəyon na ava nəndəye na,
     suwat   na təta a mʊsijɔŋ na ava nɪndijɛ na
     IDdisperse 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 ɛlɛ   nɛhɛ na kɔ́-gʷ-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 =ahaŋ
     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 =ahaŋ
     child male ADJ 3S+IFV-insult-CL father =3S.POSS
     '[And] the boys insult their fathers.'

(6) Yo ele ahay aməgəye bay nəngehe pat,
jɔ   ɛlɛ   =ahaj amə-g-ijɛ baj nɪŋgɛhɛ 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 dəftere aka.
tà-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) Hərmbəlom awacala kə okor aka.
Hʊrmbʊlɔm à-wats   =ala kə ɔkʷɔr aka
God   3S+PFV-write =to on stone on
'God wrote them on the stone [tablet].'

(8) Álala, 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 dəftere ahan kə dəwnəya aka.
ɛ̀-g-ɛ   dɪftɛrɛ =ahaŋ   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 ɛlɛ   nɛhɛ na à-waɬ
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,
ɛlɛ   nɛhɛ na à-waɬ   ɛlɛ   nɛhɛ na à-waɬ
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!"
ɛlɛ   nɛhɛ na à-waɬ   kʊrɔ
thing DEM PSP 3S+PFV-forbid ten
'this thing is forbidden – ten [commandments]"'

(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 ɗəw, kóogəsok ma Hərmbələm.
       jawa ndɛ ɛlɛ   nɛhɛ ɗuw kɔ́ɔ́-gʷʊs-ɔkʷ   ma   Hʊrmbʊlɔm
       well so   thing DEM also 2S+POT-catch-2P word God
       'So, this thing here, you should accept the word of God.'

(13)   A məsəyon ava na, ele ahay aməwəsle na, tége bay.
       a mʊsijɔŋ ava na ɛlɛ   =ahaj amu-wuɬ-ɛ   na tɛ́-g-ɛ   baj
       at mission in PSP thing =Pl DEP-forbid-CL PSP 3P+IFV-do-CL NEG
       'In the church, these things that are 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)   Tə́lala a həlan ga ava ese,
       tə́-l   =ala a   həlaŋ ga ava ɛʃɛ
       3P+IFV-go =to at back ADJ in again
       'They come [home] after [church] again,'

       tə́wəɗakala har a məsyon ava.
       tə́-wəɗak   =ala har a   mɪsijɔŋ ava
       3P+IFV-divide =to body at mission in
       'they disperse after church.' (lit. they divide body in mission)

(17)   Álaway war ahan.
       á-law-aj   war =ahaŋ
       3S+IFV-mate-CL child =3S.POSS
       '[One] sexually abuses his child.'

(18) Ólo áɓan ana baba ahan.
    ó-lɔ   á-ɓ   =aŋ   ana baba =ahaŋ
    3s+IFV-go 3s+IFV-hit =3s.IO DAT father =3s.POSS
    '[Another] goes and hits his father.'

(19) Ólo ápaɗay məze nə madan.
    ó-lɔ   á-paɗ-aj   mɪʒɛ   nə   madaŋ
    3s+IFV-go 3s+IFV-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 Hərmbəlom nendəye.
    təta dəl   na   ma   Hʊrmbʊlɔm nɛndijɛ
    3P   IDinsult 3s.DO word God   DEM
    'They insult it, this word of God!'

(23) Nde na cəveɗ ahan na, memey?
    ndɛ na tʃɪvɛɗ =ahaŋ   na   mɛmɛj
    so   PSP path   =3s.POSS PSP how
    'So, what can he do?' (lit. how [is] his pathway)

(24) Táagas 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?)

(25) Ma a baba ango kagas asabay.
      ma   a   baba =aŋgʷɔ   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 ango kagas asabay.
      ma   a   mama =aŋgʷɔ   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?
      ndɛ 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 Hʊrmbʊlɔm 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, amaɗaslava ala məze na,
      Hʊrmbʊlɔm na   ama-ɗaɫ   =ava =ala mɪʒɛ   na
      God   PSP DEP-multiply =in =to person PSP
      'God, who multiplied the people,'

      ndahan ese na, kagas ma Hərmbəlom na, asabay na,
      ndahaŋ ɛʃɛ na ka-gas   ma Hʊrmbʊlɔm 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.
sʊlɔm   ga
goodness ADJ
'Good!' [narrator to himself].

(31) Asara anday áɗakaləme ma a dəwnəya.
asara   à-ndaj   á-ɗak   =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 áɗakaləme endeɓ.
à-ndaj   á-ɗak   =alɪmɛ   ɛndɛɓ
3S+PFV-PROG 3S+IFV-show =1PEX.IO brain
'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, təta na, kəw na, bəwɗere!
ɛhɛ na təta na kuw   na buwɗɛrɛ
here PSP 3P   PSP IDtake PSP IDfoolishness
'Here, what they are taking is foolishness!' (lit. here, they, taking,
foolishness)

(35) Epəle epəle na, wəyen ambaɗala slam a yam avəlo.
ɛpɪlɛ ɛpɪlɛ   na wijɛŋ à-mbaɗ   =ala ɬam a   jam avʊlɔ
in the future PSP earth 3S+PFV-change =to place GEN water above
'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)

(37) Cəcəngehe na, asa tágalay janga ana endeɓ ango,
tʃɪtʃɪŋgɛhɛ na   asa tá-g   =alaj   dzaŋga ana ɛndɛɓ =aŋgʷɔ
now   PSP if   3P+IFV-do =away reading DAT brain =2S.POSS
'Now, if they look at your life,' (lit. now if they do a reading to your wisdom)

nafta wəyen aməndeve na, Hərmbəlom ágok səraya na,
nafta wijɛŋ amɪ-ndɛv-ɛ   na Hʊrmbʊlɔm á-g   =ɔkʷ   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],'

kéege na, memey?
kɛ́ɛ́-g-ɛ   na mɛmɛj
2S+POT-do-CL PSP how
'what will you do [as you burn]?'

(38) Nde ehe kəyga.
ndɛ ɛhɛ   kijga
so   here like this
'So, it is like this here.'

(39) Pepenna na takaɗ sla.
pɛpɛŋ   =ŋa   na tà-kaɗ   ɬa
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.
mɪzɛ   á-kʷas   =aka dʒijga dɪrɛʃ
person 3S+IFV-unite =on   all   IDmany
'The people were all united together.'

(42) Tápaɗay.
      tá-paɗ-aj
      3P+IFV-crunch-CL
      'They ate [the meat].'

(43) Tágaka hərnje bay.
      tá-g   =aka hɪrnʒɛ 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,
      ndɛ ɛhɛ na
      so here PSP
      'So, here,'

      cəcəngehe na məze ahay tandaɗay məze asabay pat.
      tʃɪtʃɪŋgɛhɛ na mɪʒɛ   =ahaj ta-ndaɗ-aj mɪʒɛ   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 məze amədeɗe məze ehe na, cəcəngehe na, se ngomna.
      ʃɛ   mɪʒɛ   amɪ-dɛɗ-ɛ   mɪʒɛ   ɛhɛ na tʃɪtʃɪŋgɛhɛ na ʃɛ   ŋgʷɔmna
      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,
      ŋgʷɔmna   na ɛlɛ à-g-a   kə wijɛŋ 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.
      ndahaŋ 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, nəmbəɗom a dəray ava na,
      waja   lɪmɛ Mʊlɔkʷɔ =ahaj na nə̀-mbʊɗ-ɔm   a dəraj ava na
      because 1PEX Moloko   =Pl   PSP PFV-change-1PEX   at head in PSP
      'Because we the Moloko, have become' (lit. changed in our head),

ka kərkaɗaw ahay nə hərgov ahay ga a ɓərzlan ava na,
ka   kərkaɗaw =ahaj nə   hʊrgʷɔv =ahaj ga   a   ɓərɮaŋ   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   nə̀-sʊr-ɔm   dəraj baj   pat
like =to   dog   PSP 1+PFV-know-1PEX head NEG all
'[and] like dogs, we don't understand anything!'

(48) Kə wəyen aka ehe tezl tezlezl.
kə wijɛŋ aka ɛhɛ   tɛɮ tɛɮɛɮ
on earth on   here IDhollow
'[Among the people] on 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.
ndɛ mɪʒɛ   =ahaj gʷɔgʷɔr =ahaj ga   na   ŋgama
so   person =Pl   elder   =Pl   ADJ PSP better
'So, our elders [have it] better.'

(50) Epele epele na me, Hərmbəlom anday agas ta
ɛpɛlɛ   ɛpɛlɛ   na   mɛ   Hʊrmbʊlɔm 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   hʷʊʃɛʃɛ ga
3S+IFV-surpass small   ADJ
'He is greater than the small ones.'

(52) Nde na, kəygehe.
ndɛ na   kijgɛhɛ
so   PSP like this
'So [it is] like this.'

2 Phonology

The vowel system of Moloko is noteworthy in its simplicity - it can be analysed as having only one underlying phoneme with ten 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,

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[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).

> [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 prosodies[3] (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-zʊm] (non-stressed with epenthetic vowel in final syllable) with [nɔ-zɔm] (stressed with full vowel) in (3) and (4).

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[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 ɗaw]
    peace QUEST
    'Is there peace?'

(2) [zaj]
    peace
    'There is peace.'

(3) [nɔ́-zʊm ɗaf]
    1S+PFV-eat millet loaf
    'I ate millet loaf.'

(4) [nɔ́-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) [lʊhɔ]   / l ha ^{o}/
    'late afternoon'

(7) [ɗaf]   /ɗ f/
    'millet loaf'

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, see Section 2.2), and vowels (see Section 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). (8–10) from Bow (1997a) give evidence of contrast between the prosodies in a minimal triplet:

(8) /k ra/   [kəra]
     'dog'

(9) /k ra ^{o}/   [kʷʊrɔ]
     '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**/	[**mənzar**]	'see! (2s)'
2P Imperative form	/**m nza r**-am^o/	[**mʊnzɔr**ɔm]	'see! (2P)'
Nominalised form	/m-**m nza r**-a^e/	[mɪ**mɪnʒɛr**ɛ]	'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-aj^o/
      1s-drink-CL
      'I drink.'

(13) [na-zaɗ]   /na- z ɗ/
      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 examples contrast the vowels and consonants in a verb root with no underlying

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

prosody ([kaɫ] 'wait') in the second person singular verb form (14, also prosody neutral) and the second person plural which contains the labialised suffix /-akᵒ/ (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) [kà-kaɫ   na]   /ka- ka ɫ na/
      2s+pfv-wait 3s.do
      'You waited [for] it.'

(15) [mɔ́-kɔɫ-ɔkʷ   na]   /ma- ka ɫ -akᵒ na/
      1Pin+pfv-wait-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 ᵉ/
      1s-move-cl
      'I move.'

(17) nə-tʃək-ə=va   /n- ts k ᵉ =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 laᵉ/ (18) and /a- nd ɓᵉ/ (19). Palatalisation is a stronger process than labialisation. In labialised words, the first syllable in words that begin with /a/ will

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[5] With the exception of verb stems whose final consonant is /n/, eg, [tʃɛŋ], /tsanᵉ /, 'know'.

often[6] be unaffected by the labialisation and be pronounced [a] (see the alternate pronunciations for the words /a- la kaᵒ/ in 20 and /a- g raᵒ/ in 21).

(18)   [alɛlɛ] ~ [ælɛlɛ] ~ [ɛlɛlɛ]
       'leaf sauce'

(19)   [andɛɓ] ~ [ændɛɓ] ~ [ɛndɛɓ]
       'brain'

(20)   [alɔkʷɔ] ~ [ɔlɔkʷɔ]
       'fire'

(21)   [agʊrɔ] ~ [ɔgʷʊrɔ]
       '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 [kʷ, gʷ, ŋgʷ, hʷ]. In the case of pre-nasalised consonants, the nasal is always homorganic with the following consonant.[8] Only voiced consonants are pre-nasalised.

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[6] Bow found these first syllables always unaffected by labialisation; Friesen (2001) 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 ŋgʷ, making the total 31.

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

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	kʷ
	+voice	b	d	g	gʷ
	nasal	m	n (ŋ)		
	pre-nasal	mb	nd	ŋg	ŋgʷ
	implosive	ɓ	ɗ		
Affricates	-voice		ts (tʃ)		
	+voice		dz (dʒ)		
	pre-nasal		nz (nʒ)		
Fricatives	-voice	f	s (ʃ)	h (x)	hʷ
	+voice	v	z (ʒ)		
Lateral fricatives	-voice		ɬ		
	+voice		ɮ		
Lateral approximants			l		
Approximants			j		w
Flaps		ѵ	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 since then. The phoneme (inside slashes), the phonetic form (in square brackets), and the orthographic form (non-bracketed) are shown for each consonant

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 biliabial stop			[nʒ]	pre-nasalised voiced alveo-palatal nasal occurring in palatalised syllables
/mb/	mb	[mb]	pre-nasalised voiced bilabial stop	/ɬ/	sl	[ɬ]	voiceless alveolar lateral fricative
/m/	m	[m]	voiced bilabial nasal	/ɮ/	zl	[ɮ]	voiced alveolar lateral fricative
/ɓ/	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	/v/	vb	[ⱱ]	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			[kʷ]	voiceless labialised velar stop occurring in labialised words
		[ŋ]	voiced velar nasal occurring word-finally	/kʷ/	kw/wk[a]	[kʷ]	voiceless labialised velar stop
/nd/	nd	[nd]	pre-nasalised voiced alveolar stop	/g/	g	[g]	voiced velar stop occurring in unlabialised syllables
/ɗ/	ɗ	[ɗ]	voiced alveolar stop with ingressive pharynx air (implosive)			[gʷ]	voiced labialised velar stop occurring in labialised syllables
/ts/	c	[ts]	voiceless alveolar affricate occurring in unpalatalised syllables	/gʷ/	gw	[gʷ]	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			[ŋgʷ]	voiced pre-nasalised labialised velar stop occurring in labialised syllables
		[dʒ]	voiced alveopalatal affricate occurring in palatalised syllables	/ŋgʷ/	ngw	[ŋgʷ]	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	/hʷ/	hw	[hʷ]	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.

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 [kʷ, gʷ, ŋgʷ, hʷ]. 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/   [dzʊgʷɔr]
      'stake'

(25) /dza gʷ r ᵉ/   [dʒœgʷɛr]
      '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]

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.

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[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: 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/	[ʃɪlɛk]	'jealousy'	/s l kʷ ᵉ/	[ʃɪlœkʷ]	'broom'
/g la ᵒ/	[gʷʊlɔ]	'left'	/gʷ la/	[gʷʊla]	'son'
/ha ɗa ᵒ/	[hʷɔɗɔ]	'wall'	/hʷa ɗa/	[hʷɔɗa]	'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 Section 2.3.3).

Table 2.5: Distribution of labialised velar phonemes

	Word initial	Word medial	Word final
Neutral prosody	[kʷʊsaj] 'haze'	[tʊkʷʊrak] 'partridge' [agʷɔɟak] 'rooster'	
Palatalisation	[kʷʊtʃɛɫ] 'viper' [gʷʊdɛɗɛk] 'frog'	[mɛtʃœkʷɛɗ] 'maggot' [mɛdɛlœŋgʷɛʒ] 'leopard' [ahʷœɗɛ] 'fingernail'	[pɛɗœkʷ] 'blade'

Bow found there are several cases in the data where it was impossible to 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 kʷ m/ ~ /s k m ᵒ/   [sʊkʷɔm]
      'buy/sell'

(27) /ma gʷ m/ ~ /ma g m ᵒ/   [mɔgʷɔm]

'home'

Further work on verb conjugations clarified that (26) actually contains a labialised velar (i.e., the underlying form is /s kʷ 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-sɪkʷøm-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, nz] 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 [kʷ, gʷ, ŋgʷ, hʷ], 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 [ⱱ] 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, gʷ, ŋg, ŋgʷ, dz, dʒ , nz, nʒ, ⱱ]. 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).

Table 2.6: Prosodic conditioning of consonant phonemes

	Neutral	Gloss	Labialised	Gloss	Palatalised	Gloss
			Stops			
p	[paj]	'open'	[apɔŋgʷɔ]	'mushroom'	[pɛmbɛʒ]	'blood'
b	[baj]	'light'	[abɔr]	'lust'	[bɛkɛ]	'slave'
ɓ	[ɓaj]	'hit'	[aɓɔlɔ]	'yam'	[ɓɛɡ̡ɛŋ]	'count'
m	[maj]	'hunger'	[mɔlɔ]	'twin'	[amɛlɛk]	'bracelet'
mb	[mbaj]	'follow'	[ambɔlɔ]	'bag'	[mbɛ]	'argue'
t	[tar]	'call'	[atɔs]	'hedgehog'	[tɛʒɛh]	'boa'
d	[dar]	'burn'	[dɔkʷɔj]	'arrive'	[dɛ]	'cook'
ɗ	[ɗas]	'weigh'	[ɗɔgʷɔm]	'nape'	[ɗɛ]	'flourish'
n	[nax]	'ripen'	[sɔnɔ]	'joke'	[ɛnɛŋ]	'snake'
ŋ	[ɡ̡aŋ]	'start'	[tɔlɔlɔŋ]	'heart'	[ɓɛɡ̡ɛŋ]	'count'
nd	[ndar]	'weave'	[ndɔɡ̡aj]	'explode'	[ndɛ]	'lie down'
k	[kaɬ]	'wait'			[bɛkɛ]	'slave'
g	[gar]	'grow'			[gɛ]	'do'
ŋg	[ŋgaj]	'set'			[fɛŋgɛ]	'termite mound'
kʷ	[kʷʊsaj]	'fog'	[kʷcndɔŋ]	'banana'	[ajœkʷ]	'ground nut'
gʷ	[agʷɔɡ̡ak]	'cockerel'	[gʷɔrɔ]	'kola'	[dʒœgʷɛr]	'limpness'
ŋgʷ	[ŋgʷʊdałaj]	'simmer'	[aŋgɔlɔ]	'return'	[adɔngʷɛrɛɗ]	'type of tree'
			Fricatives and Affricates			
f	[far]	'itch'	[fɔkʷɔj]	'whistle'	[fɛ]	'play instrument'
v	[vaj]	'winnow'	[avɔlɔm]	'ladle'	[vɛ]	'spend (time)'
s	[sar]	'know'	[sɔnɔ]	'joke'		
z	[zaj]	'peace'	[zɔm]	'eat'		
ts	[tsar]	'climb'	[tsɔkʷɔr]	'fish net'		
dz	[dzaj]	'speak'	[dzɔgʷɔ]	'hat'		
nz	[nzakaj]	'find'	[nzɔm]	'sit down'		
h	[haj]	'millet'			[mɛhɛr]	'forehead'
x	[rax]	'satisfy'			[tɛʒɛx]	'boa'
hʷ	[hʷɔɗa]	'dregs'	[hʷɔr]	'woman'	[ahʷœɗɛ]	'fingernail'
ʃ					[ʃɛ]	'drink'
ʒ					[ʒɛ]	'smell'
tʃ					[tʃɛ]	'lack'
dʒ					[dʒɛŋ]	'luck'
nʒ					[nʒɛ]	'sit down'
			Laterals			
ɬ	[ɬaj]	'slit'	[ɬɔkʷɔ]	'earring'	[aɬɛɬɛɗ]	'egg'
ɡ̡	[ɡ̡aŋ]	'start'	[bɛɡ̡ɛm]	'cheek'	[aɡ̡ɛrɛ]	'lance'
l	[laj]	'dig'	[lɔ]	'go'	[lɪhɛ]	'bush'
			Flaps			
r	[rax]	'satisfy'	[arɔx]	'pus'	[tɛrɛ]	'other'
ⱱ	[pəvaŋ]	'start of race'				
			Semivowels			
j	[jam]	'water'	[sɔkʷɔj]	'clan'	[ajɛwɛɗ]	'whip'
w	[war]	'child'	[wuldɔj]	'devour'	[wɛ]	'give birth'

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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'
kʷ	[kʷʊsaj]	'fog'	[tʊkʷasaj]	'cross/fold'	[ajœkʷ]	'ground nut'
ts	[tsahaj]	'ask'	[watsaj]	'write'	[harats]	'scorpion'
tʃ	[tʃɛ tʃɛ]	'all'	[mɛtʃɛkʷɛɗ]	'worm'	[mɛkɛtʃ]	'knife'
			Implosives			
ɓ	[ɓalaj]	'build'	[ndaɓaj]	'wet/whip'	[haɓ]	'break'
ɗ	[ɗakaj]	'indicate'	[jaɗaj]	'tire'	[zaɗ]	'take'
			Fricatives			
f	[fataj]	'descend'	[dafaj]	'bump'	[taf]	'spit'
v	[vakaj]	'burn'	[ʑavaj]	'swim'	[dzav]	'plant'
s	[sakaj]	'sift'	[pasaj]	'detatch'	[was]	'farm'
ʃ	[ʃɛdɛ]	'witness'	[ʃɛʃɛ]	'meat'	[pɪlɛʃ]	'horse'
z	[zaɗ]	'take'	[wazaj]	'shake'	[baz]	'reap'
ʒ	[ʒɛ]	'smell'	[mrʒɛ]	'person'	[mɛdɪlɪŋgʷœʒ]	'leopard'
h	[halaj]	'gather'	[mbahaj]	'call'		
hʷ	[hʷʊlɛŋ]	'back'	[tʃœhʷɛɬ]	'stalk'		
x					[ɓax]	'sew'
			Laterals, approximants, flap, and semivowels			
ɬ	[ɬaraj]	'slide'	[tsaɬaj]	'pierce'	[kaɬ]	'wait'
ʑ	[ʑavaj]	'swim'	[daʑaj]	'join/tie'	[mbaʑ]	'demolish'
l	[lagaj]	'accompany'	[balaj]	'wash'	[wal]	'attach'
r	[rax]	'pluck'	[garaj]	'command'	[sar]	'know'
ѵ	[vәvәvә]	'rapidly'	[ɓavaw]	'man running'		
j	[jaɗaj]	'tire'	[haja]	'grind'	[balaj]	'wash'
w	[watsaj]	'write'	[ʑawaj]	'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'		
gʷ	[gʷʊlɛk]	'small axe'	[agʷɔʑak]	'rooster'		
ŋg	[ŋgaʑaj]	'introduce'	[maŋgaɬ]	'fiancée'		
ŋgʷ	[ŋgʷʊdaɬaj]	'simmer'	[aŋgʷʊrʑa]	'sparrow'		
dz	[dzakaj]	'lean'	[dzadzaj]	'dawn/light'		
dʒ	[dʒɛŋ]	'luck'	[tʃɪdʒɛ]	'illness'		
nz	[nzakaj]	'find'	[manzaw]	'beignet'		
nʒ	[nʒɛ]	'sit'	[hɪrnʒɛ]	'quarrel'		
ŋ					[hadzaŋ]	'tomorrow'

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

Bow 1997a demonstrates that [n] and [ŋ] are allophones of /n/ with a distribution as shown in Figure 2.1.

$$\text{n} \rightarrow \text{ŋ} \ / \ \_ \ \#$$

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'	[gənaw]	'animal'	[=ahaŋ]	=3s.poss
Labialised	[nɔkʷ]	'you'	[ana]	'to' (dative)	[gəlaŋ]	'threshing area'
Palatalised	[nɛ]	'me'	[mɪtɛnɛŋ]	'bottom'	[ɓərʝaŋ]	'mountain'

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

$$\text{h} \rightarrow \text{x} \ / \ \_ \ \#$$

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 2.9: Complementary distribution for /h/

Prosody	Initial		Medial		Final	
Neutral	[har]	'make'	[ahar]	'hand'	[rax]	'satisfy'
Labialised	[hʷʊdɔ]	'wall'	[tɔhʷɔr]	'cheek'	[hʷɔmbɔx]	'pardon'
Palatalised	[hɛrɛɓ]	'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

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[10] This process does not appear to be free variation.

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   kɪndɛw =aŋgʷɔ   na   ɛhɛ]
       give[2s.ɪᴍᴘ]=1s.ɪᴏ guitar   =2s.ᴘᴏss ᴘsᴘ here
       'Give me your guitar, here!'

(30) [na-var na   baj]
       1s-give 3s.ᴅᴏ ɴᴇɢ
       '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) həmadʼ a-war   gam
       wind   3s-hurt much
       'It's very cold.' (lit. wind hurts a lot)

(32) həmadʼ a-wal   =alɔkʷɔ
       wind   3s-hurt =1Pɪɴ.ɪᴏ
       'We're cold.' (lit. wind hurts us)

2.3 Vowels

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

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[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 (2001) added [ø].

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).

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] **sələk** '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**	[ɗuwa] **ɗəwa** 'milk'
6 Adjacent to an inherently labio-velar and /j/	[œ] **e**	[ʃɪlœkʷ] **sələwk** 'broom'	[ø] **ə**	[lʊkʷøjɛ] **ləkwəye** 'you' (Pl)

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 and orthographic representations. 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

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[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.

schwa is pronounced [ɪ]. The epenthetic vowel can also be assimilated to a neigh-bouring approximant: it is realised as [i] when it occurs beside [j] (line 4) and as [u] when it occurs beside a labialised velar [w, kʷ, gʷ, ŋgʷ, hʷ] 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).

The working orthography for Moloko (Friesen 2001) indicates the word-level processes by the three full vowel graphemes in the word pronounced in isola-tion: '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 representa-tion 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 labi-alised, palatalised, or neutral. Table 2.11 (adapted from Bow 1997a) illustrates the three possible underlying prosody patterns in two and three syllable words.[17]

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 ɮ m ᵒ/	[bɔɮɔm]	'cheek'	/ta la l n ᵒ/	[tɔlɔlɔŋ]	'chest'
	/s k j ᵒ/	[sʊkʷɔj]	'clan'	/ga g l v n ᵒ/	[gʷɔgʷʊlvɔŋ]	'snake'
PAL	/ma h r ᵉ/	[mɛhɛr]	'forehead'	/ma ba b k ᵉ/	[mɛbɛbɛk]	'bat'
	/ɮ ga ᵉ/	[ɮɪgɛ]	'sow'	/ts ka la ᵉ/	[tʃɪkɛlɛ]	'price'

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

[16] Labialisation and palatalisation in words which begin with a vowel will sometimes be incom-plete, leaving the first syllable as [a] for labialised words and [æ] for palatalised words (see Section 2.1).

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

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 ^{e}/   [mijɛk]
      'deer'

$$[ə] \rightarrow [u] / \_ w$$
$$[ə] \rightarrow [u] / w \_$$

Figure 2.4: Influence of w on ə

(35) /ɗ wa/   [ɗuwa]
      'milk/breast'

(36) /ɗ w r ^{e} /   [ɗuwɛr]
      'sleep'

(37) /w ɗa k -j/   [wuɗakaj]
      'separate/share'

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

(38) /ja ɗ -j/   [jaɗaj] not *[jɛɗɛj]
      'tire'

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[18] We found no cases of *[ji].

(39)   /g n w/   [gənaw] 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 (42–44), although it may occur within a palatalised or labialised word.

(42)   /la j w/   [lajaw]
       'large squash'

(43)   /s k j ᵒ/   [sʊkʷɔj]
       '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 /kʷ/ to produce [ø]. An underlying /a/ is realised as [œ] when it occurs before the labialised velar /kʷ/ in a palatalised word (45, Figure 2.5). When an epenthetic schwa occurs between /j/ and a labialised velar /kʷ 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).

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[19] We have not found the epenthetic vowel between /j/ and any other of the underlyingly labialised consonants (gʷ, ŋgʷ, hʷ, see Section 2.2.2).

$$/a/ \rightarrow [\text{œ}] \, / \, \underline{\quad} \, C^{w \, e}/$$

Figure 2.5: Influence of labialised velar on /a/

(45) /azɛkʷ ᵉ/   [æʒœkʷ]
     'sorry'

$$[\text{ə}] \rightarrow [\text{ø}] \, / \, k^w \, \underline{\quad} \, j$$

Figure 2.6: Influence of labialised velar and j on ə

(46) /l kʷ ja ᵉ/   [lʊkʷøjɛ]
     '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 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

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[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.

Table 2.12: Minimal pairs for phonetic tone

H tone		L tone	
Nouns			
[háj]	'millet'	[hàj]	'house/compound'
[ánēŋ]	'other'	[ànēŋ]	'snake'
[gə́láŋ]	'threshing floor'	[gə̀lāŋ]	'kitchen/clan'
[háhàr]	'bean'	[hāhár]	'straw granary'
[mə̄dárā]	'fire'	[mə̀də̀rà]	'bicep'
[mɔ́lɔ̀]	'twin'	[mɔ̀lɔ̀]	'vulture'
[ɛ̄lɛ́]	'eye'	[ɛ̄lɛ̀]	'thing'
[vɛ́r]	'grinding stone'	[vɛ̀r]	'room'
Verbs			
[dár]	'burn'	[dàr]	'withdraw/recoil'
[hār]	'pick up/transport'	[hàr]	'build/make'
[nʒɛ́]	'left' (gone)	[nʒɛ̀]	'sit'
[tsáháj]	'ask'	[tsāháj]	'get water'
[tsáwáj]	'cut off the head'	[tsàwāj]	'grow'
[pə̄ɗākáj]	'wake up'	[pə̀ɗàkāj]	'melt'
Different grammatical categories			
[ává]	'there is' (EXT)	[àvà]^a	'arrow' (noun)
[kʊ̄rsáj]	'sweep' (verb)	[kʊ̀rsāj]	'cucumber' (noun)
[lālá]	'come back' (verb)	[lālā]	'good' (adverb)
[[ɛ̄hɛ́]	'no' (interjection)	[ɛ̀hɛ̄]	'here' (adverb)
[tə̄tá]	3P	[tə̄tā]	'is able to'
[vá]	Perfect extension	[và]	'body'
[ndánā]	'therefore' / 'you (s) must'	[ndānà]	'previously mentioned'
[āháŋ]	3P.POSS	[àhāŋ]	'he said'

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

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 itself is not marked in the orthography since there are only a few minimal pairs. The orthography does distinguish minimal pairs by a diacritic on one of the words in each pair. Lexical tone is not 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, ŋg, v, z, dz, nz, ʒ][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 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.

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

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	*fɛ* 'play an instrument'	L	*vɛ* 'spend time'
M	*taf* 'spit'	L	*dav* 'plant'
M	*tał-aj* 'curse'	L	*baɮ-aj* 'breathe'

2.4.2 Tone spreading rules

At the phrase level, Bow 1997a 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]	[ɬàlàhāj]	LL+H → LLM	'villages'
	[jàm]+ [áhāŋ]	[jàmāhāŋ]	L+HM → LMM	'his/her water'
Across word boundary	[jàm]+ [ábá]	[jàm ābá]	L+HH → LMH	'there is water'
	[ázǒŋgʷ ɔ́]+ [ná] + [ɬā]	[ázǒŋgʷ ɔ́ nā ɬā]	HHL+H+M → HHLMM	'donkey and cow'

2.5 Notes on the syllable

The syllable in Moloko is a somewhat fluid entity that makes a flexible relation between the underlying structure (consonantal skeleton with optional vowels) and the phonetic 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 -*ɛ* suffix discussed in Section 6.3.[25]

(48) g-ɛ
      do[2S.IMP]-CL
      'Do!'

(49) d-ɛ
      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

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[23] Bow 1997a: 1

[24] Friesen & Mamalis (2008) also 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.

[26] Bow 1997a also reports that liquids can function as the nucleus of a syllable and also as the second component of a consonantal onset.

'like this'

(52) amsɔkʷɔ
      'sorghum'

Secondly, consonants that can fill the coda position word-finally have other re-strictions. Bow reported that the voiced plosives [b, d, dz, g, gʷ] and pre-nasalised consonants [mb, nd, nz, ŋg, ŋgʷ] 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 in speech.

(53) [dab-aj]
      follow[2s.IMP]-CL
      'Follow!'

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

(55) [ndaw-aj]
      swallow[2s.imp]-cl
      'Swallow!'

Schwa becomes voiceless 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), and in other cases, they could not assign tone to the voiceless syllable (60–63).[27] In the example, the syllables are separated by a period in the phonetic form. The voiceless syllable is underlined.

(56) [sʊ.kʷɔm]
      'buy/sell'

(57) [tə.ka.raj]
      'taste'

(58) [mɪ.tɪ.fɛ]
      'spitting' (nom)

(59) [mɪ.tʃɪ.kɛ]
      'standing' (nom)

(60) [mɔkʷʊ.tɔ.nɔkʷ]
      'toad'

(61) [dɛfɪ.tɛ.rɛ]
      'book'

(62) [fə.tak]
      'Ftak'

(63) [ɔ.kʷʊ.fɔm]
      'mouse'

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[27] Data from Bow 1997a show tone in every syllable for all of these words except *mɔkʷtɔnɔkʷ* 'toad,' *ɔkʷfɔm* 'mouse,' *Ftak* 'Ftak' (a proper name) and *dɛftɛrɛ* 'book.'

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 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 clitics are added or words juxtaposed within a construction, 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 extensions[29] 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.

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[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- laᵒ alaᵉ ahan/ 3s- go -thing =3s.POSS 'he went away'	[a.lɔ] [ɛ.lɛ] [a.haŋ]	[alɔlahaŋ]
3	/n-laᵒ a ɓ r ɬ n ava/ 1s+PFV-go at mountain in 'I went to the mountain'	[nɔ.lɔ] [a] [ɓer.ɬaŋ] [a.va]	[nɔlɔɓerɬava]
4	/gln =ahaj/ threshing area =Pl 'threshing areas'	[gə.laŋ] [a.haj]	[gəlahaj]
5	/a-mbɗ =an =aka/ 3s-change=3s.IO =on 'He/she replied' (lit. he changed on him)	[a.mbə.ɗaŋ] [a.ka]	[àmbə̀ɗáàka]
6	/bahj alakaᵒ/ chief 1PIN.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 nahaᵉ/ → [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) [ɓax]   /a-ɓh =aw/   → [aɓahaw]
     'sew'   3S-sew=1S.IO   'He/she sews for me.'

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[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 (Section 2.6.1.3), it is a type of noun clitic since it fulfills the grammatical criteria for a clitic (Section 2.6.2)

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)   [adzənaj]   /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]

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[31] The verb stems /h-aj/ 'greet'and /dz n -j/ 'help' both carry the /-j/ suffix. This suffix is deleted whenver 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}/ → [mɪʒɛsʊlɔm]
      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 [nɛʃɛ] in (75) are shown to be separate words since the palatalisation prosody of the verb [nɛʃɛ] 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. In contrast, the subject morpheme is shown to be a prefix in (76) since it takes on the palatalisation prosody of the verb stem. Also, 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}/   → [awijnɛʃɛ]
      said 1s- drink   'He/she said, "I drink."'

(76) /n- s ^{e}/   → [nɛʃɛ]
      1s- drink   'I drink.'

(77) /n- s ^{e} -am ^{o}/ → [nɔsɔm]
      1- drink -1Pᴇx   'We drink.'

(78) /n- ɡ̊ar/   → [naɡ̊ar]
      1s- kick   'I kick.'

(79) /m-   ɡ̊ar -ak ^{o}/ → [mɔɡ̊ʊrɔkʷ]
      1Pᴇx- kick -1Pᴇx   '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 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 =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 [aʒa], necessitating [ŋ] the word-final allophone of /n/). Syllables are separated by a period in the phonetic form.

(82)   /ɓərʒan   =ahaj/ → [ɓər.ʒa.haj]
       mountain =Pl   'mountains'

(83)   /ɛŋgɛrɛn aʒa/   → [ɛ.ŋgɛ.rɛ.ŋa.ʒa]
       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-mbəɗ   =an   =aka/ → [a.mbə.ɗaa.ka]
       3s-change =3s.io =on   'he/she replied.'

(85)   /a-b=an   ana mɪʒɛ/   → [a.ba.ŋa.na.mɪ.ʒɛ]
       3s-hit=3s.io to   person   'he/she hit someone.'

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[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 is 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 separate phonological word

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[35] Payne 1997: 22.

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 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 2.6.1.2) 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). However, there are no word-final changes that indicate a word break on the stem when the plural or possessive is added. Both plural marker and possessive are phonologically bound to a stem yet modify a larger structure (a noun phrase). 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 the referenced sections or chapters below:

- nouns, which can be simple, compound, or derived from a verb (Chapter 4)

- verbs (Chapters 6– 9)

- 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 and Chapter 12),

- 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 possible 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

	Free pronouns		Bound	Pronominal affixes and extensions[a]		
Person	Regular	Emphatic	Possessive suffix	Subject pronominal affixes[b]	Dedicated direct object pronominals[c]	Indirect object pronominal enclitic
1S	*ne*	*ne ga*	*=əwla*	*n-*		*=aw*
2S	*nok*	*nok ga*	*=ango(k)[d]*	*k-*		*=ok*
3S	*ndahan*	*ndahan ga*	*=ahan*	*a-*	*na*	*=an*
1Pɪɴ	*loko*	*loko ga*	*=aloko*	*m/k-...-ok*		*=aloko*
1Pᴇx	*ləme*	*ləme ga*	*=aləme*	*n-...-om*		*=aləme*
2P	*ləkwəye*	*ləkwəye ga*	*=aləkwəye*	*k-...-om*		*=aləkwəye*
3P	*təta*	*təta ga*	*=atəta*	*ta-*	*ta*	*=ata*

[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 7.3.3.

[d] This pronoun is pronounced either [aŋgʷɔ] or [aŋgʷɔkʷ] by speakers 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 5.1 and 10.1).

The clause in (1) has subject (*Mala*, a male proper name), direct object (*dalay* 'girl'), and indirect object (*Arsakay*, another male proper name). Note that the

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

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 *=an* (see Section 7.3.3). The noun phrase representing the indirect object is within a prepositional phrase (see Section 5.6.1).

(1) Mala avəlan dalay 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 7.3.1); the presence of any noun phrase or free pronoun is for pragmatic purposes.

(2) **Ndahan** na, avəlan dalay ana Arsakay.
ndahaŋ 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 à-vəl=aŋ   **ndahaŋ** ana Arsakaj
Mala 3s+PFV-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 *=an* co-occurs on the verb complex (see Section 7.3.2).

(4) Mala avə**lan** dalay [ana **ndahan**.]
Mala à-vəl=**aŋ**   dalaj [ana **ndahaŋ**]
Mala 3s+PFV-give=3s.IO girl   DAT 3s
'Mala gave the girl to him.'

---

[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.

The indirect object pronominal enclitic can entirely stand in the place of the prepositional phrase expressing indirect object with no loss in meaning (??(ex:3:5, see Section 7.3.2).

(5) Mala avəla**n** dalay.
Mala à-vəl=**aŋ**   dalaj
Mala 3s+pfv-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   nɛ̀-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 =ahaŋ   nɛ̀-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 immediately follow the noun or noun phrase they modify (9–11) and occur before the plural (12).[3]

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[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 loko, a ləme, a ləkwəye*, and *a tə̀ta*). 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 (*aloko, aləme, aləkwəye,* and *atə̀ta*).

(9) hor ahan
   hʷɔr   =**ahaŋ**
   woman =3s.poss
   'his wife'

(10) məgəye **ango**
   mɪ-g-ijɛ   =**aŋgʷɔ**
   nom-do-cl =2s.poss
   'your doings'

(11) war dalay **ahan**
   war   dalaj =**ahaŋ**
   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).

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 ᵒ/	[hɔmbɔx] [uwla] → 'pardon' =1s.poss	[hɔmbʊhuwla]	'my pardon'
Palatalised	/ta z h ᵉ/	[tɛʒɛx] [uwla] → 'snake' =1s.poss	[tɛʒɛhuwla]	'my snake'

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 Section 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'

(18) məgəye **əwla**
      mɪ-g-ijɛ   =**uwla**
      NOM-do-CL =1S.POSS
      'my doings' (i.e. the things I do)

---

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

(19)　məzəme **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 3.3: Possessive pronoun paradigm with tone marked

	Possessive pronoun in NP	Surface tone	Underlying tone
1S	*dāf úwlā* 'my loaf'	HM	HL
2S	*dāf óŋgʷɔ̀* 'your loaf'	HL	HL
3S	*dāf áhāŋ* 'your loaf'	HM	HL
1PIN	*dāf álɔ̄kʷɔ́* 'our (inclusive) loaf'	HMH	HLH
1PEX	*dāf álīmɛ́* 'our (exclusive) loaf'	HMH	HLH
2P	*dāf álɔ̄kǿjɛ́* 'your (P) loaf'	HMH	HLH
3P	*dāf átɔ̄tá* 'their loaf'	HMH	HLH

　　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 are considered in Section 2.4.2. The

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[5] In Moloko, *daf* 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'.

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.

Table 3.4: Tonal melodies in possessive constructions

	Example	Gloss	2s	3s	1Pex
H	[tsə́f]	'shortcut'	[tsə́f ɔ́ŋwɔ̀]	[tsə́f áhāŋ]	[tsə́f álīmέ]
	[bɔ́k̠ɔ́m]	'cheek'	[bɔ́k̠ɔ́m ɔ́ŋwɔ̀]	[bɔ́k̠ɔ́m áhāŋ]	[bɔ́k̠ɔ́m álīmέ]
L	[ɗə̄f]	'loaf'	[ɗə̄f ɔ́ŋwɔ̀]	[ɗə̄f áhāŋ]	[ɗə̄f álīmέ]
	[dàndàj]	'intestines'	[dàndìj ɔ́ŋwɔ̀]	[dàndìj āhāŋ]	[dàndìj ālīmέ]
HL	[mékɛ̄tʃ]	'knife'	[mékɛ̄tʃ ɔ́ŋwɔ̀]	[mékɛ̄tʃ áhāŋ]	[mékɛ̄tʃ álīmέ]
	[mɔ́gwɔ̀dɔ̀kw]	'hawk'	[mɔ́gwɔ̀dɔ̀kw ɔ́ŋwɔ̀]	[mɔ́gwɔ̀dɔ̀kw āhāŋ]	[mɔ́gwɔ̀dɔ̀kw ālīmέ]
LH	[ɬə̄máj]	'ear'	[ɬə̄míj ɔ́ŋwɔ̀]	[ɬə̄míj áhāŋ]	[ɬə̄míj álīmέ]
	[bɔ̀gwɔ̄m]	'hoe'	[bɔ̀gɔ̄m ɔ́ŋwɔ̀]	[bɔ̀gɔ̄m áhāŋ]	[bɔ̀gɔ̄m álīmέ]
HLH	[ákɔ̄fɔ́m]	'mouse'	[ákɔ̄fɔ́m ɔ́ŋwɔ̀]	[ákɔ̄fɔ́m áhāŋ]	[ákɔ̄fɔ́m álīmέ]
	[dédìlɛ̄ŋ]	'black'	[dédìl ɔ́ŋwɔ̀]	[dédìl āhāŋ]	[dédìl ālīmέ]
LHL	[sə̄sájāk]	'wart'	[sə̄sájə̄kw ɔ́ŋwɔ̀]	[sə̄sájə̄k áhāŋ]	[sə̄sájə̄k álīmέ]
	[mə̄ŋgáhàk]	'crow'	[mə̄ŋgáhə̀kw ɔ́ŋwɔ̀]	[mə̄ŋgáhə̀k āhāŋ]	[mə̄ŋgáhə̀k ālīmέ]

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, *golo* 'dear/honourable' follows the noun (20–21); for other relationships (mother, father, grandmother) *ya* 'dear/honourable' follows the noun (22–24).

(20) hor **golo**
      hʷɔr   gʷɔlɔ
      woman HONOUR
      'my dear wife'

(21) zar **golo**
       zar   gʷɔlɔ
      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 ɗaf.
      mama   **ja**   a-s=aw   ɗaf
      mother HONOUR 3s-please=1s.IO millet loaf
      'My dear mother, I want millet loaf!' (lit. millet loaf 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]

Table 3.5: Interrogative pronouns

Element questioned	Interrogative pronoun	Gloss	Example numbers
Clause constituent	*way*	'who' (human)	25 and 26
	almay	'what' (non-human)	27 and 28
	epeley	'when'	29
	amtamay	'where'	30
	kamay	'why'	31
	memey	'how/ explain'	32 and 33
	malmay	'what is this'	35 and 34
Noun phrase constituent	*mətəmey*	'how much'	36
	weley	'which one'	37

---

[6] Table adapted from Boyd 2003.

The normal position for interrogative pronouns is clause or noun phrase final (25–38).[7] Two of the interrogative pronouns (*memey* 'how,' and *malmay* 'what') can question a clause in and of themselves (33–35). In each example, the interrogative pronoun is bolded.

(25) Aməvəlok baskor na **way?**
amə-vəl=ɔkʷ   baskʷɔr na **waj**
DEP-give=2S.IO bicycle PSP who

'Who gave you the bicycle?' (lit. the one that gave you the bicycle [is] who?)

(26) Mana amənjar **way?**
Mana à-mənzar   **waj**
Mana 3S+PFV-see who

'Whom did Mana see?'

(27) Kənjakay **almay?**
kə̀-nzak-aj   **almaj**
2S+PFV-find-CL what

'What did you find?'

(28) Kəzom **almay?**
kə̀-zɔm   **almaj**
2S+PFV-eat what

'What did you eat?'

(29) Kálala **epeley?**
ká-l=ala   **ɛpɛlɛj**
2S+IFV-go=to when

'When are you coming?'

(30) Kólo **amtamay?**
kɔ́-lɔ   **amtamaj**
2S+IPV-go where

'Where are you going?'

(31) Kólo a Lalaway **kamay?**
kɔ́-lɔ   a Lalawaj **kamaj**
2S+IFV-go at Lalaway why

'Why are you going to Lalaway?'

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[7] See interrogative constructions in Moloko, Section 10.3.

(32) Kəlala na **memey?**
kə̀-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 **malmay?**
nɛhɛ na **malmaj**
DEM PSP what
'What is this here?'

(35) **Malmay?**
malmaj
what
'What is it?'

(36) Dala **mətəme?**
dala   **mɪtɪmɛ**
money how much
'How much money [is that]?'

(37) Məlama ango na **weley?**
məlama =aŋgʷɔ   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 **weley** təh anan dəray na abay.
albaja =ahaj **wɛlɛj** 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 in order to lift it], there was none)

In an emphatic question, a reduced interrogative pronoun both commences and finishes the clause (39–42). The interrogative pronouns *way* 'who,' *malmay*

'what is this,' *memey* 'why,' and *almay* '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 *memey* becomes *mey* (41) and *almay* becomes *may* (40, 42).

(39) **Wa** andaɗay **way?**
      wa a-ndaɗ-aj **waj**
      who 3s-love-cʟ who
      'No one loves him.' (lit. who loves him?)

(40) **Malma** awəlok **may?**
      malma a-wəl=ɔkʷ   **maj**
      what   3s-hurt=2s.ɪo what
      'What is bothering (hurting) you?'

(41) **Meme** ege **mey?**
      mɛmɛ ɛ-g-ɛ   **mɛj**
      how   3s-do-cʟ how
      'What is going on here? [when something is wrong]'/ 'What are you doing?' (lit. how is it doing?)

(42) Snake, S. 7
      Alma aməɗəvala okfom na **may?**
      alma amə-dəv=ala ɔkʷfɔm 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. *Meslenen* 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). *Enen* 'another' (45) is an indefinite determiner, used to introduce new participants or things not previously mentioned.

(43) Nəmənjar **meslenen** bay.
     nə̀-mənzar **mɛɬɛnɛŋ** baj
     1S+PFV-see no one   NEG
     'I didn't see anyone.'

(44) Anjaka aməɓezlata azla **mana mana mana**.
     a-nz=aka amə-ɓɛk̑ =ata ak̑a **mana**   **mana**   **mana**
     3S-left=on DEP-count =3P.IO now 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 **ɛnɛŋ**]   aba
     day   another EXT
     'One day…' (a usual way to start a story)

3.2 Demonstratives and demonstrationals

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 adverbal demonstratives (Section 3.2.3), which point to an action and modify a verb.[8] Manner adverbials are derived from local adverbial denonstratives.

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 their basic use 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.

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[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)	*ngehe / nəngehe / nengehe* [a] 'this'	*nehe* 'here'	*ka nehe* 'like this' *kaygehe* 'this way'	*ehe* 'here' *cɔcɑngehe* 'now'
Distal (away from speaker)	*ngɔndəye / ngɔndəge* [b] 'that'	*nəndəye / nendəge* [c] 'there'		
Distant from speaker		*toho* [d] 'over there'		*toho* 'over there'
Anaphoric		*ndana* 'that previously mentioned'	*ka ndana* 'like what was described' *kayga* 'like that'	

[a] The demonstrative *ngehe* is a contraction of *nəngehe*.
[b] This demonstrative is pronounced either [nɨngɨndɨjɛ] or [nɨngɨndɑgɛ] by speakers 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 (46–48) 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 in this section,[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-sʊkʷɔm [zana **ŋgɛhɛ**]
      1s+IFV-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 **ŋgɪndijɛ**]
      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 **ŋgɪndijɛ**] aŋga =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 *ngəndəye* 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.

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[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
       [Agwazla **ngəndvəye**] ágasaka ka mahay ango aka.
       [agwazla   **ŋgɪndijɛ**] á-gas=aka   ka mahaj =aŋgʷɔ 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 Disobedient Girl 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 Disobedient Girl story describes
the blessing – that Moloko people could make an entire meal for a whole fam-
ily 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 *avəya nengehe* 'this particular
previously mentioned suffering.' Also, the young woman who, by her disobedi-
ence, brought suffering to the entire Moloko population is marked in lines 33 and
38 by the distal nominal demonstrative. Line 33 contains *war dalay na amecen
sləmay bay ngəndəye* 'the young woman, the previously mentioned disobedient
one' and line 38 contains *war dalay ngəndəye* 'that previously mentioned young
woman.'

(50)   Disobedient Girl, S. 33
       Məloko ahay tawəy, Hərmbəlom ága ɓərav va
       Mʊlɔkʷɔ =ahaj tawij   Hʊrmbʊlɔm á-g-a   ɓərav =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 ɬəmaj baj **ŋgɪndijɛ**
       because of child girl   PSP DEP-hear ear   NEG DEM
       'because of the girl, the particular previously mentioned one that was
       disobedient.'

Disobedient Girl, S. 34

Waya ndana Hərmbəlom ázata aka barka ahan va.

waja	ndana	Hʊrmbʊlɔm	á-z	=ata	=aka	barka	=ahaŋ
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 asabay.

tʃɪtʃɪŋgɛhɛ	na,	war	ɛlɛ	haj	bɪlɛŋ	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	ɛlɛ	haj	bɪlɛŋ	one	kə	vɛr	aka	na	á-sak	asa-baj
IDput	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	nɛhɛ	tawij	mɛ-tɛɬ-ɛ	aŋga	war	dalaj	**ŋgɪndijɛ**
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	**nɛŋgɛhɛ**	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 *toho* '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 in this section, the demonstrative is bolded and the noun phrase is marked by square brackets.

(51) [Ɗaf **nehe**] acar.
      [ɗaf   **nɛhɛ**] a-tsar
      millet loaf DEM   3s-taste good

      'This millet loaf here (in this place) tastes good.'

(52) Nazalay [awak ahay **nəndəye**] a kosoko ava.
      na-z-alaj   [awak =ahaj **nɪndijɛ**] a kɔsɔkʷɔ ava
      1s-carry-away goat   =Pl   DEM   at market in

      'I take the goats there (in that place) to the market.'

(53) Disobedient Girl, S. 13
      [War elé háy bəlen ga **nəndəye**] [nok amɛzəɗe na,]
      [war ɛlɛ haj   bɪlɛŋ ga **nɪndijɛ**] [nɔkʷ amɛ-zɪɗ-ɛ   na]
      child eye millet one   ADJ DEM   2s   DEP-take-CL PSP

      'That one grain there (highlighted[12]), the one 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.'

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[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.

(54) Values, S. 3
      Səwat na, [təta a məsəyon na ava **nəndəye** na,] pester áhata.
      suwat   na [təta a mʊsijɔŋ na ava **nɪndijɛ** na] pɛʃtɛr á-h=ata
      ɪɪdisperse PSP 3P   at mission PSP in   DEM   PSP pastor 3s-tell   =3P.ɪO
      '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 ango ahay ɗaw?
      ndɛ [**nɛhɛ** =ahaj na] ɬa   =aŋgʷɔ =ahaj ɗaw
      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 *toho* is used in
a possessive or genitive construction with the noun it modifies, (*anga toho*, (56)
see Section 5.6.1; or *a toho*, (57), see Section 5.4.1).

(56) [Hay əwla **anga toho** na,] elemənzləɓe tanday tozom na.
      [haj   =uwla   **aŋga tɔhʷɔ** na] ɛlɛmɪɮɪɓɛ 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   tɔhʷɔ**] 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 *nəndəye* 'that one there' (59).

(58) Cicada, S. 5

Təlo tənjakay agwazla malan ga a ləhe.

tə̀-lɔ   tə̀-nzak-aj   agʷaɮa   malaŋ ga a lɪhɛ

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 tamənjar na ala [mama agwazla **nəndəye**]

tə̀-lɔ   tà-mənzar   na   =ala [mama agʷaɮa   **nɪndijɛ**]

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), *ɗerəywel nendəge* '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 [ɗerəywel **nendəge.**]

a-l=ala   na ta an =aw   [ɗɛrijwɛl **nɛndɪgɛ**]

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 *nehe* 'this here' is used to draw attention to new information. In the exhortation, the phrase *ele nehe* '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 cataphorically

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[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 *nəndəye* 'here' in the same example functions to simply point out a place in the phrase *tata a mʊsəyon na ava nəndəye* 'the ones in church there'. Also, compare the function of the proximal local adverbial demonstrative *nehe* with that of the proximal nominal demonstrative *nəngehe* in the same example. The nominal demonstrative in the phrase *ele =ahay aməgəye bay nəngehe* 'these particular things that one shouldn't do' points out particular things which are previously mentioned Section 3.2.1.

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 məsəyon na ava nəndəye na,] Pester ahata,
    suwat   na [təta a mʊsijɔŋ na ava nɪndijɛ na] Pɛstɛr a-h   =ata
    ɪᴅdisperse ᴘsᴘ 3ᴘ   at mission ᴘsᴘ in   ᴅᴇᴍ   ᴘsᴘ pastor 3s-tell =3ᴘ.ɪᴏ
    'As the people go home from church (lit. disperse, they in the mission there), the Pastor said,

    "Ey, [ele **nehe** na] kogom bay!"
    ɛj [ɛlɛ   **nɛhɛ** na] kɔ-gʷ-ɔm baj
    hey thing ᴅᴇᴍ ᴘsᴘ 2-do-2ᴘ   ɴᴇɢ
    '"Hey! These things here, don't do them!"'

    Values, S. 4
    Yawa, war dalay ga ándaway mama ahan.
    jawa war dalaj ga á-ndaw-aj   mama =ahaŋ
    well child female ᴀᴅᴊ 3s+ɪꜰᴠ-insult-ᴄʟ mother =3s.ᴘᴏss
    'Well, the girls insult their mothers.'

    Values, S. 5
    War zar ga ándaway baba ahan.
    war zar ga á-ndaw-aj   baba =ahaŋ
    child male ᴀᴅᴊ 3s+ɪꜰᴠ-insult-ᴄʟ father =3s.ᴘᴏss
    '[And] the boys insult their fathers.'

    Values, S. 6
    Yo, [ele ahay aməgəye bay nəngehe pat,]
    jɔ [ɛlɛ =ahaj amɪ-g-ijɛ baj nɪŋgɛhɛ pat]
    well thing =Pl   ᴅᴇᴘ-go-ᴄʟ ɴᴇɢ ᴅᴇᴍ   all
    'Well, all these particular things that we are not supposed to do,'

    tahata na va kə dəftere aka.
    ta-h=ata   na   =va kə dɪftɛrɛ aka.
    3ᴘ-tell=3ᴘ.ɪᴏ 3s.ᴅᴏ =ᴘʀꜰ 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 elé háy bəlen ga nəndəye* 'that one grain there.' In this case, *nəndəye* '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, kázadʼ war elé háy bəlen.

asa à-s   =ɔkʷ amə-h   =aja na ká-zadʼ   war ɛlɛ haj
if   3s+PFV-please =2s.IO DEP-grind =PLU PSP 2s+IFV-take child eye millet

bɪlɛŋ
one

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

[War elé háy bəlen ga **nəndəye**] [nok aməzədʼe na,]
[war ɛlɛ haj   bɪlɛŋ ga   **nɪndijɛ** nɔkʷ amɛ-zɪdʼ-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 vɛr   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 slam nendəye 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 slam nendəye ava* marks the transition point in the way that the speaker dealt with the cows.

(63) A [slam **nendəye**] ava na, nawəy,
a [ɬam **nɛndijɛ**] ava na nawij
at place DEM   in PSP 1s+said

'At that moment, I said,'

"Sla ahay na, məmokok ta bay,

ɬa =ahaj na mʊ-mɔkʷ-ɔkʷ ta baj
cow =Pl PSP 1Pin+HOR-leave-2Pin 3P.DO NEG

'"These cows, let's not leave them at all,'

golok ta a Kəɗəmbor,

gʷɔl-ɔkʷ ta a Kʊɗʊmbɔr
drive[IMP]-1Pin 3P.DO at Tokombere

'let's drive them to Tokembere,'

ɗeɗen bay na memey?"

ɗɛɗɛŋ 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 dalay ndana* 'that previously mentioned young woman' occurs in the introduction of the major characters in the story (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
Azləna, [war dalay **ndana**] cezlere ga.
aʒəna [war dalaj **ndana**] tʃɛʒɛrɛ ga
but 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. The chief desired to have a particular tree transplanted at his gate. He commissioned his people to do it. In (66) (from S. 6), *albaya =ahay ndana* 'those previously mentioned young men' and (67) (from S. 9) *agwazla 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...

tə̀-lɔ   tə̀-nzak-aj   agʷaɮa   malaŋ ga a lɪhɛ
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 bahay.

[albaja   =ahaj **ndana**] kɪlɛŋ tə̀-ŋgala   =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 [agʷaɮa   **ndana**] ka mahaj =uwla
2P+POT-take-2P DAT =1S.IO =to   spp. of tree DEM   on door   =1S.POSS

aka
on

'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)   Disobedient Girl, S. 34

Waya **ndana** Hərmbəlom ázata aka barka ahan va.

waja   ndana Hʊrmbʊlɔm á-z   =ata =aka barka   =ahaŋ
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 dəren **ka nehe**.
    à-ndʒ-ɛ   ɛlɛ =ahaŋ dɪrɛŋ **ka nɛhɛ**
    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.
        nɪvijɛ 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. Nə́ɗəgalay **ka ndana**.
        nə́-ɗəgal-aj   **ka ndana**
        1s+IFV-think-CL like DEM
        'I think so too.'

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

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[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. Nə́ɗəgalay **ka ndana** bay.
nə́-ɗəgal-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 *kəyga* 'like that' (see Section 10.3.3). *Kəygehe* 'like this' will be accompanied by gestures demonstrating the place where the action will occur (72–73).

(72)   Adəkwalay ana Hərmbəlom ton **kəygehe**.
à-dʊkʷ   =alaj   ana Hʊrmbʊlɔm tɔŋ   **kijgɛhɛ**
3S+PFV-arrive =away DAT God   IDtouch like this
'It touched God like this [in the eye]. (lit. it arrived to God, touching [him] like this)'

(73)   Lo kəygehe.
lo   kijgɛhɛ
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	*bəlen*	21	*kokər cew hər bəlen*
2	*cew*	30	*kokər makar*
3	*makar*	100	*səkat*
4	*məfaɗ / əwfaɗ*[a]	101	*səkat nə bəlen*
5	*zlom*	122	*səkat nə kokər cew hər cew*
6	*məko*	200	*səkat cew*
7	*səsəre*	300	*səkat makar*
8	*slalakar*	1,000	*dəbo*
9	*holombo*	1,001	*dəbo nə bəlen*
10	*kəro*	1,100	*dəbo nə səkat*
11	*kəro hər bəlen*	2,000	*dəbo cew*
12	*kəro hər cew*	3,000	*dəbo makar*
13	*kəro hər makar*	5,000	*dəbo zlom*
14	*kəro hər məfaɗ*	10,000	*dəbo kəro*
15	*kəro hər zlom*	10,001	*dəbo kəro nə bəlen*
16	*kəro hər məko*	100,000	*dəbo dəbo səkat*
17	*kəro hər səsəre*	100,001	*dəbo dəbo səkat nə bəlen*
18	*kəro hər slalakar*	1,000,000	*dəbo dəbo dəbo*
19	*kəro hər holombo*	1,000,001	*dəbo dəbo dəbo nə bəlen*
20	*kokər cew*		

[a] This numeral is pronounced either [*məfaɗ*] or [*uwfaɗ*] by speakers 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 consitiutent order of the noun phrase is discussed in Section 5.1.[16]

(74) Məze ahay dəbo cew tolo amǝmǝnjere mǝkǝɗe balon.
      mɪʒɛ =ahaj dǝbɔ tʃɛw tɔ̀-lɔ   amɪ-mɪnzɛr-ɛ mɪ-kɪɗ-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.'

(75) Nəmənjar awak ahay kəro a kosoko ava.
      nə̀-mənzar awak =ahaj kʊrɔ a kɔsɔkʷɔ 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 mətəmey?
          kə̀-nzak-aj   awak mɪtɪmɛj
          2S+PFV-find-CL goat how many
          'How many goats did you find?'
      b. Nənjakay bəlen.
          nə-nzak-aj   bɪlɛŋ
          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 *kokər cew*, which is some kind of derivitave of *kəro* '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 *dəbo*, and higher numbers are seen as multiples of *dəbo*.

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 *məvəye daz* (not *məvəye bəlen 'year one'). *Məvəye 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

(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 cew* '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)	*səy say*	
10 Fcfa (coin)	*dal cew*	
15 Fcfa	*dal makar*	
50 Fcfa (coin)	*dal kəro*	
100 Fcfa (coin)	*dal kokər cew*	*(səloy) səkat*
150 Fcfa	*dal kokər makar*	*səloy st nə dal kəro*
200 Fcfa	*dal kokər məfaɗ*	*səkat cew*
250 Fcfa	*dal kokər zlom*	*səkat cew dal kəro*
300 Fcfa		*səkat makar*
500 Fcfa (coin)		*səkat zlom*
1,000 Fcfa (bill)		*ombolo*
2,000 Fcfa (bill)		*ombolo cew*
3,250 Fcfa		*ombolo makar nə səloy kokər zlom*
5,000 Fcfa (bill)		*ombolo zlom*
10,000 Fcfa (bill)		*ombolo kəro*
50,000 Fcfa		*ombolo kokər zlom*
100,000 Fcfa		*ombolo səkat*
1,000,000 Fcfa		*ombolo səkat kəro*

The basic unit for the monitary base ten system is the 100 Fcfa coin (*səloy səkat* 'coin 100'). This system uses the same number for one hundred as the

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

system for counting items (*səkat*). 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 (*dəbo* see Table 3.7), but rather is a term specific to money – *ombolo*.

When larger amounts of money are counted, both base ten and base five systems are used. For example, 13,250 Fcfa is *ombolo kəro hər makar nə səloy kokər zlom* '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 [elé bəlen] literally 'one eye.'

3.3.3 Ordinal numbers

Only the first ordinal number is a unique vocabulary word in Moloko: *cekem* 'first' (78).The other ordinal expressions use a noun phrase construction using the cardinal counting numbers (76–77, 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' (81–82), *nekwen* 'little,' *jəyga* 'all,' *dəyday* 'approximately,' and *haɗa* 'enough' (83–84). When they occur in a noun phrase, they are the final element (81, the noun phrase is delimited by square brackets).

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

(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!**
      ɬɪrɛlɛ **gam**
      work much
      [That is] a lot of work!

(83) Disobedient Girl, S. 4
      Ávata [məvəye **haɗa**].
      á-v=ata   [mɪ-v-ijɛ   **haɗa**]
      3s+IFV-spend time=3P.IO NOM-spend time-CL enough
      'It would last them enough for the whole year.'

(84) Nok [**haɗa** bay.]
      nɔkʷ [**haɗa**   baj]
      2s   enough NEG
      'You [are] small.' (lit. not enough)

3.4 Existentials

Moloko has three positive existentials and one negative existential. The proto-typical existential *aba* 'there exists' (85). carries the most basic idea of existence. Its negative is *abay* '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 a 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).

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[19] This existential is perhaps a compound of the existential *aba* and the negative *bay*.

The prototypical existential is *aba* 'there is' (85–86) and its negative is *abay* '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 *abay* 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 *zay* '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** zay ɗaw?
nɔkʷ **aba** zaj　ɗaw
2s　EXT peace QUEST
'Are you well?' (lit. 'Do you exist [in] peace?')

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

  b. Ne **aba**.
     nɛ **aba**
     1S EXT
     'I am well.' (lit. I exist)

(90) Nok **aba** ɗaw?
     nɔkʷ **aba** ɗaw
     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** ɗaw?
        baba   =aŋgʷɔ **aba** ɗaw
        father =2S.POSS EXT QUEST
        'Is your father well?' (lit. does your father exist?)

  b. Ayaw, ndahan **aba**.
     ajaw ndahaŋ **aba**
     yes 3S   EXT
     'Yes, he is well.' (lit. yes, he exists)

(93) Baba əwla na, hərva ahan **abay**.
     baba   =uwla   na hərva ahaŋ   **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**. Tánday tə́talay a ləhe.
     albaja   =ahaj **aba** tá-ndaj   tə́-tal-aj   a lɪhɛ
     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 a story story. Note that this existential clause contains the adverb *ete* 'also.'

(95) Albaya **ava aba** ete. Olo azala hor.
      albaja   **ava**   **aba** ɛtɛ ɔ̀-lɔ   à-z=ala   hʷɔr
      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' (96–99) 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 postposition *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** ɗaw?
          ʃɛʃɛ **ava**   ɗaw
          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 ango, ndahan **ava** ɗaw?
          baba =aŋgʷɔ ndahaŋ **ava**   ɗaw
          father =2S.POSS 3S   EXT+in QUEST
          'Is your father located here?' (lit. your father, is he here?)

      b. Ndahan **ava** bay; enjé amətele.
          ndahaŋ **ava**   baj ɛ̀-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**.
       ndahaŋ **ava**
       3S   EXT+in
       'He/she is here.'

(99)   Ndahan **ava** alay.
       ndahaŋ **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' (100–103, 105) 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 postposition *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** ɗaw?
            dala   an=ɔkʷ   **aka**   ɗaw
            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.
        hʷɔr   an=aŋ   **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** ɗaw?
        bahaj a   ɬa   =ahaj na ndahaŋ **aka** ɗaw
        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
nday (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** ózom ɗaf.
        ndahaŋ **aka**   ɔ́-zɔm   ɗaf
        3S   EXT+on 3S+IFV-eat millet loaf
        'He/she is eating millet loaf.'

(104)   Ánday ózom ɗaf.
        á-ndaj   ɔ́-zɔm   ɗaf
        3S+IFV-PROG 3S+IFV-eat millet loaf
        'He/she is eating millet loaf.'

(105)   Disobedient Girl, S. 24
        Ndahan na, ndahan **aka** njəw njəw njəw.
        ndahaŋ na ndahaŋ **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 ad-
verbs, Section 3.5.3), and yet others function at the discourse level (Section 3.5.4).
Note that ideophones can function adverbially to give pictoral vividness to a
clause (Doke 1935). Because they pattern differently than adverbs, they are con-
sidered 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.
tə̀-was   =ava **nɛkʷɛŋ** kijgɛhɛ
3P+PFV-cultivate =in little like this
'They cultivated a little like this.'

(107) Hərmbəlom andaɗay nok **gam**.
Hʊrmbʊlɔm a-ndaɗ-aj nɔkʷ **gam**
God   3S-love-CL 2S   much
'God loves you a lot.'

(108) Názaɗ a dəray ava **sawan**.
ná-zaɗ   a dəraj ava **sawaŋ**
1S+IFV-carry at head in without help
'I can carry it (on my head) by myself!'

Verb phrase adverbs include *dəren* 'far distance,' *nekwen* 'a small quantity' (106), *gam* 'a large quantity' (107), *sawan* 'without help' (108) and the modal adverbs *təta* 'can,' an adverb of ability (109 and 110), and *dewele* '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.'

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[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 **dewele**.
       bahaj á-zɔm   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) dəren   də**rr**en
       dɪrɛŋ   dɪ**rr**ɛŋ
       'far'   'very far'

(113) ɗeɗen   ɗe**ɗɗ**en
       ɗɛɗɛŋ   ɗɛ**ɗɗ**ɛŋ
       'true'   'very true'

(114) gam   gam gam
       'a lot'   'a whole lot'

(115) nekwen   nekwen nekwen
       nɛkʷœŋ   nɛkʷœŋ nɛkʷœŋ
       '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

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[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.

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=xa
       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 *rəbok* and *hərək* does not spread rightwards to the adverbiser (otherwise, the reduplicated /k/ would be labialised, see Section 2.1).

(118) zar akar ɗəw, ndahan ava **rəbokka**
       zar   akar ɗuw ndahaŋ ava   **rʊbɔkʷ**   =ka
       man theft also 3s   EXT+in hiding place =ADV

       'There was (in that place) a thief, hiding.'

(119) nege slərwle **hərəkka**
       nɛ-g-ɛ   ɬɪrɛlɛ **hʊrʊkʷ** =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 *egəne* 'today,' *hajan* 'tomorrow,' *apazan* 'yesterday.'

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[24] Note that *a kosoko 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.

(120) **Egəne** nólo a kosoko ava.
       ɛgɪnɛ nɔ́-lɔ   a kɔsɔkʷɔ ava
       today 1s+IFV-go at market in
       'Today I will go to the market.'

(121) Nólo a kosoko ava **hajan**.
       nɔ́-lɔ   a kɔsɔkʷɔ ava **hadʒaŋ**
       1s+IFV-go at market in   tomorrow
       'I will go to the market tomorrow.'

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 *ese* 'again' (same actor, same action, 122), *ete* 'also' (same action, different actor, 123), *fan* 'already' (expressing Perfect aspect in that the action is performed in the past with effects continuing to the present, 124), *kəlo* 'already' or 'before' (the action was performed at least once before a particular time, 125).

(122) Nóolo **ese**.
       nɔ́ɔ́-lɔ   **ɛʃɛ**
       1s+POT-go again
       'I will go again.'

(123) Nóolo **ete**.
       nɔ́ɔ́-lɔ   **ɛtɛ**
       1s+POT-go also
       'I will go too.'

(124) Nege na **fan**.
       nɛ̀-g-ɛ   na **faŋ**
       1s+PFV-do-CL 3s.DO already
       'I did it already.'

(125) Nəmənjar ndahan **kəlo**.
       nə-mənzar ndahaŋ **kʊlɔ**
       1s-see   3s   before
       'I have seen him/her before.'

The adverb *əwɗe* 'first' (126) indicates that the event expressed in the clause occurs before something else.

(126)   Cicada, S. 20
        Náamənjar na alay memele ga ndana **əwɗe**.
        náá-mənzar na   =alaj   mɛmɛlɛ ga   ndana **uwɗɛ**
        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)

Azla 'now' (127 and 128) adds tension and excitement.

(127)   Disobedient Girl, S. 21
        Ndahan bah məbehe háy ahan amadala na kə ver aka **azla**.
        ndahaŋ bax   mɪ-bɛh-ɛ   haj   =ahaŋ   ama-d =ala na   kə
        3S   IDpour NOM-pour-CL millet =3S.POSS DEP-put =to 3S.DO on

        vɛr   aka **aʒa**
        stone on   now
        'She poured out her millet to prepare it on the grinding stone now.'

(128)   Disobedient Girl, S. 22
        Njəw njəw njəw aməhaya **azla**.
        nzu nzu nzu amə-h=aja   **aʒa**
        IDgrind   DEP-grind=PLU now
        '*Njəw njəw njəw* [she] ground [the millet] now.'

Ɗəwge 'actual' (to indicate that the events in the clause actually happened, 129).

(129)   Snake, S. 24
        Ka nehe ləbara a ma ndana **ɗəwge**.
        ka   nɛhɛ ləbara a   ma   ndana **ɗuwgɛ**
        like DEM news   GEN word DEM   actual
        'And so was that previously mentioned story.'

Re 'counterexpectation' (130) indicates that the clause is the opposite to what the hearer might have expected.

(130)   Values, S. 50

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

ɛpɛlɛ ɛpɛlɛ   na mɛ   Hʊrmbʊlɔm 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

'In the future in my opinion, God is going to accept them [the elders] in his hands, in spite [of what anyone says].'

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 are treated as a separate grammatical class since although they may fill the noun, verb, or adverb slot in a clause, ideophones do not 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]

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

(131) gəɗəgəzl
gə̀ɗə̀gə̀ɮ̀
'the noise of something closing or being set down'

(132) danjəw
dànzúw
'sight of someone walking balancing something on their head'

(133) poɗococo
pɔ̀ɗɔ́tsɔ́tsɔ́
'taste of sweetness'

(134) pəyecece
pìjétʃétʃɛ́
'feeling of coldness'

(135) kekəf kəf kekəf kəf
kɛ̀kɩ́f kɩ́f kɛ̀kɩ́f kɩ́f
'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) pəvbəw pəvbəw
pəvuw pəvuw
'sight of rabbit hopping'

(137) pəvba pəvba
pəva pəva
'sound of a whip'

(138) pəvban pəvban
pəvaŋ pəvaŋ
'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 (131, 139, 142).

(139)　jəɓ　jəɓ
　　　dʒɪɓ dʒɪɓ
　　　'completely wet'

Moloko ideophones sometimes contain unusual sounds, including the labio-dental flap [ⱱ], marked as *vb* in the orthography. The labiodental flap is found only in ideophones that carry a neutral prosody.

(140)　vbaɓ
　　　ⱱàɓ
　　　'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)　həɓek həɓek
　　　hìɓɛ́k hìɓɛ́k
　　　'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 *njəw njəw* (142), they know that the speaker is talking about someone grinding something on a grinding stone. Likewise see also (131), (133–135), (141), (143), 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)　pəcəkəɗək
　　　pʊ́tsʊ́kʊ́ɗʊ́k
　　　'the sight of a toad hopping'

However, a Moloko speaker will need to understand a wider context to deter-mine the meaning of *dergwejek* (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

dɛrgʷɛtʃɛk

'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 *mbajak mbajak mbajak* 'something big and reflective' is the direct object of the clause. The ideophones are bolded in the examples.

(145) Values, S. 34

Ehe na, təta na, kəw na, **bəwɗere**.

ɛhɛ na təta na kuw   na **buwɗɛrɛ**

here PSP 3P   PSP IDtake PSP IDfoolishness

'Here, what they are taking is foolishness!' (lit. here, they, taking, foolishness)

(146) Values, S. 48

Kə wəyen aka ehe **tezl tezlezl**.

kə wijɛŋ aka ɛhɛ   **tɛɮ tɛɮɛɮ**

on earth on   here IDhollow

'[Among the people] on earth here, [we are like] the sound of a hollow cup bouncing on the ground.'

(147) Snake, S. 11

Námənjar 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 *həmay* 'run' but vary depending on the actor of the clause. Unlike most other adverbs however, ideophones cannot be negated.

Table 3.9: Selected ideophones that co-occur with the verb həmaj 'to run'

#		
1	*zar a-həm-ay **gədo gədo gədo*** man 3s-run-CL IDman running	'A man runs *gədo gədo gədo*.'
2	*war a-həm-ay **njədok njədok*** child 3s-run-CL IDchild running and jumping	'A toddler runs *njədok njədok*.'
3	*albaya a-həm-ay **njəl njəl*** youth 3s-run-CL IDyouth running	'A young man runs *njəl njəl*.' (also mice run like this)
4	*madehwer a-həm-ay təta baj;* old person 3s-run-CL ability NEG	'An old person can't run;
	*a-həm-ay **kərwəd wəd**, **kərwəd wəd*** 3s-run-CL IDinsult someone with no stomach	he moves *kərwəd wəd, kərwəd wəd*.'
5	*zlevek a-həm-ay **pavbəw pavbəw*** rabbit 3s-run-CL IDrabbit hopping	'A rabbit runs *pavbəw pavbəw*.'
6	*sla =ahay tə-həm-ay **gərəp gərəp*** cow =Pl 3P-run-CL IDsomething heavy running	'Cows run *gərəp gərəp*.'
7	*javar =ahay tə-həm-ay **carr*** guinea fowl=Pl 3P-run-CL IDguinea fowl taking off	'Guinea fowl run *carr*.' (when they are taking off)
8	*erkece a-həm-ay **yed yed yed*** ostrich 3s-run-CL IDostrich running	'An ostrich runs *yed yed yed*.'
9	*moktonok a-həm-ay **pəcakədək, pəcakədək*** toad 3s-run-CL IDtoad hopping	'A toad runs *pəcakədək, pəcakədək*.'
10	*məwta a-həm-ay **fəhh*** truck 3s-run-CL IDtruck humming	'A truck runs *fəhh*.'
11	*həmad a-həm-ay **fowwa*** wind 3s-run-CL IDwind blowing	'The wind runs *fowwa*.'

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-ɮəg   =alaj] avʊlɔ **zɔ́r**
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-ɮaɓ-aj   ɛlɛ] **kə̀ndál, kə̀ndál, kə̀ndál**
3s-PRG 3s-pound-CL thing IDpounding millet
'She was pounding the [pestle] (threshing millet) pound, pound pound.'

(150) [Həmbo ga anday asak ele ahan] **wəsekeke**.
[hʊmbɔ ga a-ndaj a-sak   ɛlɛ   =ahaŋ] **wuʃɛkɛkɛ**
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 it modifes is non-inflected, the ideophone is the first element of the verb phrase, 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 ahay na.]
nata ndahaŋ [**pək**   ma-p   =ata =aka =va
also 3s   IDopen door or bottle NOM-open =3P.IO =on =PRF

pʊrgʷɔm =ahaj na]
trap   =Pl PSP
'He opened the traps for them.'

(152) Dərlenge [**pəyteɗ** məhəme ele ahan] ete.
dɪrlɛŋgɛ [**píjtɛ́ɗ**   mɪ-hɪm-ɛ ɛlɛ =ahaŋ] ɛtɛ
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 *=alay* 'away.' Also, the ideophone *təh* '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] *mək*!'

(154) Cicada, S. 26
  Albaya ahay weley [**təh** anan dəray na,] abay.
  albaja =ahaj wɛlɛj [**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). Additionally, see (145–146) which also display this device.

(155) Values, S. 22
  Təta [**dəl** na, ma Hərmbəlom nendəye.]
  təta [**dəl** na ma Hʊrmbʊlɔm nɛndijɛ]
  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 seven ideophones. The narrator tells that he took his flashlight, shone it up *cəlar*, saw something *mbajak mbajak* (big and reflective), a snake! He *mbət* turned off his light, *kaləw* took his spear, *mək* (positioned himself). Penetration *mbəraɓ* ! It

fell *vbaɓ* on the ground. Note that at the climactic moment (line 14, 156), the entire clause is expressed by a single ideophone *mǝk*, followed by verbal extensions.

(156) Snake, S. 14
Mǝk ava alay.
mǝk   =ava =alaj
ɪᴅposition for throwing =in   =away
'[I] positioned myself mǝk!'

Likewise, in the peak episode of the Cicada text (S. 25–29, see Section 1.6) ideophones are frequent and at the climactic moment (157–158), the ideophone is the only element in the clause. The cicada and young men go *sen* to the tree to to move it. None of the young men could *tǝh* 'put' their head to the tree. Then the cicada *tǝh* 'put' his head to the tree. *Kǝwna* 'he got it!' *Dergwejek* 'he lifted it to his head.' In line S. 26 the ideophone *tǝx* 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
Kǝwna.
kuwna
ɪᴅgetting
'[He] got [it].'

(158) Cicada, S. 29
Dergwecek.
dɛrgʷɛtʃɛk
ɪᴅlifting.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 presents 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.

For example, 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 *kəwna* and *dergwejek*, 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 *njəw njəw*, 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 aƙa
        ɪᴅgrind   ᴅᴇᴘ-grind =ᴘʟᴜ now
        Njəw njəw njəw [she] ground [the millet] 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
Mə**k** ava alay.
mək   =ava =alaj
IDtake position for throwing =in   =to
'[He] positions himself for throwing [the spear].'

Snake, S. 15
Mecesle **mbəraɓ**.
mɛ-tʃɛɬ-ɛ   **mbəraɓ**
NOM-penetrate-CL IDpenetrate
'[The spear] penetrates [the snake].'

3.7 Interjections

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

(163) Apazan nəmənjar, **andakay**, Hawa.
apazaŋ   nə̀-mənzar **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-features[1] 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* (1–2, see Section 4.2.2).

(1) məze ahay[2]
     mɪʒɛ   =ahaj
     person =Pl
     'people'

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

- They can take a possessive pronoun (3–4, see Section 3.1.2).

(3) hor əwla
     hʷɔr   =uwla
     woman =1S.POSS
     'my wife'

(4) slərele ango
     ɬɪrɛlɛ =aŋgʷɔ
     work =2S.POSS
     'your work'

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[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.

- They can be counted (5–6, 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 (7–8, see Section 3.2.1– Section 3.2.2).

(7)   war nehe
war   nɛhɛ
child DEM
'this child'

(8)   ma ndana
word DEM
'that word' (just spoken)

- They can take the derivational morpheme *ga* resulting in a derived adjective (9–10, Section 5.3).

(9)   gədan ga
gədaŋ   ga
strength ADJ
'strong'

(10)   ɓərav ga
heart ADJ
'perseverant'

- They can be modified by a derived adjective (11–12, see Section 4.3).

(11)   memele malan ga
mɛmɛlɛ malaŋ   ga
tree   greatness ADJ
'a large tree'

(12) yam pǝyecece ga
     jam   pijɛtʃɛtʃɛ 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 4.1 (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

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[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	sla	'cow'	hoɗ	'stomach'	jen	'chance'
CVC	fat	'day/sun'	oko	'fire'	elé	'eye'
V.CV	ava	'arrow'	otos	'hedgehog'	enen	'snake'
V.CVC	ahar	'hand/arm'	sono	'joke'	jere	'truth'
CV.CV	gala	'yard'	tohor	'cheek'	pembez	'blood'
CV.CVC	mavaɗ	'sickle'	oɓolo	'yam'	eteme	'onion'
V.CV.CV	adama	'adultery'	ombodoc	'sugar cane'	emelek	'bracelet'
V.CV.CVC	adangay	'stick'	mozongo	'chameleon'	zetene	'salt'
CV.CV.CV	manjara	'termite'	dolokoy	'syphilis'	debezem	'jawbone'
CV.CV.CVC	maslalam	'sword'				

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

Moloko	Mbuko	Gloss
[*anzakar*]	[*nzakar*]	'chicken'
[*azʊŋgʷɔ*]	[*zʊŋgʷɔ*]	'donkey'
[*ɛtɛmɛ*]	[*tɛmɛ*]	'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 tone[4] 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'

(17) ndən nden

---

[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 [*kìmɛ̄dʒɛ̀*], 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	[tʃɛ́tʃɛ́]	'louse'	HH	[bɔ́jɔ́m]	'cheek'
	HHH	[mɔ́lɔ́kʷɔ́]	'Moloko'	HHH	[də̀ndárá]	'lamp'
L	M	[dāf]	'loaf'	L	[gàr]	'difficulty'
	MM	[kɜ̄rā]	'dog'	LL	[dàndàj]	'intestines'
	MMM	[mītēnɛ̄ŋ]	'bottom'	LLL	[àdàŋgàj]	'stick'
HL	HM	[mékɛ̄tʃ]	'knife'	HL	[dʒɛ́rɛ̀]	'truth'
	HMM	[átɔ̄kʷɔ́]	'okra'	HLL	[mɔ́gʷɔ̀dɔ̀kʷ]	'hawk'
	HHM	[mɔ́sɔ́kʷɔ̄j]	'vegetable sauce'	HHL	[ázɔ́ŋgʷɔ́]	'donkey'
LH	MH	[ɬɜ̄máj]	'ear/name'	LM	[bɔ̀gʷɔ́m]	'hoe'
	MMH	[kītɛ̄fɛ́r]	'scoop'	LLM	[gɛ̀gɜ̀màj]	'cotton'
	MHH	[āmɛ́lɛ̄k]	'bracelet'	LMH	[gɛ̀mbĩrɛ́]	'dowry'
HLH	HMH	[ákɔ̄fɔ̄m]	'mouse'	HLM	[dédìlɛ̄ŋ]	'black'
LHL	MHM	[sɜ̄sájàk]	'wart'	LML	[kĩmɛ̄dʒɛ̀]	'clothes'
				MHL	[mɜ̃ŋgáhàk]	'crow'

ndəŋ ndɛŋ
'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 *mə-* or *me-*, depending on whether the verb has the */a-/* prefix or not. The suffix is *-əye* or *-e*, 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 *=ahay* 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 *mə-* and the suffix *-əye*. (19) shows a two consonant root with /a-/ prefix that takes the prefix *me-* and the suffix *-e*.

(18) / v ᵉ /   ve   məvəye
                     [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/   məlay   meməle
                     [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/	kar-ay 'Steal!'	mə-ker-e 'stealing'	akar 'thief'
2	/h r/	har 'Carry by hand!'	mə-hər-e 'carrying'	ahar 'hand'
3	/h r ɓᵒ/	hərɓ-oy 'Heat up!'	mə-hərɓ-e 'heating'	hereɓ 'heat'
4	/t w/	təw-e 'Cry!'	mə-təw-e 'crying'	təway 'cry'
5	/ɬ r/	slar 'Send!'	mə-slər-e 'sending'	slərele 'work'[a]
6	/dz n/	jən-ay 'Help!'	məjene 'helping'	jen 'luck'

[a] Probably a compound of *slar* 'send/commission' + *ele* '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 (Sec-

tion 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 *ahay* 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/   →   [ɔkʷfɔmahaj]
      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/	[gəsaŋ] [ahaj]	→	[gəsahaj]	'bulls'
		'bull' Pl			
Labialised	/t la l n ^o/	[tʊlɔlɔŋ] [ahaj]	→	[tʊlɔlɔhaj]	'hearts'
		'heart' Pl			
Palatalised	/da d n ^e/	[dɛdɛŋ] [ahaj]	→	[dɛdɛhaj]	'truths'
		'truth' Pl			

We consider the plural marker to be a type of clitic and not an affix[8] because it does show some evidence of phonological attachment and because it binds

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

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

(22) /ɓ r ɮ n   =ahj/   →   [ɓərɮahaj]
     mountain =Pl   'mountains'

(23) /g l n   =ahn   =ahj/ →   [gəlahahaj]
     kitchen =3s.poss =Pl   'his/her kitchens'

(24) /plasᵉ =ahn   =ahj/ →   [pəlɛʃahahaj]
     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 *=ahay* 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. *yam* '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 *=ahay,* e.g., *fama* 'intelligence, cleverness,' *slərele* 'work.' Although they cannot be pluralised, they can be quantified (see Section 3.3.4).

Table 4.6: Concrete plural

Singular	Plural[a]	Plural with numeral
anjakar 'chicken'	*anjakar =ahay* 'chickens'	*anjakar =ahay zlom* 'five chickens'
sləmay 'ear,'/'name'	*sləmay =ahay* 'ears'/'names'	*sləmay =ahay cew* 'two ears'/'two names'
jogo 'hat'	*jogo =ahay* 'hats'	*jogo =ahay makar* 'three hats'
albaya 'young man'	*albaya =ahay* 'young men'	*albaya =ahay kəro* 'ten young men'
dede 'grandmother'	*dede =ahay* 'grandmothers'	*dede =ahay məko* '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
yam 'water'	*yam =ahay* 'waters' (in different locations)
sese 'meat'	*sese =ahay* 'meats' (from different animals)
agwəjer 'grass'	*agwəjer =ahay* 'grasses' (of different species)

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. The singular and plural forms for these nouns are shown in Table 4.8. For *hor* '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
hor 'woman'	*hawər =ahay* 'women'	*hawər hawər* 'women'
zar 'man'	*zawər =ahay* 'men'	*zawər zawər* 'men'
war 'child'	*babəza =ahay* 'children'	*babəza babəza* '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 *ele* '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 *ele* 'thing' is the leftmost root in a compound (lines 1–2), *ele* 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 *ele* 'thing'

Line	Compound noun	Elements	
1	alahar	*ele*	*ahar*
	'weapon, bracelet'	thing	hand
2	*oloko*	*ele*	*oko*
	'wood'	thing	fire
3	*memele*	*mama*	*ele*
	'tree'	mother	thing
4	*slərele*	*slar*	*ele*
	'work'	send	thing

Table 4.10 shows two compounds made with *ma* 'mouth' or 'language.'

A more complex example is *ayva* 'inside-house.' It could be analysed as /*a hay 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   =ahaŋ
      3s-enter=in inside house =3s.POSS
      'He goes into his house.'

Table 4.10: Compounds made with ma

Compound	Elements	
mahay 'door'	*ma* mouth	*hay* house
maslar 'front teeth'	*ma* mouth	*aslar* tooth

(26) Asan ayva bay.
      a-s=aŋ   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 morphologi-
cally 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, *Masay*
'first twin,' *Aləwa* '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	*Jere*	person		'truth'
2	*Gajələah*	person		'broken piece of pottery'
3	*Ftak*	person/village		(no meaning outside its name)
4	*Mokwəyo*	village		(no meaning outside its name)
5	*Maslay*	tribe		(no meaning outside its name)
6	*Məloko*	language	*ma aloko* language, 1PIN.POSS	'our language' (Moloko)
7	*Anjakayma*	person	*a-njak-ay ma* 3s-find-CL word	'here comes trouble'
8	*Kosəymaze*	person	*kos-ay maze* unite[2s.IMP]-CL people	'he unites the people'
9	*Kavəyaka*	person	*kə avaya aka* on suffering on	'in suffering'
10	*Angaday*	person	*a-ngad-ay* 3s-rejoice-CL	'he is joyful'
11	*Marəyabay*	person	*maray abay* 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 elé háy* 'millet grain' in 3 and *war dalay* 'girl' in 4) or free pronoun (*ne* '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 ɛnɛŋ] a-ndaj a-tal-aj a [lɪhɛ]
 day another 3s-PRG 3s-walk-CL at bush

 'One day, he was walking in the bush.'

(2) [Ne ahan] aməgəye.
 [nɛ =ahaŋ] amɪ-g-ijɛ
 1s =3s.POSS DEP-do-CL

 'It was me (emphatic) that did it.'

(3) Cəcəngehe na, [war elé háy bəlen] na, ásak asabay.
 tʃɪtʃɪŋgɛhɛ na [war ɛlɛ haj bɪlɛŋ] 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.'

(4) Disobedient Girl, S. 38
 Metesle anga [war dalay ngendəye.]
 mɛ-tɛɬ-ɛ aŋga [war dalaj ŋgɛndijɛ]
 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 (Section 5.1), using simple noun heads as examples. Then, noun heads are discussed (Section 5.2). Next, derived adjectives are discussed, which consist of a noun plus the adjectiviser (Section 5.3). After that, four kinds of noun plus noun constructions are discussed, the genitive construction (Section 5.4.1), the permanent attribution construction (Section 5.4.2), relative clauses (Section 5.4.3), and

coordinated noun phrases (Section 5.5). Finally, adpositional phrases are treated in Section 5.6.

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 (5–6, see Section 4.2.2).

(5) Nə́mənjar [awak **ahay**].
     nə́-mənzar [awak =**ahaj**]
     1S+IFV-see goat =Pl

     'I see goats.'

(6) [Awak **ahay** na], [sə́lom **ahay** ga.]
     [awak =**ahaj** na] [sʊ́lɔm =**ahaj** ga]
     goat =Pl PSP good =Pl ADJ

     'The goats [are] good.'

A noun modified by a possessive pronoun (7–8, see Section 3.1.2).

(7) Nə́mənjar [awak **əwla**.]
     nə́-mənzar [awak =**uwla**]
     1S+IFV-see goat =1S.POSS

     'I see my goat.'

(8) [Awak **əwla** na], [səlom ga.]
     [awak **=uwla**   na] [sʊlɔm ga]
     goat   =1S.POSS PSP good   ADJ
     'My goat [is] good.'

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

(9) Nə́mənjar [awak **enen.**]
     nə́-mənzar [awak **ɛnɛŋ**]
     1S+IFV-see goat   another
     'I see another goat.'

(10) [Awak **enen** ahay na], [səlom ahay ga.]
      [awak **ɛnɛŋ** =ahaj na] [sʊlɔm =ahaj ga]
      goat   other =Pl   PSP good   =Pl ADJ
      'Other goats [are] good.'

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

(11) Nə́mənjar [awak =əwla ahay **makar.**]
      nə́-mənzar [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] [sʊlɔm =ahaj ga]
      goat   =1S.POSS =Pl   three =Pl   PSP good   =Pl ADJ
      'My three goats [are] good.'

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

(13) Nə́mənjar [awak ahay **malan ahay ga.**]
      nə́-mənzar [awak =ahaj **malaŋ =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 **malaŋ =ahaj ga** na] [sʊlɔm =ahaj ga]
      goat   =Pl   great =Pl   ADJ PSP good   =Pl ADJ
      'The big goats [are] good.'

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

(15) Nə́mənjar [awak ahay makar **ngə̀ndə̀ye.**]
nə́-mənzar [awak =ahaj makar **ŋgɪndijɛ**]
1s+IFV-see goat =Pl three DEM
'I see those three goats.'

(16) [Awak ahay makar **ngə̀ndə̀ye** na], [sə̀lom ahay ga.]
[awak =ahaj makar **ŋgɪndijɛ** na] [sʊlɔm =ahaj ga]
goat =Pl three DEM PSP good =Pl ADJ
'Those three goats [are] good.'

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

(17) Nə́mənjar [awak əwla ahay makar [**nok amə̀və̀law.**]]
nə́-mənzar [awak =uwla =ahaj makar [**nɔkʷ 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 [**nok amə̀və̀law**] na], [sə̀lom ahay ga.]
[awak =uwla =ahaj makar [**nɔkʷ amə-vəl=aw**] na] [sʊlɔm =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 (19–20, see Section 3.3.4).

(19) Nə́mənjar [awak ahay **gam.**]
nə́-mənzar [awak =ahaj **gam**]
1s+IFV-see thing =Pl many
'I see many goats.'

(20) [Awak ahay **gam** na], [sə̀lom ahay ga.]
[awak =ahaj **gam** na] [sʊlɔm =ahaj ga]
goat =Pl many PSP good =Pl ADJ
'Many goats [are] good.'

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

(21) Nə́mənjar [awak ahay mə̀faɗ **ga.**]
nə́-mənzar [awak =ahaj mʊfaɗ **ga**]
1s+IFV-see goat =Pl four ADJ
'I see the four goats.'

(22) [Awak ahay məfaɗ **ga**], [səlom ahay ga.]
  [awak =ahaj mʊfaɗ **ga**] [sʊlɔm =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 (23–30). 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 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 noun	possessive	plural	numeral	relative clause	nominal demonstrative	quantifier	ADJ	local adverbial demonstrative

Figure 5.1: Structure of the Moloko noun phrase

Modification by possessive pronoun and plural marker (23–24).

(23) Nə́mənjar [awak əwla ahay.]
  nə́-mənzar [awak =uwla   =ahaj]
  1S+IFV-see goat =1S.POSS =Pl
  'I see my goats.'

(24) [Awak əwla ahay na], [səlom ahay ga.]
  [awak =uwla   =ahaj na] [sʊlɔm =ahaj ga]
  goat =1S.POSS =Pl PSP good =Pl ADJ
  'My goats [are] good.'

Modification by nominal demonstrative, relative clause, and plural marker (25–26).

(25) Nə́mənjar [awak ahay ngəndəye [nok aməvəlaw.]]
  nə́-mənzar [awak =ahaj ŋgɪndijɛ [nɔkʷ amə-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 aməvəlaw] ngəndəye na], [səlom ahay ga.]
    [awak =uwla   =ahaj [nɔkʷ amə-vəl=aw]   ŋgɪndijɛ na] [sʊlɔm =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 (27–28).

(27) Nə́mənjar [awak ahay gam] [nok aməvəlaw va na.]
    nə́-mənzar [awak =ahaj gam] [nɔkʷ 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 aməvəlaw] jəyga na], [səlom ahay ga.]
    [awak =uwla   =ahaj [nɔkʷ amə-vəl=aw]   dʒijga na] [sʊlɔm =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 (29–30).

(29) Nə́mənjar [awak ahay ngəndəye jəyga.]
    nə́-mənzar [awak =ahaj ŋgɪndijɛ dʒijga]
    1S+IFV-see goat   =Pl   DEM   all
    'I see all those goats.'

(30) [Awak ahay ngəndəye jəyga na], [səlom ahay ga,]
    [awak =ahaj ŋgɪndijɛ dʒijga na] [sʊlɔm =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 (32, Section 5.2.1), or a pronoun (33, Section 5.2.2). 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+IFV-PROG 3P+IFV-cultivate
      'The young men are cultivating.'

(32) [**Məzəme** əwla] amanday acəɓan ana Mana.
      [**mɪ-ʒum-ɛ** =uwla]　ama-ndaj a-tsəɓ=aŋ　　　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.
      [**ndahaŋ** 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 *ɗaf* 'millet loaf' represents the direct object of the nominalised verb *məzəme* 'eating' and the 3P possessive pronoun *ata* represents the subject of the nominalised verb, i.e., 'they are eating millet loaf.'

(34) A [məzəme ɗaf ata] ava na, tázlapay bay.
      a [mɪ-ʒʊm-ɛ ɗaf　　　=atəta] ava na tá-ƙap-aj　　baj
      at NOM-eat-CL millet loaf =3P.POSS in　PSP 3P+IFV-talk-CL NEG
      'While eating (lit. in the eating of their millet loaf), they don't talk to each other.'

In (35), *məndəye ango* literally 'your lying down' indicates that 'you are lying.' The possessive pronoun *ango* is the subject of the nominalised verb *məndəye*. 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   nɔkʷ ha   a łam [mɪ-nd-ijɛ   =aŋgʷɔ] 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]

[mɛ-mbɛʃ-ɛ 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 (37–38) or possessive pronoun in emphatic situations (39–40, 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.]

[**ndahaŋ 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 =ahaŋ**] [amɪ-g-ijɛ]

1S =3S.POSS DEP-do-CL

'I myself [am] the one that did it.'

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

(40) [**Ne ahan**] nólo a kosoko ava.
      [**nɛ =ahaŋ**] nɔ́-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.

Table 5.1: Derived adjectives

Noun		Derived Adjective	
sǝlom	'goodness'	*sǝlom ga*	'good'
gǝdan	'force'	*gǝdan ga*	'strong'
deden	'truth'	*deden ga*	'true'
gogwez	'redness'	*gogwez ga*	'red'
dalay	'girl'	*dalǝy ga*	'feminine'
bǝrav	'heart'	*bǝrav ga*	'with ability to support suffering'[a]
ɗaz ɗaz	'redness'	*ɗaz ɗaz ga*	'red'
kwǝleɗeɗe	'smoothness'	*kwǝleɗeɗe ga*	'smooth'
pǝyecece	'coldness'	*pǝyecece ga*	'cold'
malan	'greatness'	*malan ga*	'great' / 'big'
hwǝsese	'smallness'	*hwǝsese ga*	'small'

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[a] An idiom.

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

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[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 5.2: Adjectives derived from nominalised verbs

Verb	Nominalised verb	Derived adjective
e-nj-e	*mə-nj-əye*	*mə-nj-əye* ga
3S-sit-CL	NOM-sit-CL	NOM-sit-CL ADJ
'He sat.'	'sitting' (the event)	'seated' (adjective)
a-*dar-ay*	*me-der-e*	*me-der-e* ga
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*

Ga is the final element of a noun phrase. Examples show the adjectivised nouns in complete clauses.[3] 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**.]
       nà-z=alaj   [awak gʷɔgʷeʒ **ga**]
       1S+PFV-take=away goat   redness ADJ
       'I took a red goat.'

(42)   Cicada, S. 5
       Tənjakay [agwazla malan **ga**] a ləhe.
       tə-nzak-aj [agʷaɟa   malaŋ **ga**] a lɪhɛ
       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]   [tʃɛɟɛrɛ   **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

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[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 construc-

(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 Section 2.6.1.2).[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**.]
      tá-kuw=ala   [kəra mɪ-tɛtʃ-ɛ   ɛlɛ **ga**]
      3P+IFV-seek=to dog NOM-close-CL eye ADJ

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

(45) Values, S. 47
      Ləme Məloko ahay na, nəmbədom a dəray ava na,
      lɪmɛ Mʊlɔkʷɔ =ahaj na nə̀-mbʊɗ-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 [kərkaɗaw ahay nə hərgov ahay **ga**] a ɓərzlan ava na.
      ka [kərkaɗaw =ahaj nə   hʊrgʷɔv =ahaj **ga**] a ɓərɮaŋ   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.

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tions, 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*.

(46) Naharalay [awak babəɗ **ga**] a mogom.
    nà-har   =alaj   [awak babəɗ **ga**] a mɔgʷɔm
    1S+PFV-carry =away goat   white ADJ at home
    'I carried the white goat home.'

(47) Naharala [awak ahay babəd ahay **ga**] a mogom.
    nà-har   =alaj   [awak =ahaj babəd =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.
    [mɪʒɛ   =ahaj sʊlɔm =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 [mɪʒɛ   =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 *bay*.

(50) [Agwəjer mədere **ga** bay na], natoho.
    [agʷødʒɛr mɪ-dɛr-ɛ   **ga** baj na] natɔhʷɔ
    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 pijɛtʃɛtʃɛ **ga** baj na] à-tsar   baj
    water coldness ADJ NEG PSP 3S+PFV-taste good NEG
    'Lukewarm water doesn't taste good.'

5.3.2 Functions of noun phrases containing *ga*

The morpheme *ga* has two other functions besides adjectiviser.[6] The adjectiviser can also function as a discourse demonstrative to make the noun definite and even sometimes emphatic. Its function to render a pronoun emphatic is discussed in Section 3.1.1.2. 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 *agwazla* 'tree of a particular species' is shown in (52). The tree is introduced as *agwazla malan ga* '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* (*agwazla 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.
tə̀-lɔ   tə̀-njak-aj   [agʷaɮa   malaŋ   **ga**] a lɪhɛ
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.'

(53) Cicada, S. 14
[Agwazla **ga**] səlom ga aɓəsay ava bay.
[agʷaɮa   **ga**] sʊlɔm   ga aɓəsaj ava baj
spp. of tree ADJ goodness ADJ blemish EXT NEG
'This tree is good; it has no faults.'

(54) Cicada, S. 20
Náamənjar na alay [memele **ga** ndana] əwɗe.
náá-mənzar na   =alaj [mɛmɛlɛ **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

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[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.

a puppy. Which side received which part was a key element to the outcome of the ceremony. In the text, the first mention of *dəray* '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: *dəray ga* 'the head' and *mətenen 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 nə́gəsom na [dəray **ga**] na, [səlom ga.]
      asa lɪmɛ   nə́-gʊs-ɔm   na   [dəraj **ga**] na [sʊlɔm   ga]
      if   1PEX 1+IFV-catch-1PEX 3s.DO head   ADJ PSP goodness ADJ

      'If we got the head, [it would be] good.'

(56) [Dəray **ga**] anga ləme [mətenen **ga**] anga Mboko ahay.
      [dəraj **ga**] aŋga lɪmɛ [mɪtɛnɛŋ **ga**] aŋga mbɔkʷɔ =ahaj
      head   ADJ POSS 1PEX hindparts ADJ POSS Mbuko =Pl

      'The head [is] ours; the hindparts [are] the Mbuko's.'

Compare (57) and (58) (from lines 1 and 39, 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 dərgoɗ
      [bamba] [bamba] kʊlɔ   dʊrgʷɔɗ
      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   nɛhɛ [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) [Məlama ahay məfaɗ **ga**] tanday tágalay ta [sla ahay na] a Kədəmbor.
[məlama =ahaj məfaɗ **ga**] ta-ndaj tá-gal-aj   ta   [ɬa =ahaj na]
brother =Pl   four   ADJ 3P-PRG 3P+IFV-drive-CL 3P.DO cow =Pl PSP

a Kʊdʊmbɔr
to Tokembere

'The four brothers, they were driving the cows to Tokembere.'

(60) Nəbohom ta alay ləme [zlom **ga**].
nə̀-bɔh-ɔm   ta   =alaj lɪmɛ [ɮɔm **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, nəmənjorom [ma **ga**].
ʃɛŋ   a ɬam na ava nɛndɪgɛ na nə̀-mʊnzɔr-ɔm   [ma **ga**]
IDwalk at place PSP in DEM   PSP 1PEX+PFV-see-1PEX word ADJ

'Walking (later), at that place, we saw the problem.'

(62) Nəbohom [ma **ga**] a brəygad ava.
nə̀-bɔh-ɔm   [ma **ga**] a brijgad ava
1PEX+PFV-pour-1PEX word ADJ at Brigade in

'We took the problem to the Brigade.'

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 *Hərmbəlom awacala kə okor aka* 'God wrote on the stone,' and line 12 (64) exhorts the hearer *kóogəsok ma Hərmbəlom* 'you should accept the word of God.' Further in the text, the mention of *anga Hərmbəlom 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.

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[7] The emphatic function of *ga* is discussed with respect to pronouns in Section 3.1.1.2.

(63) Values, S. 7
Hərmbəlom awacala kə okor aka.
Hʊrmbʊlɔm à-wats =ala kə ɔkʷɔr aka
God 3S+PFV-write =to on stone on
'God wrote them on the stone [tablet].'

(64) Values, S. 12
Yawa nde ele nehe ɗəw, kóogəsok ma Hərmbəlom.
jawa ndɛ ɛlɛ nɛhɛ ɗuw kɔ́ɔ́-gʷʊs-ɔkʷ ma Hʊrmbʊlɔm
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 Hərmbəlom **ga**] kagas asabay.
[aŋga Hʊrmbʊlɔm **ga**] kà-gas asa-baj
POSS God ADJ 2S+PFV-catch again-NEG
'The very [word] of God himself you no longer 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).

- 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 mʊlɔkʷɔ]
man Moloko
'Moloko man'

(68) [war [aməgəye cəɗoy] akaray zana aloko apazan.
      [war [amɪ-g-ijɛ tsʊɗoj]   à-kar-aj   zana   =alɔkʷɔ apazaŋ
      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 (*háy*) to become M.

(71) [ɗāf] + [á] + [háj] → [ɗɔ̄f á hāj]
      'loaf'   GEN 'millet' 'millet loaf'

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 seman-
tic 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 ap-
plicable, a corresponding pronominal possessive construction is also given for
comparison.

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[8] Note that the genitive particle *a* and the adposition *a* (Sections 5.6.1 and 5.6.2) are homophones.
[9] As compared with the permanent attribution construction Section 5.4.2.

(72) [hay [a Mana]]   [hay əwla]
     [haj [a Mana]]   [haj =uwla]
     house GEN Mana   house =1S.POSS

     'Mana's house'   'the house that I live in' (not the house I made)[10]

(73) [hor [a Mana]]   [hor ahan]
     [hʷɔr [a Mana]]   [hʷɔr =ahaŋ]
     woman GEN Mana   woman =3S.POSS

     'Mana's wife'   'his wife'

(74) [dəray [a Mana]]   [dəray ahan]
     [dəraj [a Mana]]   [dəraj =ahaŋ]
     head GEN Mana   head =3S.POSS

     'Mana's head'   'his head'

(75) [slərele [a Mana]]   [slərele ahan]
     [ɬɪrɛlɛ [a Mana]]   [ɬɪrɛlɛ =ahaŋ]
     work GEN Mana   work =3S.POSS

     'Mana's work'   'his work'

(76) [pəra [a Mala]]   [pəra ahan]
     [pəra   [a Mala]]   [pəra   =ahaŋ]
     spirit-place GEN Mala   spirit-place =3S.POSS

     'the spirit-place that Mala worships' 'his spirit-place'

(77) [zar akar [a Mana]]   [zar akar ahan]
     [zar akar [a Mana]]   [zar akar =ahaŋ]
     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 *hodʼ* 'stomach' (81).

(78) [ma [a gəver]]
     [ma [a gɪvɛr]]
     mouth GEN liver

     'gall bladder'

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[10] 'The house I made' requires a relative clause: [*hay* [*əwla amə-her-e =va*]] 'house mine to build.'

(79) [ma [a gəlan]]
      [ma [a gəlaŋ]]
      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 [hoɗ [a zazay]] ava.
      nɛ a [hʷɔɗ [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 ango.
      [gembɛrɛ [a hʷɔr =uwla]] a-dal   anga =aŋgʷɔ
      bride price GEN woman =1s.POSS 3s-exceed POSS =2s.POSS

      'The bride price of my wife exceeded [that] belonging to you.'

(83) [Gembere [a hor nehe] na], acəɓava.
      [gembɛrɛ [a hʷɔr nɛhɛ] na] a-tsəɓ   =ava
      bride price GEN woman DEM   PSP 3s-overwhelm =in

      'The bride price of this woman is exhorbitant.'

(84) Angala [bahay [a gənaw ahan ahay a slala ga ava jəyga.]]
      à-ŋgala   [bahaj [a gənaw =ahaŋ =ahaj a ɬala 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 (85–91). 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)

(87)   [zar jəgwer]
      [zar dʒɪgʷɛr]
      man shepherd
      'a shepherd' (paid for his work)

(88)   [zar səlom]
      [zar sʊlɔm]
      man goodness
      'a man who is known for his goodness'

(89)   [dalay zazay]
      [dalaj zazaj]
      girl   peace
      'girl of peace' (peace identifies her)

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[11] As compared with the genitive construction which gives a more temporary attribute Section 5.4.1.

(90) [zar madan]
      [zar madaŋ]
      man sorcery
      'a known sorcerer'

(91) [zar slərele]
      [zar ɬɪrɛlɛ]
      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 slərele* 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 elé háy* 'millet grain.' In this noun phrase, the derived adjective *bəlen ga* 'one,' the demonstrative *nendəye* 'that,' and the relative clause *nok ameze* 'the one that you brought' all modify the triple noun head *war elé háy* 'millet grain.' They do not just modify the noun *war* 'child' or *háy* '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 ɬɪrɛlɛ** =ahaŋ   =ahaj makar]
      people work =3s.POSS =Pl   three
      'his three workmen'

(93) Disobedient Girl, 13
      [**War elé háy** bəlen ga nendəye nok ameze na],
      [**war ɛlɛ haj**   bɪlɛŋ ga nɛndijɛ nɔkʷ amɛ-ʒ-ɛ]   na
      child eye millet one ADJ DEM   2s   DEP-take-CL PSP
      'That one grain of millet that you took,'

      káhaya na kə ver aka.
      ká-h=aja   na   kə vɛr   aka
      2s+IFV-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, (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-dʒɪgʷɛr-ɛ
      man NOM-shepherd-CL
      'a shepherd-man' (lit. man shepherding)

(95) məze aməjəgwere təmak
      mɪʒɛ amɪ-dʒɪgʷɛr-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 (a non-permanent attribution). In contrast, the permanent attribution construction in (97)[12] expresses that the man is a thief by identity or occupation – he steals to make his living. Another nominalised form is shown in (98) and the form *məze məkəre ga* 'person thefted' expresses a completed event. In this case, use of the adjectivised form indicates that the noun phrase head *məze* 'person' is the person who experienced the theft.

(96) məze aməkəre məze
      mɪʒɛ amɪ-kɪr-ɛ   mɪʒɛ
      person DEP-steal-CL person
      'the person that steals' (lit. person to steal from person)

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[12] *Akar* is the irregular nominalised form of the verb *karay* (see Section 4.2).

(97) zar akar
      zar   akar
      man theft
      'a thief' (lit. man thief)

(98) məze 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. 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.

| (pronoun) | dependent verb | complement | (presupposition marker) |
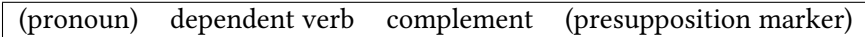
Figure 5.2: Structure of relative clause

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 (99–102), 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 dalay* '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 dalay ngendəye **amazata aka ala**
      mɛtɛɬɛ aŋga [war dalaj ŋgɛndijɛ **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 məze ahay na.]
avija   nɛŋgɛhɛ ana mɪʒɛ   =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**,]
[lʊkʷøjɛ 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 =alʊkʷøjɛ =ahaj
only 2-catch-2P mouth GEN men   =2P.POSS   =Pl

'you must listen to your husbands.'

(101)   Disobedient Girl, S. 33
Hərmbəlom ága ɓərav va kəwaya [war dalay na
Hʊrmbʊlɔm á-g-a   ɓərav =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 ɫəmaj baj ŋgɪndijɛ]
  DEP-hear ear   NEG DEM

'that one that was disobedient.'

(102)   Nde [ləbara əwla ga **amətaraləkwəye ma**] nehe.
ndɛ [ləbara =uwla   ga Ø amʊ-tar =alʊkʷøjɛ ma]   nɛhɛ
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,[13] but they each use different pronouns for the

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[13] The entire narrative is not included in this work.

subject of the relative clause. (103) uses the 3P possessive pronoun *ata*; (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 repre-
sents 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 <u>na</u> va**.]
 tà-s=aŋ   ɔkʷɔ ana [haj **=atəta amɪ-g-ijɛ <u>na</u> 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 **təta aməgəye a dala kosoko ava na**], tolo.
 a ɬam a   [haj **təta amɪ-g-ijɛ Ø a dala kɔsɔkʷɔ ava na**]
 at place GEN house 3P DEP-do-CL at money market in PSP

 tɔ̀-lɔ
 3P+PFV-go
 'To the place of the house that they made in the market, they went.'

(105) [War háy ngəndəye **nok ameze <u>na</u> va**] bəlen ngəndəye na,
 [war haj ŋgɪndijɛ **nɔkʷ amɛ-ʒ-ɛ <u>na</u> =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],'

 káahaya kə ver aka.
 káá-h=aja   kə vɛr   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 (*məze enen ahay* 'some other
people'). The relative clause begins with the 1PEX pronoun *ləme*. The speaker
brought food to those people who helped him to drive the cows.

(106) Dəyday anga fat amədeɗe va nə́ngala a mogom
 dijdaj   aŋga fat amɪ-dɛɗ-ɛ =va nə́-ŋg   =ala a mɔgʷɔm
 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 ɗaf ana [məze enen ahay

waja   ama-z =ata =ala ɗaf   ana [mɪʒɛ ɛnɛŋ   =ahaj

because DEP-take =3P.IO =to millet loaf DAT person another =Pl

'to bring food for all the people' (lit. because to bring food to some other people)

ləme amәngele alay sla ahay jәyga 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 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) [**Aməzəɗe dәray na**] way?
[Ø amɪ-ʒɪɗ-ɛ   dәraj na] waj
    DEP-carry-CL head PSP who

'Who will win?' (lit. the one to carry the head, who?)

(108) Snake, S. 7
Alma [**amәdәvala okfom nehe**] may?
alma [amə-dәv=ala ɔkʷfɔm nɛhɛ] maj
what DEP-fall=to   mouse DEM what

'What made that mouse fall?' (lit. what 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 *ɛlɛ* 'thing.' In the first (*ne amahan* 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 (*aməjəye mege bay* 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 [ɛlɛ   **nɛ 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-dʒ-ijɛ |mɛ̀-g-ɛ   Ø baj| na] ɛʃɪmɛj
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 *=ahay* in one of two places: the plural *=ahay* 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 aməzəɗe na**], anga əwla bay.
[ɛlɛ   =ahaj **nɔkʷ amɪ-ʒɪɗ-ɛ   na**] aŋga =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 **aməzəɗe dəray na**], tolo a mogom nə memle ga.
[mɪʒɛ   =ahaj **amɪ-ʒɪɗ-ɛ   dəraj na**] tɔ-lɔ   a   mɔgʷɔm 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 *=ahay* 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*, *hay*, *bahay*, or all three are pluralised.

(112) Dala slərele asan
       dala   łərɛlɛ 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   łɪrɛlɛ a-s   =ata
       money work 3s-please =3p.io
       'Wages please'

       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* (see Chapter 11). (99) is repeated here as (114) (see also 104, 106, 107).
Na indicates that the relative clause contains previously shared (or presupposed)
information. *Na* also physically delineates the end of the relative clause. In (114),
the presupposition marker *na* is underlined.

(114) Disobedient Girl, S. 38
       Metesle anga [war dalay ngəndəye **amazata aka ala**
       Mɛtɛłɛ   anga [war dalaj ŋgəndəjɛ **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 məze ahay <u>na</u>.]
       avija   nɛŋgɛhɛ ana mɪʒɛ   =ahaj <u>na</u>]
       suffering DEM   DAT person =Pl   PSP
       'this suffering onto the people.'

Any information inside a relative clause must be known or presupposed in-
formation 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 (114). 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). 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) and the other stating that she brought suffering to the Moloko people (114). 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.

(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 ɛlɛ haj   bɪlɛŋ
       2s+IFV-take child eye millet one
       'you take only one grain.'

       [War elé háy bəlen ga nəndəye **nok amezəɗe na**,]
       [war ɛlɛ haj   bɪlɛŋ ga ŋɪndijɛ **nɔkʷ 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 vɛr aka à-nz=alɔkʷɔ   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 [dalay] azla na [war dalay ndana]
      à-lɔ   à-z   =ala [dalaj] aǳa na [war dalaj ndana]
      3s+PFV-go 3s+PFV-take =to   girl   now PSP child girl   DEM

      [cezlere ga.]
      [tʃɛǳɛrɛ   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, *aməduvala okfom nehe* '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 (117)–(119), 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 aŋga [[bahaj a   haj] **nə** [ndam ɬɪrɛlɛ =ahaŋ   =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

Nəmbəɗom a dəray ava na,

nə̀-mbʊɗ-ɔm a dəraj ava na
1+PFV-change-1PEX at head in PSP

'We have become' (lit. we changed in the head)

ka [[[kərkaɗaw ahay] **nə** [hərgov ahay] ga] [a ɓərzlan ava na]]

ka [[[kərkaɗaw =ahaj] **nə** [hʊrgʷɔv =ahaj] ga] [a ɓərʒaŋ 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 =ahaŋ]] 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 (Section 5.6.1) consist of an adposition followed by the noun phrase. Complex adpositional phrases (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,' *aŋga* 'belonging to,' *afa* 'at the house of,' and *ka* 'like.'

The preposition *a* 'at'[14] marks the relationship of location of the event (at, to, in; 120, 121).

(120) Cicada, S. 4

Tə́nday tə́talay **a** ləhe.

tə́-ndaj tə́-tal-aj **a** lɪhɛ
3P+IFV-PRG 3P+IFV-walk-CL at bush

'They were walking in the bush.'

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[14] This particle is a homophone with the genitive particle (Section 5.4.1).

(121) Olo **a** Marva.
       ɔ́-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** Hʊrmbʊlɔm
       3S-arrive =on =away DAT God
       'It reached God.'

The adposition *nə* 'with' marks the instrument (124) or comitative (accompaniment) relation (125, 126; cf. Section 5.5). 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** mɛkɛtʃ
       1S-slay-CL cow with knife
       'I kill the cow with a knife.'

(125) Olo **nə** zar ahan.
       ɔ-lɔ **nə** zar =ahaŋ
       3S-go with man =3S.POSS
       'She went with her husband.'

(126) Zar **nə** hor ahan təta a mogom.
        zar **nə** hʷɔr =ahaŋ   təta a mɔgʷɔm
       man with woman =3S.POSS 3P   at home
       'The man and his wife [are] at home.'

(127) Nəskom awak **nə** məskwəme.

nə̀-sʊkʷɔm   awak **nə**   mɪ-skʷøm-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.'[15] 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 (*səber* 'tallness' in 128, *gədan* 'strength' in 129, and *məsəre ele* 'knowledge' in 130) follows in an adpositional phrase.

(128) War ahan ádal baba ahan nə səber.

war =ahaŋ   á-dal   baba =ahaŋ   nə   ʃɪbɛr

child =3S.POSS 3S+IFV-overtake father =3S.POSS with tallness

'The child is taller than his father.' (lit. his child surpasses his father with tallness)

(129) War ahan ádal baba ahan nə gədan.

war =ahaŋ   á-dal   baba =ahaŋ   nə   gədaŋ

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   =ahaŋ   nə   mɪ-ʃɪr-ɛ

child PSP 3S+IFV-overtake older sibling =3S.POSS with NOM-know-CL

ɛlɛ

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.

---

[15] 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).

(131) Ádal məze ahay jəyga nə məsəre ele a lekwel ava.

á-dal	mɪʒɛ	=ahaj	ʤijga	nə	mɪ-ʃɪr-ɛ	ɛlɛ	a	lɛkʷɛl
3s+ɪꜰv-overtake	person	=Pl	all	with	ɴᴏᴍ-know-ᴄʟ	thing	at	school

ava
in

'He/she is the smartest child in his school.'

The adposition *aka* 'on' is used with the verb *lo* 'go' to mark the purpose of a trip (132).

(132) Aban olo **aka** yam.
Abaŋ 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 *dəray* 'head' is possessed by *ləme* 'us.'

(133) [Dəray ga] [**anga** ləme.]
[dəraj ga] [**aŋga** lɪmɛ]
head ᴀᴅᴊ ᴘᴏss 1Pᴇx
'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.
nʊ-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
Nəmbəɗom a dəray ava na,
nə̀-mbʊɗ-ɔm   a dəraj ava na
1+PFV-change-1PEX at head in   PSP
'We have become' (lit. changed in the head)

[**ka** kərkaɗaw ahay nə hərgov ahay ga a ɓərzlan ava na],
[**ka** kərkaɗaw =ahaj nə   hʊrgʷɔv =ahaj ga a ɓərɠaŋ   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] nə̀-sʊr-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 adposi-
tions 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).

(136) Cicada, S. 9
Káafəɗom anaw **kə** mahay əwla **aka**.
káá-fʊɗ-ɔm   an=aw   **kə** mahaj =uwla **aka**
2+POT-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** dɛlmɛtɛ **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) Azaɗ oloko **kə** dəray a məwta **aka**.
à-zaɗ   ɔlɔkʷɔ **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) Hərmbəlom agə ɓərav va **ka** war anga məze dedelen ga **aka**.
Hʊrmbʊlɔm a-gə ɓərav =va **ka** war aŋga 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) Afaɗ dala **a** ombolo **ava**.
a-faɗ dala **a** ambɔlɔ **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 143[16]). In the examples, the postpositions and verbal extensions are both bolded.

(142) Afəɗ**aka** war elé háy na **kə** ver **aka**.
a-fəɗ =**aka** war ɛlɛ haj na **kə** vɛr **aka**
3s-place =on child eye millet PSP on stone on
'She put the grain of millet on the grinding stone.'

(143) Məmə**tava** alay **a** ver **ava**.
mə-mət =**ava** =alaj **a** vɛr **ava**
NOM-die =in =away at room in
'She died in the room.'

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[16] 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).

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[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 /-j/ 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..

$$\leftarrow \quad \text{tone pattern} \quad \rightarrow$$
$$\leftarrow\leftarrow\leftarrow\leftarrow\leftarrow\leftarrow \text{ prosody}$$

a-	root	*-aj*
	C (C) (C) (VC)	
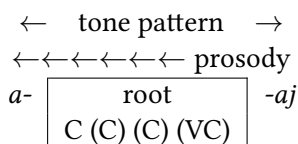
Figure 6.1: Structure of the verb stem

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).

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[2] Bow's (1997) database includes 26 one-consonant verbs, 231 two-consonant verbs, 83 three-consonant verbs, and 10 four-consonant verbs.

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, /-j/ 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 *a-*	3s Perfective with directional *a- =ala*	1Pɪɴ Perfective *mo- -ok*	Nominalised form *mə- (-əy)-e*
		One-consonant			
neutral	/p -j /	*a-p-ay* 'he opened'	*a-p=ala* 'he opened towards'	*mo-p-ok* 'we opened'	*mə-p-əy-e* 'opening'
palatalised	/ g ᵉ /	*e-g-e* 'he did'	*a-g=ala* 'he did towards'	*mo-g-ok* 'we did'	*mə-g-əy-e* 'doing'
labialised	/ l ᵒ /	*o-lo* 'he went'	*a-l=ala* 'he came towards'	*mo-loh-ok*[a] 'we went'	*mə-l-əy-e* 'going'
		Two-consonant			
neutral	/f ɗ /	*a-faɗ* 'he put'	*a-fəɗ=ala* 'he put towards'	*mə-fəɗ-ok* 'we put'	*mə-fəɗ-e* 'putting'
palatalised	/ ʒ g ᵉ /	*e-zləg-e* 'he sowed'	*a-zləg=ala* 'he sowed towards'	*mə-zləg-ok* 'we sowed'	*mə-zləg-e* 'sowing'
labialised	/ndaʒ -j ᵒ /	*a-ndozl-oy* 'he exploded'	*a-ndazl=ala* 'it exploded towards'	*mə-ndozl-ok* 'we exploded'	*mə-ndezl-e* 'exploding'
		Three-consonant			
neutral	/p ɗ k-aj /	*a-pədək-ay* 'he woke'	*a-pədək=ala* 'he woke up'	*mə-pədək-ok* 'we woke up'	*mə-pədək-e* 'waking'
palatalised	/ ts f ɗ ᵉ /	*e-cəfəd-e* 'he asked'	*a-cəfəd=ala* 'he asked'	*mə-cəfəd-ok* 'we asked'	*mə-cəfəd-e* 'questioning'
labialised	/ɓ r ts -j ᵒ /	*o-ɓarc-oy* 'he pounded'	*a-ɓarc=ala* 'he pounded towards'	*mə-ɓarc-ok* 'we pounded'	*mə-ɓarc-e* '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 /-j/ 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 ɗ /	*faɗ*	'put'
2	/g s/	*gas*	'catch'
3	/m nz r/	*mənjar*	'look'
4	/p -j /	*p-ay*	'open'
5	/t l-aj/	*tal-ay*	'walk'
6	/ɬ-aj/	*sl-ay*	'kill (by cutting the throat)'
7	/p ɗ k-aj /	*pədak-ay*	'wake'
	Palatalised prosody		
8	/ g ᵉ /	*g-e*	'do'
9	/ s ᵉ /	*s-e*	'drink'
10	/ ʒ g ᵉ/	*zləg-e*	'bring'
11	/ ts f ɗ ᵉ /	*cəfəd-e*	'ask'
12	/ ts a n ᵉ /	*cen*	'understand'
	Labialised prosody		
13	/ l ᵒ /	*lo*	'go'
14	/ z m ᵒ /	*zom*	'eat'
15	/ nd a ʒ -j ᵒ /	*ndozl-oy*	'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 /lᵒ/ adds an epenthetic [h] in some conjugations to break up vowels (the full conjugation of /lᵒ/ is in Appendix B). Secondly, the root-final ɗ of the verb /z ɗ/ 'take' drops off when affixes and clitics are added (1,

2). This process does not happen with the phonologically similar verb /f ɗ/ 'put' (3, 4).

(1) /z ɗ/　　　=aw　=ala　⟶　[zawala]
　　take[2s.imp] =1s.io =to　　　'give to me'

(2) /z ɗ/　　　=aka　　　⟶　[zaka]
　　take[2s.imp] =on　　　　'give again' (on top of what you gave before)

(3) /f ɗ/　　　=aw　=ala　⟶　[faɗuwala]
　　put[2s.imp] =1s.io =to　　'put on me'

(4) /f ɗ/　　　=aka　　　⟶　[faɗaka]
　　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 /-j/, which can have different surface variants depending on the prosody of the stem.

2008 found that although the /-j/ 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 /-j/ suffix.[6]

(5) Apay.
　　a-p-aj
　　3s-open-cl
　　'It opens.'

---

[5] I.e., [*b, mb, d, nd, dz, nz, g, ŋg, gʷ, ŋgʷ, 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 /-j/ suffix for two reasons. First, [-ɛ] patterns the same way as the /-j/ 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-paɗ-aj]
     3s-crunch-cl
     'It crunches.'

(8) [a-paɗ-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 *n* are all palatalised, e.g., *cen* 'understand', *cɔjen* 'lose', *njeren* 'groan', *mbesen* 'relax', *ndeslen* 'make cold', *ɓɔrzlen* 'count', *mbeten* 'put out', and *mbezen* 'spoil'. We interpret these verbs as having /n/ as final consonant because the *n* cannot be interpreted as direct or indirect object and also there are no other stems which end in *n*.

[9] We found no three-consonant palatalised verb stems in the data. Labialised verb stems without the /-j/ 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		*tah* 'reach out' *zlan* 'begin'	*mənjar* 'see' *təkam* 'taste'
Labialised verb stems	*lo* 'go'	*zom* 'eat'	*səkom* 'buy/sell'
Palatalised verb stems		*cen* 'understand'	*mbezlen* 'count' *mbezen* 'spoil'
		Stems with suffix	
No underlying prosody *-ay* suffix	*l-ay* 'dig' *j-ay* 'say'	*haɓ-ay* 'dance' *lag-ay* 'accompany'	*təwaɗ-ay* 'cross' *sləɓat-ay* 'repair'
Labialised verb stems *-oy* suffix		*cok-oy* 'undress' *ɓor-oy* 'climb'	*təkos-oy* 'cross legs' *təlok-oy* 'drip'
Palatalised verb stems *-e* suffix	*g-e* 'do' *z-e* 'smell'	*cək-e* 'stand up' *zləg-e* 'plant'	

Table 6.4 (adapted from Bow 1997a and Boyd 2003) illustrates the phonetic pronunciation including tone of pairs of verb stems that have the same consonantal shape but with and without the /-j/ 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

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[10] Bow 1997a, page 24. Her database of 350 verb stems has 189 with the internal vowel.

Table 6.4: Verb stems with and without /-ɟ/ suffix

Underlying Form of Stem	Verb Stem	Gloss
/bar/	[ɓár]	'shoot an arrow'
/bar-aj/	[ɓár-áj]	'toss and turn when sick'
/tsar/	[tsár]	'taste good'
/tsar-aj/	[tsàr-àj]	'tear'
/dar/	[dàr]	'move'
/dar-aj/	[dàr-àj]	'plant'
/ɗak/	[ɗàk]	'fill up a hole'
/ɗak-aj/	[ɗàk-áj]	'show'/'tell'
/faɗ/	[fàɗ]	'put'
/faɗ-aj/	[fáɗ-áj]	'fold'
/f t/	[fàt]	'grow' (plant)
/fat-aj/	[fàt-àj]	'lower'
/g r/	[gár]	'grow' (human)
/gar-aj/	[gár-àj]	'govern'
/h ɓ/	[hàɓ]	'break'
/haɓ-aj/	[hàɓ-àj]	'dance'
/k ɗ/	[káɗ]	'kill'
/kaɗ-aj/	[káɗ-áj]	'prune'
/ɬ r/	[ɬár]	'send'
/a-ɬar/	[ɬàr-áj]	'slide'
/mb d/	[mbàɗ]	'change position'
/mbad-aj/	[mbáɗ-áj]	'swear'
/ng r/	[ŋgár]	'prevent'
/ngar-aj /	[ŋgàr-àj]	'rip'
/s k/	[sák]	'multiply'
/sak-aj/	[sàk-áj]	'sift'
/t r/	[tár]	'enter'
/tar-aj/	[tàr-áj]	'call'
/v r/	[vár]	'roof' (a house)
/var-aj/	[vàr-àj]	'chase away'
/w l/	[wál]	'attach'
/wal-aj/	[wál-áj]	'look among things'
/w s/	[wàs]	'cultivate'
/was-aj/	[wás-áj]	'populate'

(11, 12).[11] The verb root for 'climb' does not have an underlying vowel, so a schwa 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	*sl-ay*	*sl-om*	/ɬ/	'kill'
2	*tar*	*tər-om*	/t r/	'enter'
3	*həm-ay*	*həm-om*	/h m-aj/	'run'
4	*mənjar*	*mənjər-om*	/m nz r/	'see'
		Internal vowel		
5	*tar-ay*	*tor-om*	/tar-aj/	'call'
6	*ndozl-oy*	*ndozl-om*	/ndaɮ ᵒ/	'explode'
7	*məndac-ay*	*məndoc-om*	/m ndats-aj/	'gather'
8	*bəjəgam-ay*	*bəjəgom-om*	/b dz gam -j/	'crawl'

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[11] The 2P imperative is formed by adding the suffix *-om* and labialisation prosody.

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, ɛ, 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 biconsonantal 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 *məndewe* 'swallow' does not have the *a-* prefix. The verb stem *mendewe* 'insult' has the *a-* prefix (shown by the full vowel *e* in the prefix).

(13) məndéwe
      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 the phonetic representation of 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

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[12] The nominalised form has a *mə-* or *me-* prefix, an *-e* 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
/ʐ r/	'pierce'	[mɪ-ʐɪr-ɛ]	H
/a-ʐ r/	'kick'	[mɛ-ʐɪr-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)

and those without the prefix in irrealis mood (see Section 7.4.3). (15) and (16) show 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 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,

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 the phonetic pronunciation of 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 clitics[15] are added, compare example (17) and (18) for the verb /s -j ᵉ / 'drink.'

(17)　Nese.
　　　nɛ̀-ʃ-ɛ
　　　1S+PFV-drink-CL
　　　'I drank.'

(18)　Nasala.
　　　nà-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.

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　　　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.

[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	
[ɠak-aj]	'suffer pain'	[ɠɔkʷ-ɔj]	'gnaw'	[ɠig-ɛ]	'sow'
[mbar]	'heal'			[mb-ɛ]	'argue'
[mbas-aj]	'laugh'			[mbɛʃɛŋ]	'rest, breathe'
[nzar-aj]	'comb, separate'			[ndʒɛrɛŋ]	'groan'
[s-aj]	'cut'			[ʃ-ɛ]	'drink'
[v-aj]	'winnow'			[v-ɛ]	'spend time'
				[tʃik-ɛ]	'stand up'
[dzak-aj]	'lean'	[tsɔk-ɔj]	'undress'		
[dak-aj]	'show, tell'	[dzɔkʷ-ɔj]	'pack down'		
[fak-aj]	'uproot tree'	[dɔkʷ-ɔj]	'arrive'		
[gaz-aj]	'nod'	[fɔkʷ-ɔj]	'whistle with lips'		
[kar-aj]	'steal'	[gʊz-ɔj]	'tan'		
[l-aj]	'dig'	[kor-ɔj]	'put'		
[ɬah-aj]	'mix grain with ashes'	[lɔ]	'go'		
[pal-aj]	'choose'	[ɬɔhʷ-ɔj]	'leave in secret'		
[saɓ-aj]	'exceed'	[pɔl-ɔj]	'scatter'		
[sak-aj]	'sift'	[sɔɓ-ɔj]	'suck'		
[sar]	'know'	[sɔkʷ-ɔj]	'whisper'		
[təkas-aj]	'cross'	[sɔr-ɔj]	'slide'		
[tah-aj]	'boost'	[tɔkʷɔs-ɔj]	'fold legs'		
[zar-aj]	'linger'	[tɔhʷ-ɔj]	'trace'		
		[zɔr-ɔj]	'notice, inspect'		

For the imperative form of a toneless stem, a default low tone is applied to the stem.

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/	[dár] 'Burn!'	[náá-dár] 'I will burn'	H
2	/a-dar-aj/	[dàr-āj] 'Plant!'	[náá-dār-áj] 'I will plant'	L
3	/d r/	[dàr] 'Recoil!'	[náá-dár] '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 /-j/ 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, ɮ, z, mb, nd, ŋg]). Bow (1997a) demonstrated that an underlyingly

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-ɛ/ 'do'	[g-ɛ́] 'Do!'	[nɛ́ɛ́-g-ɛ́] 'I will do'	H
	/d-ɛ/ 'cook'	[d-ɛ̀] 'Cook!'	[nɛ́ɛ́- d-ɛ̀] '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-gás] '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
	/ndaɗ -j/ 'like, love'	[ndàɗ-āj] 'Love!'	[náá- ndáɗ-āj] 'I will love'	toneless
CCC-aj	/d b n -j/ 'learn'	[də̀bə̀n-āj] 'Learn!'	[náá- də́bə̀n-āj] 'I will learn'	L
CCCaC-aj	/b dz gam -j/ 'crawl'	[bə̀dzə̀gàm-āj] 'Crawl!'	[náá-bə̀dzə̀gàm-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)

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 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 /-j/ 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	/haɓ-aj/	[hàɓ-āj]	'dance!'
	+	L	/daɮ-aj/	[dàɮ-āj]	'join!'
L	–	M	/pàɗ-aj/	[pāɗ-áj]	'bite!'
	+	L	/ɮàv-aj/	[ɮàv-āj]	'swim!'
H	–	H	/fáɗ-aj/	[fáɗ-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 /-j/ 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.   Néenjé.
      nʒ-ɛ́   néé-nʒ-ɛ́
      leave[2s.ɪᴍᴘ]-ᴄʟ   1s+ᴘᴏᴛ-leave-ᴄʟ

      'leave!'   'I will leave.'

(20) Nje.   Néenje.
      nʒ-ɛ̀   néé-nʒ-ɛ̀
      sit[2s.ɪᴍᴘ]-ᴄʟ   1s+ᴘᴏᴛ-sit-ᴄʟ

      '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.

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[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-ɛ́] 'do'	8 verb stems [d-ɛ̀] 'cook' [ʃ-ɛ̄] 'drink'	
3	2 consonant verb roots with no *a*- prefix	36 verb stems [fár] 'scratch' [bál-áj] 'wash'	49 verb stems [gèr-āj] 'tremble' [fāt] 'grow' [tʃík-ɛ́] 'stand' [tsɔ̄d-áj] 'shine'	38 verb stems [dàɗ] 'fall' [hèm-āj] 'run'
4	*a*- prefix verb stems (all have 2 consonants)		82 verb stems [bàz] 'harvest'	
5	3 consonant verb roots		58 verb stems [vànàh-āj] 'vomit' [ɬə̄ɓāt-áj] 'repair'	
6	4 consonant verb roots		12 verb stems [bə̀dzə̀gàm-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	[g-ɛ̄] 'do, make'	[ʃ-ɛ̄] 'drink'	[d-ɛ̀] 'prepare'
	Potential	[kɛ́ɛ́-g-ɛ́] 'you will do'	[kɛ́ɛ́-ʃ-ɛ̄] 'you will drink'	[kɛ́ɛ́-d-ɛ̀] 'you will prepare'
Non-palatalised	Imperative	Ø	[p-āj] 'open'	[b-àj] 'light'
	Potential		[káá-p-āj] 'you will open'	[káá-b-àj] '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	[dàl] 'surpass'
	Potential		[káá-dàl] 'you will surpass'
/a-CC-j/	Imperative	[sɔ̄l-áj] 'fry' [a]	[gə̀rāj] 'frighten'
	Potential	[káá-sɔ̄l-áj] 'you will fry'	[káá-gə̀r-āj] 'you will fear'
/a-CaC-j/ (60)	Imperative	[pās-áj] 'spread out'	[dàr-āj] 'plant'
	Potential	[káá-pā-sáj] 'you will spread out'	[káá-dàr-āj] 'you will plant'

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[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	[mbár]	[māt]	[gàs]
		'heal, cure'[b]	'die'	'catch'
	Potential	[káá-mbár]	[káá-māt]	[káá-gás]
		'you will heal'	'you will die'	'you will get'
/CaC/[c]	Imperative	Ø	[tsār]	[hàr]
			'taste good'	'make'
	Potential		[káá-tsār]	[káá-hár]
			'you will taste good'	'you will make'
/CC-j/	Imperative	[ŋgə́l-áj]	[rə̄ɓ-áj]	[hə̀m-āj]
		'defend'	'be beautiful'	'run'
		(only example)		
	Potential	[káá-ŋgə́l-áj]	[káá-rɓ-áj]	[káá-həm-áj]
		'you will defend'	'you will be beautiful'	'you will run'
/CaC-j/	Imperative	[bál-áj]	[māk-áj]	[ƙàw-āj]
		'wash'	'stop'	'fear'
	Potential	[káá-bál-áj]	[káá-māk-áj]	[káá-ƙáw-áj]
		'you will wash'	'you will leave'	'you will fear'

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[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	[sō̄kʷɔ́m] 'buy'	[dzɔ̀gʷɔ̀r] 'look after'
	Potential	[kɔ́ɔ́-sō̄kʷɔ́m] 'you will buy'	[káá-dzɔ̀gʷɔ̀r] 'you will shepherd'
/CCaC/	Imperative	[tə̄kár] 'try, taste'	[mə̀nzàr] 'see'
	Potential	[káá-tə̄kár] 'you will try'	[káá-mə̀nzàr] 'you will see'
/CCC-j/	Imperative	[tsə̄fə̄ɗ-áj] 'ask'	[də̀bə̀n-āj] 'teach, learn'
	Potential	[káá-tsə̄fə̄ɗ-áj] 'you will ask'	[káá-də̀bə̀n-āj] 'you will learn'
/CCaC-j/	Imperative	[pə̀ɗə̀k-áj] 'wake'	[və̀nàh-āj] 'vomit'
	Potential	[káá-pə̄ɗə̄k-áj] 'you will wake'	[káá-və̀nàh-āj] 'you will vomit'
/CCCaC-j/	Imperative		[bə̀dzɔ̀gàm-āj] 'crawl!'
	Potential		[káá-bə̀dzɔ̀gàm-āj] '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 (Section 2.6.1 and Section 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

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[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 they may sometimes be part of a separate phonological word.

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[2] Bow (1997a) considered tense and mood.

[3] The only stems which take the pluractional which we have so far identified are *a-h=aya* 'he/she grinds,' *a-s=əya* 'he/she cuts,' and *d=əya* 'take many'.

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.
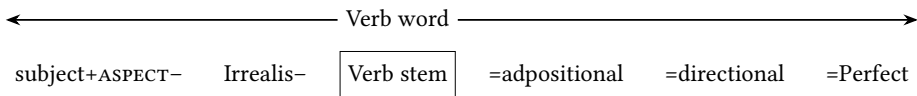
Figure 7.1: One phonological word verb complex

In the examples, the verb word is delineated by square brackets.

(1) Gaka ala.
     [g   =aka =ala]
     do[2s.ɪᴍᴘ] =on   =to

     'Put some more on!'[5] (lit. do on towards)

(2) Alala va.
     [à-l   =ala =va   ]
     3s+ᴘꜰᴠ-go =to   =ᴘʀꜰ

     'He came back.'

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

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[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 -jᵉ/. The palatalisation drops with the extensions.

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.
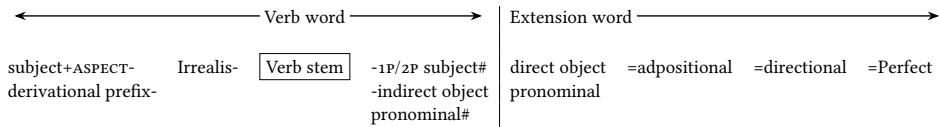
Figure 7.2: Two phonological word verb complex

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) Ambaɗan aka alay.
    verb word   'extension word'
    [à-mbaɗ   =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.
    [ɛ́-g-ɛ]   [na]
    3s+PFV-do -CL   3s.DO
    'He did it.'

(6) shows a direct object pronominal with no indirect object pronominal enclitic and the extensions cliticise to the direct object pronominal. (7) shows both

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

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 məlama ahan ahay jəyga.
    verb word   'extension word'
    [a-bək]   [ta=aja=va]   məlama =ahaŋ   =ahaj dzijga
    3s-invite   3P.DO=PLU=PRF   brothers =3P.POSS =Pl   all
    'He had already invited all of his brothers.'

(7) Akaɗaw na va.
    verb word   'extension word'
    [à-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'
    hʷɔr   [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.

		Verb word			Indirect object word	Extension word
subject +ASPECT-	Irrealis-	Verb stem	-1P/2P subject#	an=indirect object pronominal#	direct object pronominal =adpositional =directional =Perfect
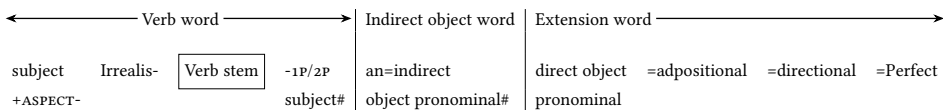
Figure 7.3: Three phonological word verb complex

In (9) and (10), the verb *kəslom* has the 2P imperative suffix attached (*-om*). 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'	
[kʊ-ɬ-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'	
[kʊ-ɬ-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.
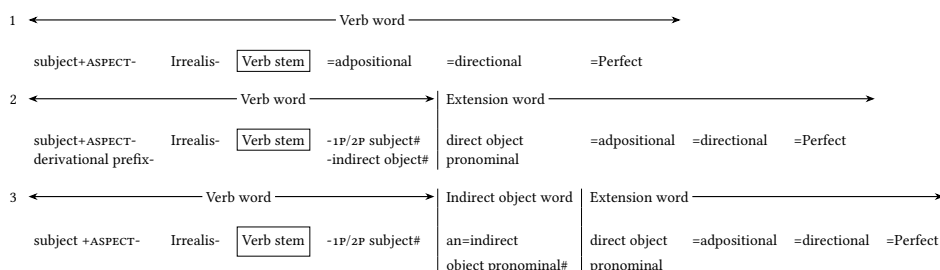
Figure 7.4: Three types of verb complexes

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
faɗ	*fəɗ-ok*	*fəɗ-om*
'Put! (2s)'	'Let's put! (1PIN)'	'Put! (2P)'
zom	*zəm-ok*	*zəm-om*
'Eat! (2s)'	'Let's eat! (1PIN)'	'Eat! (2P)'
s-e	*s-ok*	*s-om*
'Drink! (2s)'	'Let's drink! (1PIN)'	'Drink! (2P)'
fat-ay	*fot-ok*	*fot-om*
'Descend! (2s)'	'Let's descend! (1PIN)'	'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	*n-*	*=aw*		*ne*
2S	*k-*	*=ok*		*nok*
3S	*a- / ma-ᵃ*	*=an*	*na*	*ndahan*
1P inclusiveᵇ	*m-...-ok*	*=aloko*		*loko*
1P exclusiveᶜ	*n-...-om*	*=aləme*		*ləme*
2P	*k-...-om*	*=aləkwəye*		*ləkwəye*
3P	*t-*	*=ata*	*ta*	*təta*

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 bolded. 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. (11) presents the palatalised verb / g ᵉ / 'do,' and (12) presents the labialised verb / lᵒ/ 'go.'

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[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	**nə-mənjar** *awak* 'I saw a goat'	**mə-mənjor-ok** *awak* 'we (inclusive) saw a goat' **nə-mənjor-om** *awak* 'we (exclusive) saw a goat'
2	**kə-mənjar** *awak* 'you saw a goat'	**kə-mənjor-om** *awak* 'you (plural) saw a goat'
3	**a-mənjar** *awak* 'he/she saw a goat'	**tə-mənjar** *awak* 'they saw a goat'

Table 7.4: Conjugations with subject pronominal affixes for the verb /h m-aj/ 'run'

Person	Singular	Plural
1	**nə-həm-ay** 'I ran'	**mə-həm-ok** 'we (inclusive) ran' **nə-həm-om** 'we (exclusive) ran'
2	**kə-həm-ay** 'you ran'	**kə-həm-om** 'you (plural) ran'
3	**a-həm-ay** 'he/she ran'	**tə-həm-ay** 'they ran'

(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 -jᵉ / '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.
       nʊ-tsʊkʷ-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) Ajənaw.
      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) Ajənan 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) Ajə**nan**.
      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]

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[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	*a-vəl=**aw*** 'he/she gave to me'	*a-vəl=**aloko*** 'he/she gave to us (inclusive)' *a-vəl=**aləme*** 'he/she gave to us (exclusive)'
2	*a-vəl=**ok*** 'he/she gave to you'	*a-vəl=**aləkwəye*** 'he/she gave to you (plural)'
3	*a-vəl=**an*** 'he/she gave to him/her'	*a-vəl=**ata*** 'he/she gave to them'

(18) Аɓah zana.
      a-ɓax   zana
      3s-sew clothing
      'He/she sews clothing.'

(19) Аɓahaw zana.
      a-ɓah=aw   zana
      3s-sew=1s.io clothing
      'He/she sews clothing for me.'

Similarly, the example pairs (20) and (21) illustrate that the /-j/ 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-cʟ
      '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 ɗaf.
      a-s=ɔk   =aka ɗaf
      3s-please=2s.io =on   millet loaf
      'You want to have more millet loaves.' (lit. millet loaf is pleasing to you)

(23) Asaləkwəye aka ɗaf.
      a-s=alʊkʷøjɛ   =aka ɗaf
      3s-please=2p.io =on   millet 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) Kasl**an** awak.
      ka-ɬ=**aŋ**   awak
      2s-slay=3s.io goat
      'You slay the goat for him.'

(25) Kəslom **anan** awak.
      kə-ɬ-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) As**an aka** ɗaf.
      [a-s=**aŋ**]   [=**aka**] ɗaf
      3s-please=3s.io =on   millet loaf

      'He/she wants to have more millet loaves.' (lit. millet loaf is pleasing to him)

(27) Ad**an aka** ɗaf.
      [a-d=**aŋ**]   [=**aka**] ɗaf
      3s-prepare=3s.io =on   millet loaf

      'She made more loaves of millet for him.'

(28) Ad**aka** ɗaf.
      [a-d   =**aka**] ɗaf
      3s-prepare =on   millet 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 *sla* 'cow' in (29).

(29) Kaslay sla.
      kà-ɬ-aj   ɬa
      2s+pfv-slay-cl cow

      'You slew the cow.'

(30) Kaslay **na**.
      kà-ɬ-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 Story[11]
Moktonok na, abək **ta** aya va məlama ahan ahay jəyga.
məkʷtɔnɔkʷ na a-bək **ta**=aja=va məlama =ahaŋ =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 /-j/ suffix does not drop when the DO pronominal is added to a clause (32). Normally the /-j/ suffix drops off when extensions or suffixes are added to the clause (33, see also Section 6.3).

(32) Apaɗay **na**.
a-paɗ-aj **na**
3s-crunch-CL 3s.DO
'He/she crunches it.'

(33) Apaɗaka.
a-paɗ =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.'

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[11] Friesen 2003.

(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=aŋ   **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 ango avəlan **na** alay ana məze.
baba =aŋgʷɔ [a-vəl=aŋ   **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 (31), where the pluractional and perfect extensions =*aya* 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 [tə-mənzar **na**   =ala] mama agʷaǥa   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 ɗaw?
      [ka-z =alaj] **nɛ** a kɔsɔkʷɔ ava ɗaw
      2s-take =away 1s at market in QUEST

      'Will you take me to the market?'

(40) Baba ango [avəlata] **nok** va a ahar ata ava
      baba =aŋgʷɔ [à-vəl=ata] **nɔkʷ** =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 aməmbeɗe hor ata.
      waja   amɪ-mbɛɗ-ɛ   hʷɔr =atəta
      because DEP-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 *gogolvan* 'snake' and in S. 18 (42) it is referred to by the 3s DO pronominal *na*.

(41) Snake story, S. 4
      Alala na, gogolvan na, olo alay.
      a-l=la   na gʷɔgʷɔlvaŋ na ɔ̀-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 məkəɗe na aka.
      nɛ dijdaj   mɪ-kɪɗ-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 *horom alay ayva* '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-lɔ   a kɔsɔkʷɔ ava
chief GEN house 3s-go at market in
'The head of the house went to the market.'

Askomala ele ahay gam.
a-sʊkʷɔm =ala ɛlɛ   =ahaj gam
3s-buy   =to thing =Pl   many
'He bought many things.'

Awəɗakata ele ngəndəye ana ndam slərele ahan ahay, awəy,
a-wuɗak =ata ɛlɛ   ŋgɛndijɛ ana ndam ɬrɛlɛ =ahaŋ   =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!"
hʷɔr-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
Taazala təta bay.
tàà-z   =ala Ø təta   baj
3P+HOR-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 *memele ga*

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[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
       Náamənjar **na** alay **memele ga ndana** əwɗe.
       náá-mənzar **na**   =alaj   **mɛmɛlɛ ga   ndana** uwɗɛ
       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

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[13] Another repeated aspect is the pluractional. The pluractional extension in Moloko indicates an action is back and forth, for example *s=əya* 'sawing' or *h=aya* '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	[nā-nzák-áj]	'I found'
/a-p a s/	L, no depressor consonants	[nā-pās-áj]	'I spread (something) out'
/a-d-a r -j/	L, with depressor consonants	[nà-dàr-āj]	'I planted'
/ӡ w -j/	Toneless	[nə̀-ӡ̀ə̀w-āj]	'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, **olo alay**.
a-l=ala   na gʷɔgʷɔlvaŋ na **ɔ̀-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   IDsound of snake
'It climbed into the roof of the house *fo fo fo*.'

Sen ala na, okfom **adəɗala** ɓav.
ʃɛŋ   =ala na ɔkʷfɔm **à-dəɗ**   =ala ɓav
IDgo =to PSP mouse 3s+PFV-fall =to IDsound of falling
'And walking, a mouse fell *ɓav*!'

(47) Kəlen na, zar ahan na, **enjé** ele ahan ametele.
kɪlɛŋ na zar =ahaŋ   na **ɛ̀-nӡ-ɛ**   ɛlɛ =ahaŋ   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.

έ-nʒ-ε   kə dɛlmɛtɛ aka a   ɬam   ɛnɛŋ

3S+PFV-leave-CL on place   on   at place another

'he left for some place.'

(48)   Cicada, S. 6

Albaya ahay ndana kəlen **təngala** ala ma ana bahay.

albaja   =ahaj ndana kɪlɛŋ **tə̀-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?

kɔ́-lɔ   amtamaj

2S+IFV-go where

'Where are you going?'

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[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.

(50) K**o**lo amtamay?
    kɔ̀-lɔ̄   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) N**á**kaɗ bərek cəcəngehe.
    ná-kàɗ   bɪrɛk tʃɪtʃɪŋgɛhɛ
    1s+ifv-kill brick now
    'I am making bricks (now).'

(52) Nakaɗ bərek cəcəngehe.
    nà-kàɗ   bɪrɛk tʃɪtʃɪŋgɛhɛ
    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) N**á**pasay agaban.
    ná-pàs-āj   agabaŋ
    1s+ifv-take away-cl sesame
    'I'm about to take away the sesame seeds.'

(54) N**a**pasay 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) Cəcəngehe ne awəy, "N**é**ge hay əwla ete."
    tʃɪtʃɪŋgɛhɛ nɛ awij né-g-έ   haj   =uwla ɛtɛ
    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	awij	nɛ̀-g-ɛ̄	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	[nə́-nzák-áj]	'I'm finding'
/a-p a s/	L, no depressor consonants	[ná-pās-áj]	'I'm spreading (something) out'
/a-d-a r-aj/	L, with depressor consonants	[ná-dàr-āj]	'I'm planting'
/ɮ w-aj/	Toneless	[nə́-ɮáw-áj]	'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) Slərɛɛle **áyəɗay** məze.

ɬɪrɛlɛ	**á-jəɗ-aj**	mɪʒɛ
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) **Káslay** awak nə məsləye.

ká-ɬ-aj	awak	nə	mɪ-ɬ-ijɛ
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-j/	[nə̄-nzák-áj] 'I found'	[nə́-nzák-áj] 'I am finding'
	/CC/	[nā-mbár] 'I healed'	[ná-mbár] 'I am healing'
		[nā-ɗák] 'I blocked up'	[ná-ɗák] 'I am blocking up'
L no depressor consonants	/a-CaC-j/	[nā-pās-áj] 'I took away'	[ná-pās-áj] 'I am taking away'
	/CaC-j/	[nə̄-tāts-áj] 'I close'	[nə́-tāts-áj] 'I am closing'
	/CC/	[nā-fāɗ] 'I put'	[ná-fāɗ] 'I am putting'
L depressor consonants in verb stem	/a-CaC-j/	[nə̀-dàr-āj] 'I recoil'	[nə́-dàr-āj] 'I am recoiling'
	/CCaC-j/	[nə̀-və̀nàh-āj] 'I vomited'	[nə́-və́nàh-āj] 'I am vomiting'
Toneless	/CaC-j/	[nə̀-ǥàw-āj] 'I feared'	[nə́-ǥáw-āj] 'I am fearing'
	/CC/	[nà-ndàz] 'I pierced'	[ná-ndáz] 'I am piercing'
		[nà-dàɗ] 'I fell'	[ná-dáɗ] 'I am falling'

(60) **Kákaɗ** okfom nə məkəɗe. **Káslay** bay.

    ká-kaɗ   ɔkʷfɔm nə   mɪ-kɪɗ-ɛ   **ká-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.' (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   Mʊlɔkʷɔ a-nd=alaj   **á-s=ija**   ɛlɛ

    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   ƙʊrgʷɔ tsɔtsɔ   faŋ   na

    with axe   IDcutting already PSP

    'with his axe, *coco*'

    təlala təta gam na, tarəbokoy na ala rəbok rəbok.

    tə-l =ala təta gam na ta-rʊbɔkʷ-ɔj na   =ala rʊbɔkʷ rʊbɔkʷ

    3S-go =to 3P   many PSP 3P-hide-CL 3S.DO =to IDhide hide

    'many came stealthily upon him *rəbok, rəbok*.'

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.

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[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

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[18] Only two moods were distinguished in previous documents (Friesen & Mamalis 2008; Boyd 2003).

perform. It carries a mild hortatory force for second person forms. 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 məlala azana **aá**lala ete ɗaw?
      a-s   =aw   bahaj   mə-l   =ala azana   **áà**-l=ala   ɛtɛ   ɗaw
      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) **Á**alala.
      áá-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 **aá**makay loko émbəzen loko asabay.
      adaŋ   baj   **áà**-mak-aj   lɔkʷɔ ɛ-mbɪʒɛŋ   lɔkʷɔ 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 **nóo**lo a kosoko ava.

hadzaŋ **nɔ́ɔ́**-lɔ́   a kɔsɔkʷɔ ava
tomorrow 1S+POT-go at market in
'Tomorrow I will go to the market.'

(67) **Ó**lo.
      áá-lɔ́
      3S+POT-go
      'He/she will hopefully go.' (if I have a say in it)

(68) **Káa**zala təta bay.
      káá-z   =ala təta   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) **Moo**lo a kosoko ava.
      mɔ̀ɔ̀-lɔ̄   a kɔsɔkʷɔ ava
      3S+HOR-go at market in
      'He/she should go to the market.'

(70) **Koo**zəmom enen bay.
      kɔ̀ɔ̀-zɔ̄m-ɔm   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 ɗəw **noó**lo bay ɗaw?
      ɛpɛlɛj   ɛpɛlɛj   ɗuw **nɔ́ɔ̀**-lɔ̄   baj ɗaw
      whenever whenever also 1S+PBL-go NEG QUEST
      'Far in the future also, might I not go perhaps?'

(72) **Aá**lo.

áà-lɔ̄

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 ɓərav ahan **aá**ndeslen **aá**makay məɗəgele ahan.

adaŋ baj ɓərav =ahaŋ   **áà**-ndɛɬɛŋ   **áà**-māk-aj   mɪ-ɗɪgɛl-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) **Maá**həzlok asabay bay way.

máà-hʷʊɮ-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 /lᵒ/ 'go.'

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 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-lɔ́   a kɔsɔkʷɔ ava

1s+IFV-go at market in

'I am going to the market.'

(76) **Náalo** a kosoko ava.

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[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 7.9: Mood for the verb /lº/ 'go'

2s form	3s form
Potential mood	
[káá-l=àlà]	[áá-l=àlà]
2s+POT-go=to	3s+POT-go=to
'You will come.' (I am sure you will come)	'He/she will come.' (I am sure he will come)
Hortative mood	
[kàà-l=àlá]	[mɜ̀-l= àlá]
2s+HOR-go=to	3s+HOR-go=to
'You come now!' (I want you to come)	'He/she should come.' (I want him to come)
Possible mood	
[káà-l=àlà]	[áà-l=àlà]
2s+PBL-go=to	3s+PBL-go=to
'I want you to come (but I am not sure if you will).'	'I want him to come (but am not sure if he will).'

Table 7.10: Realis and irrealis forms of /tats/ 'close'

	2s form	Gloss
Perfective	[**kɜ̀**-tāts-āj mahaj] 2s+PFV-close-CL door	'You closed the door.'
Imperfective	[**kɜ̀**-tāts-āj mahaj] 2s+IFV-close-CL door	'You are closing the door.'/ 'You are about to close the door.'
Potential	[**káá**-tāts-āj mahaj] 2s+POT-close-CL door	'I would like you to close the door.'/ 'You should close the door.' / 'You will close the door.'
Hortative	[**kàà**-tāts-āj mahaj] 2s+HOR-close-CL door	'I strongly suggest you close the door.' / 'You should have already closed the door.'
Possible	[**káà**-tāts-āj mahaj] 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.'

náá-lɔ́   a kɔsɔkʷɔ ava
1s+pot-go at market in
'I will go to the market.'

(77)   Asa hay ango andava na mɛ, **áa**rəɓay.
       asa haj =aŋgʷɔ a-ndava na mɛ   **áá**-rəɓ-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 of /fat -j / 'descend'

Person	Singular	Plural
1	[**náá**-fāt-aj] 1s+pot-descend-cl 'I will go down.'	[**má**-fɔ̄t-ɔkʷ] 1Pin+pot-descend-1Pin 'We will go down.' [**ná**-fɔ̄t-ɔm] 1Pin+pot-descend-1Pin 'We (exclusive) will go down.'
2	[**káá**-fāt-aj] 2s+pot-descend-cl 'I would like you to go down (you should go down).'	[**ká**-fɔ̄t-ɔm] 2P+pot-descend-2P 'You will all go down.'
3	[**áá**-fāt-aj] 3s+pot-descend-cl 'He/she will go down.'	[**táá**-fāt-aj] 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.

Table 7.12: Hortative form conjugation of /fat -j / 'descend'

Person	Singular	Plural
1	[**nàà**-fàt-aj] 1S+HOR-descend-CL 'I should go down.'	[**mà**-fɔ̀t-ɔkʷ] 1PIN+HOR-descend-1PIN 'I would like us (inclusive) to go down (we should go down).' **nà**-fɔ̀t-ɔm] 1PIN+HOR-descend-1PIN 'I would like us (exclusive) to go down (we should go down).'
2	**kàà**-fàt-aj] 2S+HOR-descend-CL 'I would like you to go down (you should go down).'	[**kàà**-fɔ̀t-ɔm] 2P+HOR-descend-2P 'I would like you all to go down (you should go down).'
3	[**màà**-fàt-aj] 3S+HOR-descend 'I would like him to go down (he should go down).'	[**tàà**-fàt-aj] 3P+HOR-descend-CL 'I would like them to go down (they should go down).'

(78) **Mə́zəmok** ɗaf.
mʊ́-zʊm-ɔkʷ   ɗaf
1PIN+IFV-eat-1P millet loaf
'We are eating millet loaves.'

(79) Lomala **máazəmok** ɗaf.
l-ɔm   =ala **máá**-zʊm-ɔkʷ   ɗaf
go[IMP]-2P =to   1PIN+POT-eat-1PIN millet loaf
'Come; I want us to eat food.' (lit. millet loaf)

(80) Lomala **madərok** meher.
l-ɔm   =ala **mà**-dōr-ɔ́kʷ   mɛhɛr
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

Table 7.13: Possible form conjugation of /fat -j / 'descend'

Person	Singular	Plural
1	[**náà**-fàt-aj] 1S+PBL-descend-CL 'I might go down.'	[**máà**-fɔ̀t-ɔkʷ] 1PIN+PBL-descend-1PIN 'We will go down.' [**náà**-fɔ̀t-ɔm] 1PIN+PBL-descend-1PIN 'We (exclusive) might go down.'
2	[**káà**-fàt-aj] 2S+PBL-descend-CL 'You might go down.'	[**káà**-fɔ̀t-ɔm] 2P+PBL-descend-2P 'You might all go down.'
3	[**áà**-fàt-aj] 3S+PBL-descend-CL 'He/she might go down.'	[**táà**-fàt-aj] 3P+PBL-descend-CL 'They might go down.'

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 7.14: Tone of realis and irrealis verb forms

Underlying tone of verb stem		Realis		Irrealis		
		Imperfective tone	Perfective tone	Potential	Hortative	Possible
H	2s form	[kɔ́-nzák-āj] 'you find'	[kɔ̀-nzák-āj] 'you found'	[káá-nzák-āj] 'I would like you to find'	[kàá-nzák-āj] 'you should find'	[káà-nzák-āj] 'you might find'
	3s form	[á-nzák-āj] 'he finds'	[à-nzák-āj] 'he found'	[áá-nzák-āj] 'I would like him to find'	[mɔ̀-nzák-āj] 'he should find'	[máà-nzák-āj] 'he might find'
L	2s form	[kɔ́-tàts-āj] 'you close'	[kɔ̀-tàts-āj] 'you closed'	[káá-tàts-āj] 'I would like you to close'	[kàá-tàts-āj] 'you should close'	[káà-tàts-āj] 'you might close'
	3s form	[áá-tàts-āj] 'he closes'	[à-tàts-āj] 'he closed'	[á-tàts-āj] 'I would like him to close'	[mɔ̀-tàts-āj] 'he should close'	[máà-tàts-āj] 'he might close'
toneless	2s form	[kɔ́-ɓàw-āj] 'you fear'	[kɔ̀-ɓàw-āj] 'you feared'	[káá-ɓáw-āj] 'I would like you to fear'	[kàá-ɓàw-āj] 'you should fear'	[káá-ɓàw-āj] 'you might fear'
	3s form	[á-ɓàw-āj] 'he fears'	[à-ɓàw-āj] 'he feared'	[áá-ɓáw-āj] 'I would like him to fear'	[mà-ɓàw-āj] 'he should fear'	[máà-ɓàw-āj] 'he might fear'

(81) Cicada, S. 16

Albaya ahay tolo amazala agwazla na, **taa**zala təta bay.

albaja =ahaj tɔ-lɔ ama-z=ala agʷaʐa na **tàà**-zaɗ =ala
young man =Pl 3P-go DEP-take=to spp. of tree PSP 3P+HOR-take =to

təta baj
ability NEG

'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, kázaɗ war elé háy bəlen.

asa à-s =ɔkʷ **amə-h** =aja na ká-zaɗ war ɛlɛ
if 3S+PFV-please =2S.IO DEP+PFV-grind =PLU PSP 2S+IFV-take child eye

haj bɪlɛŋ
millet one

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

(83) Cicada, S. 7

Agasaka na ka mahay ango aka **amәmbese**.

a-gas =aka na ka mahaj =aŋgʷɔ aka **amɪ-mbɛʃ-ɛ**
3S-catch =on PSP on door =2S.POSS on DEP-rest-CL

'It would please you to have the tree at your door, so that you could rest under it.'

7.4.4 Habitual iterative

The habitual iterative aspect[20] presents the actor(s) performing an action repeatedly as their usual habit. This aspect is formed by the gemination of the onset of

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[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 *=aya* or *=əya*, 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 zlaba na, Məloko anga enen ahay **tóllo** a ləhe.
        kafta kɔsɔkʷɔ ẕaba   na Mʊlɔkʷɔ aŋga ɛnɛŋ   =ahaj **tɔ́-llɔ**   a
        day   market Dogba ᴘsᴘ Moloko ᴘoss another =Pl   3ᴘ+ɪꜰv-go+ɪᴛʀ 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 ango nehe na, **káffəɗ** ele ango a mogom waya azaɗ merkwe bay.
        tətərak =aŋgʷɔ nɛhɛ na **ká-ffəɗ**   ɛlɛ =aŋgʷɔ a mɔgʷɔm
        shoes   =2s.ᴘoss here ᴘsᴘ 2s+ɪꜰv-put+ɪᴛʀ thing =2s.ᴘoss at home

        'Your shoes there, you should put them on (habitually, repeatedly, day after day) at home,'

        waja   à-zàɗ   mɛrkʷɛ baj
        because 3s+ᴘꜰv-take travel   ɴᴇɢ

        '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* ⁰/ in the 2s and 2ᴘ forms. The 2ᴘ form has an extra syllable in the verb word because of the 2ᴘ subject pronominal suffix. In the 2s form, the reduplicated consonant is *z* – the first consonant of the root. In the 2ᴘ 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 ava na, **kózzom** ɗaf.
        a mʊdzʊvɔkʷɔ ava na **kʊ́-zzʊm**   ɗaf
        at feast   in ᴘsᴘ 2s+ɪꜰv-eat+ɪᴛʀ millet loaf

        'During a feast, you eat repeatedly (many times at many people's houses).'

(87) A məjəvoko ava na, **kə́zə̲m̲m̲om** ɗaf.
      a mʊdzʊvɔkʷɔ ava na **kʊ́-zʊ́m̲m̲-ɔm**   ɗaf
      at feast   in PSP 2+IFV-eat+ITR-2P millet 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 **tésse** gəzom.
      kɔsɔkʷɔ mɔlɔm na ndam   pəra =ahaj **tɛ́-ʃʃ-ɛ́**   gʊzɔm
      market home PSP person idol =Pl 3P+IFV-drink+ITR-CL wine
      'On market day, the traditionalists drink wine (many people, much wine).'

(89) **Ada̲r̲ray** eteme waya gəvah gam.
      à-dàr̲r̲-āj   ɛtɛmɛ 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 iterative[22] 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 =aŋgʷɔ [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.

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[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 *=aya* or *=əya*, see Section 7.5.2).

(91) A kosoko ava na, nəskwəmom nəskwəmom ala.
      a kɔsɔkʷɔ ava na [nʊ-sʊkʷʊm-ɔm nʊ-sʊkʷʊm-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 =*aya* '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).[26] 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.**

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[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."
[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).

a-fəɗ   =**aka** war ɛlɛ haj   na **kə** vɛr   **aka**
3s-place =on   child eye millet PSP on stone on
'She put the grain of millet on the grinding stone.'

(93) Məmə**tava** alay **a** ver **ava**.
mə-mət =**ava** =alaj   **a** vɛr   **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 /-j/ suffix drops off when the clitic attaches ((95), see also Section 6.3). Compare (94) and (95) which illustrate the verb /g -jᵉ/ 'do.' Note that the /-j/ 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 cəɗoy.
tɛ-g-ɛ   tsʊɗɔj
3P-do-CL trick
'They played a trick.' (lit. they did trick)

(95) Tag**aka** cəɗoy.
ta-g   =**aka** tsʊɗɔj
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) Arah**va** peɗeɗe.
à-rah=**va**   pɛɗɛɗɛ
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 cəveɗ ava nə məze.
      [nə̀-dɔʒ-ɔm]   [=**ava**] a tʃɪvɛɗ ava 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) Dəra**ka** 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** ɗaw?
       a-s   =ɔkʷ =**aka** ɗaw
       3s-want =2s.io =on   quest
       'Do you want any more?' (lit. is it pleasing to you on?)

With the verb *mbaɗ* '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)   Ambaɗaŋ **aka**.
        a-mbaɗ   =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), *=alay* 'away from' (105), and *=aya/=əya* '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-zaɗ =aka =**ala** hʷɔr   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 Mʊlɔkʷɔ 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 story[28]
        Moktonok na, abək ta **aya** va məlama ahan ahay jəyga.

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[27] The root-final *ɗ* of the verb *zaɗ* 'take' drops off when affixes and clitics are added (Section 6.2).
[28] Friesen 2003.

> mɔkʷtɔnɔkʷ na a-bək ta =**aja** =va məlama =ahaŋ =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 /-j/ 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 [ɛnʒɛ].

(107) Anj**ala**.

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 (=*alay*), or back and forth repeatedly (=*aya*). Compare the following examples of the verb /s kʷ 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 =*alay* 'away,' it means 'sell' (109).

(108) Nəskom**ala** awak.

nə̀-sʊkʷɔm   =**ala** awak

1S+PFV-buy/sell =to goat

'I bought a goat.'

(109) Nəskom**alay** awak.

nə̀-sʊkʷɔm   =**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 =*alay* '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 ɗ/ '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.ɪᴍᴘ] =to
       'Come closer (to me).'

(111) Dəralay.
       dər   =alaj
       move[2s.ɪᴍᴘ] =away
       'Move away (from me).'

(112) Zala eteme.
       zaɗ   =ala ɛtɛmɛ
       take[2s.ɪᴍᴘ] =to   onion
       'Bring the onion (to me).'

(113) Zalay eteme.
       zaɗ   =alaj ɛtɛmɛ
       take[2s.ɪᴍᴘ] =away onion
       'Take the onion away (from me).'

The third directional *=aya* or *=əya* 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), grinding (115), or putting many (*d=əya*). 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=ija   mɛmɛlɛ
       man 3s-saw=ᴘʟᴜ tree
       'The man saws the tree.'

(115) Aban ahaya háy.
       Abaŋ a-h   =aja haj
       Abang 3s-grind =ᴘʟᴜ millet
       'Abang grinds millet.'

---

[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.

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 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 tə̀-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

Təlo tamənjar na **ala** mama agwazla nəndəye.

tə̀-lɔ tà-mənzar na =**ala** mama agʷaʐa 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, taaz**ala** təta bay.

kɪlɛŋ albaja =ahaj tə̀-lɔ ama-z =**ala** agʷaʐa 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** təta baj

3P+HOR-take =to ability NEG

'but they were not able to bring it [to him].'

(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**
        IDwalking =to
        'Going, [he] came [to the chief's house].'

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 mᵒ / 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)   Nəzəm**ala** toho.
        nə̀-zəm   =**ala** tɔhʷɔ
        1S+PFV-eat =to   DEM
        'I already ate over there (some other person's house – before I arrived here).'

(122)   Nəzəm**va** pew.
        nə̀-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 kʷ 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**.
        nə̀-sʊkʷʊm   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, "Ambəɗə**va** anga ləme."
tawij   à-mbəɗ   =**va** aŋga lɪmɛ
3P+said 3S+PFV-change =PRF POSS 1PEX
'They said, "It has become ours!"' (lit. it has changed; belonging to us)

(125) Nasar həraf ɛlɛ nəngehe asabay,
nà-sar   həraf   ɛlɛ   nɪŋgɛhɛ asa-baj
1S+PFV-know medicine thing DEM   again-NEG
'I didn't know how to resolve the problem,'

waya nəl**va** afa səwpərefe.
waja   nə̀-l   =**va** afa   suwpɪrɛfɛ
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, tanjakə**va** ɛlɛ məzəme.
təta na tà-nzak   =**va** ɛlɛ   mɪ-ʒɪm-ɛ
3P   PSP 3P+PFV-find =PRF thing NOM-eat-CL
'And so they had found something to eat.'

(127) Arahə**va** peɗeɗe.
à-rah=**va**   pɛɗɛɗɛ
3S+PFV-fill=PRF IDfull
'It had filled right to the rim.'

(128) Nəzəm**va**.
nə̀-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

Azləna, hor na, asərkala afa təta **va** na,

akǝna hʷɔr   na à-sərk   =ala afa   təta =**va** na

but   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.'

The Perfect extension has neutral prosody itself and causes the loss of palatal-isation of the verb stem (compare 130–131 where the stem is / s -j ^{e}/). Also, verb stems drop their /-j/ 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.

nɛ̀-ʃ-ɛ   gʊzɔm

1S+PFV-drink-CL millet beer

'I drank millet beer.'

(131)   Nasa**va** gəzom.

nɛ̀-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 aga**va**.

 lʊhʷɔ 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 extension[31] 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) Nə́balay háy.

 [nə́-báláj háj]
 1S+IFV-wash millet

 'I wash the millet.'

(135) Nəbalva háy.

 [nə̄-bál=vá hāj]
 1S+PFV-wash=PRF millet

 'I washed the millet already.'

(136) Nə́daray háy.

 [nə́-dàrāj háj]
 1S+IFV-plant millet

 'I plant the millet.'

(137) Nədarva háy.

 [nə̀-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).

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[31] Bow (1997a) called it an aspect or tense marker.

(138) War elé háy ngǝndǝye nok ameze na **va**, bǝlen ngǝndǝye na,
war ɛlɛ haj ŋgɪndijɛ [nɔkʷ amɛ-ʒ-ɛ na =**va**] bɪlɛŋ ŋgɪndijɛ
child eye millet DEM 2S DEP-take-CL 3S.DO =PRF one DEM
na
PSP
'That grain that you have taken, that one [grain],'

káahaya kǝ ver aka.
káá-h =aja kǝ vɛr 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) Árahǝ**va**.
á-ráh =**va**
3S+IFV-fill =PRF
'It is full.'

(140) Mana áyǝɗǝ**va**.
Mana á-jǝɗ =**va**
Mana 3S-tire PRF
'Mana is tired.'

(141) Háy ánahǝ**va**.
haj á-nah =**va**
millet 3S-ripen PRF
'The millet is ripe.'

(142) Disobedient Girl, S. 33
Mǝloko ahay tawǝy, "Hǝrmbǝlom ága ɓǝrav **va**
mʊlɔkʷɔ =ahaj tawij Hʊrmbʊlɔm á-g-a ɓǝrav =**va**
Moloko =Pl 3P+said God 3s+IFV-do-CL heart =PRF
'The Molokos say, "God got angry'

kəwaya war dalay na, amecen sləmay bay ngəndəye."
kuwaja war dalaj na amɛ-tʃɛŋ łəmaj baj ŋgɪndijɛ
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 oc-
cur prior to the events on the main story line, and which supply flashback in-
formation 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 pre-
ceded 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, Hərmbəlom ávəlata barka **va**.
ɮlɛɮɛ   na Mʊlɔkʷɔ =ahaj na Hʊrmbʊlɔm 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 read-
er/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 mɔkʷtɔnɔkʷ na a-bək   ta   =aja =**va**
meantime   toad   PSP 3S-invite 3P.DO =PLU =PRF
'In the meantime the toad, he had already invited'

məlama ahan ahay jəyga.
məlama =ahaŋ   =ahaj dzijga
brother =3S.POSS =Pl   all
'all of his brothers.'

7.6 Nominalised verb form

The nominalised verb form[32] is derived from a verb stem by the addition of the prefix /*m*-/ plus a palatalised suffix [-ɛ].[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/   [mɪ-hɪm-ɛ]
       'run'   'race'

(146) /tʃaf ᵉ/   [mɪ- tʃɛf-ɛ]
       'betray'   'betrayal'

(147) /r ɓ -j/   [mɪ-rɪɓ-ɛ]
       'be beautiful'   'beauty'

(148) /ndaɬ -jᵉ/   [mɪ-ndɛɬ-ɛ]
       'make cold'   'coldness'

In the case where a verb stem consists of one single consonant, the nominalised form receives an additional syllable [-ijɛ].

(149) /dz -j/   [mɪ-dʒ-ijɛ]
       'say'   'saying'

(150) /s -j ᵉ/   [mɪ-ʃ-ijɛ]
       'drink'   'drinking'

(151) /l ᵒ/   [mɪ-l-ijɛ]
       '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 [ɛ] due to the palatalisation prosody which is part of the nominalising morphology. Compare with (145–148) where [mɪ-] is the prefix for verb stems with no *a*- prefix.

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[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 /	[mí -nʒɛ̀k-ɛ̀]	[nzák-áj]	'find'
	/ z m º /	[mí-ʒùm-ɛ̀]	[zóm]	'eat'
Low tone verb stems without depressor consonants	/f ɗ/	[mī-fĭɗ-ɛ̄]	[fāɗ]	'put'
	/tats -j /	[mī-tētʃ-ɛ̄]	[tāts-áj]	'close'
Low tone verb stems with depressor consonants	/v h n -j /	[mī-víhīn-ɛ̄]	[vɜ̀hɜ̀n-āj]	'vomit'
	/a-dar -j /	[mɛ̄-dɛ̄r-ɛ̄]	[dàr-āj]	'plant'
Toneless verb stems	/d ɗ /	[mì-díɗ-ɛ̄]	[dàɗ]	'fall'
	/nd z /	[mì-ndɛ́ʒ-ɛ̄]	[ndàz]	'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** =alɔkʷɔ   na] ɛpɛlɛj
       NOM-run-CL =1PIN.POSS PSP when

       'When is our race?' (lit. our running [is] when)

(155) Disobedient Girl, S. 4
       Ávata [mǝvǝye haɗa.]
       á-v=ata   [mɪ-v-ijɛ   haɗa]
       3S+IFV-spend time=3P.IO NOM-spend time-CL many

       'It would last them the whole year.' (lit. it will spend time for them many
       time-spending[34])

(156) Ege [mǝvǝye mǝko] ehe, nawas háy ǝwla.
       ɛ-g-ɛ   [mɪ-v-ijɛ   mʊkʷɔ] ɛhɛ 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) [Medǝre nehe na], sǝlom ga.
       [mɛ-dɪr-ɛ   nɛhɛ na] sʊlɔm   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 nomi-
nalised verbs express resultant states. For example, the peanuts in (158) are al-
ready 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 [andǝra mǝngǝlɗe ga.]
       na-d=ɔkʷ   [andǝra mɪ-ŋgɪlɗ-ɛ   ga]
       1S-prepare=2S.IO peanut NOM-grind-CL ADJ

       'I made peanut butter (lit. ground peanuts) for you.'

(159) Avǝlaw [war dalay mǝrǝɓe ga.]
       a-vǝl=aw   [war dalaj mɪ-rɪɓ-ɛ   ga]
       3S-give=1S.IO child female NOM-be beautiful-CL ADJ

       'He/she gave me a beautiful girl.'

(160) Ndahan [mǝnjǝye ga.]
       ndahaŋ [mɪ-nʒ-ijɛ ga]
       3S   NOM-sit-CL ADJ

       'He/she [is] seated.'

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[34] The nominalised form of the verb 'spend time' has been lexicalized as 'year.'

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 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)   məbeze háy
        mɪ-bɛʒ-ɛ   haj
        NOM-harvest-CL millet
        'the millet harvest'

(162)   andəra məngəlɗe ga
        andəra mɪ-ŋgɪlɗ-ɛ   ga
        peanut NOM-grind-CL ADJ
        'ground peanuts'

(163)   mənjəye 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   =alɔkʷɔ
        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 (*yam* '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 =*alay* in 166).

(165) Ndahan ngah **mangəhata aka va** yam a ver ahan ava.

ndahaŋ ŋgah **ma-ŋgəh=ata=aka=va** jam a vɛr =ahaŋ 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 vɛr 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 *nəskom nə məskwəme* '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 məskwəme**."

awij nʊ-sʊkʷɔm **nə** **mɪ -søkʷøm-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-ijɛ**

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) Kákaɗ okfom **nə məkəɗe**. Káslay bay.

ká-kaɗ ɔkʷfɔm **nə** **mɪ-kɪɗ-ɛ** ká-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 aŋga pəra.

ká-ndaz **nə mɪ-ndɪʒ-ɛ** awak aŋga pəra
2s+ɪFV-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 *-e* (or *-əye* 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'	*a-həm-ay*	*mə-həm-e*	*amə-həm-e*
/ d -j ᵉ /	'prepare'	*e-d-e*	*mə-d-əye*	*amə-d-əye*
/s kʷ m/	'buy'/'sell'	*a-səkom*	*mə-skwəm-e*	*amə-skwəm-e*[a]

[a] Note that the labialised consonant /kʷ/ 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.

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[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 adpositional phrase)	(adverb)

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 ngendəye [**amazata aka ala** avəya nengehe.
war   dalaj ga   ŋgɛndijɛ [Ø **ama-z=ata**   =aka =ala avija
child girl   ADJ DEM   DEP-carry=3P.IO =on =to suffering

nɛŋgɛhɛ
DEM
'that young woman that had brought this suffering'

ana məze 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)   [A**məhaya** həmbo na], anday asakala wəsekeke.
        [Ø **amə-h**   =**aja** hʊmbɔ na] a-ndaj a-sak   =ala wuʃɛkɛkɛ
           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.]
        kɪlɛŋ albaja   =ahaj tɔ-lɔ [Ø **ama-z=ala** agʷaʑa   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** azaŋ]
        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)   Məkəɗ va azla tazlan [aləme **aməzləge** va.]
        mə-kəɗ va   aʑa ta-ʐ   =aŋ   [alɪmɛ   **amɪ-ʐɪg-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 chapter[1] 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)

Figure 8.1: Moloko verb phrase constituents

The auxiliary verbs include the progressive (see Section 8.2.1), the verb *lo* '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 and 5; see Section 3.5) or ideophone (italicised in 1

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[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.*]
     hʊmbɔ ga [a-ndaj a-sak   **ɛlɛ** =ahaŋ *wuʃɛkɛkɛ*]
     flour   ADJ 3S-PRG 3S-multiply thing =3s.POSS IDmultiply
     'The flour was multiplying all by itself (lit. its things), *wəsekeke.*'

(2) [Tandalay talala təzləgə **va** ana Məloko ahay.]
     [ta-nd=alaj   ta-l =ala tə-ǧəg-ə   **va** ana Mʊlɔkʷɔ =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   kə dɛlmɛtɛ aka a łam ɛnɛŋ]
     3S-leave-CL on neighbor on at place another
     'He left to go to his neighbor at some other place.'

(4) [Názaɗ a dəray ava *sawan.*]
     [ná-zaɗ   a dəraj ava *sawaŋ*]
     1S+IFV-carry at head in   without help
     'I can carry it on my head myself!'

(5) [Nəvəlan **yam** ana Mana *zayəhha.*]
     [nə́-vəl=aŋ   **jam** ana Mana *zajəx=xa*]
     1S+PFV-give=3s.IO water DAT Mana care=ADV
     'I gave water to Mana carefully.'

(6) [Azləgalay a vəlo *zor.*]
     [a-ǧəg   =alaj a vʊlɔ *zɔr*]
     3S-throw =away at above IDthrowing
     '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 interroga-
tive 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.]
     ɛgɪnɛ [nɔ́-lɔ   a kɔsɔkʷɔ ava]
     today 1s+ɪFV-go at market in
     'Today I will go to the market.'

(8) [Nólo a kosoko ava **egəne.**]
     [nɔ́-lɔ   a kɔsɔkʷɔ ava **ɛgɪnɛ**]
     1s+ɪFV-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 agʷaɮa   ana nɛ na] **waj**
     who ᴅᴇᴘ-take =1s.ɪᴏ =to spp. of tree ᴅᴀᴛ 1s ᴘsᴘ 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 ideo-
phones are italicised in the examples.

(10) Snake, S. 13
     Kaləw [nazala ezlere əwla.]
     kaluw   [nà-z   =ala ɛʤɛrɛ =uwla]
     ɪᴅtake quickly 1s+ᴘFV-take =to spear =1s.ᴘᴏss
     'I quickly took my spear.'

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[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.

(11) Cicada, S. 15

Ndahan [*gədok* mədəye gəzom.]

ndahaŋ [*gʊdɔkʷ*   mɪ-d-ijɛ   gʊzɔm]

3S   IDprepare wine NOM-prepare-CL wine

'He *gədok* made wine.'

(12) Snake, S. 5

[Acar a hay kəre ava *fo fo fo.*]

[à-tsar   a haj   kɪrɛ   ava *fɔ fɔ fɔ*]

3S+PFV-climb at house beams in   IDsound of snake

'[The snake] climbed into the beams in the roof *fo fo fo.*'

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 deftere aka.]

[tà-h=ata   na   =**va** kə dɛftɛrɛ 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 Hʊrmbʊlɔm [á-z   =ata =aka barka =ahaŋ

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.'

(15) Baba ango [avəlata nok **va** a ahar ata ava.]

baba =aŋgʷɔ [a-vəl=ata   nɔkʷ =**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 təta **va**]
      ndɛ hʷɔr na [a-sərk=ala   afa   təta =**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
      <u>A məsəyon ava na</u> ele ahay aməwəsle na, [tége bay.]
      <u>a mʊsijɔŋ ava na</u> ɛlɛ =ahaj amɪ-wuɬ-ɛ   na [tɛ́-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.'

(18) Values, S. 39
      <u>Pepenna na</u>, [takaɗ sla.]
      <u>pɛpɛŋ   =ŋa na</u> [tà-kaɗ   ɬa]
      long ago =ADV PSP 3P+PFV-kill cow
      'Long ago, they killed cows.'

(19) Values, S. 3
      <u>Səwat na</u>, təta a məsəyon na ava nəndəye na,
      <u>suwat   na</u> təta a mʊsijɔŋ na ava nɪndijɛ na
      IDdisperse 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 ɛlɛ nɛhɛ na kɔ́-gʷ-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 just before the verb phrase-final adverb *gam* 'much,' making prominent the fact that the woman was going to grind *a lot* of millet. In (21), *na* occurs in the matrix clause just before the adpositional phrase (*ka mahay ango aka* 'by your door'), highlighting the desire to have the tree by the chief's door. In (22) the final element of the verb phrase *anga way* 'belonging to whom' is highlighted in the rhetorical question which focussed on the fact that the people obeyed neither God's word nor that of the elders.

(20)   Disobedient Girl, S. 17
Azləna, hor **na**, asərkala afa təta va **na**,
aǯəna hʷɔr   **na** [à-sərk   =ala afa   təta =va **na**]
but   woman PSP 3S+PFV-habitually =to at place 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.'

(21)   Cicada, S. 7
Mama agwazla ava a ləhe **na**, malan ga **na**,
mama agʷaǯa   ava a lɪhɛ **na** malaŋ 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 mahay ango aka] aməmbese.
[à-gas=aka   **na** ka mahaj =aŋgʷɔ 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

Hərmbəlom **na**, amaɗaslava ala məze **na**, ndahan ese **na**,

Hʊrmbʊlɔm	**na**	ama-ɗaɬ	=ava	=ala	mɪʒɛ	**na**	ndahaŋ	ɛʃɛ	**na**
God	PSP	DEP-multiply	=in	=to	person	PSP	3S		again	PSP

(lit. 'God, the one who mltiplied the people, him again')

[kagas ma Hərmbəlom na, asabay] **na**,

[ka-gas	ma	Hʊrmbʊlɔm	**na**	asa-baj]	**na**
2S-catch	word	God	PSP	again-NEG	PSP

'[if] you no longer accept the word of God,'

[káagas **na** anga way?]

[káá-gas		**na**	anga	waj]
2S+POT-catch	PSP	POSS	who

'You won't listen to anyone.' (lit. 'whose [word] will you accept?')

'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.

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[4] These criteria for verb auxiliaries are given by Payne (1997: 84).

8.2.1 Progressive auxiliary

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 *nday* 'to be' (see Section 9.2.1) plus the main verb (23–25). The auxiliary *nday* 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 [**anday**ége slərele.]
      Mala [**a-ndaj** ɛ́-g-ɛ   ɬɪrɛlɛ]
      Mala 3S-PRG   3S+IFV-do-CL work

      'Mala is working (in the process of doing work).'

(24) Mana [**anday** ólo a kosoko ava.]
      Mana [**a-ndaj** ɔ́-lɔ   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, [**kanday** kəhaya háy.]
      apazaŋ   nà-nzak-aj   nɔkʷ [**ka-ndaj** kə̀-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), *nday* 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** nodorom amsoko.]
      [**nɔ-ndɔj** nɔ-dɔr-ɔm   amsɔkʷɔ]
      1P-PRG   1P-plant-1Pex dry season millet

      'We (exclusive) are planting dry season millet.'

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[5] Note that the verb *nday* 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 anday a mogom* 'Hawa is at home'.

[6] Some Moloko say that the plural form is *nondomoy*, 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 tə́talay a ləhe.
tá-ndaj tə́-tal-aj a lɪhɛ
3P+IFV-PRG 3P+IFV-walk-CL at bush
'They were walking in the bush.'

Tánday tə́talay a ləhe na,
tá-ndaj tə́-tal-aj a lɪhɛ 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.
tə̀-lɔ tə̀-nzak-aj agʷaƙa malaŋ ga a lɪhɛ
3P+PFV-go 3P+PFV-find-CL spp. of tree large ADJ at bush
'they went and 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, mənjəye aləme na, kəyga ehe:
      hʷɔr   gʷɔlɔ   afa   lɪmɛ na mɪ-nʒ-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=ɔkʷ   amə-h=aja   na
      if   3S+PFV-please=2S.IO DEP-grind=PLU PSP
      'If you want to grind,'

      kázaɗ war elé a háy bəlen.
      ká-zaɗ   war ɛlɛ a haj   bɪlɛŋ
      2S+IFV-take child eye GEN millet one
      'you take only one grain.'

      War elé háy bəlen ga nəndəye nok amezəɗe na,
      war ɛlɛ haj   bɪlɛŋ ga nɪndijɛ nɔkʷ amɛ-ʒɪɗ-ɛ   na
      child eye 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.'

      Ánjaloko de pew.
      á-nz=alɔkʷɔ   dɛ pɛw
      3S+IFV-suffice=1PIN.IO just enough
      'It will suffice for all of us just enough.'

      Ádaloko ha ámbaɗ ese.
      á-d=alɔkʷɔ   ha á-mbaɗ   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 məhaya ahan ava na,

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

'Because, while you grind (lit. because in its grinding),

Hərmbəlom **anday** ásakaləme na aka."

Hʊrmbʊlɔm	**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
IDtake	NOM-prepare	=to	millet	PSP	a lot

'[She] prepared lots of millet.'

S. 21
Ndahan bah məbehe háy ahan

ndahaŋ	bax	mɪ-bɛh-ɛ	haj	=ahaŋ
3S	IDpour	NOM-pour-CL	millet	=3S.POSS

'She poured her millet'

amadala na kə ver aka azla.

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

'to prepare it on the grinding stone.'

S. 22
Njəw njəw njəw aməhaya azla.

nzuw	nzuw	nzuw	amə-h	=aja	aʑa
IDgrind			DEP-grind	=PLU	now

'*Njəw njəw njəw* [she] ground [the millet] now.'

S. 23
Həmbo na ɗəw **anday ásak ásak ásak**.
hʊmbɔ na ɗuw **a-ndaj**
flour PSP also 3S-PRG
á-sak á-sak á-sak
3S+IFV-multiply 3S+IFV-multiply 3S+IFV-multiply
'The flour, it was multiplying [and] multiplying [and] multiplying.

S. 24
Ndahan na, ndahan aka njəw njəw njəw.
ndahaŋ na ndahaŋ aka   nzuw nzuw nzuw
3S   PSP 3S   EXT+on IDgrind
'And she, she is grinding some more *njəw njəw njəw*.'

S. 25
Anday ahaya nə məzere ləmes ga.
à-ndaj   **à-h=aja**   nə mɪ-ʒɛr-ɛ   lɪmɛʃ ga
3S+PFV-PRG 3S+PFV-grind=PLU with NOM-do well-CL song ADJ
'She is grinding while singing well.'

S. 26
Alala na, ver na árah mbaf, nə həmbo na,
a-l=ala na vɛr 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 filled up to the roof with the flour.'

ɗək məɗəkaka alay ana hor na,
ɗək   mə-ɗək=aka =alaj ana hʷɔr   na
IDstuff NOM-stuff=on =away DAT woman PSP
'[The flour] suffocated the woman (lit. plugged [the room] for the woman [so there was no place for her to even breathe].'

nata ndahan dəɓəsolək məmətava alay a hoɗ a hay na ava.
nata   ndahaŋ dʊɓʊsɔlʊk   mə-mət=ava=alaj a hʷɔɗ   a   haj
and then 3S   IDcollapse/die NOM-die=in=away at stomach GEN house
na ava
PSP in

'And she collapsed *dəɓəsolək*, dying inside the house.'

8.2.2 Movement auxiliary

The verb *lo* '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 *lo* is bolded and the verb phrase is delimited by square brackets.

(31) Cicada, S. 5
       [**Tə-lo** tənjakay agwazla malan ga a ləhe.]
       [**tə̀-lɔ**   tə̀-nzak-aj   agʷaƙa   malaŋ 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
       [**Ólo** ában ana baba ahan.]
       [**ɔ́-lɔ**   á-b=aŋ   ana baba =ahaŋ]
       3S+IFV-go 3S+IFV-hit=3S.IO DAT father =3S.POSS
       'He goes and hits his father.'

(33) Values, S. 19
       [**Ólo** ápaɗay məze nə madan.]
       [**ɔ́-lɔ**   á-paɗ-aj   mɪʒɛ   nə   madaŋ]
       3S+IFV-go 3S+IFV-crunch-CL person with magic
       'He goes and eats someone with sorcery.'

(34) [**Lohom** ko*mənjɔrom na ala gəvah na.]
       [**lɔh-ɔm**   kɔ-mʊnzɔr-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 /-j/ 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.]
      ndahaŋ [**ŋgax** ma-ŋgəh=ata   =aka=va jam a vɛr =ahaŋ   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.]
      ndahaŋ [**ŋg-aj**   ma-ŋg   =aka=alaj pʊrgʷɔm
      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 =ahaŋ   na
      IDgo =to PSP man =3S.POSS PSP

      'Then, her husband,'

      [**dək** mədəkan na mənjəye ata.]
      [**dək**   mə-dək   =aŋ   na   mɪ-nʒ-ijɛ   =atəta]
      instruct NOM-instruct =3S.IO 3S.DO NOM-sit-CL =3P.POSS

      'instructed her in their habits (lit. instructing 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 hoɗ a hay ava.].
hʊmbɔ [á-rax   na   a hʷɔɗ   a   haj   ava]
flour   3s+IFV-fill 3s.DO at stomach GEN house in
'the flour filled the house.'

(41) Ndahan [**vəh** məngwəlva a ɗəwer ahan ava.]
ndahaŋ [**vəh**   mə-ŋgʷul   =va a ɗuwɛr =ahaŋ   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 ndahaŋ [**pək**   ma-p   =ata=aka=va   pʊrgʷɔm =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 [**dəɓəsolək** məmətava alay a hoɗ a hay na ava.]
nata   ndahaŋ [**dʊɓʊsɔlɔk**   mə-mət=ava =alaj   a hʷɔɗ   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** məkəɗe na aka.]
      nɛ [**dijdaj**   mɪ-kɪɗ-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 *mələye* 'bury' is non-conjugated for subject, making those who buried the dead woman 'out of sight' in the narrative.

9 Verb types and transitivity

Transitivity is one of the remarkable features in Moloko. Friesen & Mamalis (2008) reported that Moloko verb lexemes are underspecified with respect to transitivity. This chapter extends and deepens their work. 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. Even clauses with no grammatical arguments exist – a transitivity of zero. 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 with the same morphology 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).

With the exception of the reciprocal (see Section 9.2.5), there are no affixes, extensions, or particles that express changes in transitivity as might be expected in a Chadic language.[2] In Moloko, it is the number and type of grammatical relations that a verb has that reflects the semantics of the construction.

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[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 (1–2) and transitive clauses with subject and indirect object (3–4). 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). Note that when the indirect object is a noun phrase, it is inside a prepositional phrase. The indirect object prepositional phrases in Moloko is not a syntactic oblique, however, because the pronominals indicate that it represents a core participant of the event. 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. 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-ɬ-aj   awak
      Mana 3s-slay-CL goat

      'Mana slays a goat.'

(2)   **Aslay na**.
      a-ɬ-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, =*an* 'to him' in 4).

(3)   Mana aɓan ana kəra.
      Mana a-ɓ=aŋ   ana kəra
      Mana 3s-hit=3s.ɪo ᴅᴀᴛ dog
      'Mana hits a dog.' (lit. he hits to him to dog)

(4)   Aɓan.
      a-ɓ   =aŋ
      3s-hit =3s.ɪo
      '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-ʟᴏᴄ semantic model to explain their behaviour. The indirect object *kəra* 'dog' is the semantic ʟᴏᴄ – 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).[3] 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 with direct object (Section 9.2.2)

- Group 3: Verbs that can be transitive with indirect object (Section 9.2.3)

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[3] Some verbs in related Chadic languages can also be ambitransitive. These include Cuvok (Ndokobai 2006), Buwal (Viljoen 2013), and Vame (Kinnaird 2006).

- Group 4: Verbs that can be bitransitive (Section 9.2.4)

- 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 *nday* 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 an 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).[4]

(5) Hawa **anday** a mogom.
     Hawa **a-ndaj**   a mɔgʷɔm
     Hawa 3s-be located at home
     'Hawa is at home.'

(6) **Anday** 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

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[4] It is interesting that the locational extension *aka* is also used to express progressive aspect Section 7.5.1.

these verbs in a context where they take an indirect object as third core argument.

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 ɛ̀-nʒ-ɛ́   a mɔgʷɔm
Mana 3s+pfv-leave-cl at home
'Mana went home.' (lit. Mana left to home)

(8) Mana enjé awak a mogom.
Mana ɛ̀-nʒ-ɛ́   awak a mɔgʷɔm
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 *rəɓ-ay* 'to be beautiful' involves a thing and its quality (9–10), and the person whose opinion or perception is being cited is coded as the indirect object. In an intransitive clause, the subject (*dalay* 'girl') is at the state of being beautiful. In a transitive clause (with an indirect object), the subject (*dalay* 'girl') is felt to be beautiful by the indirect object (=*aw* 'to me').

(9) Dalay arəɓay.
dalaj a-rəɓ-aj
girl   3s-be beautiful-cl
'The girl is beautiful.'

(10) Dalay arəɓaw.

Table 9.1: Reflexive-causative verbs

Intransitive	Transitive
Hawa e-nj-é	*Hawa e-nj-é awak a mogom*
Hawa 3s+PFV-leave-CL	Hawa 3s+PFV-leave-CL goat at home
'Hawa is gone.' (lit. Hawa left)	'Hawa took the goat home.'
e-nj-é	*e-nj-é na a mogom*
3s+PFV-leave-CL	3s+PFV-leave-CL 3s.DO at home
'She left.'	'She took it home.'
Hawa a-həɓ-ay	*məwta a-həɓ-ay məze*
Hawa 3s+PFV-dance-CL	car 3s+PFV-dance-CL person
'Hawa danced.'	'The car shook people up.'
	(lit. the car danced people)
a-həɓ-ay	*a-həɓ-ay na*
3s+PFV-dance-CL	3s+PFV-dance-CL 3s.DO
'She danced.'	'It shook him.'
Hawa e-cək-e	*Hawa e-cək-e zar*
Hawa 3s+PFV-stand-CL	Hawa 3s+PFV-stand-CL man
'Hawa stood up.'	'Hawa helped the man to stand up.'
	(lit. Hawa stood man)
e-cək-e	*e-cək-e na*
3s+PFV-stand-CL	3s+PFV-stand-CL 3s.DO
'She stood up.'	'She stood him up.'
Hawa a-yəɗ-ə =va	*slərele a-yəɗ-ay Hawa*
Hawa 3s+PFV-tire-CL =PRF	work 3s+PFV-tire-CL Hawa
'Hawa is tired.'	'Work tired Hawa out.'
Hawa á-yəɗ-ay	
Hawa 3s+IFV-tire-CL	
'Hawa can/might get tired.' (lit. Hawa tires)	

dalaj a-rəɓ=aw
girl   3s-be beautiful=1s.IO
'The girl is beautiful to me.'

The experience verb /ts r/ 'taste good' is grammatically expressed in (11) as the subject *ɗaf* 'millet loaf' tastes good at the semantic LOC expressed by the indirect object (the pronominal enclitic *=aw* 'to me').

(11)   Ɗaf acaraw.
       ɗaf   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.
       mbɛlɛlɛ 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,' /ɓ -j/ 'hit,' and /s/ 'please' 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.

Note that an intransitive clause appears to be ungrammatical for the verbs /ɓ -j/ 'hit' and /s/ 'please' (13–14).

(13)   a.   Hawa áɓan ana kəra.
            Hawa á-ɓ=aŋ   ana kəra
            Hawa 3s+IFV-hit=3s.IO DAT dog
            'Hawa hits the dog.'

       b.   áɓan.
            á-ɓ=aŋ
            3s+IFV-hit=3s.IO
            'She hits it.'

Table 9.2: Verbs that occur in intransitive and transitive-IO clause constructions

Intransitive	Transitive
Hawa à-rəɓ-aj	*hʷɔr à-rəɓ=aŋ ana Mana*
Hawa 3s+PFV-be beautiful-CL	Hawa 3s+PFV-be beautiful =3s.IO DAT Mana
'Hawa was beautiful.'	'The woman was beautiful to Mana.'
a-rəɓ-ay	*a-rəɓ=an*
3s+PFV-be beautiful-CL	Hawa 3s+PFV-be beautiful =3s.IO
'She was beautiful.'	'She was beautiful to him.'
ɗaf a-car	*ɗaf a-car=an ana Mana*
millet loaf 3s+PFV-taste good	millet loaf 3s+PFV-taste good=3s.IO DAT Mana
'Millet loaf tasted good.'	'Millet loaf tasted good to Mana.'
a-car	*a-car=an*
3s+PFV-taste good	3s+PFV-taste good=3s.IO
'It tasted good.'	'It tasted good to him.'
Mana a-gar-ay	*mbelele a-gar=an ana Mana*
Mana 3s+PFV-fear-CL	elephant 3s+PFV-fear=3s.IO DAT Mana
'Mana was afraid.'	'An elephant made Mana afraid.'
a-gar-ay	*a-gar=an*
3s+PFV-fear-CL	3s+PFV-fear-CL=3s.IO
'He was afraid.'	'It made him afraid.'
fat á-war	*fat á-wal=an ana Mana*
sun 3s+IFV-hurt	sun 3s+IFV-hurt=3s.IO DAT Mana
'The sun hurts.'	'The sun hurts Mana.' (lit. The sun hurts to Mana)
á-war	*á-wal=an*
3s+IFV-hurt	3s+IFV-hurt=3s.IO
'It hurts.'	'It hurts him.'
Mana á-ɗas	*Mana á-ɗəs=an ana Hərmbəlom*
Mana 3s+IFV-be heavy	Mana 3s+IFV-be heavy=3s.IO DAT God
'Mana is honourable.' (lit. Mana is heavy).	'Hawa honours God.' (lit. Hawa honours to God)
á-ɗas	*á-ɗəs=an*
3s+IFV-be heavy	3s+IFV-be heavy=3s.IO
'He is honourable.'	'He honours him.'
Hawa á-jən-ay	*Hawa á-jən=an ana Mana*
Hawa 3s+IFV-help-CL	Hawa 3s+IFV-help =3s.IO DAT Mana
'Hawa helps (Hawa is a helpful person.'	'Hawa helps Mana.'
á-jən-ay	*á-jən=an*
3s+IFV-help-CL	3s+IFV-help =3s.IO
'She is a helpful person.'	'She helps him.'

(14) a. Sese ásan ana Mana.
      ∫ɛ∫ɛ   á-s=aŋ   ana Mana
      meat 3s+IFV-please=3s.IO DAT Mana
      'Meat is pleasing to Mana.'

   b. ásan.
      á-s=aŋ
      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, direct 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-ay* 'open' illustrates this verb type. In a transitive clause (15), the subject (*Mana*) performs the action on the direct object (*mahay* 'door').

(15) Mana apay mahay.
      Mana à-p-aj   mahaj
      Mana 3s+PFV-open-CL door
      'He/she opened the door.'

In a bitransitive clause (16), the action done to the direct object is for the benefit of the indirect object.

(16) 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.'

The verb *mənjar* 'see' occurs in intransitive, transitive, and bitransitive clauses. In a transitive clause (17), the subject (*Mala*) sees the direct object (*awak* 'goat').[5]

(17) Mala ámənjar awak.
      Mala á-mənzar   awak
      Mala 3s+IFV-see goat
      'Mala sees a goat.'

In a bitransitive clause (18), the subject (*Mala*) sees the direct object (*awak* 'goat') on behalf of the indirect object beneficiary (*bahay* 'chief'). The chief is the metaphorical LOC to which the action is directed.

(18) Mala olo amənjaran awak ana bahay.
      Mala ɔ-lɔ   a-mənzar =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' (19), the subject *Mana* says the utterance (expressed by the direct object pronominal *na*) to *Hawa*.

(19) 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.'

Table 9.3 presents examples of this verb type with benefactive indirect object.

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 *paɗ-ay* 'eat' in (20) the subject (*awak* 'goat') ate the direct object (*háy* '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).[6]

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[5] The indirect object 'goat' undergoes a change of state from being unseen to being seen at a particular LOC.

[6] 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-paɗ-ay na háy əwla =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 fact that he owned the field.

Table 9.3: Group 4 verbs in transitive and bitransitive clauses where IO expresses benefactive

Intransitive	Transitive
Hawa a-bah yam	*Hawa a-bah=an yam ana Mana*
Hawa 3s+PFV-pour water	Hawa 3s+PFV-pour=3s.IO water DAT Mana
'Hawa poured water.'	'Hawa poured water for Mana.'
a-bah na	*a-bah=an na*
3s+PFV-pour 3s.DO	3s+PFV-pour=3s.IO 3s.DO
'She poured it.'	'She poured it for him.'
Mana a-sl-ay awak	*Mana a-sl=an awak ana bahay*
Mana 3s+PFV-slay-CL goat	Mana 3s+PFV-slay=3s.IO goat DAT chief
'Mana slaughtered a goat.'	'Mana slaughtered the goat for the chief.'
a-sl-ay na	*a-sl=an na*
3s+PFV-slay-CL 3s.DO	3s+PFV-slay=3s.IO 3s.DO
'He slaughtered it.'	'He slaughtered it for him.'
Hawa e-d-e ɗaf	*Hawa a-d=an ɗaf ana Mana*
Hawa 3s+PFV-make-CL millet loaf	Hawa 3s+PFV-make=3s.IO millet loaf DAT Mana
'Hawa made millet loaf.'	'Hawa made millet loaf for Mana.'
e-d-e na	*a-d=an na*
3s+PFV-make-CL 3s.DO	3s+PFV-make=3s.IO 3s.DO
'She made it.'	'She made it for him.'
Hawa a-bal-ay zana	*Hawa a-bal=an zana ana Mana*
Hawa 3s+PFV-wash-CL clothes	Hawa 3s+PFV-wash=3s.IO clothes DAT Mana
'Hawa washed clothes.'	'Hawa washed clothes for Mana.'
a-bal-ay na	*a-bal=an na*
3s+PFV-wash-CL 3s.DO	3s+PFV-wash=3s.IO 3s.DO
'She washed it.'	'She washed it for him.'
Hawa a-rah cafəgal	*Hawa a-rah=an cafəgal ana Mana*
Hawa 3s+PFV-fill bucket	Hawa 3s+PFV-slay=3s.IO bucket DAT Mana
'Hawa poured the bucket.'	'Hawa poured the bucket for Mana.'
a-rah na	*a-rah=an na*
3s+PFV-fill 3s.DO	3s+PFV-fill=3s.IO 3s.DO
'She filled it.'	'She filled it for him.'
Mala á-mənjar awak	*Mala a-mənjar =an awak ana bahay*
Mala 3s+IFV-see goat	Mala 3s-see=3s.IO goat DAT chief
'Mala sees a goat.'	'Mala saw someone's goat for the chief.'
á-mənjar na	*a-mənjar =an na*
3s+IFV-see 3s.DO	3s-see=3s.IO 3s.DO
'He sees it.'	'He saw it for him.'

(20) Awak apaɗ**aw** na háy va.
     awak a-paɗ=**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 indirect object also expresses the malefactive with the verbs *mbəzen* 'ruin' (21) and *cen* 'understand' (22). In (21) the subject (*sla =ahay* 'the cows') have ruined the direct object (*gəvah* 'the field') with a negative effect on the indirect object (=*aloko* 'to us').

(21) Sla ahaj təmbəzaloko na gəvah va.
     ɬa   =ahaj tə́-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)

(22) shows a bitransitive clause with the verb *cen* 'hear.' The subject (*a-* 3s subject pronominal) didn't understand the direct object (*ma =əwla* 'my words') with a negative effect on the indirect object (=*aw* 'to me').[7]

(22) 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 9.4 provides examples of group 4 verbs where the indirect object expresses the malefactive.

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 (23) 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.[8] (24) 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.

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[7] Note that phonetically the word final /n/ drops off when the indirect object clitic attaches.
[8] The verb /h -j/ 'say' shows incorporation of the 'body-part' noun *ma* 'word/mouth' (Section 9.3).

Table 9.4: Group 4 verbs in transitive and bitransitive clauses where IO expresses malefactive

Transitive	Bitransitive
awak a-paɗ-ay háy goat 3S+PFV-crunch-CL millet 'The goat ate the millet.'	*awak a-paɗ=**aw** na háy =va* goat 3S-crunch=1S.IO 3S.DO millet =PRF 'The goat has eaten my millet.'
a-paɗ-ay na 3S+PFV-crunch-CL 3S.DO 'He ate it.'	*a-paɗ=**aw** na =va* 3S-crunch=1S.IO 3S.DO =PRF 'The goat has eaten it to me.' (the goat has eaten it and I am affected)
avar e-mbezen háy rain 3S-ruin millet 'The rain ruined the millet.'	*sla a-mbəz=aloko na gəvah =va* cow 3S+PFV-ruin=1PIN.IO 3S.DO field =PRF 'The cow has ruined our field.'
e-mbezen na 3S-ruin 3S.DO 'It ruined it.'	*a-mbəz=aloko na =va* 3S+PFV-ruin=1PIN.IO 3S.DO =PRF 'It has ruined it for us.'
awak a-zom háy goat 3S+PFV-eat millet 'The goat ate millet.'	*awak a-zom=an háy a Mana* goat 3S+PFV-eat=3S.IO millet GEN Mana 'The goat ate Mana's millet.' (lit. the goat ate to him millet of Mana).'
a-zom na 3S+PFV-eat 3S.DO 'He ate it.'	*a-zom=an na* 3S+PFV-eat=3S.IO 3S.DO 'It ate it, affecting him.'

(23) Tahok ma.
      ta-h=ɔkʷ   ma
      3P-tell=2S.IO mouth
      'You are being greeted.' (lit. they are telling word to you)

(24) Disobedient Girl, S. 30
      Tazlərav na ala.
      tà-ꭓərav   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

There are two possible semantic possibilities for intransitive clauses of Group 4 verbs 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 *d-e* 'prepare,' the subject of an intransitive clause is the semantic Agent (25) and the semantic Theme is unspecified.

(25) Hawa ede.
      Hawa ɛ̀-d-ɛ
      Hawa 3S+PFV-prepare-CL
      'Hawa made [something].'

With *cen* 'hear,' an intransitive clause in Perfective aspect (26) expresses an event where the subject hears and understands (what they hear/understand may not be explicit in the clause).

(26) Mana ecen.
      Mana ɛ̀-tʃɛŋ
      Mana 3S+PFV-understand
      'Mana heard/understood (something).'

In contrast, for the verb *p-ay* 'open,' the subject of an intransitive clause is the semantic Theme which is affected by the action (27). More examples are shown in Table 9.5.

(27)   Mahay apay.
       mahaj à-p-aj
       door   3S+PFV-open-CL
       'The door opened.'

   There is also a difference between the Imperfective, Perfective, and Perfect in
an intransitive clause that doesn't hold for transitive and bitransitive clauses.[9] 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. In contrast, for transitive
and bitransitive clauses, Imperfective aspect expresses an incomplete event (see
Section 7.4.2) and the Perfect expresses that the event was completed prior to a
point of reference (see Section 7.5.3). 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' (28).

(28)   Mahay apay.
       mahaj à-p-aj
       door   3S+PFV-open-CL
       'The door opened.'

   Likewise with the verb /b h/ 'pour,' water 'is poured' (29).

(29)   Yam abah.
       jam   à-bax
       water 3S+PFV-pour
       'Water poured.'

   If the verb is Imperfective, the clause means that the door is able to be opened,
i.e., it is not locked (30).

(30)   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, 31).

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[9] Intransitive clauses with transfer verbs Section 9.2.5 also show this semantic picture.

Table 9.5: Intransitive clauses

Perfective	Imperfective	Perfect
zom 'eat'		
Mana a-zom Mana 3S+PFV-eat 'Mana ate [something].'	*Mana á-zom* Mana 3S+IFV-eat 'Mana is about to eat [something].'	*Mana a-zəm =va* Mana 3S+PFV-eat =PRF 'Mana ate [something] already.'
	háy á-zom millet 3S+IFV-eat 'There are insects in the millet.' (lit. millet eats)	*háy á-zəm =va* millet 3S+IFV-eat =PRF 'The millet has been eaten.'
sl-ay 'slaughter'		
Mana a-sl-ay Mana 3S+PFV-slay-CL 'Mana slaughtered [something].'	*Mana á-sl-ay* Mana 3S+IFV-slay-CL 'Mana is about to slaughter [something].'	*Mana a-sl-a =va* Mana 3S+PFV-slay-CL =PRF 'Mana has slaughtered [something].'
	awak á-sl-ay goat 3S+IFV-slay-CL 'The goat is good for slaughtering.'	*awak a-sl-a =va* goat 3S+PFV-slay-CL =PRF 'The goat has been slaughtered.'
s-e 'drink'		
Mana *e-s-e* Mana 3S+PFV-drink-CL 'Mana drank [something].'	Mana *é-s-e* Mana 3S+IFV-drink-CL 'Mana is about to drink [something].'	

Perfective	Imperfective	Perfect
	yam é-s-e water 3s+IFV-drink-CL 'The water is drinkable.' (lit. water drinks).'	*yam a-s-ə =va* water 3s+PFV-drink-CL =PRF 'The water has been drunk.'

bal-aj 'wash'

Perfective	Imperfective	Perfect
Hawa a-bal-ay Hawa 3s+PFV-wash-CL 'Hawa washed [herself].'	*Hawa á-bal-ay* Hawa 3s+IFV-wash-CL 'Hawa washes [herself].'	*Hawa a-bal =va* Hawa 3s+PFV-wash =PRF 'Hawa is washed.'
	zana á-bal-ay cloth 3s+IFV-wash-CL 'The cloth can be washed.' (lit. the cloth washes)	*zana a-bal =va* cloth 3s+PFV-wash =PRF 'The cloth is clean.' (washed)

p-ay 'open'

Perfective	Imperfective	Perfect
mahaj a-p-ay door 3s+PFV-open-CL 'The door opened.'	*mahay á-p-ay* door 3s+IFV-open-CL 'The door opens.' (is able to open)	*mahay a-p =va* door 3s-open =PRF 'The door is open.'

bax 'pour'

Perfective	Imperfective	Perfect
yam a-bah water 3s+PFV-pour 'Water poured.'	*yam á-bah* water 3s+IFV-pour 'Water is able to be poured.' (lit. water pours)	*yam a-bah =va* water 3s-pour =PRF 'Water is poured out.'

mbɪʒɛŋ 'ruin'

Perfective	Imperfective	Perfect
háy e-mbəzen millet 3s+PFV-ruin 'The millet ruined.'	*háy á-mbəzen* millet 3s+IFV-ruin 'The millet is ruining.'	*háy á-mbəzə =va* millet 3s+IFV-ruin =PRF 'The millet has ruined.'

(31) 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 *mənjar* 'see,' an intransitive clause in Imperfective aspect (32) can have an ablitative sense in that the subject 'Mala' is able to see. It can also mean that the subject is visible (subject expresses semantic Theme).

(32) Mala ámənjar.
      Mala á-mənzar
      Mala 3s+IFV-see
      'Mala sees.' (i.e. he is not blind) / 'Mala can be seen.'

Table 9.5 presents examples of Group 4 verbs in intransitive clauses. The corresponding transitive forms for most of these verbs are discussed in Section 9.2.4.1. 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 (*zom, slay, se, balay, pay*). For others, the subject of an intransitive clause can only express Theme (*bah, mbəzen*).

9.2.5 Group 5: Transfer verbs

Three transfer verbs in Moloko are notable. They are *dəbənay* 'learn/teach,' *skom* '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.

(33) illustrates the verb *vəl* 'give' in a bitransitive clause. The subject (*bahay* 'chief') transfers the direct object (*dalay* 'girl') to the indirect object (*Mana*).

(33) 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 (34) or an indirect object (35). In (34), the chief is marrying off his daughter to an unspecified suitor. The subject (*bahay* 'chief') transfers the direct object (*dalay* 'girl') to someone who is unspecified in the clause.

(34) 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 (35), the subject (*bahay* '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.

(35) 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, 36), it expresses that the subject is at the state of not giving anything to anyone, or not being the giving kind.[10] Without the negative marker, the meaning would probably be 'the chief is the giving kind.'[11]

(36) 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 *dəbənay* 'learn' or 'teach' occurs in transitive and bitransitive clauses.[12] In bitransitive clauses illustrated by (37), the subject (*bahay* 'chief') transfers the direct object (*Məloko* 'Moloko language') to the indirect object (*ana babəza ahay* 'to the children').[13]

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[10] Note the phonological change of the final consonant (*r* becomes *l* when there is a suffix, see Section 6.2).

[11] 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.

[12] We found no clauses with one core participant for this verb.

[13] The indirect object is expressed in an adpositional phrase as well as the verbal pronominal extension *=ata* 'to them.' The indirect object expresses the recipient or beneficiary of the event.

(37) Bahay adəbənata Məloko ana babəza ahay.
      bahaj a-dəbən =ata Mʊlɔkʷɔ 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 (38), the subject (*babəza ahay* 'children') transfers the direct object (*Məloko* 'Moloko language') to self.

(38) Babəza ahay tədəbənay Məloko.
      babəza =ahaj tə-dəbən-aj Mʊlɔkʷɔ
      children =Pl 3P-learn-CL Moloko
      'The children learn Moloko.'

(39) illustrates a transitive clause with subject and indirect object. The subject (*Məloko* 'Moloko language;' the semantic Theme) is transferred to the indirect object (*=ok* 'to you').

(39) Məloko adəbənok na jajak.
      Mʊlɔkʷɔ a-dəbən=ɔkʷ na dzadzak
      Moloko 3s-learn=2s.IO PSP fast
      'Moloko is easy for you to learn.' (lit. Moloko learns to you quickly)

The verb *skom* '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 (40), the subject (*nə-* 'I') causes the direct object (*awak* 'goat') to go to the indirect object (*ana Mana* 'to Mana').

(40) Nəskoman awak ana Mana.
      nə-sʊkʷɔm =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 (41), the subject (*nə-* 'I') transfers the direct object (*awak* 'goat') to self. We found no intransitive clauses for this verb.

(41) Nəskomala awak.
      nə-sʊkʷɔm =ala awak
      1s-buy/sell =to goat
      'I bought a goat.'

The verb *hay* 'speak' also appears to be in this class, but we have not found this verb in all contexts. In (42), Mana caused what he said (*na* 'it') to go to the men.

(42)   Mana ahata 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. 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. In (43) the subject ('you,' 2s imperative verb) transfers the direct object (*dala* 'money') to the indirect object (*=an* 'to him' and *ana Mana* 'to Mana') for the benefit of the person expressed by a possessive pronoun in the oblique prepositional phrase (*kəla əwla* 'my benefit').

(43)   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 (44) the subject pronominal (*a-* '3s') transfers the direct object (*awak* 'goat') to the indirect object (pronominal enclitic *=ok* 'to you') for the benefit of the pronoun in the oblique (*kəla =əwla* 'my benefit').

(44)   Avəlok awak **kəla əwla**.
       a-vəl=**ɔk**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 Moloko. 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

Table 9.6: Transfer verbs

Intransitive	Transitive with direct object	Transitive with indirect object	Bitransitive
Hawa á-var bay Hawa 3s+ifv-give neg 'Hawa is not the giving kind.' (lit. Hawa doesn't give)	*Hawa á-var yam* Hawa 3s+ifv-give water 'Hawa gives water [to someone].'	*Hawa à-vəl=an ana Mana* Hawa 3s+pfv-give=3s.io dat Mana 'Hawa gave [something] to Mana.'	*Hawa à-vəl=an yam ana Mana* Hawa 3s+pfv-give=3s.io water dat Mana 'Hawa gave water to Mana.'
á-var bay 3s+ifv-give neg 'She is not the giving kind.'	*á-var na* 3s+ifv-give 3s.do 'She gives it [to someone].'	*à-vəl=an* 3s+pfv-give=3s.io 'She gave [something] to him.'	*à-vəl=an na* 3s+pfv-give=3s.io 3s.do 'She gave it to him.'
	babaza =ahay tə-dabən-ay Moloko children =Pl 3P-learn-cl Moloko 'The children learn Moloko.'	*Moloko a-dabən=ok na jajak* Moloko 3s-learn=2s.io psp fast 'Moloko is easy for you to learn.' (lit.Moloko learns to you quickly)	*bahay a-dabən=ata* chief 3s-learn=3P.io Moloko *ana babaza=ahaj* dat children =Pl 'The chief teaches Moloko to the children.'
	nə-skom =ala awak 1s-buy/sell =to goat 'I bought a goat.'		*nə-skom =an awak ana Mana* 1s-buy/sell =3s.io goat dat Mana 'I sell a goat to Mana.'
Mana a-h-ay bay Mana 3s-tell-cl.neg 'Mana doesn't say.'			*Hawa a-h=an ma ana Mana* Hawa 3s-tell=3s.io mouth dat Mana 'Hawa greets Mana.'

associated with the verb complex and their incorporation changes the lexical characteristics of the verb. These 'body-part' nouns include *ma* 'mouth,' (45, Section 9.3.3), *elé* 'eye,' (46, Section 9.3.1), *sləmay* 'ear,' (47, Section 9.3.2), and *va* or *har* 'body,' (48, 49, 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.

(45) Ataraŋ aka **ma** ana war ese.
a-tar =aŋ =aka **ma** ana war ɛʃɛ
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)

(46) Mala amənjar **elé**.
Mala a-mənzar **ɛlɛ**
Mala 3s-see eye
'Mala looks around attentively.'

(47) Acaka va **sləmay** ana mama ahan bay.
a-ts =aka =va **ɬəmaj** 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)[14]

(48) Tandalay talala təzləgə **va** ana Məloko ahay.
ta-ndalaj ta-l =ala tɪ-ʐɪg-ɪ **va** ana Mʊlɔkʷɔ =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)

(49) Ma ango agəsaw **har**.
ma =aŋgʷɔ 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 in more tightly bound to the verb complex than a noun phrase. The body-part noun does not fill the DO pronominal

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[14] Note that the word-final /n/ is deleted on the root /ts nᵉ/when the verbal extension is attached Section 2.6.1.

slot, because verbal extensions that follow the DO pronominal in the Moloko verb complex precede the body-part (see 45 and 47 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 (48). 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 (see Section 8.1). 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 11.2 (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:

- *elé* 'eye' (Section 9.3.1). Used with verbs of seeing.

- *sləmay* '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-e* 'do.' To get angry is to 'do heart' (50).

(50)   Ege ɓərav.
       ɛ-g-ɛ   ɓərav
       3S-do-CL heart
       'He/she is angry.' (lit. he/she does heart)

The idiom for 'think' is literally 'do brain' (51).

(51) Ge endeɓ!
      g-ɛ   ɛndɛɓ
      do[2s.ɪmp]-cʟ brain
      'Think!' (lit. do brain)

9.3.1 *elé* 'eye'

The 'body-part' noun *elé* '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 *mənjar* normally means 'see' (see Table 9.7). With the incorporation of *elé* (52– 53), 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.

(52) Mala amənjar **elé**.
      Mala a-mənzar **ɛlɛ**
      Mala 3s-see   eye
      'Mala looks around attentively.'

(53) Mala olo amәmənzәre **elé** a lәhe.
      Mala ɔ-lɔ   amɪ-mɪnʒɪrɛ **ɛlɛ** a lɪhɛ
      Mala 3s-go ᴅᴇᴘ-see   eye at bush
      'Mala went to see his fields.' (lit. Mala went to see in the bush)

With the verb *har* 'carry' (54), the addition of *elé* also gives an entirely new lexical item – expressing the idea of looking around intensively or studying every square inch (see Table 9.7.).

(54) Nolo nahar **elé** a gәvah әwla ava jәyga.
      nɔ-lɔ na-har   **ɛlɛ** a gәvax =uwla   ava dzijga
      1s-go 1s-carry eye at field   =1s.ᴘᴏss 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 elé 'eye'

Clause without 'body-part'	Clause with 'body-part'
Mana a-mənjar war	*a-mənjar **elé***
Mana 3s-see child	3s-see eye
'Mana sees the child.'	'He/she looks around intently.'
Mana a-har =eteme a dəray ava	*ka-har =aka **elé** a gəvah =ango ava jəyga*
Mana 3s-carry onion in head in	2s-carry=on eye at field =2s.poss in all
'Mana carries onions on [his] head.'	'You look around your whole field.'

9.3.2 *sləmay* 'ear'

A second 'body-part' noun is *sləmay* 'ear' which collocates with some cognition verbs. This body-part noun is used in its full form. Like *elé* '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 *cen* is 'hear' or 'understand' (55) and the verb is bitransitive (see Section 9.2.4). The incorporation of the 'body-part' *sləmay* 'ear' gives a much more active or intensive idea – not just hear and understand someone, but also listen to them or obey them (56). 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.

(55) Mana écen bay.
    Mana ɛ́-tʃɛŋ   baj
    Mana 3s+ifv-hear neg
    'Mana is deaf/doesn't understand.'

(56) Mana écen **sləmay** bay.
    Mana ɛ́-tʃɛŋ   **ɬəmaj** baj
    Mana 3s+ifv-hear ear   neg
    'Mana is deaf/disobedient.'

Examples are in Table 9.8.

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-

Table 9.8: Selected verbs of cognition with and without sləmay 'ear' as direct object

Clause without 'body-part'	Clause with 'body-part'
Mana a-c=aw =aka ma =əwla bay	*Mana a-c =aka =va **sləmay** ana mama =ahan bay*
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)

part' constructions. (57) shows the verb *hay* 'say' with the 'body-part' noun *ma* 'mouth.'

(57) Tahok ma.
ta-h=ɔkʷ   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; *taray* 'call,' *hay* 'say' and *jay* '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 *sok-oy* 'point,' *zom* 'eat,' and *njakay* 'find' are shown in Table 9.10. The incorporation of *ma* with *sok-oy* 'point' gives a particular manner of communication: *sokoy ma* 'whisper.' Incorporation of *ma* with the verb *zom* 'eat' gives the idea of helping someone else to eat. Incorporation of *ma* with *njakay* '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*. When collocated with certain 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.

The first reduced form of *hərva* 'body' is *va*.[15] This 'body-part' is used for forming reciprocals with plural subjects of a few verbs in a context of killing

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[15] 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 9.9: Selected speech verbs with and without ma 'mouth' as direct object

Transitive clause	Clause with 'body-part' incorporation
Mana a-tar-ay Mana 3s-call-cl 'Mana calls out.'	*Mana a-tar=an* **ma** *ana* Hawa Mana 3s-call=3s.io mouth/word DAT Hawa 'Mana calls to Hawa.'
a-tar-ay 3s-call-cl 'He calls out.'	*a-tar=an ma* 3s-call=3s.io mouth/word 'He calls to her.'
Mana a-h-ay bay Mana 3s-tell-cl NEG 'Mana doesn't say.'	Mana *a-h=an* **ma** *ana* Hawa Mana 3s-tell=3s.io mouth/word DAT Hawa 'Mana greets Hawa.'
a-h-ay bay 3s-tell-cl NEG 'He doesn't say.'	*a-h=an* **ma** 3s-tell=3s.io mouth/word 'He greets her.'
Mana a-j-ay Mana 3s+PFV-speak-cl 'Mana speaks!'	Mana *a-j-ay* **ma** Mana 3s+PFV-speak-cl mouth/word 'Mana greets.'
a-j-ay 3s+PFV-speak-cl 'He speaks!'	*a-j-ay* **ma** 3s+PFV-speak-cl mouth/word 'He greets.'

and loving (*zləge* 'throw' 58–59, *kaɗ* 'kill by clubbing' 60, and *ndaɗay* 'need,' 61). The 'body-part' *va* indicates that the plural subjects are performing the actions against one another.

Table 9.10: Selected non-speech verbs that collocate with ma.

Transitive clause	Clause with 'body-part' incorporation
Hawa a-sok-oy ahar	*Hawa a-sok-oy* **ma**
Hawa 3s-point-cl hand	Hawa 3s-point-cl mouth/word
'Hawa points.'[a]	'Hawa whispers.'
Hawa o-zom ɗaf	*Hawa a-zəm=an* **ma** *ana bahay*
Hawa 3s-eat millet loaf	Hawa 3s-eat=3s.io mouth/word dat chief
'Hawa eats millet loaf.'	'Hawa fed the chief.' (made him eat)
o-zom na	*a-zəm=an* **ma**
3s-eat 3s.do	3s-eat=3s.io mouth/word
'She eats it.'	'She fed him.'
Hawa a-njak-ay asak =ahan	*Hawa a-njak-ay* **ma**
Hawa 3s-find-cl foot =3s.poss	Hawa 3s-find-cl mouth/word
'Hawa gives birth.'	'Hawa is in trouble.'
(lit. Hawa finds her feet)[b]	(lit. she finds mouth/word)
a-njak-ay na	*a-njak-ay* **ma**
3s-find-cl 3s.do	3s-find-cl mouth/word
'She finds it.'	'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 *=ahan*) and not within the verb complex as is *ma* 'mouth.'

(58) Tandalay talala təzləgə **va** ana Məloko ahay.
ta-nd=alaj   ta-l =ala tɪ-ɠɪg-ɪ   **va**   ana Mʊlɔkʷɔ =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)

(59) Kafta məze ahay təzləgə **va** va na, nəwəɗokom ala dəray.
kafta mɪʒɛ   =ahaj tɪ-ɠɪg-ɪ   **va**   =va na nu-wuɗɔkʷ-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.'

(60) Takaɗ **va**.
ta-kaɗ **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 (61) – as incorporated noun and also as the noun phrase within an adpositional phrase (*va* is bolded in the example).

(61) Kondoɗom **va** a **va** ava.
kɔ-ndɔɗ-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 *zaɗ* 'take' also can incorporate the 'body-part' *va* 'body.' The normal lexical meaning of the verb *zaɗ* is 'take' but the combination *zaɗ va* (62 and 63) carries the idea of 'resemble' or 'look like' and occurs with singular as well as plural subjects. With a plural subject (63), 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
Məloko =ahay tə-zləg-ə hay	*kəra =ahay tə-zləg-ə va*
Moloko =Pl 3P-sow-CL millet	dog =Pl 3P-sow-CL body
'Moloko people sow/throw millet.'	'Dogs fight each other.'
tə-zləg-e na	*tə-zləg-ə va*
3P-sow-CL 3S.DO	3P-sow-CL body
'They sow/throw it.'	'They fight each other.'
babəza =ahay ta-kaɗ kəra	*məze =ahay ta-kaɗ va*
children =Pl 3P-club dog	person =Pl 3P-club body
'The children kill a dog.'	'The people kill each other.'
ta-kaɗ na	*ta-kaɗ va*
3P-club 3S.DO	3P-club body
'They kill it.'	'They kill each other.'
loko na ko-ndoɗ-om baba =aloko	*loko na ko-ndoɗ-om va*
1PIN PSP 1PIN-love-1PIN father =1PIN.POSS	1PIN PSP 1PIN –love-1PIN body
'We (for our part) love our father.'	'We (for our part) love one another.'
ko-ndoɗ-om na	*ko-ndoɗ-om va*
1PIN –love-1PIN 3S.DO	1PIN –love-1PIN body
'We love him.'	'We love one another.'

(62) Məlama ango azaɗ **va** nə nok.
      məlama =aŋgʷɔ a-zaɗ **va** nə nɔkʷ
      sibling =2S.POSS 3S-take body with 2S

      'Your sibling resembles you.' (lit. your sibling takes body with you)

(63) Məlama ango ahay jəyga tazaɗ **va**.
      məlama =aŋgʷɔ =ahaj dʒijga ta-zaɗ **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 *embesen* means 'he/she breathes,' but *embesen va* means 'he/she is resting' (64).

(64) Embesen va kə cəveɗ aka.
      ɛ-mbɛʃɛŋ   va   kə tʃɪvɛɗ 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 *wəɗakay*, which normally means 'divide,' the incorporation of *har* gives a new lexical meaning containing the idea of the participants dispersing (lit. a reflexive idea of 'dividing themselves up' 65).

(65) Values, S. 16
      Tə́lala, a həlan ga ava ese, təwəɗakala **har** a məsəyon ava.
      tə́-l=ala   a həlaŋ ga ava ɛʃɛ   tú-wuɗak=ala   **har** a mʊsijɔŋ
      3P-go+IFV=to at back ADJ in   again 3P-divide+IFV=to body at mission

      ava
      in
      'They come [home] again, they disperse after church.'

  With the verb *gas* which normally means 'catch,' *har* gives the lexical idea of pleasing, which is located at the indirect object (66).

(66) Membese va nə nok egəne na, agəsaw **har** ava gam.
      mɛ-mbɛʃ-ɛ   va   nə nɔkʷ ɛgɪnɛ na a-gəs=aw   **har** =va
      NOM-breathe-CL body with 2s   today PSP 3s-catch=1s.IO body =PRF

      gam
      a lot
      'Spending time with you today pleased me a lot.' (lit. it catches body to me)

9.4 Clauses with zero grammatical arguments

There are clauses in Moloko with no grammatically explicit arguments - these clauses have a transitivity of zero.[16] Nominalised and dependent verb forms are not inflected for subject (see Sections 7.6 and 7.7, respectively). When they also

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[16] The ideophone clause can also have zero transitivity (Section 3.6.3). See also zero transitivity in nominalised forms, Section 8.2.3.

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. 22 (67), the dependent verb *aməhaya* '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.

(67)   Disobedient Girl, S. 22
       Njəw njəw njəw aməhaya azla.
       nzuw nzuw nzuw amə-h=aja   aƙa
       IDgrind   DEP-grind=PLU now
       '*Njəw njəw njəw* [she] ground [the millet] now.'

Likewise in line S. 15 of the Snake story (68), 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.

(68)   Snake story, S. 15
       Mecesle mbəraɓ!
       mɛ-tʃɛɬ-ɛ   mbəraɓ
       NOM-penetrate-CL IDpenetrate
       'It penetrated, *mbəraɓ*!'

10 Clause

Moloko is an 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 are closely related to the verb type and transitivity of the clause (see Chapter 9). In this chapter the basic structure of declarative clauses for all verb types is discussed (Section 10.1). The *na* construction can be superimposed upon the basic clause structure, changing the word order. Since the *na* construction is more complex and can involve more than one clause, *na* constructions are discussed in a separate chapter (Chapter 11). Negation, interrogative, command, and exclamatory clause structures can be further superimposed on a simple or *na*-marked clause to add a functional element (Sections 10.2–10.5). 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 the structure of existential and ideophone clauses are discussed in Section 3.4 and Section 3.6, respectively. 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 (see Chapter 9).

10.1.1 Verbal clause

The basic structure of Moloko verbal clauses includes the illustrated elements in the order shown in Figure 10.1. Elements whose inclusion in the clause is optional are in parentheses. The order of clause constituents for all clause types

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[1] Elements can be fronted only in a special *na* construction described in Chapter 11.

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). All other elements are optional. When present, 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.

(temporal noun phrase)	(subject noun phrase)	**Verb phrase**
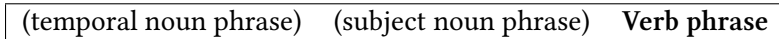
Figure 10.1: Order of constituents for verbal clause

The first element in the clause can be a temporal noun phrase (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** nɔ́-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 aspect and mood. 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 and 9), direction of the action (5, 7, 9), and discourse information (5).

(4) Nəhəmay.
nə̀-həm-aj
1S+PFV-run-CL
'I ran.'

(5) Dəraka alay!
dər =aka =alaj
move =on =away
'Move further over!'

(6) Nozom   na.
nɔ́-zɔm   na
1S+PFV-eat 3S.DO
'I ate it.'

(7) Nabah na alay.
nà-bax   na =alaj
1S+PFV-pour DO =away
'I poured it away from myself.'

(8) Nəvəlan na.
nə̀-vəl=aŋ   na
1S+PFV-give=3S.IO 3S.DO
'I gave it to him.'

(9) Zaw na ala!
z   =aw na   =ala
carry[2S.IMP] =1S.IO 3S.DO =to
'Bring 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.

Subject noun phrase	Predicate noun phrase

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.]
      [ɬəmaj =uwla] [Abaŋgaj]
      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).

(13) [Ndahan] [malan ga.]
      [ndahaŋ] [malaŋ 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 nɪndijɛ] [**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* expresses equation in (16–18).

(16) [Zar mehere na], [Mana.]
      [zar mɛ-hɛr-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.]
      [malaŋ   ga] na [ndahaŋ]
      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 (Section 10.2.2) or negation of one element of the clause (Section 10.2.3). For both, Moloko uses a negative particle *baj* or compound at the end of the clause or noun phrase (Section 10.2.1).

10.2.1 Negative particles

The all-purpose negative is the particle *bay*, which follows the verb phrase and occurs (19–21) before any interrogative word (see Section 10.3). In the examples in this section, the negative is bolded and the negation construction 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 ɛ-tʃɛŋ   ɬəmaj **baj**]
       child ADJ 3S-hear ear   NEG
       'That child did not obey.' (lit. that child, he hears ear not)

(21)   [Táazləgalay avəlo **bay.**]
       [táá-ɮəg   =alaj   avʊlɔ **baj**]
       3P+POT-throw =away above NEG
       'They should not throw it too high.'

In (22–24) the negative is clause final and may have sematic scope over the entire proposition (c.f. constituent negation, Section 10.2.3). 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   ɛlɛ   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 məze cəɗew ga **bay**.]
[ká-ras-aj mɪʒɛ tʃɪɗɛw 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), *bay* is not clause final but is the final element in a noun phrase within the clause. In this case, the information expressed within the noun phrase itself is negated; *ele lala **bay*** 'a bad thing.'

(25) Nde, [ele lala **bay**] kə təta aka.
ndɛ [ɛlɛ 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. 6
Ele ahay [aməgəye **bay**] nəngehe pat tahata na va.
ɛlɛ =ahaj [amɪ-g-ijɛ **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 them.'

(27) Kəra [aməmənjere elé **bay**] táslay na gəraw.
kəra [amɪ-mɪndʒɛr-ɛ ɛlɛ **baj**] tá-ɫ-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 *asabay* 'never again' is a compound of the adverb *ese* 'again' and *bay*. The evidence of phonological binding is that the adverb *ese* loses its palatalisation when it compounds with *bay* (line 1 in Table 10.1). Likewise, *fabay* (line 2 in Table 10.1) is considered phonologically bound since the word-final /n/ in the adverb *fan* 'already' is deleted when

the negative is added. These changes occur with some clitics (see Section 2.6.1.5). 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 (e.g., *kəlo* 'before,' line 3 in Table 10.1).

Table 10.1: Negation of clauses with adverbs

Line	Non-negated clause with adverb	Negated clause
1	*nóo-lo **ese*** 1S+POT-go again 'I will go again.'	*nóo-lo **asabay*** 1S+POT-go again+NEG 'I will not go again.'
2	*né-g-e na **fan*** 1S+IFV-do-CL 3S.DO already 'I have done it already.'	*né-g-e na **fabay*** 1S+IFV-do-CL 3S.DO already+NEG 'I haven't done it yet.'
3	*nə-mənjar ndahan **kəlo*** 1S-see 3S before 'I have seen her before.'	*nə-mənjar ndahan **kəlo bay*** 1S-see 3S before NEG 'I have never seen her before.'
4	*káa-z =ala **təta*** 2S+POT-take =to ability 'You can bring [it].'	*káa-z =ala **təta bay*** 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 apart from the addition of the clause final negative particle. 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) Amənjar Hawa.
      a-mənzar Hawa
      3s-see   Hawa
      'He/she sees Hawa.'

(31) Amənjar Hawa **bay**.
      a-mənzar Hawa **baj**
      3s-see   Hawa NEG
      'He/she doesn't see Hawa.'

(32) Akaɗ awak.
      a-kaɗ awak
      3s-kill goat
      'He/she kills a goat.'

(33) Akaɗ awak **bay**.
      a-kaɗ 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.
      ndahaŋ k̠ɪlɛ   ga
      3S   richness ADJ
      'He/she is rich.'

(41) Ndahan zləle ga **bay**.
      ndahaŋ k̠ɪlɛ   ga **baj**
      3S   richness ADJ NEG
      'He/she is not rich.'

(42) Ndahan gədan ga.
      ndahaŋ gədaŋ   ga
      3S   strength ADJ
      'He/she is strong.'

(43) Ndahan gədan ga **bay**.
      ndahaŋ gədaŋ   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 par-
ticle. (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 presuppo-
sition (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] ɗaw?
      Mana na ɔ-lɔ   [a kɔsɔkʷɔ ava] ɗaw
      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.
      ɛhɛ ɔ-lɔ   [a kɔsɔkʷɔ ava] **baj** ɔ-lɔ   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.
      ɛhɛ, [ɔ-lɔ a kɔsɔkʷɔ ava] **baj** ɛ-nʒ-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 negat-
ing 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 cor-
rected 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, *kəndew* '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 *kəndew* 'guitar' can be placed next to the negative.

(47) Mana avəlan kəndew ana baba ahan ɗaw?
      Mana à-vəl   =aŋ kɪndɛw ana baba =ahaŋ   ɗaw
      Mana 3s+PFV-give =3s.IO guitar   DAT father =3s.POSS QUEST
      'Did Mana give the guitar to his father?'

(48) Ehe, avəlan na [ana baba ahan] **bay**, avəlan na ana gəmsodo ahan.
      ɛhɛ à-vəl   =aŋ na   [ana baba =ahaŋ] **baj**
      no 3s+PFV-give =3s.IO 3s.DO DAT father =3s.POSS NEG

      à-vəl   =aŋ na   ana gʊmsɔdɔ   =ahaŋ
      3s+PFV-give =3s.IO 3s.DO DAT mother's brother =3s.POSS
      'No, he didn't give it t*o his father*, he gave it to his mother's brother.'

(49) Ehe, avəlan [kəndew] **bay**, avəlan cecewk.
      ɛhɛ à-vəl   =aŋ   [kɪndɛw] **baj** à-vəl   =aŋ tʃɛtʃœkʷ
      no 3s+PFV-give =3s.IO guitar   NEG 3s+PFV-give =3s.IO flute
      'No, he 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 bay* 'not Mana.'

(50) Ehe, aməvəlan kəndew ana baba ahan na, [Mana] bay;
 ɛhɛ amə-vəl=aŋ   kɪndɛw ana baba =ahaŋ 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 adan ɗaf ana Mana ɗaw?
 Hawa à-d   =aŋ ɗaf   ana Mana ɗaw
 Hawa 3s+PFV-prepare =3S.IO millet loaf DAT Mana QUEST

 'Did Hawa prepare food for Mana?'

(52) Amadan ɗaf ana Mana na, [Hawa] **bay**.
 ama-d   =aŋ ɗaf   ana Mana na [Hawa] **baj**
 DEP-prepare =3S.IO millet loaf DAT Mana PSP Hawa   NEG

 'The one that prepared the millet loaf for Mana [was] not *Hawa.*'

10.3 Interrogative constructions

The syntax of interrogative constructions is remarkable in that all interrogative particles except *wɛlɛj* 'which one' occur clause finally. In certain constructions, the clause itself is rearranged so that the interrogative particle can remain clause final. Interrogative constructions are 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	clause – interrogative word *zar a-mənjar* **way** man 3s+PFV-see who 'Who did the man see?'
Predicate nominal Questions subject	dependent clause marked with *na* – interrogative word *hor amə-d-əye ɗaf na* **way** woman DEP-make-CL millet loaf PSP who 'Who is making millet loaf?' (lit. the woman that is making millet loaf [is] who?)
Right-shifted *na* marked element Questions internal element	clause – interrogative word – right-shifted *na* marked element *Mala a-vəl=an* **almay** *ana məlama =ahan na* 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 (SVO), 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. (53–65) are information questions in verbal clauses paired with a response so that the structure of the interrogative clause can be compared with that of the declarative. Examples in this section are given in pairs. The first example in the pair shows the interrogative construction. The second example is the clause with the information filled in for comparison.

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).

(53) Zar amənjar [**way?**]
      zar à-mənzar [**waj**]
      man 3S+PFV-see who
      'Who did the man see?'

(54) Zar amənjar [Mana.]
      zar à-mənzar [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 *weley* '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 **weley?**]
      hʷɔr ɛ-dɛ   [ɛlɛlɛ **wɛlɛj**]
      woman 3S-prepare sauce which
      'The woman is making which kind of sauce?'

(56) Hor ede [elele kəlef.]
      hʷɔr ɛ-dɛ   [ɛlɛlɛ kɪlɛf]
      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 *almay* 'what' is clause-final since the adverbial clause has no other elements following the direct object. Two possible responses are shown in (58)–(59).

(57) Kəlala [aməgəye **almay?**]
      kə̀-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.]
　　 nə̀-l=ala 　　　 [amɪ-g-ijɛ ɬɪrɛlɛ]
　　 1s+PFV-go=to DEP-do-CL work
　　 'I came to do work.'

(59) Nəlala [aməjənok.]
　　 nə̀-l=ala 　　　 [amə-dzən-ɔkʷ]
　　 1s+PFV-go=to DEP-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 *way* '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 ɗeləywer [ana **way**?]
　　 Mala à-vəl=aŋ 　　　 ɗɛlijwɛr [ana **waj**]
　　 Mala 3s+PFV-give=3s.IO paper 　 DAT who
　　 'Mala gave the book to whom?'

(61) Mala avəlan ɗeləywer [ana Hawa.]
　　 Mala à-vəl=aŋ 　　　 ɗɛlijwɛr [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 [hadzaŋ]
　　 woman 3s-go at market in tomorrow
　　 'The woman is going to market tomorrow.'

The elements within non-core adpositional phrases are questioned using the generic location question word *amtamay* 'where' (64). This generic location question word does not need to be located inside an adpositional phrase, eliminating the possibility that the locational postposition 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**?]
      kɔ́-lɔ   [**amtamaj**]
      2s+PFV-go where
      'Where did you go?'

(65) Nolo [a kosoko ava.]
      nɔ́-lɔ   [a kɔsɔkʷɔ **ava**]
      1s+PFV-go at market in
      'I went to market.'

The second clause structure that is employed for interrogative constructions is the predicate nominal. The predicate nominal structure is employed for questioning an element of a predicate nominal clause. (66–71) are example pairs where the first of each pair is a question and the second is a possible response. In (66) an aspect of the nominal is questioned with the interrogative pronoun in a prepositional phrase. The prepositional phrase is delimited by square brackets.

(66) Mogom nehe [anga **way**?]
      mɔgʷɔm nɛhɛ [aŋga **waj**]
      house   DEM POSS who
      'This house here belongs to whom?'

(67) Mogom nehe [anga Mana.]
      mɔgʷɔm nɛhɛ [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.]
    mɔgʷɔm =uwla   [a Lawaj]
    home   =1S.POSS to Lalawaj
    'My home is in Lalaway.'

(70) Bahay a slala aləkwəye na [**way**?]
    bahaj a   ɬala   =alʊkʷøjɛ 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). The subject of what would be a verbal clause in a declarative speech act cannot be questioned using the SVO 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 SVO verbal clause construction.[2]

(72) Hor ede ɗaf.
    hʷɔr   ɛ-d-ɛ   ɗaf
    woman 3S-make-CL millet loaf
    'The woman is making millet 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 ɗaf na **way**?
    hʷɔr   amɪ-d-ijɛ   ɗaf   na **waj**
    woman DEP-make-CL millet loaf PSP who
    'Who is making millet loaf?' (lit. the woman that is making millet loaf [is] who?)

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[2] Unless the emphatic question construction is used Section 10.3.5.

(74)   Hor amədəye ɗaf na **weley**?

      hʷɔr   amə-d-ijɛ   ɗaf   na   **wɛlɛj**

      woman DEP-make-CL millet loaf PSP which

      'Which woman is making millet loaf?' (lit. the woman that is making millet 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. (76) and (78) are possible responses to these questions.

(75)   Məze amanday aməzəme ɗaf na **way**?

      mɪʒɛ   ama-ndaj amɪ-ʒum-ɛ ɗaf   na **waj**

      person DEP-PRG   DEP-eat-CL millet loaf PSP who

      'Who is eating loaf?' (lit. the man that is eating millet loaf [is] who?)

(76)   Mana anday ozom ɗaf.

      Mana a-ndaj a-zɔm ɗaf

      person 3S-PRG 3S-eat millet loaf

      'Mana is eating millet loaf.'

(77)   Aməzəɗe dəray na **way**?

      amɪ-ʒɪɗ-ɛ   dəraj na **waj**

      DEP-take-CL head PSP who

      'Who will win?' (lit. the one that takes the head [is] who?)

(78)   Mana azaɗ dəray.

      Mana a-zaɗ   dəraj

      Mana 3S-take head

      'Mana won.' (lit. Mana took head)

The third structure for content information questions uses a right-shifted *na*-marked element (see Section 11.3). 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 məlama ahan* '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). A possible response is shown in (80).

(79) Mala avəlan **almay** <u>ana məlama ahan na</u>?
    Mala a-vəl=aŋ   **almaj** <u>ana məlama =ahaŋ   na</u>
    Mala 3s-give=3s.io what DAT sibling   =3s.POSS PSP
    'Mala gave what to his brother?'

(80) Mala avəlan dala ana məlama ahan.
    Mala a-vəl=aŋ   dala   ana məlama =ahaŋ
    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 *ɗaw* 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 (81–83), they are usually expecting an affirmative reply.

(81) Zar na ndahan baba a Mala **ɗaw**?
    zar na ndahaŋ baba a   Mala **ɗaw**
    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 ango* 'your husband' is well.

(82) Mana na álala **ɗaw**?
    Mana na   á-l=ala   **ɗaw**
    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   =aŋgʷɔ   ndahaŋ 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 particles and the negative particles are bolded.

(84)   Baba ango, ndahan ava a mogom **ɗaw**?
       baba =aŋgʷɔ   ndahaŋ ava   a mɔgʷɔm **ɗaw**
       father =2S.POSS 3S   EXT+in at home   QUEST
       'Is your father in?'

(85)   Baba ango, ndahan ava a mogom **bay ɗaw**?
       baba =aŋgʷɔ   ndahaŋ ava   a mɔgʷɔm **baj ɗaw**
       father =2S.POSS 3S   EXT+in at home   NEG QUEST
       'Is your father not in?'

(86)   Ólo a kosoko ava **ɗaw**?
       ɔ́-lɔ   a kɔsɔkʷɔ ava **ɗaw**
       3S+IFV-go at market in   QUEST
       'Is he going to the market?'

(87)   Ólo a kosoko ava **bay ɗaw**?
       ɔ́-lɔ   a kɔsɔkʷɔ ava **baj ɗaw**
       3S+IFV-go at market in   NEG QUEST
       'Is he not going to the market?'

(88)   Məlama ango álala **ɗaw**?
       məlama =aŋgʷɔ   á-l=ala   **ɗaw**
       sibling   =2S.POSS 3S+IFV-go=to QUEST
       'Is your brother coming?'

(89)   Məlama ango álala **bay ɗaw**?
       məlama =aŋgʷɔ   á-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 restructured 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 and it is whether or not he is coming that is being questioned.

(90) Awak ango na, káaslay na **ɗaw**?
      awak =aŋgʷɔ na káá-ɬ-aj   na   **ɗaw**
      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 *kəyga bay ɗaw* 'is that not so?' The affirmative response is *kəyga* 'it is so.' The negative response is *kəyga bay* 'it is not so' with a statement to explain why the negative answer. Some rhetorical questions have a special question tag *esəmey* '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] kəyga bay daw?   Kəyga.
      [kɔ́-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] **kəyga bay ɗaw?**
      [apazaŋ kɔ̀-lɔ   a kɔsɔkʷɔ ava] **kijga   baj ɗaw**
      yesterday 2S+PFV-go at market in   like that NEG QUEST
      'You went to the market yesterday, right?'

(93) Nə almǝmar na, [avar abay] **kəyga bay ɗaw?**
      nə almǝmar na [avar abaj] **kijga baj ɗaw**
      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 tag 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] **ɗaw**?
      [sʊlɔm ga] **ɗaw**
      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 the normal interrogative structure for a content question (95–96, see Section 10.3.1). For example, the speaker is not seeking an explanation when he asks *kamay* '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 ɛlɛ lala baj **kamaj**
      person =Pl   3P-do=1S.IO thing good not why
      'The people had no reason to do this bad thing to me.' (lit. the people did the bad thing to me why?)

(96) Values, 29
      Hərmbəlom na, amaɗaslava ala məze na, ndahan ese na,
      Hʊrmbʊlɔm na ama-ɗaɬ=ava=ala mɪʒɛ na ndahaŋ ɛʃɛ na
      God   PSP DEP-multiply=in=to person PSP 3S   again PSP
      'God, the one who multiplied the people, him again,'

      kagas ma Hərmbəlom na, asabay na,
      ka-gas ma Hʊrmbʊlɔm na asa-baj   na
      2S-catch word God   PSP again-NEG PSP
      '[if] you no longer accept the word of God,'

káagas na anga **way**?

káá-gas   na   aŋga **waj**

2S+POT-catch PSP POSS who

(lit. 'you will catch it [word] of whom?')

'you won't listen to anyone.' (lit. whose [word] will you accept [then]?)

Other rhetorical questions have the same structure as a tag question (97–98, see Section 10.3.3). 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 ɗaw* '[is that] good?' the people in the audience replied "*lala bay*" '[it is] not good.' (even though the answer was obvious from the story). Likewise, in (98), the audience replied "*səlom ga*" '[it is] good' to the rhetorical question *səlom ga bay ɗaw* '[is that] not good?'

(97)   Kólo kagas anga məze kək, lala **ɗaw**?

     kɔ́-lɔ   kà-gas   aŋga mɪʒɛ   kək   lala   **ɗaw**

     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 ango, səlom ga bay **ɗaw**?

     kɔ́-lɔ   ɛlɛ   =aŋgʷɔ sʊlɔm ga baj **ɗaw**

     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, *esəmey* 'isn't that so' carries an element of reproach. 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=ɔkʷ   ma   faŋ]   **ɛʃɪmɛj**

     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 do not ask for information, but rather make an emphatic statement or carry imperatival force. As such they are 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 *way* 'who') in (100), (102), (103), *may* and *alma* (from *almay* 'what') in (101) and (104), respectively, *malma* (from *malmay* 'what') in (105), and *meme* and *mey* (from *memey* 'how') in (106).

(100) **Wa** amǝgok na **way**?

 wa amǝ-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

 Náanjakay na **wa** [amazaw ala agwazla ana ne na] **way**?

 náá-nzak-aj na **wa** [ama-z =aw =ala agʷaƗa 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

 'Who loves whom?' / 'No one loves him.'

(104) **Alma** amǝdǝvala okfom na **may**?

 alma amǝ-dǝv=ala ɔkʷfɔm 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=ɔkʷ　　 **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 six different constructions have been identified, each with a different force
of exhortation. They are shown in Table 10.3. Some constructions use the im-
perative 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 /*lo* / '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 (107–109,
line 3 of Table 10.3). 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.

(107) Lohom a moɡom.
　　 lɔhʷ-ɔm a mɔgʷɔm
　　 go-2p　　 at home
　　 'Go home!'

Table 10.3: Imperative constructions

Line		2s forms	3s forms
1	Declarative, Perfective aspect	*ka-l=ala* 2S+PFV-go=to 'You came.'	*a-l= ala* 3S+PFV-go=to 'He/she came.'
2	Declarative, Imperfective aspect	*ká-l=ala* 2S+IFV-go=to 'You come.'	*á-l=ala* 3S+IFV-go=to 'He/she comes.'
3	Imperative	*l=ala* go[2S.IMP]=to 'Come (now)!'	
4	Polite request	*ká-l=al ete ɗaw* 2S+IFV-go=to polite QUEST 'Please come.'	
5	Negative expectation	*ká-l=al bay* 2S+IFV-go=to NEG 'Don't come.' (I don't expect you to come)	*á-l=al bay* 3S+IFV-go=to NEG 'He/she is not coming.' (I don't expect him to come)
6	Hortative	*kaa-l=ala* 2S+HOR-go=to 'You come now!' (I want you to come)	*mə-l= ala* 3S+HOR-go=to 'He/she should come.' (I want him to come)
7	Adverb of obligation	*səy kə-l=al =va* only 2S+PFV-go=to =PRF 'You must come.'	*səy mə-l=ala* only 3S+HOR-go=to 'He/she must come.'
8	Rhetorical question	*ká-l=ala bay ɗaw* 2S+IFV-go=to NEG QUEST 'You should come.' (lit. Are you not coming?)	*á-l=ala bay ɗaw* 3S+IFV-go=to NEG QUEST 'He should come.' (lit. Is he not coming?)

(108) Zəmok ɗaf.
    zʊm-ɔkʷ ɗaf
    eat-1PIN millet loaf
    'Let's eat!'

(109) Cəke.
    tʃɪk-ɛ
    stand[2S.IMP] -CL
    'Stand up!'

The word *etey* or *ete* 'please' can be added to other clause types (110–111, 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 **etey**?
    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) Nə́njakay yam **ete** ɗaw?
    nə́-nzak-aj   jam **ɛtɛ**   ɗaw
    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 (112–113, 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) Kámənjar 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-mənjar fabay.
    á-mənzār   fá-bàj
    3S+IFV-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) Mamənjar 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' (116), *səy* 'only' 115–117) 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) Səy koogom endeɓ.
       sij   kɔ̀ɔ̀-gʷ-ɔm ɛndɛɓ
       only 2P-do-2P   wisdom
       'You must be wise (lit. do only wisdom).'

(116) Dewele səy keege na.
       dɛwɛlɛ   sij kɛ̀ɛ̀-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   kɛ̀ɛ̀-gɛ   aŋga dɛwɛlɛ
       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   nɛ̀-g-ɛ   na   baj
interj. 1S+PFV-do-CL 3S.DO NEG
'No, I didn't do it!'

(119) Apazan nok awəy Məwsa álala;
apazaŋ   nɔkʷ 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 ɗeɗen **dey**!
ɛ̀-nʒ-ɛ   baj ɗɛɗɛŋ **dɛj**
3S+PFV-suffice-CL NEG truth exclamation
'It really wasn't enough!'

(121) Gaw endeɓ **dey**!
g=aw   ɛndɛɓ **dɛj**
do[2S.IMP]=1S.IO brain exclamation
'Be careful!' (lit. do brain for me)

(122) Values, 50
Epele epele na me, Hərmbəlom anday agas ta a ahar ava **re**!
ɛpɛlɛ ɛpɛlɛ   na mɛ   Hʊrmbʊlɔm a-ndaj a-gas   ta
IDin the future PSP opinion God   3S-PROG 3S-catch 3P.DO

a ahar ava **rɛ**
at hand in in spite
'In the future in my opinion, God is going to accept them [the elders] in his hands, in spite [of what anyone says]!'

11 The *na* marker and *na* constructions

Knowledge of how the particle *na* works in Moloko is foundational to understanding information flow and interpreting a Moloko text. 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.

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 *sləmay =əwla* 'my name' from the nominal *Abangay*. In the examples in this chapter, *na* is bolded and the element marked by *na* is underlined.

(1) Sləmay əwla Abangay.
     ɬəmaj =uwla   Abaŋgaj
     name =1S.POSS Abangay

     'My name is Abangay.'

(2) <u>Sləmay əwla</u> **na**, Abangay.
     <u>ɬəmaj =uwla</u>   **na** Abaŋgaj
     name =1S.POSS PSP Abangay

     'My name is Abangay.'

Na is a separate phonological word that positions at the end of a noun phrase (2)–(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 organ-

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[1] The presupposition marker and the 3s direct object pronominal Section 7.3.3 are homophones.

isational structure with a major function in certain Moloko clause structures and discourse.[2]

(3) H<u>ə</u>mbo **na**, anday ásəkala azla wəsekeke.
<u>hʊ</u>mbɔ **na** à-ndaj á-sək =ala aɮa wuʃɛkɛkɛ
flour PSP 3S+PFV-PRG 3S+IFV-multiply =to now IDmultiplication

'The flour, it is multiplying.'

(4) Cicada, S. 5
<u>Tánday t<u>ə́</u>talay a ləhe **na**,</u>
<u>tá-ndaj t<u>ə́</u>-tal-aj</u> a lɪhɛ **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.
t<u>ə̀</u>-lɔ t<u>ə̀</u>-nzak-aj agʷaɮa malaŋ ga a lɪhɛ
3P+PFV-go 3P+PFV-find-CL spp. of tree large ADJ at bush

'they went and 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 knows or is ready to take for granted at the time the sentence is uttered" (Lambrecht 1994: 52), but not necessarily before hearing it. In the following example groups,[3] the first gives the normal SVO clause structure without any *na*-marked element. The rest have

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Both function (in different ways) 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.

na-marked elements (underlined). In the first triplet, (5) represents a context where there is no specific presupposed information (and there is no *na* marker). (6) represents a situation where the presupposed information (marked with *na*) 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 1: Beans are the topic of this part of the discourse.
     Presupposition 2: 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').

(8) Hawa adan ɗaf ana Mana.
    Hawa a-d=aŋ   ɗaf   ana Mana
    Hawa 3s-prepare=3s.io millet loaf DAT Mana

    'Hawa prepared millet loaf for Mana.'
    Presupposition: No specific presupposition.
    Assertion: Hawa prepared millet loaf for Mana.

(9) <u>Hawa **na**</u>, adan ɗaf.
    <u>Hawa **na**</u> a-d=aŋ   ɗaf
    Hawa PSP 3s-prepare=3s.io millet loaf

    'Hawa [is] the one who prepared the millet 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 millet.

(10) <u>Hawa **na**</u>, amadan ɗaf.
     <u>Hawa **na**</u> ama-d=aŋ   ɗaf
     Hawa PSP DEP-prepare=3s.io millet loaf

     'Hawa [is] the one that prepared the millet loaf 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 millet loaf.
     Assertion: Hawa is the person who prepared the millet loaf.

(11) <u>Amadan ɗaf **na**</u>, Hawa.
     <u>ama-d=aŋ   ɗaf</u>   **na** Hawa
     DEP-prepare=3s.io millet loaf PSP Hawa

     'The preparer of his millet loaf [is] Hawa.'
     Presupposition: Someone (X) prepared the millet loaf.
     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-asserton construction: fronted *na*-marked clause** (Sec-
   tion 11.1). A whole clause is marked with *na*, separating it from the clause

which follows and marking it as presupposed. These constructions function in text cohesion.

2. **Presupposition-assertion construction: fronted *na*–marked clausal element** (Section 11.2). 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. Such constructions function in tracking participants and marking boundaries in a text.

3. **Assertion-presupposition construction: right-shifted *na*-marked element** (Section 11.3). The element that is marked by *na* is right-shifted to the end of a clause. This construction is found in concluding statements.

4. **The definite construction: *na*–marked clausal element** (Section 11.4). The element that is marked by *na* is in its normal clausal position. The definite construction functions to specify the element that is marked by *na* in the text.

5. **Presupposition-focus construction: *na* preceeds the final element of the verb phrase** (Section 11.5). The final element of a clause is immediately preceded by one or more *na*-marked elements. 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 in some cases 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

<u>Tánday tə́talay a ləhe **na**,</u>
<u>tá-ndaj   tə́-tal-aj   a lɪhɛ **na**</u>
3P+IFV-PRG 3P+IFV-walk-CL at bush PSP

'[As] they were walking in the bush,'

tolo tənjakay agwazla malan ga a ləhe.
tə̀-lɔ   tə̀-nzak-aj   agʷaʐa   malaŋ ga a lɪhɛ
3P+PFV-go 3P+PFV-find-CL spp. of tree large   ADJ at bush

'[As] they were walking in the bush, they went and found a large tree (a particular species) in the bush.'

(13) <u>Tə́nday táhaya **na**, həmbo ga</u>
<u>tə́-ndaj   tá-h=aja   **na** hʊmbɔ ga</u>
3P+IFV-PRG 3P+IFV-grind=PLU PSP flour   ADJ

'They were grinding it, [and] the flour'

ánday ásak ele ahan wəsekeke.
á-ndaj   á-sak   ɛlɛ   =ahaŋ wuʃɛkɛkɛ
3S+IFV-PRG 3S+IFV-multiply thing =3S.POSS IDmultiply

'was multiplying all by itself, *wəsekeke*.'

(14) Disobedient Girl, S. 36

<u>Talay war elé háy bəlen kə ver aka **na**,</u> ásak asabay.
<u>talaj war ɛlɛ haj   bɪlɛŋ kə vɛr   aka **na**</u> á-sak
IDput child eye millet one   on stone on   PSP 3S+IFV-multiply
asa-baj
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 sematic 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 (from the Leopard story, 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.[4] A hen begins the story with her lament expressing the reason why she is fleeing. She first states, "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.'

       <u>Nde, taslaw aka babəza ahay va **na**,</u>
       <u>ndɛ ta-ɬ   =aw   =aka babəza =ahaj =va   **na**</u>
       so   3P-kill =1S.IO =on   children =Pl   =PRF PSP
       'So, [because] they are killing my children,'

       nəhəmay mogo ele əwla.
       nə-həm-aj mɔgʷɔ ɛlɛ   =uwla
       1S-run-CL anger thing =1S.POSS
       'I am running [in] anger.' (lit. I am running my anger thing).

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[4] It is also an example of tail-head linking, see Section 11.1.3.

(16) 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 məze **na**, tawəy, "Kəɗom kəra."
      tʃɪdʒɛ a-g =aŋ ana mɪʒɛ **na** tawij kʊɗ-ɔm 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 that talks about how 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 (he went away).

(17) Hərmbəlom na ɓərav ahan atəkam alay **na**, avahay ele ahan botot.
      Hʊrmbʊlɔm na ɓərav =ahaŋ a-təkam =alaj **na** a-vah-aj ɛlɛ
      God   PSP heart =3s.POSS 3s-taste =away PSP 3s-fly-CL thing

      =ahaŋ bɔtɔt
      =3s.POSS IDflying

      'God (for his part) got angry; [and so] he went away.' (lit. God, he tasted his heart, he flew his thing)

(18) is from the conclusion of the same legend 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 dəren.
mə-nzɔk-ɔkʷ   ɛgɪnɛ ɫəlaj mbələm **na** Hʊrmbʊlɔm 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.)

(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 '[If] you will ever accept the word of God' (marked in five places with *na,* see Section 11.5) and the second 'whose word will you accept [then]?' (a rhetorical question, see Section 10.3.4).

(19) Values, S. 29
Hərmbəlom **na**, amaɗaslava ala məze **na**, ndahan ese **na**,
Hʊrmbʊlɔm **na** ama-ɗaɫ=ava=ala   mɪʒɛ   **na** ndahaŋ ɛʃɛ   **na**
God   PSP DEP-multiply=in=to person PSP 3S   again PSP
'God, the one who multiplied the people, him again'

kagas ma Hərmbəlom **na**, asabay **na**,
ka-gas   ma   Hʊrmbʊlɔm na asa-baj   **na**
2S-catch word God   PSP again-NEG PSP
'[if] you no longer accept the word of God,'

[káagas **na** anga way?]
[káá-gas   **na** aŋga waj]
2S+POT-catch PSP POSS who
'[then] you will never accept anyone's word.' (lit. whose [word] will you accept?)

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 occuring while the event in the main clause happens.[5] The verb *anday etəwe* 'she is crying' is progressive aspect. Also see (12), (13).

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[5] (20) is an example of tail-head linking (Section 11.1.3) where the example is repeated.

(20) Atəwalay "Bababa kəlak kəlak kəlak." <u>Anday etəwe **na**</u>, anjakay awak.
      a-tuw=alaj   bababa kəlak kəlak kəlak <u>a-ndaj ɛ-tuw-ɛ   **na**</u> a-nzak-aj
      3s-cry=away sound of hen   3s-prg 3s-cry-cl psp 3s-find-cl

      awak
      goat
      'She cried, "*Bababa kəlak kəlak kəlak.*" As she was crying, she found a
      goat.'

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 may be 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 ele-
ment of *təhaya 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
tənday táhaya 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) Tázaɗ na háy, war elé háy bəlen na,
      tá-zaɗ   na haj, war ɛlɛ haj bɪlɛŋ na
      3p+ifv-take 3s.do millet child eye millet one   psp
      'They would take one grain of millet;'

      [**tə́haya** na kə ver aka.]

[**tɘ́-h**   =**aja** na   kə vɛr   aka]
3S+IFV-grind =PLU 3S.DO on stone on
'they ground it on the grinding stone.'

Tɘ́nday **táhaya** na,
tɘ́-ndaj   **tá-h**   =**aja** na
3P+IFV-PRG 3P+IFV-grind =PLU PSP
'As they were grinding it,'

həmbo ga ánday ásak ele ahan wəsekeke.
hʊmbɔ ga á-ndaj   á-sak   ɛlɛ   =ahaŋ   wuʃɛkɛkɛ
flour   ADJ 3S+IFV-PRG 3S+IFV-multiply thing =3S.POSS IDmultiply
'the flour was multiplying all by itself *wəsekeke*.'

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-PROG   3S+IFV-multiply =on
      'It is multiplying.'

      Ánday ásakaka wəsekeke na,
      á-ndaj   á-sak   =**aka** wuʃɛkɛkɛ   na
      3S+IFV-PRG 3S+IFV-multiply =on   IDmultiplication PSP
      'As it is multiplying *wəsekeke*,'

      ver árəhva mbaf.
      vɛr   á-rəh   =va mbaf
      room 3S+IFV-fill =PRF up to the roof
      'the room filled completely up *mbaf*.'

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 tə́talay a ləhe**.]
[**tá-ndaj   tə́-tal-aj   a lɪhɛ**]
3P+IFV-PRG 3P+IFV-walk-CL to bush

'They were walking in the bush.'

Cicada, S. 5
Tánday tə́talay a ləhe na, tolo tənjakay agwazla malan ga a ləhe.
tá-ndaj   tə́-tal-aj   a lɪhɛ na
3P+IFV-PRG 3P-walk-CL at bush PSP

'[As] they were walking in the bush,'

tə-lɔ   tə-nzak-aj   agʷaẑa   malaŋ ga a lɪhɛ
3P+PFV-go 3P+PFV-find-CL spp. of tree large   ADJ at bush

'they went and found a large tree (a particular species) in the bush.'

(24) Snake, S. 9
Nazala təystəlam əwla.
nà-z   =ala tijstəlam =uwla
1S+PFV-take =to torch   =1S.POSS

'I took my flashlight.'

[**Nabay** cəzlarr.]
[**nà-b-aj**   tsəẑarr]
1S+PFV-light-CL IDshining the flashlight up

'I shone it up *cəzlarr*.'

Snake, S. 10
Nábay na, námənjar na mbajak mbajak mbajak
ná-b-aj   na   ná-mənzar na mbajak mbajak mbajak
1S+IFV-light-CL 3S.DO 1S+IFV-see PSP IDsomething big and reflective

'[As] I shone [it], I was seeing it, something big and reflective *mbajak*,'

gogolvan.
gʷɔgʷɔlvaŋ
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 kəlak kəlak kəlak*."'

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 angala*) tells of the return of the husband. The next sentence is *pok mapalay mahay* '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**.]
       [ɛ-mbɛʃɛŋ tsatsapa   na, **zar** =**ahaŋ**   **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 mahay na, həmbo árah na a hoɗ a hay ava.
       pɔk   ma-p=alaj   mahaj na hʊmbɔ á-rax   na   a hʷɔɗ
       IDopen NOM-open=away door   PSP flour   3s+IFV-fill 3s.DO at stomach

       a   haj   ava
       GEN house in
       'Opening the 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) (Temporal adverb)	(Subject NP)	**Verb phrase**					
		(Auxiliary)	**Verb complex**	(Noun phrase or 'body-part')	(Adpositional phrases)	(Adverb)	(Ideophone) (Negative)

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 + *na*	(Subject noun phrase)	**Verb phrase**

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). 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).

Na-marked element	Assertion

(27) Cicada, S. 19
     Kələn <u>bahay</u> **na**,   olo kə mətəɗe aka.
     kɪlɛŋ <u>bahaj</u> **na**   ɔ̀-lɔ   kə mɪtɪɗɛ aka
     then chief   PSP   3S+PFV-go on cicada on
     'Then the chief, he went to the cicada.'

(28) <u>Həmbo</u> **na**, anday ásəkala azla wəsekeke.

hʊmbɔ **na** à-ndaj á-sək =ala aẓa wuʃɛkɛkɛ
flour PSP 3S+PFV-PRG 3S+IFV-multiply =to now IDmultiplication

'The flour, it is multiplying *wəsekeke*.'

(29) Ele ahay nendəye **na**, nagala kəyga bay.
ɛlɛ =ahaj nɛndijɛ **na** nà-g =ala kijga baj
thing =Pl DEM PSP 1S+PFV-do =to like this NEG

'These things, I have never done like this.'

(30) Ne **na**, kónjokom ne asabay.
nɛ **na** kɔ́-nzɔ́k-ɔ́m 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 agʷaẓa sʊlɔm 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 mʊsijɔŋ ava **na** ɛlɛ =ahaj amu-wuɬ-ɛ **na** tɛ-g-ɛ baj
at mission in PSP thing =Pl DEP-forbid-CL PSP 3P-do-CL NEG

'In the church, these things that are 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, see also 49 from Section 11.5), 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 conjuction 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**, Hərmbəlom ávəlata barka va.

ɮɛɮɛ	**na**	Mʊlɔkʷɔ	=ahaj	**na**	Hʊrmbʊlɔm	á-vəl=ata
long ago	PSP	Moloko	=Pl	PSP	God	3S+IFV-send=3S.IO

barka
blessing

=va
=PRF

'Long ago, to the Moloko people, God had given to them his blessing.'

(34) Disobedient Girl, S. 9 (the beginning of episode 1)
<u>Nde ehe **na**</u>, albaya ava aba.

ndɛ	ɛhɛ	**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)
<u>Embesen cacapa **na**</u>, zar ahan angala.

ɛ̀-mbɛʃɛŋ	tsatsapa	**na**	zar	=ahaŋ	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.[6] The *na*-marked element will be the main participant of the clauses that follow it, until there is another *na*-marked clause-initial element. 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."

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 *hor* '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.

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[6] Called 'subject' in Chafe (1976).

[7] The double *na*-marked elements *senala na* 'later' and *zar ahan na* 'her husband' function to build up tension (see Section 11.5 for further discussion).

(36) Disobedient Girl, S. 12

Sen ala na, <u>zar ahan **na**</u>, dək medakan na mənəye ata.

ʃεŋ =ala na <u>zar =ahaŋ **na**</u> dək mε-dak=aŋ na
IDgo =to PSP man =3S.POSS PSP IDshow NOM-show=3S.IO 3S.DO

mɪ-nʒ-ijε =atəta
NOM-sit-CL =3P.POSS

'Then her husband instructed her in their habits.' (lit. going, her husband instructing their sitting)

(37) Disobedient Girl, S. 14-15

<u>Hor **na**</u>, ambəɗan aka awəy, "Ayokon zar golo."

<u>hʷɔr **na**</u> a-mbəɗ=aŋ =aka awij ajɔkʷɔŋ zar gʷɔlɔ
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; i.e., a section of discourse will be 'about' that participant, instead of whatever the preceding section of discourse was about. (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.[8]

(38) Ndam akar ahay ténje a avəya ava.

ndam akar =ahaj tε-nʒ-ε a avija ava
people theft =Pl 3P+IFV-sit-CL at suffering in

'(On that day) thieves will be in suffering;'

<u>Ne **na**</u>, nénje nə memle ga.

<u>nε **na**</u> né-nʒ-ε nə mεmlε 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.[9] In (39), from

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[8] This is called 'contrastiveness' in Chafe (1976).

[9] It is also seen in some information questions Section 10.3.1.

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.[10]

(39) Kógom ala na memey, <u>sla ahay na aməzəme gəvah</u> **na**.
      kɔ́-gʷ-ɔm   =ala na mɛmɛj ɬa   =ahaj na amɪ-ʒʊm-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)

  In (40), the *na*-marked final element is a relative clause explaining the main point of the narrative – that the woman had brought a curse onto the Moloko people by what she had done.

(40) Disobedient Girl, S. 38
      Metesle anga war dalay ngəndəye,
      mɛ-tɛɬ-ɛ   aŋga war dalaj ŋgɪndijɛ
      NOM-curse-CL POSS child girl   DEM

      'The curse [is] belonging to that young woman,'

      <u>amazata aka ala avəya nengehe ana məze ahay</u> **na**.
      ama-z=ata   =aka =ala avija   nɛŋgɛhɛ ana mɪʒɛ   =ahaj **na**
      DEP-take=3P.IO =on =to suffering DEM   DAT person =Pl   PSP

      'the one that brought this 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 (from 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

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[10] Note that the other two occurrences of *na* in this example function in focus (Section 11.5) and definiteness (Section 11.4), respectively.

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 attached to the noun *gəvah* '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 g<u>əvah</u> **na** ava.]
      tə̀-k̲ərav   ta   =ala =va [a g<u>əvax</u> **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. Her house is marked as definite with *na*.

(42) Disobedient Girl, S. 26
      Nata ndahan dəɓəsolək məmətava alay
      nata   ndahaŋ dʊɓʊsɔlʊk   mə-mət=ava =alaj
      and then 3s   IDcollapse/die NOM-die=in =away

      'And she collapsed *dəɓəsolək*, dying'

      a hoɗ [a <u>hay</u> **na** ava.]
      a hʷɔɗ   [a   <u>haj</u>   **na**   ava]
      at stomach GEN house PSP in

      'inside the house.'

Likewise in (43), the noun *məsəyon* 'church' is marked as definite within the adpositional phrase *a məsəyon na ava* 'in the church.'

(43) Values, S. 3
      Səwat na, təta [a <u>məsəyon</u> **na** ava] nəndəye na,
      suwat   na təta [a <u>mʊsijɔŋ</u> **na**   ava] nɪndijɛ na
      IDdisperse 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	ɛlɛ	nɛhɛ	na	kɔ́-gʷ-ɔm	baj
pastor	3s+ifv-tell	=3p.io	hey	thing	dem	psp	2+ifv-do-2p	neg

'the Pastor told them, "Hey! These things here, don't do them!"'

(44) is from line S. 21 of the Snake story. The *na*–marked element *gogolvan 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 <u>gogolvan</u> **na** a amata ava.

a-l	=ala	nə̀-ƙərav	na	=ala	gʷɔgʷɔlvaŋ	**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.'

11.5 Presupposition-focus construction: *na* preceeds the final element of the verb phrase

The presupposition-focus construction in Moloko makes prominent the final element of a clause.[11] *Na* preceeds the final element in the verb phrase. This is the only *na* construction where the *na*-marker follows the verb complex but is not clause final. 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 verb phrase (*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.

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[11] Longacre & Hwang (2012: 221) define prominence as "spotlighting, highlighting, or drawing attention to something."

(45)   Disobedient Girl, S. 20
<u>Jo madala háy **na**, **gam**</u>.

dzɔ	ma-d=ala	haj	**na**	gam
ɪᴅtake	ɴᴏᴍ-prepare=to	millet	ᴘsᴘ	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 slow down the discourse 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.'

(46)   Disobedient Girl, S. 17
<u>Nde hor **na**</u>, <u>asərkala afa təta va **na**</u>,

ndɛ	hʷɔr	**na**	à-sərk=ala	afa	təta	=va	**na**
sᴏ	woman	ᴘsᴘ	3s+ᴘꜰᴠ-habitually=to	at	place of	3ᴘ	=ᴘʀꜰ ᴘsᴘ

'Now that woman, she was in the habit at their house,'

<u>aməhaya háy **na**</u>, **gam**.

amə-h=aja	haj	**na**	gam
ᴅᴇᴘ-grind=ᴘʟᴜ	millet	ᴘsᴘ	alot

'[of] grinding *a lot* of millet.'

In (47) from the Values exhortation, 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 way* '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
<u>Hərmbələm **na**</u>, <u>amaɗaslava ala məze **na**</u>, <u>ndahan ese **na**</u>,

Hʊrmbʊlɔm	**na**	ama-ɗaɬ=ava=ala	mɪʒɛ	**na**	ndahaŋ	ɛʃɛ	**na**
God	ᴘsᴘ	ᴅᴇᴘ-multiply=in=to	person	ᴘsᴘ	3s	again	ᴘsᴘ

'God, the one that multiplied the people, him again,'

kagas ma Hərmbəlom **na** asabay **na**,
ka-gas   ma   Hʊrmbʊlɔm **na** asa-baj   **na**
2s-catch word God   PSP again-NEG PSP

'[if] you catch God's word no longer,'

káagas **na**, anga way?
kááᶜ-gas   **na** aŋga waj
2s+POT-catch PSP POSS who

'You won't accept anyone's word!' (lit. you will catch it [word] of whom?')

In both (48) and (49), the final prominent element is *jəyga* '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 <u>sla ahay **na**</u>, <u>tozom gəvah **na**</u>, **jəyga anga ləme zlom**.
      waja   <u>ɬa =ahaj **na**</u> <u>tɔ̀-zɔm   gəvax **na**</u> dzijga aŋga lɪmɛ ɮɔm
      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 **ɗəw**, <u>nəzləgom va **na**</u>, **jəyga**.
      ndɛ **na**   lɪmɛ **ɗuw**   nə̀-ɠʊg-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 of the clause. The fact that the storytellers did not eat the people's food was important since they would have been expected to eat.

(50) Nde <u>kəy elé **na**</u>, <u>nəzəmom ele ata **na**</u>, **bay**.
      ndɛ <u>kij   ɛlɛ **na**</u> <u>nə̀-zʊm-ɔm   ɛlɛ =atəta **na**</u> 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 (expressed in a clause that is bolded in 51).

(51) Disobedient Girl, S. 26

Alala **na**, ver **na**, árah mbəf nə həmbo **na**,

a-l=ala	**na**	vɛr	**na**	á-rax	mbəf	nə	hʊmbɔ	**na**
3S-go=to	PSP	room	PSP	3S+IFV-fill	to the roof	with	flour	PSP

'Later, the room, it filled up to the roof with the flour,'

ɗək məɗəkaka alay ana hor **na**,

ɗək	mə-ɗək=aka=alaj	ana	hʷɔr	**na**
suffocate	NOM-suffocate=on=away	DAT	woman	PSP

'[the flour] suffocated the woman,'

nata ndahan dəɓəsolək məmətava alay a hoɗ a hay na ava.

nata	ndahaŋ	dʊɓʊsɔlʊkʷ	mə-mət=ava=alaj	a	hʷɔɗ	a	haj	na
then	3S	IDcollapse/die	NOM-die=in=away	at	stomach	GEN	house	PSP

ava
in

'and then she collapsed *dəɓəsolək*, dying inside the 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 (which follow the DO pronominal but would precede a PSP marker). (52–53) show two such examples. In (52), the underlined *na* could be interpreted as the presupposition marker since there are multiple *na*-marked elements in the clause and this final underlined *na* appears immediately before the final (presumably) focussed element *mənjəye ata* 'their habits.' On the other hand, *na* could be the 3S DO pronominal for the verb *mədakan* 'instructing to him,' since the verb is in a construction which marks significant events (see stem plus ideophone auxiliary Section 8.2.3), so it is the event of the husband instructing his wife that is highlighted by the preceding *na*-marked elements.

(52) Disobedient Girl, S. 12

Sen ala **na**, zar ahan **na**, ɗək mədakan <u>**na**</u> mənjəye ata.

ʃɛŋ	=ala	**na**	zar	=ahaŋ	**na**	ɗək	mə-dak	=aŋ	<u>**na**</u>	mɪ-nʒ-ijɛ
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 (53) the situation is more clear. We consider the two underlined *na* markers to be the 3S DO pronominal since even though there are multiple *na*-marked elements in the clause, these underlined markers are neither at the end of the noun phrase (as they would be if they were the definite marker), nor are they immediately before the final focussed element (as they would be if this was a presupposition-focus construction). The verb and noun phrases in question are each delimited by square brackets in the example. 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.' It is doubling the direct object noun phrase gəvax 'field.' 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 *məgəye* 'doing' within the noun phrase *məgəye na ahan* 'his doings.'

(53) Nde asa bahay a sla **na**, ndahan aka bay **na**, asa sla ahay **na**,
      ndɛ asa bahaj a   ɬa   **na** ndahaŋ aka baj **na** asa ɬa   =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 <u>na</u> gəvah] **na**, ɗeɗen **na**, ndahan **na**,
      [tɔ̀-zɔm   <u>na</u>   gəvax] **na** ɗɛɗɛŋ **na** ndahaŋ **na**
      3P+PFV-eat 3S.DO field   PSP truth PSP 3S   PSP
      'really destroyed the fields is true (lit. if the cows ate the field true), [then] he,'

      ámənjar nə elé ahan bay **na**, [məgəye <u>na</u> ahan] **na** memey?
      á-mənzar nə ɛlɛ   =ahaŋ baj **na** [mɪ-g-ijɛ   <u>na</u>   =ahaŋ] **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 Section 11.1.

- 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 12.1.1, see also Section 7.6 and Section 7.7). 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 *zlan* 'begin' (7, see Section 7.7). When the subject of the complement clause is the same as the subject of the matrix clause, it is indicated by Ø 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   [Ø **mu-wutʃ-ɛ**]]
     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) [[**Məmbəɗe** ahan na], asaw.]
     [[**mɪ-mbɪɗ-ɛ**   =ahaŋ   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   [Ø **mɪ-ʒʊm-ɛ**   ʃɛʃɛ]]
     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** ɗaf] bay.]
     [na-sar [Ø **mɪ-d-ijɛ**   ɗaf]   baj]
     1s-know   NOM-prepare-CL millet loaf not
     'I don't know how to make millet loaves.' (lit. I don't know the preparing of millet loaf).

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[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 [**məvəye** haɗa.]]
[á-v=ata   [**mɪ-v-ijɛ**   haɗa]]
3S+IFV-spend time=3P.IO NOM-spend time-CL many
'It would last them enough for the whole year.' (lit. it will spend time for
them enough time-spendings; the nominalised form of the verb 'spend
time' has been lexicalized as 'year')

(6) [Ege [**məvəye** məko] ehe,] [nawas háy əwla.]
[ɛ-g-ɛ   [**mɪ-v-ijɛ**   mʊkʷɔ] ɛhɛ] [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 clauses that have an incomplete
or unachieved idea at the time of the matrix situation, e.g., the verb of inception
zlan 'begin' (7 and 8, see Section 7.7) and *sark* habitually (9–10). 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 [**aməwəce.**]]
[na-ɮaŋ [Ø **amu-wutʃ-ɛ**]]
1S-begin   DEP-write-CL
'I begin to write.'

(8) [Tazlan aləme [**aməzləge** va.]]
[ta-ɮaŋ =alɪmɛ [Ø **amɪ-ɡɪg-ɛ**   va]]
3P-begin =1PEX.IO   DEP-plant-CL body
'They started to fight us.' (lit. they started to us planting bodies)

(9) [Asarkva [**aməpəɗe** sese.]]
[a-sark   =va [Ø **amɪ-pɪɗ-ɛ**   ʃɛʃɛ]]
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, asərkala afa təta va **na**,
[hʷɔr   na a-sərk   =ala afa   təta va **na**
woman PSP 3S-habitually =to at house 3P   PRF PSP
'The woman, she was in the habit at their house,'

[**aməhaya** háy na gam.]]
[Ø **amə-h=aja**   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 (11–13) 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 indirect object of the complement clause (=*aw* 'to me' in 11).[2]

(11) [Asaw [**aməpeɗe** sese.]]
      [a-s=aw   [Ø **amɪ-pɛɗ-ɛ**   ʃɛʃɛ]]
      3S-want=1S.IO   DEP-crunch-CL meat

      'I want to eat meat.' (lit. to eat meat pleases me)

(12) [Asan [**amadata aka va** azan.]]
      [a-s=aŋ   [Ø **ama-d=ata**   =aka =va azaŋ]]
      3S-want=3S.IO   DEP-prepare=3P.IO =on =PRF temptation

      'He wanted to tempt them.' (lit. to prepare a temptation for them pleases him)

(13) Race story[3]
      [Asaw [**aməgəye** ambele mbele nə moktonok.]]
      [a-**s**=aw   [Ø **amɪ-g-ijɛ** ambɛlɛ mbɛlɛ nə   mɔkʷtɔnɔkʷ]]
      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] pleases 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,'

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[2] Compare with (22) in Section 12.1.2 where the subject of the complement clause is different and must be specified in the clause.

[3] Friesen 2003.

[4] Note that in this example, the complement clause and the DO pronoun *na* in the matrix clause are co-referential.

(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.

(14) [Nasar na va, [bahay **apaɗəva** sese.]]
  [na-sar   na =va [bahaj **à-paɗ-ə**   =va ʃɛʃɛ]]
  1s-know DO =PRF chief   3s+PFV-crunch-CL =PRF meat
  'I know [that] the chief ate meat.'

(15) [Nəɗəgalay na, [bahay **apaɗəva** sese.]]
  [nə-ɗəgal-aj na [bahaj **à-paɗ-ə**   =va ʃɛʃɛ]]
  1s-think-CL PSP chief   3s+PFV-crunch-CL =PRF meat
  'I think [that] the chief ate meat.'

(16) [Nafaɗ na, [bahay **apaɗəva** sese.]]
  [na-faɗ na [bahaj **à-paɗ-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) [Nəkaɗ waya na, [bahay **apaɗəva** sese.]]
  [nə-kaɗ waja   na [bahaj **à-paɗ-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 **apaɗəva** sese.]]
  [a-tʃəkəʒ=aw   a har   ava [bahaj **à-paɗ-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 **apaɗəva** sese.]]
  [na-ɣaw-aj na [bahaj **à-paɗ-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 **apaɗəva** sese.]]
  [nɛ awij [bahaj **à-paɗ-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,
      [Mʊlɔkʷɔ =ahaj baba   =ahaj tawij   na
      Moloko =Pl   father =Pl   3P+said PSP
      'The Moloko fathers say [that]'

      [Hərmbəlom **ege** ɓərav va kə war anga məze dedelen ga aka.]]
      [Hʊrmbʊlɔm **ɛ̀-g-ɛ**   ɓərav =va kə war aŋga 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 *asaw* 'it pleases me.' The complement shows the object of the desire ex-
pressed in the matrix clause. The complement has a different subject than the LOC
of the desire in the martrix clause. The verb is finite and its subject is made ex-
plicit.[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 **mapaɗay** sese.]
      a-s=aw   na [bahaj **mà-paɗ-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]

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[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 benefi-
  ciary, 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 [**mà-zɔm**   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 Ø (24) or a pronoun (25–26).

(24) Disobedient Girl, S. 5

[[**Amǝhaya** kǝ ver aka na,] tázaɗ war elé háy bǝlen.]

[[Ø **amǝ-h=aja**   kǝ vɛr   aka na] tá-zaɗ   war ɛlɛ haj   bɪlɛŋ]
  dep-grind=plu on stone on   psp 3p+ifv-take child eye millet one

'For grinding on the grinding stone, they would take one grain of millet.'

(25) [[Ndahan **amǝcen** mǝbele a mbǝko ahay dǝreffefe na,] awǝy, "Almay?!"]

[[ndahaŋ **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 *dǝreffefe*),'

awij almaj]
said what

'he said, "What?!"'

(26) Disobedient Girl, S. 16

[[Ndahan **amandava** ɓǝl na,] zar ahan olo ametele

[[ndahaŋ **ama-nd=ava** ɓǝl   na] zar =ahan   ɔ̀-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'

kə dəlmete ahan aka a slam enen.]
kə dɪlmɛtɛ =ahaŋ   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 (27–30) occur with verbs of movement (*lo* 'go,' *njé* 'leave').[7] The dependent clause expresses the (as yet unachieved) purpose of the going – in (27) the reader does not know if he actually bought fish or not, although it is expected.

(27) [Olo a kosoko ava [**aməsəkwəme** kəlef.]]
      [ɔ-lɔ a kɔsɔkʷɔ ava [Ø **amɪ-søkʷøm-ɛ** kɪlɛf]]
      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**.]]
      [kɪlɛŋ zar =ahaŋ   na ɛ-nʒ-ɛ   ɛlɛ   ahaŋ   [Ø **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.]]
      [kɪlɛŋ albaja   =ahaj tɔ-lɔ [Ø **ama-z=ala** agʷaʐa   na]]
      then   young men =Pl   3p-go   dep-take=to spp. of tree psp

      'Then the young men went 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.

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[7] We have not found clause final adverbial clauses with other verbs.

(30) [Bahay ata ahay ɗəw tólo dəren [amaakəwala ele məzəme.]]
[bahaj =atəta   =ahaj ɗuw tɔ́-lɔ   dɪrɛŋ [Ø amaa-kuw=ala   ɛlɛ
chief =3P.POSS =Pl   also 3P+IFV-go far   DEP+POT-seek=to thing

mɪ-ʒʊm-ɛ]]
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 or conjunctive adverb are always
finite. The conjunction or adverb defines the way that the two linked clauses are
related. Conjuctions can be either subordinating or coordinating. Clauses sub-
ordinatd by a conjunction can be divided into two types, depending on whether
the subordinate clause follows or precedes the main clause (discussed in Sec-
tions 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 ad-
verbs also function to link clauses (Section 12.3.4). Table 12.1 shows the charac-
teristics of all of the conjunctions and conjunctive adverbs in Moloko.

12.3.1 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 *bəyna* 'because,'
waya 'because,' and *kəwaya* 'because,' (all involved in reason-result construc-
tions) and *ha* 'until.' Sentences in Moloko do not normally have multiple subor-
dinate clauses. In the examples, each of the subordinate clauses is delimited by
square brackets.

Bəyna[8] 'because' (31–34) is used in result-reason clause constructions that link
only two clauses. The clause subordinated by *bəyna* demonstrates the proof for
the statement in the matrix clause.

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[8] *Bəyna* 'because' may be a compound of the negative *bay* and the presupposition marker *na*.

Table 12.1: Subordinating and coordinating conjunctions

	Conjunction	Function
Subordinate conjunction Introduces an adverbial clause following the matrix clause.	*bayna* 'because'	Demonstrates the proof for the statement in the matrix clause.
	waya 'because'	Indicates the reason for something described in the previous clauses
	kəwaya 'because' / 'that is'	Introduces clauses (or noun phrases) that give an explanation or reasoning behind the situation expressed in previous clauses.
	ha 'until'	Expresses a literal or metaphorical boundary that marks the end of the activity or situation expressed in the matrix clause.
Conditional conjunction Introduces a conditional clause that precedes the matrix clause.	*asa...na* 'if...PSP'	Condition is presupposed or a real possibility.
	asa...dɔw 'if...also'	Condition presents a new possibility.
	ana asa ...na 'to if...PSP'	Condition presents a strong expectation to be fulfilled.
	azana asa ...na 'maybe if...PSP'	Condition might be fulfilled.
Coordinate conjunction Links independent clauses.	*nata* 'and (then)'	Marks a clause which contains the most pivotal event in a narrative.
	azləna 'but'	Contains an element of counterexpectation with something in the previous clause.
Conjunctive adverb Functions to relate clause to mainline events.	*kəlen* 'next'	Indicates the next mainline event.
	ndɛ 'therefore'	Often follows a digression.
	macəkəmbay 'meanwhile'	Marks conclusive statements.
		Marks information off the main event line.

(31) Snake, S. 19

Nəngehe na, Hərmbəlom aloko ehɛ, [**bəyna** anjakay nok

nɪŋgɛhɛ na Hʊrmbʊlɔm =alɔkʷɔ   ɛhɛ [**bijna** à-nzak-aj   nɔkʷ

DEM   PSP God   =1PIN.POSS here because 3S+PFV-find-CL 2S

'This one here, our God [is really] here [with us], because it found you'

ha a slam məndəye ango ava.]

ha   a ɬam   mɪ-nd-ijɛ   =aŋgʷɔ ava]

until at place NOM-sleep-CL =2S.POSS in

'even in your bed (lit. all the way to the place of your lying).'

(32) Náavəlaləkwəye səloy [**bəyna** kogom va slərele gam.]

náá-vəl=alʊkʷøjɛ   sʊlɔj [**bijna**   kɔ-gʷ-ɔm =va ɬɪrɛlɛ 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) Nazala məlama əwla a lopəytal ava

nà-z=ala   məlama =uwla   a lɔpijtal ava

1S+PFV-take=to sibling =1S.POSS at hospital in

'I took my brother to the hospital'

[**bəyna** dəngo awəlan.]

[**bijna**   dʊŋgʷɔ a-wəl=aŋ]

because throat 3S-hurt=3S.IO

'because his throat was hurting.'

(34) Cicada, S. 14

Ɗeɗen bahay, agwazla ngəndəye ágasaka ka mahay ango aka,

ɗɛɗɛŋ bahaj agʷaʒa   ŋgɪndijɛ á-gas   =aka ka mahaj =aŋgʷɔ aka

truth chief spp. of tree DEM   3S+IFV-get =on on door =2S.POSS on

'True, chief, it would be pleasing if that particular tree would be by your door,'

[**bəyna** agwazla ga səlom ga; aɓəsay ava bay.]

[**bijna** agʷaʒa   ga sʊlɔm ga aɓəsaj 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 *waya* '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 *waya* clause. In (35) (from S. 7–8

of the Disobedient Girl story Section 1.5) the *waya* clause explains the reasoning behind the entire paragraph before it. 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 the millet multiplied while the flour was being ground).

(35)   Disobedient Girl, S. 7
War elé háy bəlen fan na,
war ɛlɛ haj   bɪlɛŋ faŋ na
child eye millet one   yet PSP
'Just one grain of millet,'

ánjata pew ha ámbaɗ ese.
á-nz=ata   pɛw   ha   á-mbaɗ   ɛʃɛ
3S+IFV-suffice=3P.IO enough until 3S+IFV-remain again
'it sufficed for them, even to leaving leftovers.'

Disobedient Girl, S. 8
[**Waya** a məhaya ahan ava na,
[**waja** a mə-h=aja   =ahaŋ   ava na
because at NOM-grind=PLU =3S.POSS in   PSP
'Because, during its grinding,'

ásak kə ver aka nə məsəke.]
á-sak   kə vɛr   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 *waya* is shown in (36) (from part of a story not illustrated in this work). The clause subordinated by *waya* 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)   Nasar həraf ele nəngehe asabay
nà-sar   həraf   ɛlɛ   nɪŋgɛhɛ 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 səwpərefe.]
[**waja** nə̀-l =va afa suwpɪrɛfɛ]
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 *waya ndana* refers the hearer to the previously-mentioned clauses to discover the reason behind the statement introduced by *waya 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 *waya 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. 33
       Hərmbəlom ága ɓərav va kəwaya war dalay na,
       Hʊrmbʊlɔm á-g-a ɓərav =va kuwaja war dalaj na
       God   3S+IFV-do-CL heart =PRF because of child girl   PSP

       'God got angry because of that girl,'

       amecen sləmay baj ngəndəye.
       amɛ-tʃɛŋ ɬəmaj baj   ŋgɪndijɛ
       DEP-hear ear   NEG DEM

       'that one who was disobedient.'

       Disobedient Girl, S. 35
       [**Waya** ndana Hərmbəlom ázata aka barka ahan va.]
       [**waja**   ndana Hʊrmbʊlɔm á-z=ata   =aka barka   =ahaŋ
       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 *kəwaya* 'because' / 'that is' (38–39, reproduced here from 37) introduces clauses (or noun phrases) that give an explanation or reasoning behind the situation expressed in previous clauses. *Kəwaya* 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, Mələko ahay na, Hərmbəlom ávəlata barka va.
ɮɛɮɛ   na Mʊlɔkʷɔ =ahaj na Hʊrmbʊlɔm 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.'

Disobedient Girl, S. 4
[**Kəwaya** asa təwasva nekwen kəygehe ɗəw,]
[**kuwaja** asa tə̀-was   =va   nɛkʷɛŋ kijgɛhɛ ɗuw]
that is   if 3P+PFV-cultivate =PRF little   like this also
'That is, even if they had only cultivated a little [millet] like this,'

ávata məvəye haɗa.
á-v=ata   mɪ-v-ijɛ   haɗa
3S+IFV-spend time=3P.IO NOM-spend time-CL a lot
'it would last them enough for the whole year.'

In the conclusion of the same story (39), *kəwaya* introduces a noun phrase with a relative clause that gives the reasoning behind God's anger.

(39)   Disobedient Girl, S. 33
Hərmbəlom ága ɓərav va
Hʊrmbʊlɔm á-g-a   ɓərav =va
God   3S+IFV-do-CL heart =PRF
'God got angry (lit. did heart)'

[**kəwaya** war dalay amecen sləmay bay ngəndəye.]
[**kuwaja** war dalaj   amɛ-tʃɛŋ ɬəmaj baj ŋgɪndijɛ]
because child female DEP-hear ear   NEG that
'because of that girl, that one who was disobedient.'

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 (40,[9] 41).

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[9] From the Race story, Friesen 2003.

(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** ayaɗay ndele pəs pəssa.]
      [**ha** a-jaɗ-aj   ndɛlɛ pəs pəs   =sa]
      until 3s-tire-cl ɪDcompletely tired =ADV
      'until he was completely tired out.'

In (41), the second clause begins with *ha* 'until' and gives adverbial information to the matrix clause concerning how long that one grain of millet will satisfy their hunger.

(41) Disobedient Girl, S. 7
      War elé háy bəlen fan na, ánjata pew
      war ɛlɛ haj   bɪlɛŋ faŋ   na á-nz   =ata pɛw
      child eye millet one   already PSP 3s+ɪFV-suffice =3P.ɪO enough
      'One grain of millet, it sufficed for them'

      [**ha** ambaɗ ese.]
      [**ha**   a-mbaɗ   ɛʃɛ]
      until 3s-remain again
      'even to leaving leftovers.' (lit. until it remained again)

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. The construction is *asa* plus the conditional clause. The end of the subordinate clause is delimited by the presupposition marker *na* or the morpheme *dəw* 'also.' Which marker is employed depends upon the context. If the presupposition marker *na* delimits the condition (42–44), the clause is neutral with respect to whether the speaker expects the condition to be fulfilled or not. 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**,] náaɓok.
      [**asa** kɛ́-g-ɛ   akar na] náá-ɓ   =ɔkʷ
      if   2s+ɪFV-do-cl theft PSP 1s+POT-beat =2s.ɪO
      'If you steal, I will beat you.'

(43) [**Asa** ások njəwelek **na**,] kándaɗay elele kəlen.
    [**asa** á-s=ɔkʷ   nʒuwɛlɛk na] ká-ndaɗ-aj   ɛlɛlɛ kɪlɛŋ
    if   3s+IFV-cut=2s.IO leaf (spp.) PSP 2s+IFV-like-CL sauce then
    'If you like this kind of leaf, you will like this sauce.'

(44) [**Asa** taɓan va ana məze **na**,]
    [**asa** tà-ɓ   =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.
    lʊkʷøjɛ na   g-ɔm   =ala sərtfka   mɛdɛkal =alʊkʷøjɛ
    2P   PSP do[IMP]-2P =to certificate medical =2P.POSS
    'make a medical certificate for him.' (lit. do for him your medical certificate)

When the subordinated clause is delimited by *ɗəw* 'also' (45–46), the meaning of *asa* shifts to more of a concessive idea.

(45) Disobedient Girl, S. 4
    [**Asa** təwas va nekwen kəygehe **ɗəw**,]
    [**asa** tə̀-was   =va nɛkʷɛŋ kijgɛhɛ **ɗuw**]
    if   3P+PFV-cultivate =PRF little   like this also
    'Even if they had only cultivated a little [millet] like this,'

    ávata məvəye haɗa.
    á-v=ata   mɪ-v-ijɛ   haɗa
    3s+IFV-spend time=3P.IO NOM-spend time-CL many
    'it would last them enough for the whole year.'

(46) [**Asa** məze ahay təcahay ele **ɗəw**,] Hərmbəlom ecen asabay.
    [**asa** mɪʒɛ   =ahaj tə-tsah-aj ɛlɛ **ɗuw**] Hʊrmbʊlɔm 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 (42–47), 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** asok aməhaya **na**,]

[**asa** à-s=ɔkʷ   amə-h=aja   na]

if   3s+IFV-please=2S.IO DEP-grind=PLU PSP

'If you want to grind,'

kázaɗ war elé háy bəlen.

ká-zaɗ   war ɛlɛ haj   bɪlɛŋ

2S+IFV-take child eye millet one

'you take only one grain.'

(48) Gəbar anday agaw [**asa** bahay apaɗay sese **na**.]

gəbar a-ndaj   a-g=aw   [**asa** bahaj à-paɗ-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**,] náɓok bay.

[**ana asa** kè-g-ɛ   akar baj na] ná-ɓ   =ɔkʷ 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 təzlaɓay ele memey **na**,]

[**azana asa** ta-ndaj   tə-ɮaɓ-aj   ɛlɛ   mɛmɛj na]

maybe if   3P-PROG 3P-pound-CL thing how   PSP

'When something is being pounded,' (lit. if perhaps they are pounding something,)

tə́zləgalay avəlo bay.

tə́-ɮəg   =alaj avʊlɔ 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 co-
ordinate conjunction. The coordinating conjunction specifies the way that the
clauses are connected. They include *nata* 'and then' and *azləna* 'but.' In (51)–
(55), 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* (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**   ɔ̀-lɔ]
       and then 3s+PFV-go

       'And then he went,'

       Cicada, S. 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 wɛlɛj 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
       in order to lift it], there was none)

       Cicada, S. 27
       [**Nata** mətəde təh anan dəray ana agwazla ngəndəye.]
       [**nata**   mɪtɪdɛ təx   an=aŋ   dəraj ana agʷaʑa   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 həmbo na,
a-l=ala   na vɛr na á-rax   mbəf   nə   hʊmbɔ na
3s-go=to psp room psp 3s+ifv-fill to the roof with flour   psp

'Later, the room, it filled to the roof with flour,'

ɗək məɗəkaka alay ana hor na,
ɗək   mə-ɗək=aka   =alaj ana hʷɔr   na
suffocate nom-suffocate=on =away dat woman psp

'it suffocated the woman,'

[**nata** ndahan dəɓəsolək məmətava alay a hoɗ a hay na ava.]
[**nata** ndahaŋ dʊɓʊsɔlʊkʷ   mə-mət=ava =alaj a hʷɔɗ   a   haj
then 3s   idcollapse/die nom-die=in =away at stomach gen house
na ava]
psp in

'and then she collapsed *dəɓəsolək*, dying inside the house.'

Azləna[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 dalay. [**Azləna** war dalay ndana cekəzlere ga.]
à-lɔ   à-z=ala   dalaj [**aʒəna** war dalaj   ndana tʃɛkɪʒɛrɛ
3s+pfv-go 3s+pfv-take=to girl   but   girl female dem   disobedience

ga]
adj

'He went and took a wife, but the above-mentioned girl [was] disobedient.'

(54) Avəyon agan va gəɓar ana Abangay. Ahəman alay nekwen.
avijɔŋ   a-g=aŋ   =va gəɓar ana Abaŋgaj a-həm=aŋ   =alaj nɛkʷɛŋ
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.'

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[10] *Azləna* 'but' may be a compound of *azla* 'now' and the presupposition marker *na*.

[**Azləna** na me, ləme nata babəza ahay na,
[**aɠəna** 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 ɗəw, nobəlom bay.]
kʷɔ mɪ-bɛl-ɛ   nɛkʷɛŋ ɗuw nɔ-bʊl-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 hʷɔr =uwla nɛ awij mà-dz=aw   =ala jam
1S-tell=3S.IO DAT wife =1S.POSS 1S said 3S+HOR-help=1S.IO =to water

'I told my wife to bring me water'

aməbele; [**azləna** acahay bay.]
amɪ-bɛl-ɛ   [**aɠəna** a-tsah-aj   baj]
DEP-wash-CL but   3S-obey-CL NEG

'to wash; but she didn't obey me.'

12.3.4 Adverbial clauses with conjunctive adverbs

Conjunctive adverbs are adverbs that function to connect clauses within a larger context. They include *kəlen* 'next,' *nde* 'therefore,' and *macəkəmbay* 'meanwhile.' With the exception of *kəlen*, 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. The clauses with conjunctive adverbs are delimited by square brackets.

Kəlen '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) Cicada, S. 5-6
Tánday tə́talay a ləhe na,
tá-ndaj   tə́-tal-aj   a lɪhɛ na
3P+IFV-PROG 3P+IFV-walk-CL at bush PSP

'[As]they were walking in the bush,'

təlo tənjakay agwazla malan ga a ləhe.

tə̀-lɔ	tə̀-nzak-aj	agʷaƙa	malaŋ 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.'

[Albaya ahay ndana **kəlen** təngalala ma ana bahay.]

[albaja =ahaj ndana **kɪlɛŋ** tə̀-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.'

Clauses S. 7 and 8 are shown in (57), where *kəlen* 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 agʷaƙa	ava a lɪhɛ na malaŋ 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 =aŋgʷɔ 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 tə̀-lɔ]
next youth =Pl DEM 3P+PFV-go

'Then those young men went.'

A conclusion in a discourse or a concluding remark may be introduced by the conjunctive adverb *nde* 'so.' (58) shows S. 32–34 from the conclusion of the Disobedient Girl narrative. *Nde* 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 *nde* marks the clause within the hen's speech where she makes her concluding decision of what she should do. (60) shows *nde* marking a concluding statement in an instruction.

(58) Disobedient Girl, S. 32-34
[**Nde** ko ala a ɗəma ndana ava pew!] Məloko ahay tawəy,
[**ndɛ** kʷɔ =ala a ɗəma ndana ava pɛw] Mʊlɔkʷɔ =ahaj tawij
so until =to at time DEM in enough Moloko =Pl 3P+said
'So, ever since that time, it's done! The Molokos say,'

"Hərmbəlom ága ɓərav va kəwaya war dalay na,
Hʊrmbʊlɔm á-g-a ɓərav =va kuwaja war dalaj na
God 3S+IFV-do-CL heart =PRF because of child girl PSP
'"God got angry because of that girl,'

amecen sləmay bay ngəndəye.
amɛ-tʃɛŋ ɬəmaj baj ŋgɪndijɛ
DEP-hear ear NEG DEM
'that one that was disobedient.'

Waya ndana Hərmbəlom ázata aka barka ahan va."
waja ndana Hʊrmbʊlɔm á-z=ata =aka barka =ahaŋ
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,
[**ndɛ** 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 mɔgʷɔ ɛlɛ =uwla]
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,'

      [Asa bay na,] náaɓok.
      [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] náaɓok azla.
      [**ndɛ** aǩəna kà-gə   =va akar] náá-ɓ=ɔkʷ   aǩa
      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.'

Macəkəmbay '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 *macəkəmbay* 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, ɓərketem, ɓərketem, ɓərketem.
      paraw   tə-d=ija   mɪ-hɪm-ɛ   ɓɪrkɛtɛm ɓɪrkɛtɛm ɓɪrkɛtɛm
      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 ɛ-nʒ-ɛ   təf na awij mɔkʷtɔnɔkʷ nɔkʷ 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?!"
      mɔkʷtɔnɔkʷ awij nɛ kʷɔ   ɛhɛ 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** mɔkʷtɔnɔkʷ na a-bək ta =aja =va
meanwhile toad PSP 3S-invite 3P.DO =PLU =PRF

'Meanwhile, the toad, he had already invited'

məlama ahan ahay jəyga.]
məlama =ahaŋ =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 dəren bay.**]
[ndahaŋ bəfa] [**a-ndaj dɪrɛŋ baj**]
he IDclose 3S-PROG far NEG

'So, he was close, he was not far.'

(63) [Makay war;] [**mapaɗay sese ahan.**]
[mak-aj war] [**mà-paɗ-aj ʃɛʃɛ =ahaŋ**]
leave[2S.IMP]-CL child 3S+HOR-crunch-CL meat =3S.POSS

'Leave the child alone; let him eat his meat.'

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[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.

(64) [Nəmənjar bahay,] [**ndahan aka ozom sese**.]
      [nə-mənzar bahaj] [**ndahaŋ 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
      [Mbadʼala ehe na, nabay oko,]
      [mbadʼala ɛhɛ   na nà-b-aj   ɔkʷɔ]
      then   here PSP 1s+PFV-light-CL fire

      'Then, I turned on a light,'

      Snake, S. 9
      [**nazala təystəlam əwla,**]
      [**nà-zadʼ =ala tijstəlam =uwla**]
      1s+PFV-take   =to torch =1s.POSS

      'I took my flashlight,'

      Snake, S. 10
      [**nabay cəzlarr.**]
      [**nà-b-aj tsəɠarr**]
      1s+PFV-light-CL   IDshining the flashlight up

      'I shone it up *cəzlarr*.'

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
      [Káazədom anaw ala agwazla ndana ka mahay əwla aka.]
      [káá-zʊdʼ-ɔm   an=aw=ala   agʷaɮa   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.'

[**Káafəɗom anaw ka mahay əwla aka.**]
[káá-fʊɗ-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 temporal sequence from the peak of the Snake story (S. 13–18). S. 13 links to the preceding discourse with a *na*-marked clause, but the rest of the clauses (S. 14–18) are juxtaposed. There are no conjunctions or discourse particles to indicate how the clauses are linked. These juxtaposed clauses are a fast-moving temporal sequence (with a narrator's interjection in S. 16): he takes his spear (S. 13), hears the penetration (S. 14–15), the snake falls (S. 17), he clubs it to death (S. 18).

(67)   Snake, S. 13
   [Ne mbət məmbete oko əwla na.]
   [nɛ mbət   mɪ-mbɛt-ɛ   ɔkʷɔ =uwla   na]
   1S IDturn off NOM-turn off-CL light =1S.POSS PSP
   'I turned off my light.'

   [Kaləw nazala ezlere əwla.]
   [kàluw   nà-zaɗ   =ala ɛʒɛrɛ =uwla]
   IDtake quickly 1S+PFV-take =to   spear =1S.POSS
   'Quickly I took my spear.'

   Snake, S. 14-15
   [**Mək ava alay.**] [**Mecesle mbəraɓ.**]
   [**mək**   **=ava =alaj**] [**mɛ-tʃɛɬ-ɛ**   **mbəraɓ**]
   IDpenetrate =in =to   NOM-penetrate-CL IDpenetrate
   'Penetration *mək*! It penetrated, *mbəraɓ*!'

   Snake, S. 16
   [**Ele a Hərmbəlom, ele ga ajənaw ete**
   [**ɛlɛ a**   **Hʊrmbʊlɔm ɛlɛ**   **ga à-dzən=aw**   **ɛtɛ**
   thing GEN God   thing ADJ 3S+PFV-help=1S.IO also
   'God helped me also'

   kəl kəl kə ndahan aka.]
   kəl kəl kə ndahaŋ aka]
   exactly on 3s   on
   '[that the spear] went exactly on him'

Snake, S. 17
[Ádəɗala vbaɓ a wəyen ava.]
[á-dəɗ　　=ala vaɓ　　　　　a wijɛŋ　ava]
3s+ɪꜰv-fall =to ɪᴅfalling on ground at ground on

'and he fell on the ground *vbaɓ*.'

Snake, S. 18
[Ne dəyday məkəɗe na aka.]
[nɛ dijdaj　　　mɪ-kɪɗ-ɛ　na　=aka]
1s　approximately ɴᴏᴍ-kill-ᴄʟ 3s.ᴅᴏ =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 ᴀᴅᴊ 3s-pass cat

　　　'The dog is bigger than the cat.' (lit. the dog [is] big, it is greater than the cat)

(69)　[Ne mədehwer ga,] [**nadal nok**.]
　　　[nɛ mødœhʷœr ga] [**na-dal nɔkʷ**]
　　　1s　old person　ᴀᴅᴊ 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 (sometimes in question) for each verb from Bow's research (1997).

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
baɗay	/a-CC -j/	L	LM	'marry'
balay	/CaC -j/	H	HH	'wash'
batay	/a-CaC -j/	L	LM	'evaporate'
bay	/C -j/	L	L	'light'
baz	/a-CC/	L?	L	'harvest'
bazlay	/a-CC -j/	L	LM	'weed, breathe'
bəjakay	/CCaC -j/	L	LLM	'dig shallow'
bəjəgamay	/CCCaC -j/	L	LLLM	'crawl'
bərkaday	/CCCaC -j/	L	LLM	'collect, squeeze'
bərwaɗay	/CCCaC -j/	L	LLM	'drive'
bokay	/a-CC -j °/	L	LM	'cultivate second time, be bald'
bolay	/a-CaC -j °/	L?	LM	'knead, soak'
ɓay	/C -j/	H	H	'hit'
ɓah	/CaC/	L	M	'sew'
ɓal	/CC/	H	H	'stir'
ɓar	/CC/	H	H	'shoot (arrow)'
ɓaray	/CaC -j/	H	HH	'restless when sick'
ɓasay	/CC -j/	toneless	LM	'put up with'
ɓelen	/CaCCᵉ/	L?	MH	'build up to'
ɓezlen	/ CaCC ᵉ/	L?	LL	'count'
ɓərzlay	/CCC -j/	toneless?	LM	'throw a fit '
ɓəslay	/CC -j/	toneless	LM	'cough'
ɓorcoy	/CCC -j °/	L	MH	'first pounding, tear to pieces'
ɓoroy	/a-CaC -j °/	L	LM	'go up, climb'
caɓay	/a-CaC -j/	L	MH	'skewer'

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
caɗay	/a-CaC -j/	L	MH	'smooth'
caɗay	/CC -j/	L	MH	'clear'
caɗay	/a-CC -j/	L	LM	'castrate'
cahay	/CaC -j/	L	M	'get water'
cahay	/CaC -j/	H	HH	'ask'
cahay	/a-CaC -j/	L	MH	'scar'
capay	/CaC -j/	L	MH	'drape, double'
car	/CC/	H	H	'climb'
car	/CaC/	L	M	'taste good'
caray	/CaC -j/	H	HH	'tear up'
carzlay	/CCC -j/	toneless?	LM	'fold (legs)'
cazlay	/a-CaC -j/	L	MH	'pierce, cut'
cazlaj	/CaC -j/	toneless	LM	'have a headache'
ce	/C -j ^{e}/	H	H	'be small'
cefe	/CaC -j ^{e}/	L?	MH	'betray'
cen	/CC ^{e}/	H	H	'understand'
cəɗokay	/CCaC -j ^{o}/	L	MMH	'crouch, squat'
cəfaɗay	/CCC -j/	L	MMH	'ask'
cəjen	/CCC ^{e}/		LL	'lose , get lost'
cəkafay	/CCaC -j/	L	MMH	'get up'
cəkalay	/CCaC -j/	L	MMH	'assemble, unite'
cəkazlay	/CCC -j/	L	LLM	'forget'
cəke	/CC -j ^{e}/	L	MH	'stand up, standing'
cəlokoy	/CCC -j ^{o}/	toneless?	LM	'peel'
cəzlahay	/CCaC -j/	L	LLM	'cut, chop'
cokoy	/CaC -j ^{o}/	L	MH	'undress'
dabay	/CC -j/	toneless	LM	'follow, look for'
daɗ	/CC/	toneless	L	'fall'
dafay	/a-CaC -j/	L	LM	'bump'
dal	/a-CC/	L	L	'go beyond, go past, overtake, pass'
damay	/CC -j/		LL?	'succeed (at work)'
dar	/CC/	toneless	L	'recoil'
dar	/CC/	H	H	'burn, grill'
daray	/a-CaC -j/	L	LM	'plant, snore, bow low, pray'
daslay	/a-CaC -j/	L	LM	'castrate, sterilize'
daʋ	/CC/	?	L	'drop, throw, lay eggs'
dazlay	/CaC -j/	?	LM	'join, tie, cross'

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
ɗe	/C ᵉ/	L	L	'cook, prepare'
dəbakay	/CCaC -j/	L	LLM	'relieve'
dəbanay	/CCC -j/	L	LLM	'teach, learn'
dəngaɗay	/CCC -j/	L	LLM	'lean back'
dəya	/C / =ija	?	HM	'take many'
dokoy	/a-CaC -j ᵒ/	L	LM	'arrive'
ɗak	/CC/	H	H?	'block up'
ɗakay	/CaC -j/	L	MH	'show, tell'
ɗas	/CC/	L	M	'weigh, respect'
ɗaslay	/a-CaC -j/	L	MH	'reproduce, multiply'
ɗazl	/CC/	toneless	L	'spread for building'
de	/C ᵉ/	L	M	'soak in order to soften'
dəgalay	/CCaC -j/	L	LLM	'think'
dəgocoy	/CCaC -j ᵒ/	L	LLM	'stalk'
docoy	/a-CaC -j ᵒ/	L	LM	'squeeze, juice'
faɗ	/CC/	L	M	'put, down'
faɗay	/CaC -j/	H	HH	'fold, create'
fakay	/CaC -j/	L	MH	'uproot, knock down tree'
far	/CC/	H	H	'scratch'
fat	/CC/	L	M	'grow, sprout'
fatay	/CaC -j/	L	MH	'lower, go down, land'
fe	/C -j ᵉ/	L	M	'play a wind instrument'
fətaɗay	/CCaC -j/	L	MMH	'sharpen to a point'
fokoy	/a-CaC -j ᵒ/	L	MH	'whistle with your lips'
gabay	/a-CC -j/	L	LM	'constipate'
gar	/CC/	H	H	'grow up'
garay	/CaC -j/	toneless	LM	'own, measure, order'
garay	/a-CC -j/	L	LM	'frighten, tremble'
gas	/CC/	toneless	L	'take hold of, catch, accept'
gazay	/a-CaC -j/	L	LM	'nod'
ge	/C -j ᵉ/	H	H	'make, do'
gəɓokoy	/CCaC -j ᵒ/	L	LLM	'bend over'
gədəgalay	/CCCaC -j/	L	LLLM	'get fat'

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
gədəgaray	/CCCaC -j/	L	LLLM	'granulate, weave'
gəjah	/CCaC/	L?	LL	'pull'
gəjakaj	/CCaC -j/	L	LLM	'hang'
gəjar	/CCaC/	L?	MM	'take or steal by force'
gəvoy	/a-CC -j ᵒ/	L	LM	'rot meat or skin to flavour food'
gəzamay	/CCaC -j/	L	LLM	'lose weight'
gəzoy	/a-CC -j ᵒ/	L	LM	'tan'
gocoy	/CC -j ᵒ/	toneless	LM	'throw, sow'
gohoy	/a-CaC -j ᵒ/	L	LM	'brush'
goloy	/a-CaC -j ᵒ/	L	LM	'to silence'
goroy	/a-CaC -j ᵒ/	L	LM	'strip leaves from stalk'
gorcoy	/CCC -j ᵒ/	toneless?	LM	'sniff, slurp'
haɓ	/CC/	L	M	'break'
haɓay	/CaC -j/	toneless	LM	'dance'
hakay	/CaC -j/	L	MH	'push'
halay	/CaC -j/	H	HH	'gather, organise'
hamay	/CaC -j/	H	HH	'pay certain debt'
hay	/C -j/	H	H	'say'
həmay	/CC -j/	toneless	LM	'run'
har	/CaC/	toneless	L	'make, build'
har	/CaC/	L	M	'carry , move'
hasl	/CC/	L	M	'swell, blow up, abcess, boil'
haya	/C/ =aja	?	HM	'crush, grind with stone'
həjəgaɗay	/CCCaC -j/	L?	MMMH	'limp'
həraɗ	/CCC/		MM	'jump, pull out'
hərɓoy	/CCC -j ᵒ/	toneless?	LM	'dissolve'
hərkay	/CCC -j/	toneless?	LM	'beg'
həzloy	/a-CC -j ᵒ/	L	LM	'rot'
jakay	/CaC -j/	toneless	LM	'lean'
japay	/CaC -j/	toneless	LM	'mix, stir'
jav	/CC/	toneless	L	'plant'
jay	/C -j/	toneless?	L?	'speak'
jəɗokoy	/CCaC -j ᵒ/	L	LLM	'mash'
jəgor	/CCC ᵒ/	L?	LL	'watch, care'
jənay	/CC -j/	L?	LL	'help'

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
johoy	/a-CaC -jᵒ/	L	LM	'save, economise'
jokoy	/a-CC -jᵒ/	L	LM	'pack down'
jorɓoy	/CCC -jᵒ/	toneless?	LM	'wash clothes'
kaɓay	/a-CaC -j/	L	MH	'cook/stir quickly next to fire'
kaɗ	/CC/	L	M	'kill, beat'
kaɗay	/a-CaC -j/	L	MH	'prune, close eyes of dead'
kapay	/CaC -j/	L	MH	'roughcast (plaster)'
karay	/CaC -j/	H	HH	'steal'
kasl	/CC/	L	M	'wait, watch'
kəɓəcay	/CCC -j/	L	MMH	'snap'
kəɓəcay	/CCC -j/	L	MMH	'blink quickly'
kəcaway	/CCaC -j/	L	LLM	'trap, seize'
kəmbəhoy	/CCC -jᵒ/	L	LLM	'wrap'
kərɗaway	/CCCaC -j/	L	LLM	'scrape'
kərɗay	/CCC -j/	L	MH	'chew'
kərkay	/CCC -j/	L	MH	'kneel'
kəroy	/a-CC -jᵒ/	L	LM	'mount'
kərsoy	/CCC -jᵒ/	L	MH	'sweep'
kərtoy	/CCC -jᵒ/	toneless?	LM	'undress, peel'
kərway	/CCC -j/	toneless?	LM	'cultivate second time'
kətay	/CC -j/	toneless	LM	'punish'
kəway	/a-CC -j/	L	LM	'search'
kəway	/CC -j/	?	MH?	'inebriate'
koloy	/a-CaC -jᵒ/	L	MH	'dry'
koroy	/a-CaC -jᵒ/	L	LM	'put'
lagay	/CaC -j/	toneless	LM	'accompany'
lamay	/CaC -j/	H	HH	'touch'
laway	/CaC -j/	L	MH	'hang'
laway	/a-CaC -j/	L	MH	'mate'
lay	/C -j/	L	M	'dig'
lo	/Ca ᵒ/	H	H	'go'
makay	/CaC -j/	L	MH	'stop, let go'
malay	/CaC -j/	L	MH	'leave'
mat	/CC/	L	M	'die'
mbaɗ	/CC/	toneless	L	'change, become'
mbaɗay	/CaC -j/	H	HH	'swear, jump'
mbahay	/CaC -j/	toneless	LM	'call'

A List of verbs

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
mbar	/CC/	H	H	'heal, care for'
mbasay	/a-CaC -j/	L	LM	'smile, laugh'
mbazl	/CC/	toneless	L	'destroy'
mbe	/C -j ᵉ/	L	M	'argue, scold'
mbesen	/CaCC ᵉ/	?	HM	'rest, breathe, live'
mbeten	/CaCC ᵉ/	?	HM	'put out, extinguish'
mbərəmay	/CCC -j/	toneless?	LM	'blink slowly, break violently'
mbərzlay	/CCC -j/	toneless?	LM	'pass'
mbərway	/CCC -j/	toneless?	LM	'destroy violently'
mbəzen	/CCC ᵉ/		LL	'spoil'
mbocoy	/a-CaC -j º/	L	LM	'beat lightly'
mbəlɗoy	/CCC -j º/	toneless?	LM	'skin, peel'
mbomoy	/a-CaC -j º/	L	LM	'gather with a stick'
mbərcoy	/CCC -j º/	toneless?	LM	'untie'
məlay	/a-CC -j/	L	LM	'enjoy, to be happy, happiness'
məndacay	/CCaC -j/	L	LLM	'gather'
mənjar	/CCaC/		LL	'see, resemble'
mərcay	/CCC -j/	L	MH	'put horizontally, horizontal'
nah	/CaC/	L	M	'ripen, mature'
nday	/C -j /	?	?	'in progress'
ndaɗay	/CaC -j/	toneless	LM	'like, want'
ndahay	/CaC -j/	toneless	LN	'reprimand, scold'
ndar	/CC/	H	H	'weave'
ndavay	/CaC -j/	H	HH	'finish'
ndaway	/CaC -j/	toneless	LM	'swallow'
ndaway	/a-CaC -j/	L	LM	'insult, hurt'
ndaz	/CC/	toneless	L	'pierce'
ndəray	/CC -j/	?	LL	'stay, leave'
ndeslen	/CaCC ᵉ/	?	HM	'make cold, be cold'
ndəlkaday	/CCCaC -j/	L	LLM	'lick'
ndərdoy	/CCC -j º/	L	MH	'stretch'
ndozloy	/CaC -j º/	H	HH	'explode'
ngah	/CaC/	toneless	L	'hide, cover, protect'
ngal	/CaC/	toneless	L	'return'
ngar	/CC/	H	H	'prevent'
ngaray	/a-CaC -j/	L	LM	'tear'

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
ngay	/C -j/	L	L	'to work with wood or grasses to make something'
ngaz	/CC/	toneless	L	'flow, leak'
ngazlay	/CaC -j/	toneless	LM	'show, introduce'
ngəɗacay	/CCaC -j/	L	MMH	'butt with horns'
ngəɗay	/a-CC -j/	L	LM	'burn'
ngəlay	/CC -j/	H	HH [1]	'defend'
ngərɗasay	/CCCaC -j/	L	LLM	'wrinkle the skin'
ngərway	/CCC -j °/	toneless?	LM	'break, tear away'
ngərzlaj	/CCC -j/	toneless?	LM	'to be in conflict'
ngwəɗaslay	/CCaC -j °/	L	LLM	'simmer'
njahay	/a-CaC -j/	L	LM	'roast'
njakay	/CaC -j/	H	HH	'find, receive'
njaray	/a-CaC -j/	L	MH	'comb, separate'
nje	/C-j ᵉ/	H	H	'suffice, leave'
nje	/C -j ᵉ/	L	L	'sit, stay, live'
njeren	/CaCC ᵉ/	?	HM	'groan, push baby in delivery'
paɗay	/a-CaC -j/	L	MH	'bite, chew'
pahay	/a-CaC -j/	L	MH	'speak badly of someone for one's own interest'
palay	/CaC -j/	H	HH	'choose'
pamaj	/a-CaC -j/	L	MH	'fan'
par	/CC/	H	H	'pay'
pasay	/a-CaC -j/	L	MH	'take away'
pasl	/CC/	L	M	'break'
patay	/CaC -j/	L	MH	'wipe, rub'
pay	/C -j/	L	M	'open'
pazlay	/a-CaC -j/	L	LM	'decimate, kill many'
pəcahay	/CCaC -j/	L	MMH	'remove insides'
pəcay	/CC -j/	L	MH	'bring'
pəɗakay	/CCaC -j/	L	MMH	'wake'
pəɗakay	/CCaC -j/	L	LLM	'chop'
pəlɗ ay	/CCC -j/	L	MH	'shell'
pəlslay	/CCC -j/	L	MH	'split in half'
pəray	/a-CC -j/	L	LM	'spray'
pərtay	/CCC -j/	L	MH	'remove forcibly'

[1] the only non /CaC/-aj HH verb

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
pəsakay	/CCaC -j/	L	MMH	'detach'
pocoy	/CaC -jᵒ/			'wear a small article of leather clothing'
poloy	/a-CaC -jᵒ/	L	LM	'scatter'
rah	/CC/	H?	H?	'fill up'
rah	/CC/	L?	M?	'pluck'
rəɓay	/CC -j/	L	MH	'be beautiful'
rəcoy	/CC -jᵒ/	L	MH	'block up'
saɓay	/CaC -j/	L	MH	'exceed'
sahay	/a-CaC -j/	L	MH	'slander'
sak	/CC/	H	H?	'multiply'
sakay	/a-CaC -j/	L	MH	'sift'
sar	/CC/	H	H	'know'
se	/C -jᵉ/	L	M	'drink'
səɓatay	/CCaC -j/	L	MMH	'trick, tempt'
sədaray	/CCaC -j/	L	LLM	'misbehave'
səkom	/CCC ᵒ/	L?	MH	'buy, sell, pay'
səldʼay	/CCC -j/	toneless?	LM	'cross ankles'
səloy	/a-CC -jᵒ/	L	MH	'cook on fire'
sərkay	/CCC -j/	L	MH	'get used to'
səya	/C/ =aja	?	HM	'cut'
slahay	/CaC -j/	H	HH	'mix grain and ashes to prevent insects from eating seeds'
slapay	/a-CaC -j/	L	MH	'plait'
slar	/CC/	H	H	'send'
slaraj	/a-CaC -j/	L	MH	'slip, slide'
slay	/C -j/	L	M	'hunt, slit throat'
sləɓataj	/CCaC -j/	L	MMH	'fix, repair'
slohoy	/a-CaC -jᵒ/	L	MH	'leave in secret, go shamefully'
slohoy	/a-CaC -jᵒ/	L	MH	'take leaves off stalk'
soɓoy	/a-CaC -jᵒ/	L	MH	'suck'
sokoy	/a-CaC -jᵒ/	L	MH	'whisper'
soroy	/CaC -jᵒ/	toneless	LM	'slide'
tacay	/CaC -j/	L	MH	'close'
tadʼ	/CC/	L	M	'fall'
taf	/CC/	L	M	'spit'
tah	/CaC/	toneless	L	'pile'
tah	/CaC/	L	M	'reach out'

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
taħay	/CaC -j/	L	MH	'boost'
talay	/CaC -j/	H	HH	'take a walk'
tam	/CC/	H	H	'save'
tapay	/CaC -j/	L	MH	'stick'
tar	/CC/	H	H	'enter'
taray	/CaC -j/	L	MH	'call'
taslay	/a-CaC -j/	L	MH	'curse'
təɗoy	/CC -j ᵒ/	L	MH	'wind, roll'
təkam	/CCaC/	L?	MH	'taste'
təkaray	/CCaC -j/	L?	MH	'try, invite'
təkasay	/CCaC -j/	L	LLM	'cross'
təkosoy	/CCaC -j ᵒ/	L	MMH	'fold (legs)'
təlɓaway	/CCCaC -j/	L	LLM	'be sticky'
təlokoy	/CCaC -j ᵒ/	L	LLM	'drip'
təmbaɗay	/CCaC -j/	L	LLM	'twist'
təmbalay	/CCaC -j/	L	LLM	'shake out stones'
tərɗay	/CCC -j/	L	MH	'tie off'
təvalay	/CCaC -j/	L	LLM	'hunt'
təwaɗay	/CCaC -j/	L	LLM	'cross'
təwe	/CC -j ᵉ/	L	MH	'cry'
tohoy	/a-CaC -j ᵒ/	L	MH	'trace'
tokoy	/a-CaC -j ᵒ/	L	MH	'tap'
tosoy	/a-CaC -j ᵒ/	L	MH	'bud, uproot'
vaħay	/a-CaC -j/	L	LM	'fly'
vakay	/a-CaC -j/	L	LM	'burn, grill'
var	/a-CC/	L	L	'build roof'
varay	/a-CaC -j/	L	LM	'chase out'
vasay	/a-CaC -j/	L	LM	'wipe out, cancel'
vaway	/CaC -j/	toneless	LM	'twist, hang, lunacy'
vay	/C -j/	L	L?	'winnow'
ve	/C -j ᵉ/	L	L	'spend time'
vəlay	/CC -j/	H?	HH	'boil'
vənaħay	/CCaC -j/	L	LLM	'vomit'
vər	/CC /	L?	L	'give'
vərɗay	/CCC -j/	toneless?	LM	'boil'
wacay	/CaC -j/	H	HH	'write'
waɗay	/a-CaC -j/	L	MH	'spread out'
waħay	/a-CaC -j/	L	MH	'waste'
wal	/CC/	H	H	'attach, tie'
walay	/CaC -j/	H	HH	'dismantle'

2s Imperative	Underlying form	Underlying tone	Tone on Imperative	Gloss
waraɗ	/CaC -j/	H	HH	'to take upon one-self'
was	/CC/	L	M	'cultivate, shave'
wasaɗ	/CaC -j/	H	HH	'populate'
wasl	/CC/	L	M	'is forbidden'
waslaɗ	/CaC -j/	H	HH	'melt, liquidize'
wazaj	/a-CaC -j/	L	LM	'shake, shine light'
wazlaɗ	/a-CaC -j/	L	LM	'shine'
we	/C -jᵉ/	L	M	'give birth, be born'
wəcaɗaɗ	/CCaC -j/	L	MMH	'shine'
wədakaɗ	/CCaC -j/	L	MMH	'share, divide'
wədoɗ	/CC -jº/	L	MH	'populate'
wəldoɗ	/CCC -jº/	toneless?	LM	'devour'
wərkaɗ	/CCC -j/	L	MH	'pay'
wəzlaɗ	/CC -j/	toneless	LM	'publish, announce'
yaɗaɗ	/CaC -j/	L	MH	'tire'
yamaɗ	/CaC -j/	H	HH	'spin'
zaɗ	/CC/	L	L	'take, carry'
zaraɗ	/CaC -j/	H	HH	'linger'
ze	/C -j ᵉ/	H	H	'smell, stink'
zəmbaɗaɗ	/CCaC -j/	L	LLM	'glorify'
zərɗaɗ	/CCC -j/	toneless?	LM	'watch intently'
zəroɗ	/a-CC -jº/	L	LM	'notice, inspect'
zlaɓaɗ	/CaC -j/	toneless	LM	'pound, beat, help up'
zlah	/CaC/	toneless	L	'cry (dog, cock)'
zlan	/CC/	L	L	'start, beginning'
zlapaɗ	/CaC -j/	toneless	LM	'discuss'
zlar	/CC/	H	H	'pierce, inject'
zlar	/a-CC/	L	L	'kick'
zlavaɗ	/a-CaC -j/	L	LM	'swim'
zlawaɗ	/CaC -j/	toneless	LM	'fear'
zləgɛ	/CC -j ᵉ/	L?	LL	'throw, sow'
zləkaɗ	/a-CC -j/	L	LM	'suffer, pain, sorrow'
zlərav	/CCC/	L?	LL	'go out, appear'
zlokoɗ	/a-CaC -jº/	L	LM	'gnaw'
zlokoɗ	/a-CaC -jº/	L	LM	'squeeze out'
zokaɗ	/CaC -jº/	toneless	LM	'try'
zom	/CC º/	H	H	'eat'

Appendix B: Verb paradigms

Table B.1: *zɔm* 'eat' (high tone)

Nominalised Form	Dependent Form	Imperative	
mī-ʒʊ̄m-ɛ̄	*ámī-ʒʊ̄m-ɛ̄*	2S	*zɔ́m*
		1PIN	*zʊ́m-ɔ́kʷ*
		2P	*zʊ́m-ɔ́m*

	Perfective	Imperfective	Potential	Hortatory	Possible
1S	*nɔ̀-zɔ̄m*	*nɔ́-zɔ́m*	*nɔ́ɔ́-zɔ́m*	*nɔ̀ɔ̀-zɔ̄m*	*nɔ́ɔ̀-zɔ̄m*
2S	*kɔ̀-zɔ̄m*	*kɔ́-zɔ́m*	*kɔ́ɔ́-zɔ́m*	*kɔ̀ɔ̀-zɔ̄m*	*kɔ́ɔ̀-zɔ̄m*
3S	*ɔ̀-zɔ̄m*	*ɔ́-zɔ́m*	*ɔ́ɔ́-zɔ́m*	*mɔ̀ɔ̀-zɔ̄m*	*ɔ́ɔ̀-zɔ̄m*
1PIN	*mʊ̀-zɔ̄m-ɔ́kʷ*	*mʊ́-zʊ́m-ɔ́kʷ*	*mɔ́-zʊ́m-ɔ́kʷ*	*mɔ̀-zʊ̀m-ɔ̄kʷ*	*mɔ́ɔ̀-zɔ̄m-ɔ́kʷ*
1PEX	*nʊ̀-zɔ̄m-ɔ́m*	*nʊ́-zʊ́m-ɔ́m*	*nɔ́-zʊ́m-ɔ́m*	*nɔ̀-zʊ̀m-ɔ́m*	*nɔ́ɔ̀-zɔ̄m-ɔ́m*
2P	*kʊ̀-zɔ̄m-ɔ́m*	*kʊ́-zʊ́m-ɔ́m*	*kɔ́-zʊ́m-ɔ́m*	*kɔ̀-zʊ̀m-ɔ́m*	*kɔ́ɔ̀-zɔ̄m-ɔ́m*
3P	*tɔ̀-zɔ̄m*	*tɔ́-zɔ́m*	*tɔ́ɔ́-zɔ́m*	*tɔ̀ɔ̀-zɔ̄m*	*tɔ́ɔ̀-zɔ̄m*

Table B.2: *ʃɛ* 'drink' (Low tone)

Nominalised Form	Dependent Form	Imperative	
mī-ʃ-ījɛ́	*ámī-ʃ-ījɛ̄*	2S	*ʃɛ̄*
		1PEX	*sɔ̄kʷ*
		2P	*sɔ̄m*

	Perfective	Imperfective	Potential	Hortatory	Possible
1S	*nɛ̀-ʃɛ̄*	*nɛ́-ʃɛ̄*	*nɛ́ɛ́-ʃɛ̄*	*nɛ̀ɛ̀-ʃɛ̄*	*nɛ́ɛ̀-ʃɛ̄*
2S	*kɛ̀-ʃɛ̄*	*kɛ́-ʃɛ̄*	*kɛ́ɛ́-ʃɛ̄*	*kɛ̀ɛ̀-ʃɛ̄*	*kɛ́ɛ̀-ʃɛ̄*
3S	*ɛ̀-ʃɛ̄*	*ɛ́-ʃɛ̄*	*ɛ́ɛ́-ʃɛ̄*	*mɛ̀-ʃɛ̄*	*ɛ́ɛ̀-ʃɛ̄*
1PIN	*mɔ̀-s-ɔ̄kʷ*	*mɔ́-s-ɔ̄kʷ*	*mɔ́ɔ́-s-ɔ̄kʷ*	*mɔ̀-s-ɔ̄kʷ*	*mɔ́ɔ̀-s-ɔ̄kʷ*
1PEX	*nɔ̀-s-ɔ̄m*	*nɔ́-s-ɔ̄m*	*nɔ́ɔ́-s-ɔ̄m*	*nɔ̀-s-ɔ̄m*	*nɔ́ɔ̀-s-ɔ̄m*
2P	*kɔ̀-s-ɔ̄m*	*kɔ́-s-ɔ̄m*	*kɔ́ɔ́-s-ɔ̄m*	*kɔ̀-s-ɔ̄m*	*kɔ́ɔ̀-s-ɔ̄m*
3P	*tɛ̀-ʃɛ̄*	*tɛ́-ʃɛ̄*	*tɛ́ɛ́-ʃɛ̄*	*ɛ̀ɛ̀-ʃɛ̄*	*tɛ́ɛ̀-ʃɛ̄*

Table B.3: *həmaj* 'run' (toneless)

Nominalised Form	Dependent Form	Imperative	
mīhīmɛ̄	*ámīhīmɛ̄*	2S	*həmāj*
		1PEX	*hʊ̄mɔ́kʷ*
		2P	*hʊ̄mɔ́m*

	Perfective	Imperfective	Potential	Hortatory	Possible
1S	*nə̀-hə̀m-āj*	*ná-hə́m-āj*	*náá-hə́m-āj*	*nàà-hə̀m-āj*	*náà-hə̀m-āj*
2S	*kə̀-hə̀m-āj*	*ká-hə́m-āj*	*káá-hə́m-āj*	*kàà-hə̀m-āj*	*káà-hə̀m-āj*
3S	*à-hə̀m-āj*	*á-hə́m-āj*	*áá-hə́m-āj*	*màà-hə̀m-āj*	*áà-hə̀m-āj*
1PIN	*mʊ̀-hʊ̀m-ɔ̄kʷ*	*mʊ́-hʊ́m-ɔ̄kʷ*	*mʊ́-hʊ́m-ɔ́kʷ*	*mɔ̀-hə̀m-ɔ́kʷ*	*mɔ́ɔ̀-hə̀m-ɔ́kʷ*
1PEX	*nʊ̀-hʊ̀m-ɔ̄m*	*nʊ́-hʊ́m-ɔ̄m*	*nʊ́-hʊ́m-ɔ́m*	*nɔ̀-hə̀m-ɔ́m*	*nɔ́ɔ̀- hə̀m-ɔ́m*
2P	*kʊ̀-hʊ̀m-ɔ̄m*	*kʊ́-hʊ́m-ɔ̄m*	*kɔ́-hə́m-ɔ́m*	*kɔ̀-hə̀m-ɔ́m*	*kɔ́ɔ̀- hə̀m-ɔ́m*
3P	*tə̀-hə̀m-āj*	*tá-hə́m-āj*	*táá-hə́m-āj*	*tàà-hə̀m-āj*	*táà-hə̀m-āj*

Table B.4: *lɔ* 'go' (Low tone Irregular)

Nominalised Form	Dependent Form	Imperative	
mí-l-íjē̄	*ámí-l-íjē̄*	2S	*lɔ́*
		1PIN	*tɔ́kʷɔ́*
		2P	*lɔ́hʷɔ́m*

	Perfective	Imperfective	Potential	Hortatory	Possible
1S	*nɔ̀-lɔ̄*	*nɔ́-lɔ́*	*nɔ́ɔ́-lɔ́*	*nɔ̀ɔ̀-lɔ̄*	*nɔ́ɔ̀-lɔ̄*
2S	*kɔ̀-lɔ̄*	*kɔ́-lɔ́*	*kɔ́ɔ́-lɔ́*	*kɔ̀ɔ̀-lɔ̄*	*kɔ́ɔ̀-lɔ̄*
3S	*ɔ̀-lɔ̄*	*ɔ́-lɔ́*	*ɔ́ɔ́-lɔ́*	*mɔ̀ɔ̀-lɔ̄*	*ɔ́ɔ̀-lɔ̄*
1PIN	*mʊ̀-tɔ̄-kʷɔ̄*	*mɔ́-tɔ́-kʷɔ́*	*mɔ́ɔ́-tɔ́-kʷɔ́*	*mɔ̀ɔ̀-tɔ̄-kʷɔ́*	*mɔ́ɔ̀-tɔ̄kʷɔ́*
1PEX	*nʊ̀-lɔ̄-hɔ̄m*	*nɔ́-lɔ́hʷ-ɔ́m*	*nɔ́ɔ́-lɔ́hʷ-ɔ́m*	*nɔ̀ɔ̀-lɔ̄-hɔ́m*	*nɔ́ɔ̀-lɔ̄-hɔ́m*
2P	*kʊ̀-lɔ̄-hɔ̄m*	*kɔ́-lɔ́hʷ-ɔ́m*	*kɔ́ɔ́-lɔ́hʷ-ɔ́m*	*kɔ̀ɔ̀-lɔ̄-hɔ́m*	*kɔ́ɔ̀-lɔ̄-hɔ́m*
3P	*tɔ̀-lɔ̄*	*tɔ́-lɔ́*	*tɔ́ɔ́-lɔ́*	*tɔ̀ɔ̀-lɔ̄*	*tɔ́ɔ̀-lɔ̄*

Appendix C: Moloko-English Lexicon

A - a

a- vpfx. *3s 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 a ləho n. *star of the night.*

abay ext. *there is not.*

abəlgamay ID. n. *the way a sick person walks.*

aɓalan n. *goat horn.*

aɓəsay 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. *tree species for chief's house.*

agwazlak n. *rooster.*

agwəjer n. *grass.*

ahakay adv. *here.*

-ahan nclitic. *3s 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. *1PIN possessive.*

-aloko vclitic. *1PIN indirect object.*

-aləkwəye nclitic. *2P possessive.*

-aləkwəye vclitic. *2P indirect object.*

-aləme nclitic. *1PEX possessive.*

-aləme vclitic. *1PEX indirect object.*

Aləwa n.pr. *name of the second twin. Cf.:* **Masay**.

almay pn. *what.*

amar n. *oil.*
amata n. *outside.*
amɓay 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. *s/he said.*
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.*
azəɓat n. *a dish made of bean leaves.*
azlam n. *vulture.*
azla adv. *now.*
azləna conj. *but.*

B - ɓ

baba n. *father.*
baɓək ID. *idea of burying.*
baɓəza n. *children.*
baɗay 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.*
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.*

bərwaɗay v. *drive.*
bəway n. *baboon.*
bəwce n. *mat.*
bəwɗere 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.*

Ɓ - ɓ

ɓah v. *sew.*
ɓal v. *stir.*
ɓalay v. *build.*
ɓar v. *shoot an arrow.*
ɓaray v. *toss and turn while sick.*
ɓasay v. *tolerate.*
ɓavbaw ID. *sound or idea of men running.*
ɓay v. *hit.*
ɓelen v. *build up to.*
ɓezlen v. *count.*

ɓəl ID. *some.*
ɓəra n. *granary.*
ɓərav n. *heart, self.*
ɓərketem ɓərketem ID. *idea/sound of race.*
ɓərzlan n. *mountain.*
ɓərzlay v. *throw a fit.*
ɓəslay v. *cough.*
ɓoray v. *climb.*
ɓorcay v. *first pounding, tear to pieces.*

C - c

caɓay v. *skewer.*
caɗay v. *smooth.*
caɗay v. *clear.*
caɗay 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.*
cezlere n. *disobedience.*
cəɓay v. *overwhelm.*

cəcəngehe adv. *now.*
cəɗew n. *smallness.*
cəɗoy n. *trick.*
cəɗokay v. *crouch, squat.*
cəfəɗay 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.*
cəveɗ 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.*
daɗ 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.*

dergwecek ID. *idea of lifting on head.*

dewele n. *obligation.*

dey adv. *emphasis.*

dəbakay v. *persuade, relieve.*

dəbənay v. *learn, teach.*

dəbo num. *1000.*

dəɓəsolək ID. *idea of collapsing, dying.*

dəgolay n. *thigh.*

dəl ID. *idea of insulting.*

dəlmete n. *neighbour.*

dəlov n. *lake.*

dəndara n. *lamp.*

dəngaɗay 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.*

dokay v. *arrive.*

dolokoy n. *syphilis.*

dozloy v. *intersect, meet.*

Ɗ - ɗ

ɗaf n. *millet loaf, food.*

ɗak v. *plug.*

ɗakay v. *indicate.*

ɗas v. *be heavy/honourable.*

ɗaslay v. *multiply.*

ɗaw pn. *question marker.*

ɗaz ɗaz n. *redness.*

ɗazl v. *spread for building.*

ɗe v. *flourish, soak in order to soften.*

ɗeɗen n. *truth.*

ɗeɗew n. *pot.*

ɗeləywel n. *paper.*

ɗen ID. *idea of putting.*

ɗəgalay v. *think.*

ɗəgocoy v. *stalk.*

ɗəgom n. *nape.*

ɗəma n. *time.*

ɗəw adv. *also.*

ɗəwa n. *milk, breast.*

ɗəwer n. *sleep.*

ɗəwge adv. *actually.*

ɗocay v. *squeeze, juice.*

E - e

eɗəyen n. *bird.*
eɗongwereɗ n. *type of tree.*
egəne adv. *today.*
ehe adp. *here.*
ehe adv. *no.*
ehwəɗe n. *nail, claw.*
elé n. *eye.*
ele n. *thing.*
elele n. *leaf ; sauce made from edible leaves.*
eleməzləɓe n. *termites.*
eləmene n. *treasure.*
emelek n. *bracelet.*
endeɓ n. *brain ; wisdom.*
enen n. *snake.*
enen pn. *another.*
engeren n. *insect.*
epeley pn. *when.*

epele epele ID. *in the future, forever.*
ercece n. *compassion.*
erkece n. *ostrich.*
ese adv. *again.*
esew n. *laziness.*
esəmey adv. *not so?.*
eslesleɓ n. *saliva.*
eslesleɗ n. *egg.*
ete adv. *also.*
eteme n. *onion.*
etew n. *hawk.*
etey adv. *polite demand.*
eyeweɗ n. *whip.*
eyewk n. *ground nut.*
ezeweɗ n. *cord.*
ezewk n. *misfortune.*
ezlegweme n. *camel.*
ezlere n. *spear.*

Ə - ə

əwɗe adv. *first.*
əwfaɗ num. *four.*

əwla nclitic. *1s possessive.*

F - f

fabay NEG. *not yet.*
faɗ v. *put, set down.*
faɗay v. *fold.*
fakay v. *uproot a tree.*

fan adv. *already.*
far v. *scratch.*
fat n. *sun, daytime.*
fat v. *germinate.*

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.*

gəɓar n. *fear.*

gəɓokoy v. *bend over.*

gədan n. *strength.*

gədəgalay v. *get fat.*

gədəgar v. *granulate, weave.*

gədo gədo gədo ID. *sight/idea of man running.*

gədok ID. *make beer.*

gəɗəgəzl 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.*

gərəp gərəp 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.*

gobay n. *a lot.*

gocoy v. *throw, sow.*

gogolvon n. *snake.*

gogor n. *elder.*

gogwez n. *redness.*

gohoy 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.*
gwədeɗek 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.*
hazak n. *smoke.*
heɓek heɓek ID. *hardly breathing.*
hehen n. *owl.*
hereɓ n. *heat.*

heyew n. *grasshopper.*
hədo n. *wall.*
həjəgaɗay v. *limp.*
həlan n. *place behind.*
həlef 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.*
  hawǝr ahay n. *women.*
hwǝɗa n. *dregs.*

hwǝlen n. *back.*
hwǝsese n. *smallness.*
hwǝter n. *tail.*
hwǝzlay 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.*
jegwer n. *limpness.*
jen n. *luck.*
jere n. *truth.*
jǝbe n. *tribe.*
jǝb jǝb ID. *completely wet.*
jǝɗokoy v. *mash.*

jǝgǝlen n. *stable.*
jǝgor n. *shepherd; stake.*
jǝgor v. *shepherd.*
jǝnay v. *help.*
jǝway n. *fly.*
jǝwk jǝwk adv. *suddenly.*
jǝyga quant. *all.*
jo ID. *take.*
jogo n. *hat.*
johoy v. *save, economize.*
jokoy v. *pack down.*
jorɓoy v. *wash clothes.*

K - k

k- vpfx. *2s subject.*
kǝ…aka adp. *on.*
ka adv. *like.*
  ka nehe dem. *like this.*
  ka ngǝhe dem. *like this here.*
kaɓay v. *cook or stir quickly next to fire.*
kaɗ v. *kill by clubbing.*
kaɗay v. *prune.*
kalǝw 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.*
kekǝɓkekeɓ ID. *sharpness.*
kǝɓǝcay v. *snap.*
kǝɓǝcay v. *blink quickly.*
kǝcaway v. *trap, seize.*

kək ID. *idea of catching someone by the throat.*

kəkef kəf ID. *idea of someone who hasn't any weight (an insult).*

kəlakasl n. *bone.*

kəlbawak n. *bird.*

kəlef n. *fish.*

kələn n. *seer.*

kələn disc. *then.*

kəl kəl ID. *exactly.*

kəla conj. *Benefactive.*

kəlo adv. *before.*

kəmbohoy 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.*

kərɗay v. *chew.*

kərɗaway v. *scrape.*

kəre n. *rafter.*

kərkaɗaw 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.*

kərwəɗ wəɗ kərwəɗ wəɗ 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.*

kweɗe kweɗe n. *shakers.*

kwəcesl n. *viper.*

kwəleɗeɗe n. *smooth.*

kwəsay n. *haze.*

L - l

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.*
maɓasl 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. *termite species.*
Masay n.pr. *name of first twin.*
  Cf.: **Aləwa**.
maslalam n. *sword.*
maslar n. *front teeth.*

mat v. *die.*
mataɓasl n. *cloud.*
mavaɗ n. *sickle.*
mawar n. *tamarind.*
may n. *hunger.*
may pn. *what? (emphatic).*
mazlərpapan n. *spider.*
mazloko n. *lion.*
mba ID. *a short time.*
mbaɗ v. *change.*
mbaɗay 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.*
mbeɗem n. *centre, middle.*
mbəlele n. *elephant.*
mbesen v. *rest, breathe.*
mbeten v. *extinguish.*
mbezlen v. *count.*

mbəlɗoy v. *skin, peel.*

mbəraɓ 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.*

mecekweɗ n. *larva, worm.*

medəlengwez 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. *termite species.*

meslenen pn. *no one.*

metesle n. *curse.*

mey pn. *how (emphatic).*

mədara n. *fire.*

mədegen n. *cold/flu.*

mədehwer n. *old person.*

mədəga n. *older sibling.*

mədəger n. *hoe.*

mədəra n. *bicep.*

məf interj. *get away* !

məfaɗ num. *four.*

məjəvoko n. *celebration (lit. planting fire).*

mək ID. *idea of positioning self for throwing something (spear).*

məko num. *six.*

məlama 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.*

mənjaɗ adp. *without.*

mənjar 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.*
mombərkotok n. *fish.*
mongom n. *horn.*

mongoro n. *mango.*
morkoyo n. *oldest child.*
mosokoy n. *vegetable sauce.*
mozongo n. *chameleon.*

N - n

n- vpfx. *1s subject.*
na disc. *presupposition marker.*
na vclitic. *3s direct obj.*
nə conj. *with.*
nah v. *ripen.*
nata conj. *and then ; marks the climactic moment in a narrative.*
nday v. *be in process of.*
ndaɓay v. *wet, whip.*
ndaɗay 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.*
ndáway 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.*
ngəɗacay v. *butt with horns.*
ngəɗay v. *burn.*
ngəhe dem. *this particular one here.*
ngəmngam n. *mouse trap.*
ngəlay v. *defend.*
ngəlday v. *grind (peanuts).*
ngərɗasay v. *wrinkle the skin.*
ngərkaka n. *heron.*
ngərway v. *break, tear away.*
ngərzlay v. *be in conflict.*
ngəvəray n. *tree.*
ngomna n. *government.*
ngwəɗaslay 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.*
njəɗa n. *power.*
njəl njəl ID. *sight/idea of youth running.*

njəɗok njəɗok 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.*
oɓolo 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.*

omboɗoc 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.*
ozlərgo n. *axe.*

P - p

paɗay 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.*
peɗeɗe ID. *fullness.*
peɗewk n. *razor.*
pembez n. *blood.*
pepen n. *immediately.*
    pepenna adv. *long ago.*
pew adv. *enough.*
pəcahay v. *remove insides.*
pəcay v. *bring.*
pəcəkəɗək ID. *sight/idea of a toad hopping.*
pəɗakay v. *wake up.*
pəɗakay v. *chop.*
pəɗak v. *melt.*
pəɗe n. *hole.*
pək ID. *sound/idea of bottle opening.*
pəlɗay v. *shell.*
pəlslay v. *split in half.*

pəles n. *horse.*
pəra n. *spirit, idol.*
pəraɗ 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.*
pəyteɗ ID. *idea of barely escaping.*
pok ID. *idea of opening door.*
pocoy v. *wear small leather article of clothing.*
poɗococo ID. *sweetness.*
poloy 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.*
rəɓay v. *be beautiful.*
rəcoy v. *block up.*

S - s

saɓay 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.*
seɓetəy v. *repair.*
sede n. *witness.*
sen ID. *idea of going.*
serəya n. *judgement.*
sese n. *meat.*
səber n. *height.*
səɓatay v. *trick, tempt.*
sədaray v. *misbehave.*
səkar n. *spirit being.*
səkat n. *hundred.*
səkom v. *buy/sell.*
səkoy n. *clan.*
səlɗay v. *cross ankles.*
səlek n. *jealousy.*
səlewk n. *broom.*
səlom n. *good.*
səloy n. *money.*
səloy v. *cook on fire.*
səmbetewk n. *hair.*
sənewk n. *shadow, spirit.*
sərkay v. *do something habitually.*
səsayak n. *wart.*
səsəre 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.*
sləɓatay v. *repair.*
slələy 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.*
soɓoy v. *suck.*
sokoy v. *whisper.*
solay v. *fry.*
sono n. *joke.*
soroy v. *slide.*

T - t

t- vpfx. *3p.*
-ta vclitic. *3P direct object.*
tacay v. *close.*
taɗ 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 tezlezl ID. *idea of hollowness.*
təde n. *good.*
tədo n. *leopard.*
təɗoy 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.*

təlɓaway v. *be sticky.*
təlokoy v. *drip.*
təmak n. *sheep.*
təmbaɗay v. *twist.*
təmbalay v. *shake out stones.*
tərɗay v. *tie off.*
təta pn. *3p.*
təta adv. *is able to.*
tətərak n. *shoes.*
təvalay v. *hunt.*
təwaɗay v. *go across.*
təway v. *cry.*
təwe n. *cry.*
toho dem. *far.*
tohoy 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 (reduced form).*
vahay v. *fly away.*
vakay v. *burn.*
var v. *put on a roof.*
varay v. *chase away.*
vərɗay v. *boil.*
vasay v. *wipe out, cancel.*
vaway v. *twist, hang.*
vay v. *winnow.*
vbaɓ ID. *sound or idea of something soft hitting the ground (a snake, or a mud wall).*

vbəvbəvbə ID. *rapidly.*
ve v. *spend time.*
ver n. *room.*
ver n. *grinding stone.*
vəɗ vaɗ 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. *write.*
waɗay v. *spread out.*
wahay v. *waste.*
wal v. *attach, hurt.*
walay v. *dismantle.*
war n. *child.*
  babəza ahay n. *children.*
waray v. *take upon oneself.*
was v. *cultivate.*
wasay v. *populate.*
wasl v. *be forbidden.*
way pn. *who.*
waya conj. *because.*
wazay v. *shake.*
wazlay v. *shine.*
we v. *give birth.*

weley pn. *which.*
wewer n. *cunning.*
wəcaɗay v. *shine.*
wəɗakay v. *divide, share.*
wəɗoy v. *populate.*
wəldoy v. *devour.*
wəle n. *potash.*
wərkay v. *pay.*
wərge n. *bad spirit.*
wərsla n. *butter.*
wərzla n. *star.*
wəse n. *thank you.*
wəsekeke ID. *sight/idea of something multiplying.*
wəyen n. *land.*
wəzlay v. *publish, announce.*

Y - y

ya nsfx. *respectful vocative.*
yaɗay v. *tire.*
yam n. *water.*
yamay v. *spin.*

yeɗ yeɗ yeɗ ID. *sight/idea of ostrich running.*
Yerəyma n. *prince ; Monday market.*

Z - z

zaɗ v. *take, carry*
zana n. *clothes, cloth.*
zar n. *male ; husband.*

  zawər ahay n. *men.*
zaray v. *linger.*
zay n. *peace, wholeness.*

zayəh n. *care.*

zazay n. *peace, wholeness.*

ze v. *smell.*

zetene n. *salt.*

zəgogom n. *tree (sp.).*

zəmbaɗay v. *glorify.*

zənof n. *naivety, kindness.*

zən zan n. *mouse.*

zən zen n. *darkness.*

zən zon n. *gourd.*

zəraka n. *river.*

zərɗay v. *watch intently.*

zəroy v. *notice, inspect.*

zəva n. *net.*

Zlaba n. *Sunday market.*

zlaɓay 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 *tɔta*.
above *avɔlo*.
accept, catch *gas*.
accompany *lagay*.
actually *ɗɔwge*.
adultery *adama*.
again *ese*.
agreed *ayokon*.
all *cece, jɔyga, pat*.
all night *vɔɗ vaɗ*.
already *fan*.
also *ɗɔw*.
also, as well *ete*.
and *nata*.
anger *mogo*.

animal *gɔnaw*.
announce *wɔzlay*.
another *enen*.
appear *zlɔray*.
argue *mbe*.
arrive *dokay*.
arrow *ava*.
ask *cahay*.
ask for *cɔfɔɗay*.
assemble *cɔkalay*.
at the house of *afa*.
attach *wal*.
axe *ozlɔrgo, zlɔrgo*.
axe, small *gwɔlek*.

B - b

baboon *bɔway, hɔrgov*.
back *hwɔlen*.
banana *kondon*.
bat *mebebek*.
be bald
  bokay.
be beautiful *rɔɓay*.

be heavy/honourable *ɗas*.
be in conflict *ngɔrzlay*.
be in process of *nday*.
be insufficient *ce*.
be roughcast *kapay*.
be sticky *tɔlɓaway*.
bean *hahar*.

beat lightly *mbocoy*.
because *bəyna, waya*.
because *kəwaya*.
become drunk *kəway*.
bee *war omom*.
before *kəlo*.
beetle *hohom*.
beg *hərkay*.
behind *həlan*.
below *asəbo*.
bend over *gəɓokoy*.
benefit of *kəla*.
betray *cefe*.
better *ngama*.
bicep *mədəra*.
bicycle *baskwar*.
bird species *kəlbawak, edəyen*.
birth *we*.
blackness *dedəlen*.
blemish *aɓəsay*.
blessing *barka*.
blink quickly *kəɓəcay*.
blink slowly *mbəramay*.
block up *rəcoy*.
blood *pembez*.
boa *tezeh*.
board *slərah*.
body *hərva*.
body (reduced forms) *har, va*.
boil *vəlay, vərday*.
bone *kəlakasl*.

book *deftere*.
boost *tahay*.
bottom *mətenen*.
bracelet *emelek*.
bracelet *alahar*.
braid *slapay*.
brain *endeɓ*.
break *haɓ, pasl*.
break *ngərway*.
break violently *mbəramay*.
breast *dəwa*.
breathe *bazlay*.
breathe *mbesen*.
bride price *gembere*.
bring *pəcay*.
broom *səlewk*.
brush *gohoy*.
bucket *cafgal*.
bud *tosoy*.
build *ɓalay*.
build up to *ɓelen*.
bull *gəsan*.
bump *dafay*.
burn *dar, ngəday, vakay*.
bush *ləhe*.
but *azləna*.
butt with horns *ngədacay*.
butter *wərsla*.
butterfly *mepetəpete*.
buy/sell *səkom*.

call *mbahay, taray.*
camel *ezlegweme.*
cancel *vasay.*
care *zayəh.*
carry *zaɗ.*
castrate *caɗay.*
castrate *daslay.*
cat *pataw.*
cat, wild *məngamak.*
catch *gas.*
celebration *məjəvoko.*
centre *mbeɗem.*
chain *celelew.*
chameleon *mozongo.*
change *mbaɗ.*
chase *galay.*
chase away *varay.*
cheek *bozlom.*
chest *tololon.*
chew *kərɗay.*
chicken *anjakar.*
chief *bahay.*
child *war.*
child, oldest *morkoyo.*
child, youngest *gwədar.*
children *babəza ahay.*
choose *palay.*
chop *pədakay.*
chop *cəzlahay.*
cicada *mətəde.*
clan *səkoy.*
claw *ehwəde.*
clear *caɗay.*
climb *ɓoray.*
climb *car.*

close *tacay.*
clothes *kəmeje, zana.*
cloud *mataɓasl.*
coin (5 francs) *səysay.*
cold/flu *mədegen.*
collect *har.*
collect *bərkaday.*
comb *njaray.*
come back *ngala.*
command *garay.*
compassion *ercece.*
constipate *gabay.*
construct *har.*
cook *de.*
cook on fire *səloy.*
cook or stir quickly next to fire *kaɓay.*
cord *ezeweɗ.*
cotton *gəgəmay.*
cough *ɓəslay.*
count *ɓezlen, mbezlen.*
cow *sla.*
crawl *bəjəgamay.*
crocodile *kəramba.*
cross *təkasay.*
cross *təkosoy.*
cross ankles *səlɗay.*
crouch *cədokay.*
crow *məngahak.*
crunch   *paɗay.*
crush *zlaɓay.*
cry (noun) *təwe.*
cry (verb) *təway.*
cry (dog or rooster) *zlah.*
cucumber *kərsay.*
cultivate *was.*

cultivate second time *kərway, bokay.*
cultivated field *gəvah.*
cunning *wewer.*
curse *taslay.*

cut *səya.*
cut, chop *cəzlahay, cazlay, say.*
cut (noun) *ambəlak.*
cut off head *caway.*

D - d

dance *haɓay.*
darkness *zən zen.*
dawn *jajay.*
day *məndəye.*
dear *golo.*
debt *dəwa.*
decimate *pazlay.*
deer *məyek.*
defend *ngəlay.*
demolish *mbazl.*
descend *fatay.*
destroy *hwəzlay.*
destroy violently *mbərway.*
detach *pəsakay.*
detach *pasay.*
devour *wəldoy.*
die *mat.*
different *tere.*
difficulty *gar.*
dig *lay.*
dig shallow *bəjakay.*

disease *cəje.*
dismantle *walay.*
disobedience *cezlere.*
divide, share *wədakay.*
do *ge.*
dog *kəra.*
donkey *ozəngo.*
donut *makala.*
donut made from ground nuts
  manjaw.
door *mahay.*
double, drape *capay.*
dregs *hwəɗa.*
drink *se.*
drip *təlokoy.*
drive *bərwaɗay.*
drop *dav.*
dry *koloy.*
dry season *almamar.*
duck *andəbaba.*

E - e

ear *sləmay*.
earring *sloko*.
earth *dəwnəya*.
eat *zom*.
economize *johoy*.
egg *eslesleɗ*.
egret *dedewe*.
eight *slalakar*.
elder *gogor*.
elephant *mbəlele*.
emphasis *dey*.
enjoy *məlay*.
enough *pew, haɗa*
enter *tar*.

evaporate *batay*.
even *ko*.
evening *ləho*.
everywhere *kəray*.
exceed *saɓay*.
except *səy*.
exclamation *kay*.
excrement *azay*.
existential *aba*.
existential *abay*.
existential *ava*.
explode *ndozlay*.
extinguish *mbeten*.
eye *elé*.

F - f

faeces *azay*.
fake *dar*.
fall *daɗ, taɗ*.
fan *pamay*.
far *toho*.
far away *dəren*.
fast *jajak*.
fat *okos*.
father *baba*.
fatten *gədəgalay*.
fear (noun) *gəɓar*.
fear (verb) *zlaway*.
fiancé *mangasl*.
fields *ləhe*.
fig tree *hərov*.

fill *rah*.
find *njakay*.
finger *war ahar*.
fingers *bəbəza ahar ahay*.
finish *ndavay*.
fire *oko, mədara*.
first (adv) *əwɗe*.
first *cecekem*.
first pounding *ɓorcay*.
fish *kəlef*.
fish net *cokor*.
fish species *mombərkotok*.
five *zlom*.
flour *həmbo*.
flourish *ɗe*.

flow, leak *ŋgaz.*
flu/cold *mədegen.*
flute *cecewk.*
fly *jəway.*
fly away *vahay.*
fold *faɗay, təkosoy.*
fold legs *carzlay.*
follow *dabay, mbay.*
food *ɗaf.*
foot *asak.*

forbid *wasl.*
forget *cəkəzlay.*
forehead *meher.*
four *əwfaɗ, məfaɗ.*
friend *cecew.*
frighten *garay.*
frog *gwədeɗek.*
fry *solay.*
Ftak village and clan of Moloko *Fətak.*

G - g

gather *halay, məndacay, məndocay.*
gather with a stick *mbomoy.*
germinate *fat.*
get away! *məf.*
get lost *cəjen.*
get up *cəkafay.*
get water *cahay.*
giraffe *kərcece.*
girl *dalay.*
give *vər.*
glorify *zəmbaɗay.*
gnaw *zlokoy.*
go *lo.*
go across *təwaɗay.*
go out *zləray.*
goat *awak.*
goat horn *aɓalan.*
Creator God *hərmbəlom.*
gold *ogəro.*
good *lala, səlom, təde.*

gourd *kokor, zən zon.*
government *ŋgomna.*
granary *ɓəra.*
granary for straw *hahar.*
grandmother *dede.*
granulate *gədəgar.*
grass *agwəjer.*
grass fence *məpapar.*
grasshopper *heyew.*
grave *hərdesl.*
greatness *malan.*
greet someone *hay.*
grind *haya.*
grind (peanuts) *ŋgəlday.*
grinding stone *ver.*
groan *njeren.*
ground nut *eyewk.*
grow *caway.*
grow *gar.*
guinea fowl *javar.*

H - h

habits *mənjəye*.
habitually do something *sərkay*.
hail *marasl*.
hair *səmbetewk*.
hand *ahar*.
hang *gəjakay, laway*.
hang *vaway*.
hangar to give shade *abalak*.
harvest *baz*.
hat *jogo*.
hate *hərnje*.
have a headache *cazlay*.
hawk *etew, mogodok*.
haze *kwəsay*.
head *dəray*.
heal *mbar*.
hear *cen*.
heart (physical) *tololon*.
heart (emotional) *ɓərav*.
heat *hereɓ*.
hedgehog *otos*.
heat up *hərɓoy*.
height *səber*.
help *jənay*.
herd *galay*.
here *ahakay, ehe, nehe*.

heron *ngərkaka*.
hide *rəbokay*.
hiding place *rəbok*.
hip *gəzo*.
hit *ɓay*.
hoe *həlef, mədəger*.
hole *pəɗe*.
home *mogom*.
honey *omom*.
horn *mongom*.
horse *pəles*.
hot drink made with rice
  mətərak.
hour *hara*.
house *hay*.
how *memey*.
how (emphatic) *mey*.
how much/how many *mətəmey*.
hundred *səkat*.
hunger *may*.
hunt *təvalay*.
hurt *wal*.
husband *zar*.
hyena *dərlenge*.
hyrax *ocom*.

I - i

idea of approximately *dəyday*.
idea of barely escaping *pəyteď*.
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 *dəɓəsolək.*

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 *bəwɗere.*

idea of forever *epele epele.*

idea of full up to the roof *mbaf.*

idea of fullness *peɗeɗe.*

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 *heɓek heɓek.*

idea of hiding *rəbok rəbok.*

idea of hollowness *tezl tezlezl.*

idea of insulting *dəl.*

idea of later on *cacapa.*

idea of lifting on head *dergwecek.*

idea of long ago *zlezle.*

idea of looking *kəy.*

idea of making beer *gəɗok.*

idea of many *dəres.*

idea of opening door *pok.*

idea of penetration *mbəraɓ.*

idea of positioning self for throwing spear *mək.*

idea of putting down *ɗen.*

idea of putting on head *təh.*

idea of quickly *kaləw.*

idea of rapidly *bəvbəvbə.*

idea of redness *ɗaz ɗaz.*

idea of setting down something heavy *gəɗəgəzl.*

idea of sharpness *kekəɓ kekeɓ.*

idea of shining upwards *cəzlar.*

idea of a short time *mba.*

idea of some *ɓəl.*

idea of someone balancing something on head *danjəw.*

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 *poɗococo.*

idea of taking *jo.*

idea of the way a sick person walks *abəlgamay.*

idea/sight of child running *njəɗok njəɗok.*

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 *yeɗ yeɗ yeɗ.*

idea/sight of rabbit hopping *pəvbəw pəvbəw.*

idea/sight of something heavy running (cows) *gərəp gərəp.*

idea/sight of something multiplying *wəsekeke.*

idea/sight of something thrown up high *zor.*

idea/sight of a toad hopping *pəcəkəɗək.*

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 *ɓavbaw.*

idea/sound of movement *dəreffefe.*

idea/sound of pounding millet *kəndal.*

idea/sound of race *ɓərketem ɓərketem.*

idea/sound of snake slithering *fofofo.*

idea/sound of something soft hitting the ground (a snake, or a mud wall) *vbaɓ.*

idea/sound of truck engine humming *fəhh.*

idea/sound of wind blowing *fowwa.*

idol *pəra.*

if *asa.*

immediately *pepen.*

in *ava, a…ava.*

in spite of *re.*

indicate *ɗakay.*

insect *engeren.*

inside house *ayva.*

inspect *zəroy.*

insult *ndaway.*

intersect *dozloy.*

intestines *danday.*

introduce *ngazlay.*

instrument, stringed *kəndew.*

invite *təkaray.*

iron *hara.*

J - j

jawbone *debezem, malgamay.*

jealousy *səlek.*

join *dazlay.*

joint *hərəngezl.*

joke *sono.*

joy *memle.*

judgement *serəya.*

juice *ɗocay.*

jump *həraɗ.*

K - k

kick *zlar.*

kill by clubbing *kaɗ.*

kill by piercing *ndaz.*

kill many *pazlay.*

kindness *zənof.*

kitchen *gəlan.*

knead *bolay.*

knee *hərdedem.*

kneel *kərkay.*

knife *mekec.*

know *sar.*

kola nut *goro.*

L - l

lack *ce.*
ladle *ovolom.*
lake *dəlov.*
lamp *dəndara.*
land *wəyen.*
language *ma.*
larva *mecekweɗ.*
laziness *esew.*
leaf, edible
  elele.
leaf species for making a sauce
  njəwelek.
leak *ngaz.*
lean *jakay.*
lean back *dəngaɗay.*
learn/teach *dəbənay.*
leave *makay, malay, ndəray.*
leave in secret *slohoy.*
left *gəlo.*
left (gone) *nje.*
leg *asak.*
leopard *medəlengwez, tədo.*
leprosy *kokolo.*
liar *ongolo.*

lick *ndəlkaɗay.*
lie down *nde.*
life *səyfa.*
light *jajay.*
light *bay.*
like *ka.*
like that *kəyga.*
like this *kəygehe, ka nehe, ka ngəhe.*
limp *həjəgaɗay.*
limpness *jegwer.*
linger *zaray.*
lion *mazloko.*
liver *gəver.*
lizard *baybojo.*
long ago *pepenna.*
look for *kəway.*
lose *cəjen.*
lose weight *gəzamay.*
lots *gobay.*
louse *cece.*
love *ndaɗay.*
luck *jen.*
lungs *pahav.*
lust *obor.*

M - m

make cold *ndeslen.*

man *zar.*

man, young *albaya.*

man, young over 18) *njavar.*

mango *mongoro.*

manioc *ambay.*
many *haɗa.*
market *kosoko.*
market day at home *molom.*

market day at the village of Doulek
   Dǝwlek.
market day at the village of Mokǝyo
   Mokǝyo.
market day in the village of Meme
   Meme.
marry *baɗay.*
mash *jǝɗokoy.*
mat *bǝwce.*
mate with *laway.*
maybe *ndawan.*
Mbuko people/language *Mboko.*
meanwhile *macǝkǝmbay.*
meat *sese.*
medicine *hǝraf.*
meet *dozloy.*
melt *pǝɗak.*
men *zawǝr ahay.*
metal *hara.*
middle *mbeɗem.*
milk *ɗǝwa.*
millet *háy.*
millet, dry season *omsoko.*
millet, red *mbǝrkala.*
millet beer *gǝzom.*
millet drink *dǝwlay.*
millet leaf *fefen.*

millet loaf *ɗaf.*
minimize *rasay.*
misbehave *sǝdaray.*
misfortune *ezewk.*
mix *japay.*
mix grain with ashes to prevent insects
   from eating seeds *slahay.*
Moloko people/language *Mǝloko.*
Monday market *Yerǝyma.*
money *dala, sǝloy.*
mongoose *mekǝlewez.*
monkey *kǝrkaɗaw.*
moon *kǝya.*
morning *dedew.*
mortar *cǝjen.*
mosquito *tenjew.*
mother *mama.*
mount *kǝroy.*
mountain *ɓǝrzlan.*
mouse *okfom.*
mouse species *zǝn zan.*
mouse trap *lolokoy, ngǝmngam.*
mouth *ma.*
move *bal.*
much *gam.*
multiply *ɗaslay, sak.*
mushroom *opongo.*

N - n

nail *ehwǝde.*
naivety *zǝnof.*
name *slǝmay.*
name of child following twins *Aban.*
name of first twin *Masay.*

name of second twin *Alǝwa.*
nape *ɗǝgom.*
neck *dǝngo.*
needle *lǝpǝre.*
neighbour *dǝlmete, vǝymete.*

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 *zəroy.*
noun clitic, plural *-ahay.*
noun clitic, 1s possessive *-əwla.*
noun clitic, 2s possessive *-ango.*
noun clitic, 3s possessive *-ahan.*
noun clitic, 1Pᴇx possessive *-aləme.*
noun clitic, 1Pɪɴ possessive *-aloko.*
noun clitic, 2P possessive *-aləkwəye.*
noun clitic, 3P possessive *-ata.*
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 *baya.*
onion *eteme.*
open *vpay.*
ostrich *erkece.*
outside *amata.*
overwhelm *cəɓay.*
owl *hehen.*
oyster *vəlalay.*

P - p

pack down *jokoy.*
pap
  mətərak.
paper *ɗeləywel.*
pardon *homboh.*

partridge *təkwərak.*
pass *mbərzlay.*
pay *par, wərkay.*
pay a debt *hamay.*
peace *zay, zazay.*

peanut *andəra*.

peanut cookie, deep fried *azay andəra*.

peel *cəlokoy, mbəldoy*.

peel off *kərtoy*.

people *ndam*.

Perfect *va*.

perhaps *azana, adan bay*.

person *məze*.

persuade *dəbakay*.

pierce *caslay, zlar*.

pierce *cazlay*.

pig *madəras*.

pile something *tah*.

place *slam*.

plant *jav, daray, zləge*.

play a wind instrument *fe*.

pluck *rah*.

plug *ɗak*.

polite demand *etey*.

populate *wasay, wəɗoy*.

possessed by *anga*.

pot *ɗeɗew, məsek*.

potash *wəle*.

pound *zlaɓay*.

pour *bah*.

power *njəɗa*.

prepare *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*.

prince *Yerəyma*.

prune *kaɗay*.

publish *wəzlay*.

pull *gəjah*.

pull out *həraɗ*.

pumpkin *maɓasl*.

punish *kətay*.

pus *oroh*.

push *hakay*.

put *koroy*.

put *faɗ*.

put horizontally *mərcay*.

put on a roof *var*.

Q - q

quarrel *hərnje*.

question marker *ɗaw*.

R - r

rabbit *zlevek*.
rafter *kəre*.
rain *avar*.
rainy season *savah, vəya*.
ram *gəgoro*.
razor *peɗewk*.
reach out *tah*.
redness *gogwez*.
recoil *dar*.
relieve *dəbakay*.
remove *zlərav*.
remove forcibly *pərtay*.
remove insides *pəcahay*.
repair *seɓetəy, sləbatay*.
reprimand *ndahay*.
rest *mbesen*.
rib *vəy*.

richness *zləle*.
rip *ngaray*.
ripen *nah*.
river *zəraka*.
road *cəveɗ*.
roast *njahay*.
rock *okor*.
rock, large *pərad*.
roll *təɗoy*.
room *ver*.
rooster *agwazlak*.
root *sləlay*.
rot *hərzloy*.
rot meat to flavour food *gəvoy*.
rub *patay*.
ruin *mbəzen*.
run *həmay*.

S - s

sack *ombolo*.
saliva *eslesleɓ*.
salt *zetene*.
satisfy *rah*.
sauce made from edible leaves *elele*.
sauce made of bean leaves *azəɓat*.
save someone/something *tam*.
save *johoy*.
saying *awəy*.
scarify *cahay*.
scatter *poloy*.

school *lekwel*.
scold *mbe, ndahay*.
scoop *kətefer*.
scorpion *harac*.
scrape *kərɗaway*.
scratch *far*.
sea *bəlay*.
see *mənjar*.
seeds *həlfe*.
seer *kəlen*.
seize *kəcaway*.
self *ɓərav*.

sell/buy *səkom*.
send *slar*.
separate *njaray*.
sesame seeds/plant *agaban*.
set *ngay*.
set down *faɗ*.
seven *səsəre*.
sew *ɓah*.
shadow *sənewk*.
shake *wazay*.
shake out stones *təmbalay*.
shakers *kweɗe kweɗe*.
shame *məray*.
share *wədakay*.
sharpen to a point *fətaɗay*.
sheep *təmak*.
shell *pəlɗay*.
shepherd *jəgor*.
shine *wazlay*.
shine *wəcaɗay*.
shoes *tətərak*.
shoot an arrow *ɓar*.
sibling *məlama*.
sibling, spouse's *adamay*.
sickle *mavaɗ*.
sift *sakay*.
silence *goloy*.
simmer *ngwədaslay*.
sit *nje*.
six *məko*.
skewer *caɓay*.
skin *hambar*.
skin *mbəlɗoy*.
sky *hərmbəlom*.
slander *sahay*.
slave *beke*.
slay *slay*.
sleep *ɗəwer*.

slide *slaray*.
slide *soroy*.
slurp *gorcoy*.
small amount *nekwen*.
smallness *cədew, hwəsese*.
smell *ze*.
smile *mbasay*.
smoke *hazak*.
smooth *caɗay*.
smoothness *kwəleɗeɗe*.
snake species *enen, gogolvon, mahaw*.
snap *kəɓəcay*.
sniff *gorcoy*.
snore *daray*.
so and so *mana*.
soak *bolay*.
soak in order to soften *ɗe*.
soccer ball/soccer *balon*.
son *gwəla*.
son, firstborn *gəlo*.
song *ləmes*.
sorcery *madan*.
sore *ambəlak*.
sorghum *omsoko*.
sow *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 *pəra, səkar*.
spirit, bad *wərge*.
spirit of a living thing *sənewk*.
spit *taf*.
split in half *pəlslay*.

spray *pəray*.
spread for building *ɗazl*.
spread out *pasay, waɗay*.
squash, large *layaw*.
squat *cəɗokay*.
squeeze out *zlokoy*.
squeeze *bərkaday, ɗocay*.
squirrel *ayah*.
stable *jəgəlen*.
stake *jəgor*.
stalk *ɗəgocoy*.
stand *cəke*.
star *wərzla*.
star, large and bright
  abangay.
  star of the morning *abangay dedew*.
  star of the night *abangay a ləho*.
start *zlan*.
stay *ndəray*.
steal *karay*.
sterilize *daslay*.
stick (noun) *adangay*.
stick (verb) *tapay*.
stir *ɓal*.

stomach *hoɗˈ*.
story *bamba*.
stranger *merkwe*.
strength *gədan*.
stretch *ndərdoy*.
strip leaves from stalk *goroy*.
succeed *damay*.
suck *soɓoy*.
suddenly *jəwk jəwk*.
suffer pain *zlakay*.
suffering *avəya*.
suffice *nje*.
sugar cane *omboɗoc, reke*.
sun *fat*.
Sunday market *Zlaba*.
surpass *dal*.
swallow *ndáway*.
swear *mbaɗay*.
sweep *kərsoy*.
swell *hasl*.
swim *zlavay*.
sword *maslalam*.
sword, traditional *ndən nden*.
syphilis *dolokoy*.

T - t

tail *hwəter*.
take or steal by force *gəjar*.
take *zaɗˈ*.
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 *ngərway.*
tear to pieces *ɓorcay.*
tear up *caray.*
teeth, front *maslar.*
tell *hay.*
tempt *səɓatay.*
temptation *azan.*
ten *kəro.*
termite mound *fenge.*
termite species *manjara, margaba, mesesewk, zlək zlak.*
termites *eleməzləɓe.*
thanks *səwse, wəse.*
that is *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 *ombolo.*
three *makar.*
threshing floor *gəlan.*
throat *mbərlom.*
thousand *dəbo.*
throw *gocoy, zləge.*
throw a fit *ɓərzlay.*
thumb *baba ahar.*
Thursday *Dəwlek.*
tie *dazlay.*
tie off *tərɗay.*

time *ɗəma.*
tire out *yaɗay.*
to *a, ana.*
toad *moktonok.*
today *egəne.*
tolerate *ɓasay.*
tomorrow *hajan.*
tongue *hərnek.*
tooth *aslar.*
toss and turn while sick *ɓaray.*
touch *lamay.*
trace *tohoy.*
trap *pərgom.*
trap *kəcaway.*
trap *azan.*
traveler *merkwe.*
treasure *eləmene.*
tree *memele.*
tree species *agwazla, eɗongwereɗ, ngəvəray, orov, zəgogom.*
tribe *jəbe.*
trick (noun) *cəɗoy.*
trick (verb) *səɓatay.*
truck *məwta.*
trumpet *məzlelem.*
truth *deɗen, jere.*
try *təkaray, zokoy.*
Tuesday market *Tokombere.*
turn off *mbat.*
turtle *kərkayah.*
twin *molo.*
twist *təmbaɗay.*
twist *vaway.*
two *cew.*

U - u

uncle, maternal *gəmsodo.*
understand *cen.*
undress *cokoy.*
undress *kərtoy.*
unite *cəkalay.*

untie *mbərcay.*

until *ha.*

uproot *tosoy.*

uproot a tree *fakay.*

V - v

vegetable sauce *mosokoy.*
Venus *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 *dəngo.*
vomit *vənahay.*
vulture *azlam, molo.*

W - w

wait *kasl.*

wake up *pəɗakay.*

walk *talay.*

wall *hədo.*

want *ndaɗay, say.*

wart *səsayak.*

wash *balay*.
wash clothes *jorɓoy*.
waste *wahay*.
watch intently *zərɗay*.
watch over *kasl*.
water *yam*.
weapon *alahar*.
wear small leather article of clothing
  pocoy.
weave *ndar*.
weave *gədəgar*.
Wednesday market *Patatah*.
Westerner *asara*.
wet *ndaɓay*.
what *almay, malmay*.
what (emphatic) *may*.
what's his/her name *andakay*.
when *epeley*.
where *amtamay*.
which *weley*.
whip *eyewed̶*.
whip *ndaɓay*.
whisper *sokoy*.
whistle *fokoy*.
who *way*.

wholeness *zay, zazay*.
why *kamay*.
wife *hor*.
wind (noun) *həmad̶*.
wind (verb) *təd̶oy*.
wings *kərpasla*.
winnow *vay*.
wipe *patay*.
wipe out *vasay*.
wisdom *endeɓ*.
with *nə*.
withdraw *dar*.
without *mənjad̶*.
without help *sawan*.
witness *sede*.
woman *hor*.
women *hawər ahay*.
wood *oloko*.
word *ma*.
work *slərele*.
work with wood or grasses *ngay*.
worm *mecekwed̶*.
wrap *kəmbohoy*.
wrinkle the skin *ngərd̶asay*.
write *wacay*.

Y - y

yam *oɓolo*.
yard *gala*.
year *məvəye*.

yes *ayaw*.
yesterday *apazan*.

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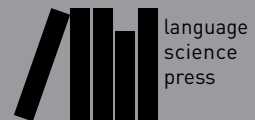
Moloko

Mana Samuel, Mana Djeme 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.