A grammar of Moloko

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African Language Grammars and Dictionaries

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In this series:

# Contents

Foreword ix

Acknowledgments xi

Abbreviations xiii

1 Introduction 1
   1.1 Linguistic classification 3
   1.2 Language use, language contact, and multilingualism 3
   1.3 Previous research 5
   1.4 Snake story 6
   1.5 Disobedient Girl story 10
   1.6 Cicada story 20
   1.7 Values exhortation 27

2 Phonology 37
   2.1 Labialisation and palatalisation prosodies 40
   2.2 Consonants 43
      2.2.1 Phonetic description 44
      2.2.2 Underlyingly labialised consonants 46
      2.2.3 Prosodic conditioning of consonant allophones 48
      2.2.4 Non-prosodic conditioning of consonants 48
         2.2.4.1 Word-final allophones of /n/ and /h/ 51
         2.2.4.2 Word-final allophones of /r/ 51
   2.3 Vowels 52
      2.3.1 Vowel phonemes and allophones 53
      2.3.2 Prosodic conditioning of vowel allophones 54
      2.3.3 Non-prosodic conditioning of vowel allophones 55
   2.4 Tone 57
      2.4.1 Depressor consonants 58
      2.4.2 Tone spreading rules 60
Contents

2.5 Notes on the syllable ........................................... 61
  2.5.1 Syllable structure ........................................... 61
  2.5.2 Syllable restructuring ....................................... 63

2.6 Word boundaries .................................................. 64
  2.6.1 Phonological criteria for word breaks ................. 64
    2.6.1.1 Word-final /h/ realized as [x] .................... 66
    2.6.1.2 Word-final /n/ realised as [ŋ] .................. 67
    2.6.1.3 Prosodies do not cross word boundaries ...... 67
    2.6.1.4 Deletion of the -aj suffix in verbs ............ 68
    2.6.1.5 Deletion of word-final /n/ ....................... 69
  2.6.2 Affix, clitic, and extension ........................... 70

3 Grammatical classes .................................................. 73
  3.1 Pronouns .......................................................... 74
    3.1.1 Free personal pronouns .................................. 75
      3.1.1.1 Regular pronouns ................................ 75
      3.1.1.2 Emphatic pronouns .............................. 77
    3.1.2 Possessive pronouns .................................... 77
      3.1.2.1 Semantic range of possessive constructions 78
      3.1.2.2 Tone of possessive pronouns .................. 80
    3.1.3 Honorific possessive pronouns ......................... 80
    3.1.4 Interrogative pronouns .................................. 82
    3.1.5 Unspecified pronouns ................................... 86
  3.2 Demonstratives and demonstrationals ...................... 86
    3.2.1 Nominal demonstratives .................................. 87
    3.2.2 Local adverbial demonstratives ....................... 91
      3.2.2.1 Proximal and distal local adverbial demonstra- 91
      tives .................................................. 91
      3.2.2.2 Anaphoric demonstrative ....................... 96
    3.2.3 Manner adverbial demonstratives ..................... 98
  3.3 Numerals and quantifiers ...................................... 99
    3.3.1 Cardinal numbers for items ........................... 100
    3.3.2 Numbers for counting money .......................... 102
    3.3.3 Ordinal numbers ....................................... 102
    3.3.4 Non-numeral quantifiers .............................. 104
  3.4 Existentials ..................................................... 104
  3.5 Adverbs .......................................................... 109
    3.5.1 Simple verb phrase-level adverbs .................... 110
## Contents

3.5.2 Derived verb phrase-level adverbs .................................. 111
3.5.3 Clause-level adverbs ........................................................... 112
3.5.4 Discourse-level adverbs ....................................................... 113

3.6 Ideophones .................................................................................. 115
  3.6.1 Semantic and phonological features of ideophones ............ 115
  3.6.2 Syntax of ideophones .......................................................... 118
  3.6.3 Clauses with zero transitivity ............................................ 122

3.7 Interjections .................................................................................. 124

4 Noun morphology ............................................................................ 125
  4.1 Phonological structure of the noun stem ............................ 127
  4.2 Morphological structure of the noun word .......................... 129
    4.2.1 Subclasses of nouns ....................................................... 132
    4.2.2 Plural construction ....................................................... 133
    4.2.3 Concrete nouns ............................................................ 134
    4.2.4 Mass nouns ................................................................. 134
    4.2.5 Abstract nouns ............................................................ 134
    4.2.6 Irregular nouns ............................................................. 136
  4.3 Compounding ............................................................................ 136
  4.4 Proper Names ............................................................................ 138

5 Noun phrase .................................................................................... 141
  5.1 Noun phrase constituents ...................................................... 142
  5.2 Noun phrase heads ................................................................. 146
    5.2.1 Noun phrases with nominalised verb heads ................. 147
    5.2.2 Noun phrases with pronoun heads ............................... 148
  5.3 Derived adjectives ................................................................. 149
    5.3.1 Structure of noun phrase containing ga ..................... 149
    5.3.2 Functions of noun phrases containing ga ................... 153
  5.4 Nouns as modifiers ................................................................. 156
    5.4.1 Genitive construction .................................................... 157
    5.4.2 Permanent attribution construction ............................. 160
    5.4.3 Relative clauses ........................................................... 163
  5.5 Coordinated noun phrases ....................................................... 170
  5.6 Adpositional phrase ................................................................. 171
    5.6.1 Simple adpositional phrase ......................................... 171
    5.6.2 Complex adpositional phrase ...................................... 175
Contents

6 Verb root and stem
6.1 The basic verb root and stem ........................................... 178
6.2 The consonantal skeleton of the root ..................................... 178
6.3 Underlying suffix .......................................................... 181
6.4 Underlying vowel in the root .............................................. 183
6.5 Underlying prefix ........................................................... 186
6.6 Prosody of verb stem ...................................................... 187
6.7 Tone classes ................................................................. 188
   6.7.1 Effect of depressor consonants .................................... 190
   6.7.2 Effect of underlying form on tone of stem ......................... 192
      6.7.2.1 Verb stems with one root consonant ....................... 193
      6.7.2.2 Verb Stems with two root consonants ..................... 195
      6.7.2.3 Verb stems with three or more root consonants .......... 197

7 The verb complex
7.1 The phonological structure of the verb word .............................. 201
7.2 Imperative ............................................................................. 204
7.3 Verb complex pronominals .................................................. 204
   7.3.1 Subject pronominal affixes ........................................... 206
   7.3.2 Indirect object pronominal enclitic ................................ 208
   7.3.3 Third person direct object pronominal ................................ 212
7.4 Aspect and mood .............................................................. 217
   7.4.1 Perfective .................................................................... 217
   7.4.2 Imperfective ................................................................. 219
   7.4.3 Irrealis mood ................................................................. 224
   7.4.4 Habitual iterative .......................................................... 233
   7.4.5 Intermittent iterative ...................................................... 235
7.5 Verbal extensions .............................................................. 235
   7.5.1 Adpositionals ................................................................. 236
   7.5.2 Directionals ................................................................... 239
   7.5.3 Perfect .......................................................................... 243
7.6 Nominalised verb form ....................................................... 249
   7.6.1 Nominalised form as noun .............................................. 250
   7.6.2 Nominalised form as verb .............................................. 252
   7.6.3 Verb focus construction .................................................. 253
7.7 Dependent verb forms ......................................................... 254

8 Verb phrase
8.1 Verb phrase constituents ...................................................... 257
8.2 Auxiliary verb constructions ........................................... 263
  8.2.1 Progressive auxiliary ............................................... 264
  8.2.2 Movement auxiliary ............................................... 269
  8.2.3 Stem plus ideophone auxiliary ................................. 269

9 Verb types and transitivity ............................................. 273
  9.1 Two kinds of transitive clauses ................................. 274
  9.2 Verb types ............................................................ 275
    9.2.1 Group 1: Verbs that can only be intransitive ............ 276
    9.2.2 Group 2: Verbs that can be transitive with direct object 276
    9.2.3 Group 3: Verbs that can be transitive with indirect object 277
    9.2.4 Group 4: Verbs that can be bitransitive ..................... 281
      9.2.4.1 in transitive and bitransitive clauses .............. 281
      9.2.4.2 in intransitive clauses .......................... 286
    9.2.5 Group 5: Transfer verbs ..................................... 290
  9.3 “Body-part” verbs (noun incorporation) ......................... 293
    9.3.1 elé ‘eye’ .................................................. 297
    9.3.2 slamay ‘ear’ ............................................... 297
    9.3.3 ma ‘mouth’ ................................................. 299
    9.3.4 va ‘body’ .................................................. 301
    9.3.5 har ‘body’ ................................................ 304
  9.4 Clauses with zero grammatical arguments ....................... 305

10 Clause ...................................................................... 307
  10.1 Declarative clauses .................................................. 307
    10.1.1 Verbal clause ................................................ 307
    10.1.2 Predicate nominal, adjective, and possessive clauses .. 310
  10.2 Negation constructions ............................................. 312
    10.2.1 Negative particles ............................................ 312
    10.2.2 Clausal negation construction ............................ 314
    10.2.3 Constituent negation ......................................... 317
  10.3 Interrogative constructions ....................................... 319
    10.3.1 Content question construction ............................ 319
    10.3.2 Yes-No question construction ............................ 326
    10.3.3 Tag question construction ................................ 328
    10.3.4 Rhetorical question construction ......................... 329
    10.3.5 Emphatic question construction ......................... 330
  10.4 Imperative constructions .......................................... 332
  10.5 Exclamatory constructions ........................................ 335
Foreword

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

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

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

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

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

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

Doris Payne

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Malan manjan ana Hərmbolom! (Glory to God)
Abbreviations

/ verb stem / underlying form  LOC  semantic location
1  1\textsuperscript{st} person     n.  noun
2  2\textsuperscript{nd} person     nclitic  noun clitic
3  3\textsuperscript{rd} person     NEG  negative
ADJ  adjectiviser     n.pr.  proper noun
adp.  adposition     nsfx.  noun suffix
ADV  adverbiser     NOM  nominalised form of verb
adv.  adverb     num.  numeral
CL  verb class (-j/ suffix)     P  plural
conj.  conjunction     PBL  Possible mood
DAT  dative preposition     PFV  Perfective aspect
dem.  demonstrative     PL  plural noun clitic
dem.  demonstrative     PLU  pluractional
DEP  dependent form of verb     PN  pronoun
disc.  discourse marker     POSS  possessive pronoun
DO  direct object pronominal     POT  Potential mood
EX  exclusive (first person plural)     PRF  Perfect
EX  exclusive (first person plural)     PRG  progressive aspect
EXT  existential     PSP  presupposition marker
GEN  genitive particle     quant.  quantifier
HON  Honorific pronoun     Q  interrogative marker
HOR  Hortative mood     R  realis mood
ID  ideophone     s  singular
IFV  Imperfective aspect     S. #  sentence number from text
IMP  imperative     spp.  species
IN  inclusive (first person plural)     v.  verb
interj.  interjection     vpfx.  verb prefix
IO  indirect object     vsfx.  verb suffix
pronominal
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; i.e., no grammatical arguments in a clause (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), which are lexical items that give a “picture” or a “sound” idea of the event they symbolise. Found in many African languages, 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.

• the fact that Moloko is a somewhat agglutinative language, since easily separable morphemes can be added to noun and verb stems,

• cliticisation, which is 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. 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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1Newman (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, Moloko) is classified by Lewis, Simons & Fennig (2009) as Central Chadic Biu-Mandara A5, as seen in Figure 1.1. A more detailed discussion of the classification of Moloko is found in Bow (1997a).

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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2Molkore is the Fulfulde name for Moloko.
3Moloko 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).
1 Introduction

Afro-asiatic
  Berber
  Cushitic
  Egyptian
  Omotic
  Semitic

Chadic
  East
  Masa
  West
  Biu-Mandara A
    A1
    A2
    A3
    A4
    A5
      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
1.3 Previous research

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 (1997c) is a phonological description which included some dis-
cussion 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 (1997a) presents 
the classification of Moloko. Bow (1997b) is a manuscript on labialisation and 
palatalisation in Moloko. Starr, Boyd & Bow (2000) is a 1500 word lexicon, and 
(2001), Oumar & Boyd (2002), Holmaka & Boyd (2002), Holmaka (2002), and 
Friesen (2003) present interlinearised texts. Friesen (2003) also presents two Mo-
loko fables with a cultural commentary concerning each. The Moloko transla-
tion committee has produced (among other work) two primers (Moloko Transla-
tion Committee 2004a, 2008), transfer primers from French (Moloko Translation 
Committee 2005a) and Fulfulde (Moloko Translation Committee 2007a), as well 
as several booklets with fables (Moloko Translation Committee 2004b, 2005b, 
2007a–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. The phonology statement in 1997c explored 
the grammar of verbs in relation to tone, and a few comparative studies of sev-
eral Chadic languages included Moloko data (Rossing 1978, Blama 1980, and de 
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 
grammarsketch; her findings are cited where they add to this present work.
1 Introduction

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.
    elɛ̃ ndana e-g-e na ne a Kʷaʃɛwa
    ‘[When] this thing happened, I was [living] at Kossewa.’

(2) Ne mɔndɔye ga elɛ əwla.
    nɛ mi-nd-iɛ ga elɛ=uwla
    ‘I was lying down.’

(3) Ne dɔwer ga.
    nɛ duwer ga
    ‘I was sleeping.’

Episode 1

(4) Alala na, gogolvan na, olo alay.
    a-l=ala na gʷɔgʷɔlvaŋ na ɔ-l=alaj
    ‘Some time later, the snake went.’

Inciting moment

(5) Acar a hay kɛre ava fo fo fo.
    à-tsar a haj kɪrɛ ava fo fo fo
    ‘It climbed into the beams in the roof of the house fo fo fo.’
1.4 Snake story

(6) Sen ala na, okfom adaɗala bav!

ʃɛŋ=ala na ɔkʷfɔm à-dəɗ=ala bav

‘And walking, a mouse fell bav!’

(7) Ne awəy, “Alma amədəvala okfom nehe may?”

nɛ 1s said what dem what

‘[I woke up] I said [to myself], “What made that mouse fall?”’

Peak episode

(8) Mbaɗala ehe na, nabay oko,

mbaɗala ehe na nà-b-aj ɔkʷɔ

‘Then, I turned on a light,’

(9) nazaɗala təystəlam əwla.

nà-zad=ala tijstəlam=uvwla

‘I took my flashlight.’

(10) Nabay cəzlar.

nà-b-aj tsəɮar

‘I shone it up cəzlar.’

(11) Nábay na,

nà-b-aj na

‘[As] I shone [it].’

námənjar na, mbajak mbajak mbajak gogolvan!

ná-mənzar na mbadzk mbadzk mbadzk gʷɔgʷɔlvaŋ

‘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 memej na

‘I said to myself, “Wah! It’s a snake!”’ (lit. a snake, if not, how)
1 Introduction

(13) Ne mbət məmbete oko əwla na, 
ne mbət mi-mbət-ɛ əkʷ=uwla na 
1S ID:turn off NOM-turn off-CL light=1S.POSS PSP
‘I turned off my light,’
kalow nazadala ɛɮɛrɛ=uwla.
kålùw nà-zad=ala ɛɮɛrɛ=uwla
ID:take quickly 1S+PFV-take=to spear=1S.POSS
‘[and] quickly took my spear.’

(14) Mək ava alay, 
mək=ava=alaj
ID:positioning self for throwing=in=to
‘[I] positioned [myself] mək!’

(15) Mecesle mbəraɓ!
me-tʃɛɬ-ɛ mbəraɓ
NOM-penetrate-CL ID:penetrate
‘It penetrated, mbəraɓ!’

(16) Ele a Hərməbəlom ele ga ajənaw ete
ɛlɛ a Hʊrməbəlom ele ga à-dzən=aw ete
thing GEN God thing ADJ 3S+PFV-help=1S.IO also
‘God helped me also’
kəl kəl kə ndahan aka
kəl kəl kə ndahan aka
exactly on 3S on
‘[that the spear went] exactly on him.’

(17) Ádəɗala vbaɓ a wəyen ava.
á-dəɗ=ala vaba a wijɛŋ ava
3S+IFV-fall=to ID:falling at ground on
‘He fell on the ground vbaɓ.’

(18) Ne dəyday məkəɗe na aka 
ne dijdaj mi-kid-ɛ na=aka
1S approximately NOM-kill-CL 3S.DO=on
‘I clubbed it to death (approximately).’
1.4 Snake story

Dénouement

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

“A a nəngehe na, Hərməlom aloko ehe.
a a nɪŋgɛhɛ dem na Hʊrmbʊlɔm=alɔkʷɛ ehe
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 ɫam mi-nd-iʃ=əŋgʷɔ 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 Hərməlom ajənok na, səwse Hərməlom.”
a-l=ala Hʊrmbʊlɔm à-dzən=əkʷ na ŋuwʃɛ 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 nə-ɬərav na=aɬa gʷəgʷəɬənɬ 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 aməɬəravala amata na, tawəy,
kʷə dedew babəza=uwla=ahaj amə-ɬərav=ala amata na tawij
early morning child=1S.POSS=Pl NOM-exit=to outside PSP 3P+said
‘Early the next morning, when my children came outside, they said,’

“Baba ákaɗ gogolvan, baba ákaɗ gogolvan!”
baba á-kadə ãgʷəɡʷəɬənən baba á-kadə ãgʷəɡʷəɬənən
father 3S+IFV-kill snake father 3S+IFV-kill snake
“Papa killed a snake, Papa killed a snake!”
1 Introduction

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

Conclusion

(24) Ka nehe lɔbara a ma ndana dəwge.
    ka nehe lɔbara a ma ndana dəwge
    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 kɔlo dərgɔ!
    bamba bamba kʊlo dʊrg“ɔd
    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 tʃɛɮɛrɛ 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, Hərməlɔm 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=va
    blessing=PRF
    ‘Long ago, to the Moloko people, God had given his blessing.’
1.5 Disobedient Girl story

(4) Kəwaya asa təwasva nekwen kəygehe dəw, kuwaja asa tə-was=va nekʷen kijgehe dəw 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 hadə. á-v=ata mi-v-ije hadə 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 élé háy bəlen. amə-h=aja kə ver aka na tá-zad war élé haj bəlɛn DEP-grind=PLU on stone on P3P3S+IFV-grind child eye millet one ‘For grinding on the grinding stone, they would take one grain of millet.’

(6) Nde, asa tənday táhaya na na, ndɛ asa tə-ndaj tá-h=aja na na so if 3P+IFV-PRG 3P+IFV-grind=PLU 3S.DO P3P3 ‘So, whenever they were grinding it,’ həmbo na, ásak na məsəke. hʊmbɔ flour na P3P3-asak with mɪ-shɪk-ɛ nom-multiply-CL ‘the flour, it multiplied with multiplying.’

(7) War élé háy bəlen fan na, war élé haj bəlɛŋ fan na child eye millet one yet P3P3 ‘Just one grain of millet,’ ájata pew ha ámbaɗ ɛʃɛ. á-nz=ata pew 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=ahan ava na because at NOM-grind=PLU=3S.POSS in P3P3 ‘Because, during its grinding,’
1 Introduction

ásak kə ver aka nə məsəke.
á-sak ə-sak kə ver aka nə mr-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.
əɮəna war dalaj ndana tʃɛɮɛrɛ ga
but child female DEM disobedience ADJ
‘Now, that young girl was disobedient.’

(12) Sen ala na, zar ahan na,
ʃɛŋ=ala na zar=ahən na
ID:go=to PSP man=3S.POSS PSP
‘Then her husband’
dək medakan na, mənjəye atə.
dək me-dak=əŋ na mi-nʒ-ijɛ=atəta
ID:show 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 HON at place of 1PEx PSP
‘He said, "My dear wife, here at our (exclusive) place,"
1.5 Disobedient Girl story

mənjəye aləme na, kəyehe.
m-ñ-j=alme na kijghe
NOM-EX.QUAL-CL=2PEx.Poss PSP like this
‘it is like this.’

Asa asok aməhaya na,
asə a-s=əkʷ amə-h=aja na
if 3s+PFV-please=2s.IO DEP-grind=PLU PSP
‘If you want to grind’ (lit. if grinding pleases you),

kázdəf war élé háy bəlen.
ká-zədəf war élé há jə bɨlɛ
2s+IFV-take child eye millet one
‘you take only one grain.’

War élé háy bəlen ga nəndəye nok amezəɗe na,
war élé há jə bɨlɛ ga nndi jə nəkʷ amə-ʒ-ɪɗ-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 ver aka
2s+IFV-grind=PLU 3s.DO on grinding stone on
‘grind it on the grinding stone,’

Ánjalo ko de pew.
á-nz=alɔkʷə dɛ pew
3s+IFV-suffice=1PIN.IO enough finished
‘It will suffice for all of us just enough.’

Ádaloko ha ámbəɗ ese.
á-d=alɔkʷə ha á-mbəɗ efe
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=ahanj ava na
because at NOM-grind=PLU=3s.Poss in PSP
‘because, during the grinding,’
1 Introduction

Hərməbolom anday ásakaləme na aka.”
Hʊrmbʊlɔm a-ndaj á-sak=alimɛ na=aka
God 3S-PRG 3S+IFV-multiply=1PEx.1O 3S.DO=on
‘God is multiplying it for us.’”

(14) Hor na, ambəɗan aka,
hʷɔr na a-mbəɗ=anə =aka
woman PSP 3S-change=3S.IO =on
‘The woman replied,’

(15) awəy, “Ayokon zar golo.”
awij ajɔkʷɔŋ zar gʷɔlɔ
said agreed man HON
’saying, “Yes, my dear husband.”’

Episode 2

(16) Ndahan amandava bəl na, zar ahan olo
ndahəŋ ama-nd=ava bəl na zar=aŋə ɔ-bə
3S DEP-sleep=in ID:some 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,
ağəna 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,
ndahəŋ dzɔ ma-d=ala háj na
3S ID:take NOM-prepare=to millet PSP
‘After having gotten ready to grind (she taking millet),’
1.5 Disobedient Girl story

den bəlen tə kə ver aka,
bələŋ tə kə ver aka,
ID:put one ID:put one on stone on
‘[she put] one grain on the grinding stone.’

(19) Away, “Gəlo ahay nehe azla na, malmay nəngehe na may?
awij gʊ=ahaj nehe aغا na məmaj nʊŋgehe na maj
said fellow=Pl DEM now PSP what DEM PSP what
‘She said, “Friends, here, what is this?’

Hāy bəlen azla na, náambəzaka məhaya əwla na,
haj bələŋ aغا na, náá-mbəz=aka mə-h=aja=uwla na
millet one now PSP 1S+POT-ruin=on NOM-grind=PLU=1S.POSS PSP
‘One grain, [with it] I know I will ruin my grinding.’

Meme ege mey?
meme ɛ-gɛ mej
how 3s-do-cl how
‘What is happening?’ (lit. how it does)

Nehe na, məsəɓete hərav əwla daw?
nehɛ na mɨ-ʃeβɛtɛ hərav=uwla daw
DEM PSP NOM-deceive-cl body=1S.POSS Q
‘This, am I deceiving my body?’

Bəy na, malmay?
bij na məmaj
NEG PSP what
‘If not, what is it then?’

Aya jen ele ahay nendəye na, nagala kəyga bay.”
aja dʒɛn ele=ahaj nəndijɛ na nə-g=ala kijga baj
so chance thing=Pl DEM PSP 1S+PFV-do=to like this NEG
‘Above all, these things, I have never done like this.”’

Peak episode

(20) Jo madala háy na, gam.
ma-d=ala haj na gam
ID:take NOM-prepare=to millet PSP a lot
‘[She] prepared lots of millet.’ (lit. millet prepared, lots)
1 Introduction

(21) Ndahan bah məbehe háy ahan
ndahan bax mi-bɛh-ɛ haj=ahaŋ
3s pour nom-pour-cl millet=3s.poss
‘She poured her millet’
amadala na kə ver aka azla.
amad=ala na kə ver aka aʃa
dep-prepare=to 3s.do on stone on now
‘to prepare it on the grinding stone.’

(22) Njəw njəw njəw aməhaya azla.
nzuw nzuw nzuw amə-h=aja aʃa
id:grind dep-grind=plu now
‘Njəw njəw njəw [she] ground [the millet] now.’

(23) Həmbo na ɗəw, anday ásak ásak ásak.
hʊmbɔ flour nps ɗuw also à-ndaj 3s+pfv multiply
á-sak
á-sak
á-sak
á-sak
‘The flour, it is multiplying [and] multiplying [and] multiplying.’

(24) Ndahan na, ndahan aka njəw njəw njəw.
ndahan na ndahan aka nzuw nzuw nzuw
3s PSP 3s ext id:grind
‘And she, she is grinding some more njəw, njəw, njəw.’

(25) Anday ahaya na məzere lames ga.
à-ndaj à-h=aja nə mi-ʒɛr-ɛ lmeʃ ga
3s+pfv-prg 3s+pfv-grind=plu with nom-do well-cl song adj
‘She is grinding while singing well.’

(26) Alala na, ver na, árəh mbaf, na həmbo na,
a-l=ala na ver na á-rəx mbaf nə hʊmbɔ na
3s-go=to PSP room PSP 3s+ifv-fill up to the roof with flour PSP
‘After a while, the room, it filled up to the roof with the flour,’
dək mədəkaka alay ana hor na,
dək ma-dək=aka=alaj ana hʷəɾ na
plug nom-plug=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 ḏabaḥsolək məmətava alay
nata ndahanə ḏabaḥsoləkʷ ma-mət=ava=alaj
and then 3S ID:collapse/die NOM-die=in=away
‘and she collapsed ḏabaḥsolək, dying’

a hoɗ a haj na ava.
a hʷɔɗ a haj na ava
at stomach GEN house PSP in
‘inside the house.’

Dénouement

(27) Embesem cacapa na, zar ahan angala.
ɛ-mɓeʃen tsatsapa na zar=ahan əŋgala
3S-rest some time PSP man=3S.POSS 3S+PFV-return
‘After a while, her husband came back.’

(28) Pok mapalay mahay na,
pɔkʷ ma-p=alaj mahaj na
ID:open NOM-open=away door PSP
‘Opening the door,’

hʊmbo árah na a hoɗ a hay ava.
hʊmbo á-rax na a hʷɔɗ a haj ava
flour 3S+IFV-fill 3S.DO at stomach GEN house in
‘the flour filled the stomach (the interior) of the house.’

(29) Ndahan aməmənjere ele nendeye na, awəy,
ndahanə amɪ-mmʒer-ɛ ele nɛndijɛ na awij
3S DEP-see-CL thing DEM PSP said
‘He, seeing the things, he said,’

“Aw aw aw, hor ngehe na, acaw aka va
aw aw aw hʷɔr ngɛhɛ na ə-ts=aw =aka=va
cry of death woman DEM PSP 3S+PFV-understand=1S.IO =on =PRF
‘Ah, this woman, today, she didn’t listen’

ma əwla amahan na bay esəmey?
ma=uwla word=1S.POSS DEP-speak=3S.IO 3S.DO NEG not so
‘to my instructions, did she?’
1 Introduction

Agə na va ele ne amahan aməjəye
à-gə na=va ele nə ama-h=an amr-dʒ-ije
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 efimej
3S+HOR-do-CL NEG PSP not so
‘she should not do, not so?’

Nde nége ehe na, memey gəlo ahay?”
nde né-g-ɛ ehe na memej golɔ=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 maləye na.
babək mi-l-ije na
ID:bury NOM-bury-CL 3S.DO
‘[She was] buried.’

Conclusion

(32) Nde ko ala a dəma ndana ava pew!
nde kʷ=ala a dəma ndana ava pew
so until=to at time DEM in enough
‘So, ever since that time, it’s done!’

(33) Məloko ahay tawəy, “Hərmbołom ága bərav va
Mʊlɔkʷɔ=ahaj tawij Hərmbołom á-ga bərav=va
Moloko=Pl 3P+said God 3S+IFV-do heart=PRF
‘The Molokos say, “God got angry’ (lit. God did heart)
kəwaya war dalay na, amecen sləmay bay ngəndəye.”
kuwaja war dalaj na ame-tʃəŋ ʃomaj baj əŋndiʃə
because of child girl PSP DEP-hear ear NEG DEM
‘because of that girl, that one that was disobedient.”’
1.5 Disobedient Girl story

(34) Waya ndana Hərməloilo ámbata ağa barka ahan va.
   because DEM God 3s+ifv-take =3p.1o =on
   barka=ahaj=va
   blessing=3s.poss=prf
   'Because of that, God had taken back his blessing from them.'

(35) Cəçəngehe na, war élé háy bəlen na, ásak asabay.
   'And now, one grain of millet, it doesn’t multiply anymore.'

(36) Talay war élé háy bəlen kə ver aka na, ásak asabay.
   'If one puts one grain of millet on the grinding stone, it doesn’t multiply anymore.'

(37) Səy kádəya gobay.
   'You must put on a lot.'

(38) Ka nehe tawəy, "Metesle anga war dalay ngəndəye
   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.”
   that brought this suffering to the people.”'

(39) Ka nehe ma bamba ga andavalay.
   'It is like this the story ends.'
1 Introduction

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 lɪhɛ
    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 lɪhɛ na
    3P+IFV-PRG 3P-walk-CL at bush PSP
    ‘[As] they were walking in the bush,’

    təlo tə́njakay agwazla malan ga a ləhe.
    tə́-lo tə́-nzak-aj agʷaˡa malan 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.’
Episode 2

(6)  Albaya ahay ndana kəlen tɔŋgalala ma ana bahay.
\[
\text{albaja} = \text{ahaj ndana kilej } \text{təŋgala}=\text{ala } \text{ma } \text{ana bahaj}
\]
\[
\text{youth} = \text{Pl } \text{DEM then 3P+PFV-return=to word DAT chief'}
\]
‘Those young men then took the word (response) to the chief.’

(7)  Tawəy, “Bahay, mama agwazla ava a ləhe na,
\[
\text{tawij bahaj mama agʷaŋə} \text{ ava a lhe na malaŋ ga na 3P+said chief mother spp. of tree EXT at bush PSP large ADJ PSP}
\]
‘They said, “Chief, there is a mother-tree in the bush, a big one,’
agasaka na ka mahay ango aka aməmbese.”
\[
\text{à-gas=aka na ka mahaj=angʷə aka am-mbeʃ-ə 3S+PFV-get=on PSP on door=2S.POSS on DEP-rest-CL}
\]
‘[and] it would please you to have that tree at your door, so that you could rest under it.”

(8)  Kəlen albaya ahay ndana tolo.
\[
\text{kilej albaja=ahaj ndana tə-lo}
\]
\[
\text{then youth=Pl DEM 3P+PFV-go}
\]
‘Then, those young men went.’

(9)  Nde, bahay awəy, “Nde na, səy slərom alay war.
\[
\text{nde bahaj awi}=\text{na sij } \text{tər-əm}=\text{alaj } \text{war so chief said so PSP only send[IMP]-2P=away child}
\]
‘And so the chief said, “So, you must send a child.’
Káazəɗom anaw ala agwazla ndana ka mahayəwla aka.
\[
\text{káá-zʊɗ-ɔm an=aw } \text{ala agʷaŋə ndana ka mahaj=uwlə aka 2P+POT-take-2P DAT=1S.IO to spp. of tree DEM on door=1S.POSS on}
\]
‘You will bring that tree to my door for me.’
Káafəɗom anaw ka mahayəwla aka.”
\[
\text{káá-fʊɗ-ɔm an=aw ka mahaj=uwlə aka 2P+POT-put-2P DAT=1S.IO on door=1S.POSS on}
\]
‘You will put it by my door.”

(10) Bahay kəlen ede gəzom.
\[
\text{bahaj kilej } \text{à-d-ə } \text{gʊzəm}
\]
\[
\text{chief then 3S+PFV-prepare-CL beer}
\]
‘The king then made millet beer.’
1 Introduction

(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 agʷaɭa nɪndijɛ
tà-ɬar tə-ɬar 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 déɗɛŋ bahaj agʷaɭa nɪndijɛ
tawij déɗɛŋ tawij 3P+said truth chief spp. of tree DEM
‘They said, “It is true, chief. That tree,’
ágasaka ka mahay ango aka,
á-gas=aka ka mahaj=aŋgʷɔ aka
3S+IFV-get=on at door=2S.POSS on
‘It would be pleasing if it would be by your door;’
bɤyna agwazla ga səlom ga; aɓəsay ava bay.”
bijna agʷaɭa ga səlom 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 hələŋ na ndaŋəŋ gudəkʷ mi-d-ijɛ
chief 3S+PFV-go=to at back PSP 3S ID:prepare beer NOM:prepare-CL
gəzəm beer
‘The chief then came behind [and] he made millet beer.’
1.6 Cicada story

(16) Kəlen albaya ahay tolo amazala agwazla na,
kiɛŋ albaja=ahaj tɔ̀-lɔ ama-z=ala agʷaḷa 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.
m-r-d-iɛ gʊzɔm makar.
nom-prep-cl beer three
‘[He] made beer for the third time.’

(18) Bahay alala a həlan na, awy,
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 agʷaḷa 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 agʷaḷa səlom ga lala
mother spp. of tree good ADJ well
‘The mother-tree is very good.’

Prepeak

(19) Kəlen bahay na, olo kə mətədə aka.
kiɛŋ bahaj na ɔ̀-lɔ kə mɨtɨdə aka
then chief PSP 3S+PFV-go on cicada on
‘Then, the chief went to the cicada.’
1 Introduction

(20) Mətəɗe awəy, “Bahay, toko!
mitufe awij bahaj təkʷɔ
Cicada said chief go[IMP.1PIN]
The cicada said, “Chief, let’s go!”
Náamənjar na alay memele ga ndana əwɗe.”
náá-mənzar na=alaj memele ga ndana uwdɛ
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,
mitufe=ahaj tawij aa mitufe=ahaj səlom=ahaj ga na
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,
agəna mitufe aŋə engeren aŋə 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=angʷɔ maj
2S+POT-take=to PSP what=2S.POSS what
‘[if] you do bring it, [then] what is with you?”

(22) Mətəɗe awəy, “Náazala!”
mitufe awij náá-z=ala
The 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 tɔkʷo uwɗɛ
1s+pot-take=to so go[IMP.1PN] first
“I will bring [it], but first, let’s go!”

Peak

(25) Nata olo.
nata 3-lɔ
and then 3s+pfv-go
‘And then, he went.’

(26) Albaya ahay tolo sen na,
albaj=ahaj tɔ-lɔ ʃɛŋ na
youth=Pl 3p-go id:go psp
‘The young men went,’
albaya ahay weley təh anan dəray na, abay.
albaj=ahaj welɛj tɔx an=anə dəraj na abaj
youth=Pl which id:put 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 tɔx an=anə dəraj na agʷalə ngindju
and then cicada id:put dat=3s.io head dat spp. of tree dem
‘And then, the cicada put his head to that tree.’

(28) Kəw na!
kuw na
id:getting 3s.do
‘[He] got it.’

(29) Dergwecek!
dergʷetʃɛk
id:lifting onto head
‘[He] lifted [it] onto his head.’
1 Introduction

Dénouement

(30) Amagala ləmes, “Te te te te ver na tepəɗek təvaw na tambəɗek...”
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
ID:go=to
‘Going, [he came to the chief’s house].’

(32) Tahan na.
tà-h=anʒ na
3P+PFV-greet=3S.IO PSP
‘They greeted him.’

(33) Mama agwazla na, ka mahay aka afa bahay gəɗəgəzl!
mama agʷaغا na ka mahaj aka afa bahaj gəɗəgəɮ
mother spp. of tree PSP on door on at place of chief ID:put 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 me-mbeʃ-e ʃuwʃɛ mtiɗɛ 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 agʷaغا na kə mahaj anɡa bahaj aka
mother spp. of tree PSP on door POS.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!

*səlɔm*  
goodness ADJ  
*ga*  
well  
*təde*  
good like this  
*kəyga*  
'Good, well, good, [it is] like this:"

(2) Ehe na, wayen ambədala a jere azla.

*ehe*  
here  
*na*  
*wijɛŋ*  
earth  
*à-mbaɗ=ala*  
3s+PFV-change=to  
at  
*ʒɛrɛ*  
think  
*aɮa*  
now  
'Here, the earth has changed to truth now (sarcastic).'

(3) Səwat na, təta a məsəyon na ava nəndəye na,

*səwat*  
*na*  
təta  
a  
məsəyon  
na  
*ava*  
in  
*nəndəye*  
na  
'id:disperse PSP 3P at mission PSP in DEM PSP'  
'As the people go home from church,' (lit. disperse, they in the mission there),'

Pester áḥata, “Ey! Ele nehe na, kógom bay!”

*pɛʃtɛr*  
pastor  
*á-h=ata*  
3s+IFV-tell=3P.IO  
*ɛj*  
*ɛlɛ*  
thing  
*nɛhɛ*  
there  
*na*  
*kɔ́-gʷ-ɔm*  
2s+PFV-do-2P NEG  
'Pastor told them, “Hey! These things, don’t do them!”’

(4) Yawa, war dalay ga ándaway mama ahan.

*jawa*  
well  
*war*  
child female ADJ  
*dalaj*  
female  
*ga*  
*á-ndaw-aj*  
mama=ahan  
'mama=ahan’  
'Well, the girls insult their mothers.'

(5) War zar ga ándaway baba ahan.

*war*  
child male ADJ  
*zar*  
male  
*ga*  
*á-ndaw-aj*  
baba=ahan  
'baba=ahan’  
'[And] the boys insult their fathers.'
1 Introduction

(6) Yo ele ahay aməgəye bay nəngehe pat,
  jo  ele=ahaj amə-g-ijɛ  baj  nəngehe 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.
tə-h=ata na=va kə dıftɛrɛ aka
3p+pfv-tell=3p.io 3s.do=prf on book on
‘they have already told them in the book.’

(7) Hərmɔlɔm awacala kə okor aka.
Hʊrmɔlɔm à-wats=ala kə əkʷɔr 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 dıftɛrɛ=ahaŋ 3s.poss on 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  ele  nehe na  à-waɬ
3s+pfv-tell=3p.io 3s.do=prf thing dem 3s+pfv-forbid
‘He has told them already, “This thing is forbidden,’
ele nehe na, awasl, ele nehe na, awasl,
ele nehe na  à-waɬ  ele  nehe na  à-waɬ
thing dem 3s+pfv-forbid thing dem 3s+pfv-forbid
‘this thing is forbidden, this thing is forbidden,’
ele nehe na, awasl, kəro!”
ele nehe na  à-waɬ  kʊrɔ
ting dem 3s+pfv-forbid ten
‘this thing is forbidden – ten [commandments]’”
1.7 Values exhortation

(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 dəw, kóogəsok ma Hərbəłeəm.
jawa nde ele nehe dúw kɔs-g“us-ok“ ma Hərbəłeəm
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 məsiʃən ava na ele=ahaj amu-wul-ɛ na tɛ-gɛ 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 məsiʃəŋ 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.’
1 Introduction

(18) Ôlo áɓan ana baba ahan.
\[69x592]ɔ́-lɔ \[97x565]3s + ifv go \[144x565]á-ɓ=aŋ \[144x565]3s + ifv hit=3s.0 Dat father=3s.poss

‘[Another] goes and hits his father.’

(19) Ôlo ápaɗay məze nə madan.
\[69x592]ɔ́-lɔ \[97x498]3s + ifv go \[144x498]á-paɗ-aj \[144x498]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.
\[69x417]à-lɔ \[97x417]3s + pfv go \[145x417]aka \[145x417]on \[164x417]akar \[164x417]theft

‘[Another] goes and steals.’ (lit. he went on theft)

(21) Ege adama.
\[69x350]à-g-ɛ \[97x350]3s + pfv do-cl \[147x350]adama \[147x350]adultery

‘[Another] commits adultery.’

(22) Təta dəl na ma Hərmbəlom nendye.

‘They insult it, this word of God!’

(23) Nde na çəveɗ ahan na, memey?
\[ndɛ \[so \[115x230]na \[115x230]psp \[132x230]tʃɪvɛɗ=ahaŋ \[132x230]path=3s.poss

‘So, what can he do?’ (lit. how [is] his pathway)

(24) Táagas na anga way?
\[táá-gas \[3p + pot catch \[pss 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 baby=angʷɔ 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 mother=angʷɔ 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 anga 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 Hərməbəlom ga kagas asabay.
   aŋga God ga kà-gas asa-baj
   POSS God ADJ 2S+PFV-catch again-NEG
   ‘The very [word] of God himself you no longer accept.’

(29) Hərməbəlom na, amaɗaslava ala məze na,
   Hʊrmbʊlɔm God na ama-ɗaɬ=ava=ala mrʒɛ na
   God PSP DEP-multiply=IN=to person PSP
   ‘God, who multiplied the people;’

   ndahan ese na, kagas ma Hərməbəlom na, asabay na,
   ndahaŋ eʃɛ na ka-gas ma Hərməbəlom 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 anga waj
   2S+POT-catch PSP POSS who
   ‘whose word will you accept then?’ (lit. you will catch it, that which belongs to who)
1 Introduction

(30) Səlom ga.
səlom   ga
goodness ADJ
‘Good!’ [narrator to himself].

(31) Asara anday áɗakaləme ma a dəwnəya.
asara   à-ndaj   á-ɗak=alme   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=alme   endəɓ
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, kow na, bəwɗere!
ɛhɛ   na   təta   na   kw   na   buwɗɛrɛ
here PSP 3P   PSP ID:take PSP ID:foolishness
‘Here, what they are taking is foolishness!’ (lit. here, they, taking, foolishness)

(35) Epəle epəle na, wəyen ambadala slam a yam avəlo.
ɛpɪlɛ   ɛpɪlɛ   na   wijɛŋ   à-mbaɗ=ala   ɬam   a   jam   avʊlo
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   okɔ   ndana   anga   waj
so   PSP fire   DEM   POSS who
‘So who are the fires [of hell] going to strike?’ (lit. so, that fire, belonging to who)
1.7 Values exhortation

(37) Cəcəngehe na, asa tągalay janga ana endęɓ ango,
tʃɪtʃɪŋɛhɛ now na 3P+IFV-do=away reading
nafta now na, Hərmbəlom ágok səɾəya na,
nafta wijɛŋ na Hʊrmbʊlɔm á-g=ɔk² səɾiжа
day earth DEP-finish-CL PSP God 3S+IFV-do=2S.IO judgement
na PSP
‘Now, if they look at your life,’ (lit. now if they do a reading to your wisdom)
nafta wəyen aməndeve na, Hərmbəlom ágok səɾəya na,
nafta wijɛŋ amı-nədevɛ na Hərmbəlom á-g=ɔk² səɾiжа
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],’
kɛɛɛgɛ na, memey?
kɛɛɛ-gɛ na memɛj 2S+POT-do-CL PSP how
‘what will you do [as you burn]?’

(38) Nde ehe kəyga.
nde ehe ɛhɛ here kijga so here like this
‘So, it is like this here.’

(39) Pepenna na takaɗ sla.
pepeŋ=ŋa long ago=ADV PSP 3P+PFV-kill cow
‘Long ago, they killed cows.’

(40) Tɛɛɛ almay?
tɛɛɛ-gɛ almaj 3P+IFV-do-CL what
‘What were they doing?’

(41) Məze ákosaka jəyga dəres.
məʒɛ á-kʷas=aka dʒiŋga dəɾɛf person 3S+IFV-unite=on all ID:many
‘The people were all united together.’
1 Introduction

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

(43) Tágaka ḥrnje bay.
tá-g=aka ḥrnʒɛ baj
3P+IFV-do=on hate NEG
‘On top of that, they divided it without hate.’ (lit. they did no hate)

(44) Nde ehe na,
nde ehe na
so here PSP
‘So, here;’

cəcəngehe na məze ahay tandaday məze asabay pat.
tʃɪtʃɪŋgehɛ na mrʒe=ahaj ta-ndaɗ-aj mrʒe 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 aməɗeɗe məze ehe na, cəcəngehe na, se ngomna.
ʃɛ only mɪʒɛ ami-dɛɗ-e mɪʒɛ ehe na tʃɪtʃɪŋgehɛ na ʃɛ ngʷomna
only person DEP-like-CL person here PSP now PSP only government
‘The only person that likes people now is the government.’ (sarcastic)

(46) Ngomna na, ele aga kə wəyen aka na,
ŋgʷomna na ele á-ga kə wijɛŋ aka na
government PSP thing 3S+PFV-do on earth on PSP
‘The government, [if] there is a problem (lit. a thing does) on the earth,’

ndahan na á-gas 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 Mʊlɔkʷ=ahaj na nɔ-mbHɔɗ-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),
Values exhortation

ka kərkaɗaw ahay na hərgov ahay ga a bərzlan ava na,
ka kərkadaw=ahaj na hərgʷɔv=ahaj ga a bərɡən̥ ava na
like monkey=Pl with baboon=Pl ADJ at mountain in PSP
‘like monkeys and baboons on the mountains,’

ka ala kəra na, nəsərom dəray bay pat.
ka=ala kəra na nə-sər-əm 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 ehe telɡ tegeł
on earth on here ID:hollow
‘[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.
nde m̥ʒɛ=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, Ḥərmbołom anday agas ta
epele epele na me Ḥərmbołom 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 re
at hand in sure
‘in his hands, in spite [of what the church says].’

(51) Ádal hʷɔʃɛʃɛ ga.
á-dal hʷɔʃeʃe ga
3S+IFV-surpass small ADJ
‘He is greater than the small ones.’

(52) Nde na, kəygehe.
nde na kijgɛhe
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 (1997c). 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 (1997c) based her phonological outline of Moloko 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 (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, ɛ], see Section 2.3) that occurs between only some of the consonants. 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]). 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,

[because] “the consonant skeleton is all-important to the phonological structure, the traditional unit of the syllable is much less useful in the description

1Bow (1997c) 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.

2Likewise 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).
2 Phonology

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 palatalisation 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 unstressed 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).

\begin{align*}
(1) & \quad [zij \text{ daw}] \\
& \quad \text{peace } Q \\
& \quad \text{‘Is there peace?’}
\end{align*}

\[^{3}\text{Prosodies in Chadic languages are word-level suprasegmental processes that labialise or palatalise the entire word and affect all vowels and some consonants. See Roberts (2001) for a fuller discussion.}\]
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, \(\circ\) 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) \([\text{midɪ\text{e}r}] /m\ d\ g\ r^e/\)
   ‘hoe’

6) \([\text{lʊhɔ}] /l\ ha^o/\)
   ‘late afternoon’

7) \([\text{daf}] /d\ f/\)
   ‘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,
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 (1997c) 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: /₀/ to represent labialisation and / ɛ/ to represent palatalisation. In the phonetic form, the prosody is indicated by the quality of the full vowel in the word ([ɔ] for labialisation, [ɛ] for palatalisation, and [a] for no prosody (see Section 2.3). The examples (8–10) from Bow (1997c) give evidence of contrast between the prosodies in a minimal triplet:

- (8) /k ra/ [kʷra] 
  ‘dog’

- (9) /k ra ₀/ [kʷʊra] 
  ‘ten’

- (10) /k ra ɛ/ [kɪɾɛ] 
  ‘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 1997c). 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
2.1 Labialisation and palatalisation prosodies

the addition of a suffix /-am/ (see Section 7.3.1). The nominalised form carries a palatalisation prosody, and involves the addition of both a prefix /m-/ and suffix /-a/.

Note that vowels and some consonants are affected by the prosodies. As previously stated, 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 /mznər/

<table>
<thead>
<tr>
<th>Underlying form</th>
<th>Phonetic form</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>2s imperative form /m nza r/</td>
<td>[mənzar]</td>
<td>‘see! (2s)’</td>
</tr>
<tr>
<td>2p imperative form /m nza r-am/</td>
<td>[mʊnzɔr ɔm]</td>
<td>‘see! (2p)’</td>
</tr>
<tr>
<td>Nominalised form /m-m nza r-a/</td>
<td>[mɪmɪnʒɛrɛ]</td>
<td>‘seeing’</td>
</tr>
</tbody>
</table>

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/ 
1s-eat
‘I eat.’

(12) [nɛ-ʃɛ] /na- ʃɛ/ 
1s-drink-CL
‘I drink.’

(13) [na-zad] /na- z d/ 
1s-take
‘I take.’

When initiated by a suffix carrying a prosody, the prosody spreads leftwards, affecting all morphemes within the word including prefixes. The effect of the prosody is shown by comparing the vowels and consonants in (14) and (15), both forms of [kaɬ] ‘wait,’ a verb root with no underlying prosody. The prosody of the

---

4When the prosody of the suffix is neutral, the prosody on the root is neutralised (compare examples 16 and 17).
second person singular verb form remains neutral (14). The second person plural contains the labialised suffix /-ak⁰/ (15) and the prosody of the suffix spreads over the entire word. 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-kaɬ na] /ka- kaɬ na/ 2s+pfv-wait 3s.do ‘You waited [for] it.’

(15) [mɔ́-kʷɔɬ-ɔkʷ na] /ma- kaɬ-ak⁰ na/ 1pin+pfv-wait-1pin 3s.do ‘We waited [for] it.’

Palatalised verbs almost always have a palatalised suffix [-ɛ] (see Section 6.6). 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) ne-tʃik-ɛ /n- ts k ɛ/ 1s-move-cl ‘I move.’

(17) no-tʃəkə=va /n- ts k ɛ =va/ 1s-move=prf ‘I moved already.’

Bow (1997c) 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 laɛ/ (18) and /a- nd ɓɛ/ (19). Palatalisation is a stronger process than labialisation. In labialised words, the first syllable in words that begin with /a/ will

5With the exception of verb stems whose final consonant is /n/, e.g., [tʃɛŋ], /tsanɛ/, ‘know’.
often\(^6\) be unaffected by the labialisation and be pronounced [a] (see the alternate pronunciations for the words /a- la ka\(^9\)/ in 20 and /a- ga\(^9\)/ in 21).

(18) \[əlɛlɛ] \~ \[ælɛlɛ] \~ \[ɛlɛlɛ]
   ‘leaf sauce’

(19) \[ændɛɓ] \~ \[ændɛɓ] \~ \[ɛndɛɓ]
   ‘brain’

(20) \[ɔlɔkʷɔ] \~ \[ɔlɔkʷɔ]
   ‘fire’

(21) \[ɔgʷɔɾɔ] \~ \[ɔɡʷɔɾɔ]
   ‘gold’

2.2 Consonants

Bow (1997c) reported 31 consonant phonemes.\(^7\) Since her work, the labiodental flap /ѵ/ in Moloko has been noted, making the total 32 consonantal phonemes.

The labiodental flap /ѵ/ 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) \[vəɓ]\n   ‘snake falling’

(23) \[ɓaѵaw]\n   ‘men running’

Moloko has three sets of sequences which Bow (1997c) interpreted as single units (C) rather than sequences of two consonants (CC). These are prenasalised consonants /mb/, /nd/, /ŋɡ/, /nz/, affricates /ts/, /dz/, and labialised consonants /kʷ/, /gʷ/, /ŋɡʷ/, /hʷ/. In the case of prenasalised consonants, the nasal is always homorganic with the following consonant.\(^8\) Only voiced consonants are prenasalised.

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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 (1997c) described 30 consonant phonemes although her chart of consonant phonemes included ŋɡ\(^9\), making the total 31.

\(^8\)Note that the phoneme /n/ assimilates to the point of articulation of a following consonant throughout the language.
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 1997c) 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

<table>
<thead>
<tr>
<th></th>
<th>Labial</th>
<th>Alveolar</th>
<th>Velar / Glottal</th>
<th>Labio-Velar</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stops</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-voice</td>
<td>p</td>
<td>t</td>
<td>k</td>
<td>k&lt;sub&gt;w&lt;/sub&gt;</td>
</tr>
<tr>
<td>+voice</td>
<td>b</td>
<td>d</td>
<td>g</td>
<td>g&lt;sub&gt;w&lt;/sub&gt;</td>
</tr>
<tr>
<td>nasal</td>
<td>m</td>
<td>n (ŋ)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>prenasal</td>
<td>mb</td>
<td>nd</td>
<td>ηg</td>
<td>ηg&lt;sub&gt;w&lt;/sub&gt;</td>
</tr>
<tr>
<td>implosive</td>
<td>b</td>
<td>d'</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Affricates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-voice</td>
<td>ts (tʃ)</td>
<td>dz (dʒ)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+voice</td>
<td>nz (nʒ)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>prenasal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fricatives</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-voice</td>
<td>f</td>
<td>s (ʃ)</td>
<td>h (x)</td>
<td>h&lt;sub&gt;w&lt;/sub&gt;</td>
</tr>
<tr>
<td>+voice</td>
<td>v</td>
<td>z (ʒ)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lateral fricatives</strong></td>
<td>-voice</td>
<td>ɬ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+voice</td>
<td>ɮ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lateral approximants</strong></td>
<td></td>
<td>l</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Approximants</strong></td>
<td>j</td>
<td></td>
<td>w</td>
<td></td>
</tr>
<tr>
<td><strong>Flaps</strong></td>
<td>v</td>
<td>r</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2.2.1 Phonetic description

The list of phonemes and allophones with phonetic description shown in Table 2.3 is adapted from Bow (1997c) 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
# 2.2 Consonants

<table>
<thead>
<tr>
<th>Phoneme</th>
<th>Description</th>
<th>Phonetic</th>
<th>Description</th>
<th>Phonetic</th>
</tr>
</thead>
<tbody>
<tr>
<td>/p/</td>
<td>voiceless bilabial unaspirated stop</td>
<td>[p]</td>
<td>/nz/</td>
<td>voiceless bilabial stop</td>
</tr>
<tr>
<td>/b/</td>
<td>voiced bilabial stop</td>
<td>[b]</td>
<td>/mj/</td>
<td>prenasalised voiced bilabial stop</td>
</tr>
<tr>
<td>/mb/</td>
<td>prenasalised voiced bilabial stop</td>
<td>[mb]</td>
<td>/l/</td>
<td>voiceless alveolar nasal</td>
</tr>
<tr>
<td>/m/</td>
<td>voiced bilabial nasal</td>
<td>[m]</td>
<td>/k/</td>
<td>voiced alveolar lateral fricative</td>
</tr>
<tr>
<td>/b/</td>
<td>voiced bilabial stop</td>
<td>[b]</td>
<td>/l/</td>
<td>voiceless alveolar lateral fricative</td>
</tr>
<tr>
<td>/l/</td>
<td>voiced alveolar stop</td>
<td>[l]</td>
<td>/g/</td>
<td>voiced labialised velar stop occurring in labialised syllables</td>
</tr>
<tr>
<td>/n/</td>
<td>voiced alveolar nasal</td>
<td>[n]</td>
<td>/k/</td>
<td>voiced labialised velar stop occurring in labialised syllables</td>
</tr>
<tr>
<td>/nd/</td>
<td>prenasalised voiced alveolar stop</td>
<td>[nd]</td>
<td>/g/</td>
<td>voiced velar nasal occurring word-fin ally</td>
</tr>
<tr>
<td>/d/</td>
<td>voiced alveolar stop</td>
<td>[d]</td>
<td>/k/</td>
<td>voiced velar nasal occurring word-fin ally</td>
</tr>
<tr>
<td>/ts/</td>
<td>voiceless alveolar affricate occurring in unpalatalised syllables</td>
<td>[ts]</td>
<td>/g/</td>
<td>voiced velar stop occurring in unlabialised syllables</td>
</tr>
<tr>
<td>/dz/</td>
<td>voiced alveolar affricate occurring in unpalatalised syllables</td>
<td>[dz]</td>
<td>/g/</td>
<td>voiced labialised velar stop occurring in labialised syllables</td>
</tr>
<tr>
<td>/s/</td>
<td>voiceless alveolar fricative occurring in unpalatalised syllables</td>
<td>[s]</td>
<td>/h/</td>
<td>voiceless glottal fricative occurring word-medially</td>
</tr>
<tr>
<td>/z/</td>
<td>voiced alveolar fricative occurring in unpalatalised syllables</td>
<td>[z]</td>
<td>/h/</td>
<td>voiceless labialised glottal fricative</td>
</tr>
</tbody>
</table>

†Orthographically, 'kw' is word-initial and word-medial, 'wk' is word-final.
2 Phonology

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 (1997c) posited the existence of a set of underlyingly labialised consonant phonemes \([k^w, g^w, ηg^w, h^w]\). She showed them to be phonemes even though each of these consonants is also the realisation in labialised words of their non-labialised counterpart (see Section 2.2.3). At the surface phonetic level, Bow showed that a labialised velar can have two possible sources, either a labialisation prosody across the whole word (24), or the presence of an underlyingly labialised consonant (25). Example (24) shows consistently labialised vowels indicating labialisation across whole word, while the palatalised vowels in (25) indicate that there is a palatalisation prosody across the whole word; with the presence of an underlyingly labialised velar consonant.

(24) /dz g r o/ \([dzʊg^wɔr]\)
    ‘stake’

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

Bow (1997c) 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 1997c) shows two pairs of words that are distinguished by the contrast between the underlyingly labialised and non-labialised velars.

\(^9\)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.


## 2.2 Consonants

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

<table>
<thead>
<tr>
<th>Labialised consonant</th>
<th>Word-level prosody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underlying form</td>
<td>Phonetic form</td>
</tr>
<tr>
<td>/s l k e/</td>
<td>[ʃɪlɛk]</td>
</tr>
<tr>
<td>/g la o/</td>
<td>[gʷʊlɔ]</td>
</tr>
<tr>
<td>/ha da o/</td>
<td>[hʷɔɗa]</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
</table>

Bow (1997c) 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 1997c).

(26) /s kʷ m/ ~ /s k m o/ [sʊkʷɔm] ‘buy/sell’
2 Phonology

(27) /ma gʷ m/ ~ /ma g ṃ/ [mɔgʷɔm]
  ‘home’

Our further work on verb conjugations clarified that (26) actually contains a labialised velar (i.e., the underlying form is /s kʷ m/). The nominalised form of the verb is palatalised, yet the labialised velar is still present (28). If there was no underlyingly labialised velar, the nominalised form would have been *[mʊsɪkɪmɛ].

(28) mɪ-sɪkʷøm-ɛ
    nom-buy-cl
  ‘buying’

2.2.3 Prosodic conditioning of consonant allophones

Table 2.6 (adapted from Bow 1997c) 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, nʃ] 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], 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 [ӄ] 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, dẓ, nz, nʒ, ӄ]. 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 1997c) shows the distribution of each consonant phone (reading down) in different positions within the word (reading across).
### 2.2 Consonants

#### Table 2.6: Prosodic conditioning of consonant phonemes

<table>
<thead>
<tr>
<th>Neutral</th>
<th>Gloss</th>
<th>Labialised</th>
<th>Gloss</th>
<th>Palatalised</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stops</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>[maj]</td>
<td>‘hunger’</td>
<td>[mbolɔ]</td>
<td>‘twin’</td>
<td>[amɛɬɛk]</td>
</tr>
<tr>
<td>d</td>
<td>[dar]</td>
<td>‘burn’</td>
<td>[dɔkʷɔj]</td>
<td>‘arrive’</td>
<td>[dɛ]</td>
</tr>
<tr>
<td>n</td>
<td>[nax]</td>
<td>‘ripen’</td>
<td>[snɔm]</td>
<td>‘joke’</td>
<td>[nɛn]</td>
</tr>
<tr>
<td>n</td>
<td>[nax]</td>
<td>‘start’</td>
<td>[tnɔlɔŋ]</td>
<td>‘heart’</td>
<td>[bɛɬɛŋ]</td>
</tr>
<tr>
<td>k</td>
<td>[kal]</td>
<td>‘wait’</td>
<td>[kɛ]</td>
<td>‘do’</td>
<td></td>
</tr>
<tr>
<td>g</td>
<td>[gar]</td>
<td>‘grow’</td>
<td>[kɛ]</td>
<td>‘do’</td>
<td></td>
</tr>
<tr>
<td>ng</td>
<td>[ŋgaj]</td>
<td>‘set’</td>
<td>[fɛŋgɛ]</td>
<td>‘termite mound’</td>
<td></td>
</tr>
<tr>
<td>k*</td>
<td>[kʷʊsaj]</td>
<td>‘fog’</td>
<td>[kʷɛŋdɔm]</td>
<td>‘banana’</td>
<td>[aɬɛxo]</td>
</tr>
<tr>
<td>g*</td>
<td>[ŋgaj]</td>
<td>‘cockeral’</td>
<td>[ŋgaj]</td>
<td>‘termite mound’</td>
<td></td>
</tr>
<tr>
<td>ng*</td>
<td>[ŋgʊdaɬaj]</td>
<td>‘simmer’</td>
<td>[ŋgʊdaɬaj]</td>
<td>‘termite mound’</td>
<td></td>
</tr>
<tr>
<td><strong>Fricatives and Affricates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>[far]</td>
<td>‘itch’</td>
<td>[fɔkʷɔj]</td>
<td>‘whistle’</td>
<td>[fɛ]</td>
</tr>
<tr>
<td>s</td>
<td>[sar]</td>
<td>‘know’</td>
<td>[sɔm]</td>
<td>‘joke’</td>
<td></td>
</tr>
<tr>
<td>z</td>
<td>[zaj]</td>
<td>‘peace’</td>
<td>[zɔm]</td>
<td>‘eat’</td>
<td></td>
</tr>
<tr>
<td>ts</td>
<td>[tsar]</td>
<td>‘climb’</td>
<td>[tsɔkʷɔr]</td>
<td>‘fish net’</td>
<td></td>
</tr>
<tr>
<td>dz</td>
<td>[dzaj]</td>
<td>‘speak’</td>
<td>[dzɔgʷɔ]</td>
<td>‘hat’</td>
<td></td>
</tr>
<tr>
<td>nz</td>
<td>[znaj]</td>
<td>‘find’</td>
<td>[znɔm]</td>
<td>‘sit down’</td>
<td></td>
</tr>
<tr>
<td>h</td>
<td>[haj]</td>
<td>‘millet’</td>
<td>[mɛhɛr]</td>
<td>‘forehead’</td>
<td></td>
</tr>
<tr>
<td>x</td>
<td>[rax]</td>
<td>‘satisfy’</td>
<td>[rɛ]</td>
<td>‘boar’</td>
<td></td>
</tr>
<tr>
<td>hʷ</td>
<td>[hʷɔɗa]</td>
<td>‘dregs’</td>
<td>[hʷɔɗa]</td>
<td>‘dregs’</td>
<td></td>
</tr>
<tr>
<td>j</td>
<td>[jam]</td>
<td>‘water’</td>
<td>[sɔkʷɔj]</td>
<td>‘clan’</td>
<td>[aɬɛxo]</td>
</tr>
<tr>
<td>w</td>
<td>[war]</td>
<td>‘child’</td>
<td>[wulɔdʒ]</td>
<td>‘devour’</td>
<td>[wɛ]</td>
</tr>
</tbody>
</table>

#### Laterals

| l | [laj] | ‘dig’ | [ls] | ‘go’ | [lihɛ] | ‘bush’ |

#### Flaps

| r | [rak] | ‘satisfy’ | [arɔx] | ‘pus’ | [tɛrɛ] | ‘other’ |
| v | [pavan] | ‘start of race’ |

#### Semivowels

| w | [war] | ‘child’ | [wulɔdʒ] | ‘devour’ | [wɛ] | ‘give birth’ |
## 2 Phonology

Table 2.7: Non-prosodic conditioning of consonant phonemes

<table>
<thead>
<tr>
<th></th>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Voiceless stops and affricates</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p</td>
<td>[palaj]</td>
<td>'choose'</td>
<td>[kapaj]</td>
</tr>
<tr>
<td>t</td>
<td>[tala]</td>
<td>'walk'</td>
<td>[fata]</td>
</tr>
<tr>
<td>k</td>
<td>[kapaj]</td>
<td>'roughcast'</td>
<td>[makaj]</td>
</tr>
<tr>
<td>kʷ</td>
<td>[kʷʊsaj]</td>
<td>'fog'</td>
<td>[tʊkʷasaj]</td>
</tr>
<tr>
<td>ts</td>
<td>[tsahaj]</td>
<td>'ask'</td>
<td>[watsaj]</td>
</tr>
<tr>
<td>tf</td>
<td>[tfɛ tfɛ]</td>
<td>'all'</td>
<td>[mɛtʃɛtʃɛɗ]</td>
</tr>
<tr>
<td><strong>Implosives</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>[ɓalaj]</td>
<td>'build'</td>
<td>[ndaɓaj]</td>
</tr>
<tr>
<td>d</td>
<td>[ɗakaj]</td>
<td>'indicate'</td>
<td>[jada]</td>
</tr>
<tr>
<td><strong>Fricatives</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>[fata]</td>
<td>'burn'</td>
<td>[ⱥavaj]</td>
</tr>
<tr>
<td>s</td>
<td>[sakaj]</td>
<td>'sift'</td>
<td>[pasaj]</td>
</tr>
<tr>
<td>j</td>
<td>[ʃɛdɛ]</td>
<td>'witness'</td>
<td>[ʃɛʃɛ]</td>
</tr>
<tr>
<td>z</td>
<td>[zaɗ]</td>
<td>'take'</td>
<td>[wazaj]</td>
</tr>
<tr>
<td>z</td>
<td>[ʒɛ]</td>
<td>'smell'</td>
<td>[mɛkɛʃɛ]</td>
</tr>
<tr>
<td>h</td>
<td>[halaj]</td>
<td>'gather'</td>
<td>[mbahaj]</td>
</tr>
<tr>
<td>hʷ</td>
<td>[hʷʊlɛŋ]</td>
<td>'back'</td>
<td>[tʃœhʷɛɬ]</td>
</tr>
<tr>
<td><strong>Laterals, approximants, flap, and semivowels</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l</td>
<td>[ɬaraj]</td>
<td>'slide'</td>
<td>[tsaɬaj]</td>
</tr>
<tr>
<td>ṭ</td>
<td>[ⱥavaj]</td>
<td>'swim'</td>
<td>[ⱥavaj]</td>
</tr>
<tr>
<td>ṙ</td>
<td>[rakaj]</td>
<td>'pluck'</td>
<td>[gara]</td>
</tr>
<tr>
<td>v</td>
<td>[vavava]</td>
<td>'rapidly'</td>
<td>[ɓavaw]</td>
</tr>
<tr>
<td>j</td>
<td>[ʃɛdɛ]</td>
<td>'tire'</td>
<td>[haja]</td>
</tr>
<tr>
<td>w</td>
<td>[watsaj]</td>
<td>'write'</td>
<td>[ⱥawaj]</td>
</tr>
<tr>
<td><strong>Voiced stops and affricates</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>[makaj]</td>
<td>'leave/let go'</td>
<td>[lamaj]</td>
</tr>
<tr>
<td>b</td>
<td>[balaj]</td>
<td>'wash'</td>
<td>[abaj]</td>
</tr>
<tr>
<td>mb</td>
<td>[mbahaj]</td>
<td>'call'</td>
<td>[hambar]</td>
</tr>
<tr>
<td>d</td>
<td>[daraj]</td>
<td>'snore'</td>
<td>[hada]</td>
</tr>
<tr>
<td>nd</td>
<td>[ndavaj]</td>
<td>'finish'</td>
<td>[danda]</td>
</tr>
<tr>
<td>n</td>
<td>[nax]</td>
<td>'ripen'</td>
<td>[zana]</td>
</tr>
<tr>
<td>g</td>
<td>[garaj]</td>
<td>'command'</td>
<td>[lagaj]</td>
</tr>
<tr>
<td>gʷ</td>
<td>[gʷʊlɛk]</td>
<td>'small axe'</td>
<td>[agʷɔɬak]</td>
</tr>
<tr>
<td>ƞg</td>
<td>[ŋgaɬaj]</td>
<td>'introduce'</td>
<td>[manga]</td>
</tr>
<tr>
<td>ƞgʷ</td>
<td>[ŋgʷʊdaɬaj]</td>
<td>'simmer'</td>
<td>[aŋgʷʊrɮa]</td>
</tr>
<tr>
<td>dz</td>
<td>[dakaj]</td>
<td>'lean'</td>
<td>[dzadzaj]</td>
</tr>
<tr>
<td>ṭ</td>
<td>[ɗɛŋ]</td>
<td>'luck'</td>
<td>[tʃidʒɛ]</td>
</tr>
<tr>
<td>nz</td>
<td>[nækaj]</td>
<td>'find'</td>
<td>[maw]</td>
</tr>
<tr>
<td>nṣ</td>
<td>[nɛ]</td>
<td>'sit'</td>
<td>[hɛrnyɛ]</td>
</tr>
<tr>
<td>ƞ</td>
<td></td>
<td></td>
<td>[hadzaŋ]</td>
</tr>
</tbody>
</table>
2.2 Consonants

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

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

\[ n \rightarrow \eta / _# \]

Figure 2.1: Word-final allophone of /n/

Table 2.8 (adapted from Bow 1997c) illustrates [n] and [ŋ] in complementary distribution (with [n] initially and medially and [ŋ] finally).

<table>
<thead>
<tr>
<th>Prosody</th>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td>[nax]</td>
<td>‘ripen’</td>
<td>[gənaw] ‘animal’</td>
</tr>
<tr>
<td>Labialised</td>
<td>[nɔkʷ]</td>
<td>‘you’</td>
<td>[aŋna] ‘to’ (dative)</td>
</tr>
<tr>
<td>Palatalised</td>
<td>[ne]</td>
<td>‘me’</td>
<td>[mitɛnɛŋ] ‘bottom’</td>
</tr>
</tbody>
</table>

Likewise, Bow (1997c) demonstrates that [h] and [x] are allophones of /h/ with a distribution as shown in Figure 2.2.

\[ h \rightarrow x / _# \]

Figure 2.2: Word-final allophone of /h/

Table 2.9 shows [x] and [h] in complementary distribution (with [h] initially and medially and [x] finally).

<table>
<thead>
<tr>
<th>Prosody</th>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td>[har]</td>
<td>‘make’</td>
<td>[ahar] ‘hand’</td>
</tr>
<tr>
<td>Labialised</td>
<td>[hʷʊdɔ]</td>
<td>‘wall’</td>
<td>[tɔhʷɔr] ‘cheek’</td>
</tr>
<tr>
<td>Palatalised</td>
<td>[hɛrɛɓ]</td>
<td>‘heat’</td>
<td>[mɛhɛr] ‘forehead’</td>
</tr>
</tbody>
</table>

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) \[vəl=aw \quad \text{kindew} = \text{ang}^{w} \text{ɔ} \quad \text{na} \quad \text{ɛhɛ}\]

\text{give}[2S.IMP]=1S.IO \text{guitar} =2S.Poss PSP \text{here}

‘Give me your guitar, here!’

(30) \[na\text{-var na baj}\]

1S\text{-give} 3S.DO NEG

‘I won’t give it.’

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

(31) \[həmad a\text{-war g}am\]

\text{wind} 3S\text{-hurt} much

‘It’s very cold.’ (lit. wind hurts a lot)

(32) \[həmad a\text{-wal } = \text{alɔk}^{w} \text{ɔ}\]

\text{wind} 3S\text{-hurt} =1\text{PIN.IO}

‘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 (1997c) 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/: \([a, \varepsilon, \varnothing, \text{o}]\)\(^{13}\) and six from the epenthetic

\(^{11}\)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 (1997c) 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].
2.3 Vowels

schwa: \([ə, i, u, ə, i, u]\). 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

<table>
<thead>
<tr>
<th></th>
<th>/a/</th>
<th>Example</th>
<th>Epenthetic ə</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>[ɛ] ə</td>
<td>([ʃɛʃɛ] sese ‘meat’</td>
<td>[i] ə</td>
<td>([ʃɪlk] səlek ‘jealousy’</td>
</tr>
</tbody>
</table>

Bow (1997c) 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

\(^{14}\) 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.
2 Phonology

schwa is pronounced [ɪ]. The epenthetic vowel can also be assimilated to a neighbouring approximant: it is realised as [i] when it occurs beside [j] (line 4) and as [u] when it occurs beside a labialised velar [w, kʷ, gʷ, ŋgʷ, hʷ] (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 isolation: <e> in palatalised words, <o> in labialised words, and ‘a’ in words with neutral prosody. Epenthetic vowels are written as <ə> in the orthographic representation regardless of the word prosody, because their pronunciation is predictable from the word prosody (discernable from the full vowel in the word) and the surrounding consonants. This results in four orthographic vowel symbols (a, e, o, ə).

2.3.2 Prosodic conditioning of vowel allophones

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

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

<table>
<thead>
<tr>
<th>Two syllable stems</th>
<th>Three syllable stems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td></td>
</tr>
<tr>
<td>/ha r ts/</td>
<td>[harats]</td>
</tr>
<tr>
<td>/d r j/</td>
<td>[doraj]</td>
</tr>
<tr>
<td>LAB</td>
<td></td>
</tr>
<tr>
<td>/ba ɮ m ə/</td>
<td>[bolɔm]</td>
</tr>
<tr>
<td>/s k j ə/</td>
<td>[sukʷəj]</td>
</tr>
<tr>
<td>PAL</td>
<td></td>
</tr>
<tr>
<td>/ma h r ə/</td>
<td>[mɛhɛr]</td>
</tr>
<tr>
<td>/ɮ ga ə/</td>
<td>[lɡagɛ]</td>
</tr>
<tr>
<td>/ga g l v n ə/</td>
<td>[ɡʷɔɡʷʊlvɔŋ]</td>
</tr>
<tr>
<td>/ma ba b k ə/</td>
<td>[mɛbɛbɛk]</td>
</tr>
<tr>
<td>/ts ka l a ə/</td>
<td>[tʃɪkele]</td>
</tr>
</tbody>
</table>

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 incomplete, 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 Vowels

2.3.3 Non-prosodic conditioning of vowel allophones

Bow (1997c) 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 (33–37).

- \([\emptyset] \rightarrow [i] / _ j\)
  
  Figure 2.3: Influence of j on \(\emptyset\)

- (33) /k ja/ \[kija\]
  - ‘moon’

- (34) /m j k ē/ \[mijēk\]
  - ‘deer’

- \([\emptyset] \rightarrow [u] / _ w\)
- \([\emptyset] \rightarrow [u] / w _\)

  Figure 2.4: Influence of w on \(\emptyset\)

- (35) /d w ē/ \[duwa\]
  - ‘milk/breast’

- (36) /d w r ē / \[duwēr\]
  - ‘sleep’

- (37) /w d ēa k -j/ \[wuďakaj\]
  - ‘separate/share’

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

\(^{18}\)We found no cases of *[ji].
2 Phonology

(38) /ja d -j/ [jaɗaj] not *[jɛɗɛj]  
‘tire’

(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 ɛ/ [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 ɛ/ [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/ in the examples),

¹⁹We have not found the epenthetic vowel between /j/ and any other of the underlyingly labialised consonants (gʷ, ngʷ, hʷ, see Section 2.2.2), but we expect it to occur. Note also that the prosody of the labialised velar affects the quality of the preceding schwa

56
2.4 Tone

it is realised as [ø] (46–47, Figure 2.6). It is important to note that the presence of an underlyingly labialised velar consonant also does not cause labialisation of the entire phonological word; in fact, the evidence for their existence stems from this fact (see Section 2.2.2).

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

Figure 2.5: Influence of labialised velar on /a/

\[ /\text{azek}^w \text{e}/ [\text{æzöek}^w] \]

(45) ‘sorry’

\[ [\text{ə}] \rightarrow [\text{o}] / k^w _j \]

Figure 2.6: Influence of labialised velar and j on ə

\[ /\text{l} k^w \text{ja}^c/ [\text{lʊk}^w \text{jo}^c] \]

(46) ‘you (plural)’

\[ /\text{w} j \text{n}^c/ [\text{wøjɛŋ}] \]

(47) ‘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 (1997c) 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. The phonetic tone patterns will be indicated on the words using accent marks for H ( ˊ), M ( ˉ) when necessary, or L tone ( ˋ). Because phonetic M can occur due to two causes (see below), this work carefully distinguishes underlying tones (H or L) from phonetic tones (H, M, and L).

Table 2.12 (adapted from Bow 1997c with additional data) shows minimal pairs which illustrate the underlying two tone system in Moloko. Tone does not carry

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20 Some data was transcribed without tone.
a high lexical load, and so there are only a limited number of lexical items dis-

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

Lexical tone itself is not marked in the orthography (or in examples in the
morphosyntax part of this work) since there are only a few minimal pairs which
are distinguished by a diacritic on one of the words in each pair. 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 (1997c) discov-
ered that the voiced obstruents [b, d, g, mb, nd, ng, v, z, dz, nz, lj] have the effect
of lowering the phonetic 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 sys-
tems[...]The set of depressor consonants may include all voiced consonants,
or often only non-glottalized, non-implosive voiced obstruents. In some lan-
guages, 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 words that have an underlying high tone
in Moloko. Words that are underlingly low tone and contain no depressor con-
sonants have phonetic mid tone, and words that are underlingly low tone and

\(^{21}\) One of each in these minimal pairs are marked in the orthography with a diacritic so that the
pairs can be distinguished.

\(^{22}\) Bow (1997c) notes that the phonemes /h, w, r, l/ can appear to function as depressors.
# 2.4 Tone

Table 2.12: Minimal pairs for phonetic tone

<table>
<thead>
<tr>
<th>Nouns</th>
<th>H tone</th>
<th>L tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>[háj] ‘millet’</td>
<td>[hâj] ‘house/compound’</td>
<td></td>
</tr>
<tr>
<td>[ánɛ̄ŋ] ‘other’</td>
<td>[ànɛ̄ŋ] ‘snake’</td>
<td></td>
</tr>
<tr>
<td>[gə́láŋ] ‘threshing floor’</td>
<td>[gə̀lāŋ] ‘kitchen/clan’</td>
<td></td>
</tr>
<tr>
<td>[háhâr] ‘bean’</td>
<td>[hâhâr] ‘straw granary’</td>
<td></td>
</tr>
<tr>
<td>[mə̄dárā] ‘fire’</td>
<td>[mə̀də̀rà] ‘bicep’</td>
<td></td>
</tr>
<tr>
<td>[mɔ́lɔ̀] ‘twin’</td>
<td>[mɔ̀lɔ̀] ‘vulture’</td>
<td></td>
</tr>
<tr>
<td>[ɛ̄lɛ́] ‘eye’</td>
<td>[ɛ̄lɛ̀] ‘thing’</td>
<td></td>
</tr>
<tr>
<td>[vɛ́r] ‘grinding stone’</td>
<td>[vɛ̀r] ‘room’</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Verbs</th>
<th>H tone</th>
<th>L tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>[dár] ‘burn’</td>
<td>[dàr] ‘withdraw/recoil’</td>
<td></td>
</tr>
<tr>
<td>[hâr] ‘pick up/transport’</td>
<td>[hàr] ‘build/make’</td>
<td></td>
</tr>
<tr>
<td>[nʒɛ́] ‘left’ (gone)</td>
<td>[nʒɛ̀] ‘sit’</td>
<td></td>
</tr>
<tr>
<td>[tsáhâj] ‘ask’</td>
<td>[tsáhâj] ‘get water’</td>
<td></td>
</tr>
<tr>
<td>[tsâwâj] ‘cut off the head’</td>
<td>[tsâwâj] ‘grow’</td>
<td></td>
</tr>
<tr>
<td>[pə̄ɗâkâj] ‘wake up’</td>
<td>[pə̀ɗâkâj] ‘melt’</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Different grammatical categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ává] ‘there is’ (EXT)</td>
</tr>
<tr>
<td>[kórṣáj] ‘sweep’ (verb)</td>
</tr>
<tr>
<td>[lâlâ] ‘come back’ (verb)</td>
</tr>
<tr>
<td>[[ɛ̄hɛ́] ‘no’ (interjection)</td>
</tr>
<tr>
<td>[tôtâ] 3P</td>
</tr>
<tr>
<td>[vá] Perfect extension</td>
</tr>
<tr>
<td>[ndânà] ‘therefore’ / ‘you (s) must’</td>
</tr>
<tr>
<td>[âhâń] 3P.Poss</td>
</tr>
</tbody>
</table>

*A third example ([ává] ‘under’) makes this line a minimal triplet for tone.*
2 Phonology

contain depressor consonants have phonetic 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 verb roots with phonetic mid and low tone with and without depressor consonants.

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

<table>
<thead>
<tr>
<th>Root with no depressor consonants</th>
<th>Root with depressor consonants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phonetic tone on root</strong></td>
<td><strong>Verb in 2s imperative form</strong></td>
</tr>
<tr>
<td>M</td>
<td>fe ‘play an instrument’</td>
</tr>
<tr>
<td>M</td>
<td>taf ‘spit’</td>
</tr>
<tr>
<td>M</td>
<td>tal-aj ‘curse’</td>
</tr>
</tbody>
</table>

2.4.2 Tone spreading rules

At the phrase level, Bow (1997c) 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 will lower a high tone on the first syllable of any word that follows. Table 2.14 (from Bow 1997c) 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

<table>
<thead>
<tr>
<th>Across morpheme boundary</th>
<th>Words in isolation</th>
<th>Words in context</th>
<th>Tone change</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ɬàlà]+[áháj]</td>
<td>[ɬàlàháj]</td>
<td>LL+H → LLM</td>
<td>‘villages’</td>
<td></td>
</tr>
<tr>
<td>[jàm]+[áháŋ]</td>
<td>[jàmáháŋ]</td>
<td>L+HM → LMM</td>
<td>‘his/her water’</td>
<td></td>
</tr>
<tr>
<td>Across word boundary</td>
<td>[jàm]+ [ábá]</td>
<td>[jàm əbá]</td>
<td>L+HH → LMH</td>
<td>‘there is water’</td>
</tr>
<tr>
<td>[ázʊ́ŋgwɔ̀]+[ná]+[ɬá]</td>
<td>[ázʊ́ŋgwɔ̀ ná ɬá]</td>
<td>HHL+H+M → HHLMM</td>
<td>‘donkey and cow’</td>
<td></td>
</tr>
</tbody>
</table>
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 (1997c) 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 “[t]he basic syllable in Moloko has a consonantal onset, a vocalic nucleus and an optional consonant coda: CV(C), and carries tone” (Bow 1997c: 1). She found three syllable types in Moloko: CV, CVC, and initial V. 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. 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.

(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, the consonants that are permitted as coda are restricted. Bow reported that liquids can function as the coda to a non-word-final syllable.

---

23Friesen & Mamalis (2008) also discovered that although there are no restrictions on consonantal onsets for nouns, verb stems beginning with /n/ or /r/ are rare.

24The only non-palatalised verb stems ending in CV end with the pluractional clitic =aya or =iya, 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.

25Bow (1997c) also reports that liquids can function as the nucleus of a syllable and also as the second component of a consonantal onset.
also shown that a semivowel /w/, /j/ or nasal /m, n/ can also function as the coda of a non word-final closed syllable (50–52).

(50) duwlaj
   ‘millet drink’

(51) kijga
   ‘like this’

(52) amsɔkʷɔ
    ‘sorghum’

Secondly, consonants that can fill the coda position word-finally have other restrictions. Bow reported that the voiced plosives \[b, d, dz, g, gʷ\] and prenasalised consonants \[mb, nd, nz, əɡ, əɡʷ\] 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/ and /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 cannot occur wordfinally to surface. 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 schwa results. In some cases, speakers could assign tone to the syllable (56–59), and in other cases, they could not assign tone to the syllable (60–63). In the example, the syllables are separated by a period in the phonetic form. The voiceless schwa is underlined.

(56) [sʊ.kʷɔm]  
‘buy/sell’

(57) [tə.ka.raj]  
‘taste’

(58) [mɪ.tɪ.ʃe]  
‘sputting’ (NOM)

(59) [mɪ.tfɪ.ʃe]  
‘standing’ (NOM)

(60) [mɔ.kʷʊ.tɔ.nɔkʷ]  
‘toad’

(61) [dɛ.fɪ.tɛ.ɾe]  
‘book’

(62) [fə.tak]  
‘Ftak’ (a proper name)

(63) [ɔ.kʷʊ.fɔm]  
‘mouse’

2.5.2 Syllable restructuring

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

---

26 Data from Bow (1997c) show tone in every syllable for all of these words except mɔkʷtɔnɔkʷ ‘toad,’ skʷfɔm ‘mouse,’ Ftak ‘Ftak’ (a proper name) and deftere ‘book.’
2 Phonology

Bow (1997c) notes vowel elision and assimilation of semivowels 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) is in 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/.

27 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 (1997c) notes “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 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.

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)

27 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 (R. Gravina 2005: 9), Muyang (Smith, personal communication), Vame (Kinnaird 2006: 17), but [bahaj] in Mbuko (Richard Gravina 2001: 9).

28 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>
<thead>
<tr>
<th>Number</th>
<th>Underlying form</th>
<th>Phonetic pronunciation in isolation</th>
<th>Phonetic pronunciation in fast speech</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>/anzakr wla/</td>
<td>[a.nza.kə] [u.la]</td>
<td>[anzakrula]</td>
</tr>
<tr>
<td></td>
<td>chicken 1s.poss</td>
<td>'my chicken'</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>/a- la° ala° ahan/</td>
<td>[a.lə] [ɛ.lɛ ] [a.hαŋ]</td>
<td>[aləlan]</td>
</tr>
<tr>
<td></td>
<td>3s- go -thing =3s.poss</td>
<td>'he went away'</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>/n-la° a 6 r ƙ n ava/</td>
<td>[nu.lə] [a] [ɓər.ƙαŋ] [a.vα]</td>
<td>[nuɓərƙava]</td>
</tr>
<tr>
<td></td>
<td>1s+PFV-go at mountain in</td>
<td>'I went to the mountain'</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>/gln =ahaj/</td>
<td>[gə.lαŋ] [a.haj]</td>
<td>[gəlahaj]</td>
</tr>
<tr>
<td></td>
<td>threshing area =Pl</td>
<td>'threshing areas'</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>/a-mbɗ =an =aka/</td>
<td>[a.mbə.dαŋ] [a.ka]</td>
<td>[àmbəɗáaka]</td>
</tr>
<tr>
<td></td>
<td>3s-change=3s.io =on</td>
<td>'he/she replied' (lit. he changed on him)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>/bahj alaka°/</td>
<td>[ba.haj] [a.lα.kʷɔ]</td>
<td>[bajalɔkʷɔ]</td>
</tr>
<tr>
<td></td>
<td>chief 1Pin.poss</td>
<td>'our (in.) chief'</td>
<td></td>
</tr>
</tbody>
</table>
2 Phonology

- 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/ realized as [x]

The presence of the word-final allophone [x] (Bow 1997c) indicates a word break between gəvax ‘field’ and nehe ‘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 1997c, see Section 3.1.2).29.

(64) [gəvax] /gvah nehɛ/ → [gəvaxnehe]
‘field’ ‘field’ DEM ‘this field’

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

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

(66) [a-bax jam]
3s-pour water
‘He poured water.’

(67) [bax] /a-bh =aw/ → [abahaw]
‘sew’ 3s-sew=1s.1o ‘He/she sews for me.’

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/ realised as [ŋ]

Word-final changes where /n/ is realised as [ŋ] (Bow 1997c) indicate a word break between the noun *həlanj* ‘back’ and *na* ‘PSP’ (68). Example (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] /dadəŋ =Ca/ → [dedeŋŋa] ‘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/ (see Section 7.3.2).

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

(71) [adzənaj] /a-dz n-j =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 (1997c) showed that prosodies spread over a word but do not cross word boundaries. Nouns are illustrated in (72–74). The possessive pronouns in (72–73) 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.31

---

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

31 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 zaɛ s l mɔ/ → [mrɛsɔlɔm]  
  person peace  'person characterised by peace'

(73) /war alaɛ/ → [warɛlɛ]  
  child eye  'grain' (lit. child eye)

(74) /a-tamaɛ/ → [ɛtemɛ]  
  onion  'onion'

Examples (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 ɔ/ (77) and /-ak ɔ/ (79) spreads over the verb stems, even overcoming the underlying palatalisation prosody on the verb stem in (77).

(75) /awj n- s-jɛ/ → [awijnɛʃɛ]  
  said 1s- drink  'He/she said, “I drink.”'

(76) /n- s-jɔ/ → [nɛʃɛ]  
  1s- drink  'I drink.'

(77) /n- s-jɛ -am ɔ/ → [nɔsɔm]  
  1s- drink -1Pex  'We drink.'

(78) /n- ɮar/ → [nɑɮar]  
  1s- kick  'I kick.'

(79) /m- ɮar -akɔ/ → [mɔɮʊrɔkʷ]  
  1Pex- kick -1Pex  'We kick.'

2.6.1.4 Deletion of the -aj suffix in verbs

The -aj suffix in verbs drops off when suffixes or extensions are attached to the verb. (80) and (81) show the verb /p -j/ 'open.' In the 3s form, the verb carries the
2.6 Word boundaries

-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 (1997c) 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). Word-final /n/ is not deleted in any other environment. (82) shows that word-final /n/ is deleted before the plural marker [=ahaj]. For comparison, (83) shows word-final changes between [ɛŋɛɾɛŋ] and [aɮa], necessitating [ŋ] the word-final allophone of /n/). Syllables are separated by a period in the phonetic form.

(82) /ɓərɮan =ahj/ → [ɓər.ɮa.haj]  
mountain =pl ‘mountains’

(83) /angaranɛ aɮa/ → [ɛ.ŋgɛ.ɾɛ.ŋa.ɮa]  
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).32 (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 mzaɛ/ → [a.ba.ŋa.na.mɪ.ʒɛ]  
3s-hit=3s.io to person ‘He/she hit someone.’

32The vowel is not deleted, resulting in a long vowel.


2 Phonology

2.6.2 Affix, clitic, and extension

Five criteria are 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.\textsuperscript{33} 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

\textsuperscript{33}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 (see 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), 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 are indicated. Palatisation and labialisation prosodies are 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 are written (i.e. not the epenthetic schwas) and the palatalisation or labialisation prosody on the form is 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.

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).
3.1 Pronouns

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

<table>
<thead>
<tr>
<th>Person</th>
<th>Free pronouns</th>
<th>Bound</th>
<th>Pronominal affixes and extensions(^a)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Person</td>
<td>Regular</td>
<td>Emphatic</td>
</tr>
<tr>
<td>1s</td>
<td>ne</td>
<td>ne ga</td>
<td>=awla</td>
</tr>
<tr>
<td>2s</td>
<td>nok</td>
<td>nok ga</td>
<td>=ango(k)(^d)</td>
</tr>
<tr>
<td>3s</td>
<td>ndahan</td>
<td>ndahan ga</td>
<td>=ahan</td>
</tr>
<tr>
<td>1Pin</td>
<td>loko</td>
<td>loko ga</td>
<td>=aloko</td>
</tr>
<tr>
<td>1PEx</td>
<td>lome</td>
<td>lome ga</td>
<td>=alome</td>
</tr>
<tr>
<td>2P</td>
<td>ləkwəye</td>
<td>ləkwəye ga</td>
<td>=aləkwəye</td>
</tr>
<tr>
<td>3P</td>
<td>təta</td>
<td>təta ga</td>
<td>=atəta</td>
</tr>
</tbody>
</table>

\(^a\)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 \([əŋ^\w]\) or \([aŋg^\w]\) 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 a subject (Mala, a male proper name), a direct object (dalay ‘girl’), and an 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.
3 Grammatical classes

subject is also indicated on the verb by the subject pronominal ə-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 embedded in 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.1o 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 the 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) Ndalhan na, avəlan dalay ana Arsakay.
ndahaŋ na à-vəl=aŋ dalaj ana Arsakaj
3s PSP 3s+PFV-give=3s.1o 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 dalay) occurs in the normal direct object slot in the clause.

(3) Mala avəlan ndahan ana Arsakay.
Mala à-vəl=aŋ ndahaj ana Arsakaj
Mala 3s+PFV-give=3s.1o 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).

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2The first line in each example is the orthographic form. The second is the phonetic form (slow speech) with morpheme breaks.
3The 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.
3.1 Pronouns

(4) Mala avəl dalay [ana ndahan].
    Mala à-vəl=aŋ dalaj [ana ndahan]
    Mala 3S+PFV-give=3S.IO girl DAT 3S
    ‘Mala gave the girl to him.’

The indirect object pronominal enclitic can entirely stand in the place of the prepositional phrase expressing indirect object (5, see Section 7.3.2).

(5) Mala avəl 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 a free pronoun (6–8).

(6) Ne ga nege.
    ne  ga  nè-g-ɛ
    1S  ADJ 1S+PFV-do-CL
    ‘It was me, I did it.’ (lit. me, I did)

(7) Ne ga aməgaye.
    ne  ga  amɪ-g-ɛ
    1S  ADJ DEP-do-CL
    ‘It was me who did it.’ (lit. me, the one that did)

(8) Ne ahan nege.
    ne=ahan  nè-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
3 Grammatical classes

immediately follow the noun or noun phrase they modify (9–11) and occur before the plural clitic (12).^4^4

(9) hor ahan  
hʷɔr=ahaj  
woman=3S.Poss  
‘his wife’

(10) məgəye angə  
mɪ-g-ijɛ=ajgʷo  
NOM-do-CL=2S.Poss  
‘your doings’

(11) war dalay ahan  
war dalaj=ahaj  
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 (1997c) demonstrated that word-final changes indicating a word break do not occur (Table 3.2). They are clitics, not affixes, since they bind to the right edge of the head of the noun phrase, binding to the final noun where the head is composed of more than one noun, yet modifying the entire structure (11) (see Section 5.4.2).

3.1.2.1 Semantic range of possessive constructions

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

^4^Bow (1997c) postulated that the set of possessive pronouns does not include the plural possessive pronouns. Rather, she proposed that the plural possessive is actually an associative noun phrase formed by the preposition /a/ and the free pronoun (a loko, a ləme, a ləkwəye, and a təta). 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 in Moloko (aloko, aləme, aləkwəye, and atəta).
3.1 Pronouns

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

<table>
<thead>
<tr>
<th>Underlying form</th>
<th>Surface forms of isolated words</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral /g v h/</td>
<td>[gəvax] [uwlə] → [gəvəhuwlə]</td>
<td>‘my field’</td>
</tr>
<tr>
<td>Labialised /hamb h_o/</td>
<td>[hɔmbɔx] [uwlə] → [hɔmbʊhuwlə]</td>
<td>‘my pardon’</td>
</tr>
<tr>
<td>Palatalised /ta z h/</td>
<td>[tɛʒɛx] [uwlə] → [tɛʒɛhuwlə]</td>
<td>‘my snake’</td>
</tr>
</tbody>
</table>

Examples 13–17 show that alienable and inalienable is not a relevant distinction for Moloko.
3 Grammatical classes

(18) məgəye əwla
    mi-g-ije=uwla
    NOM-do-CL=1S.POSS
    ‘my doings’ (i.e. the things I do)

(19) məzame əwla
    mi-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 (1997c) concluded that the underlying tone melody for possessive pronouns is HLH. Table 3.3 (from Bow 1997c) shows the surface tonal melodies and underlying tone pattern for all the possessive pronouns with the noun [ɗāf] ‘loaf.’ 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 /ŋɡ/ and so the second syllable is low tone.

Table 3.4 (from Bow 1997c) 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 possessive pronoun maintains its tonal melody in every environment. Note that the low surface tone of [dàndàj] ‘intestines’ (due to the depressor consonant) lowers the first high tone of the 3s and 1PEx possessive.

3.1.3 Honorific possessive pronouns

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

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6In Moloko, ɗāf 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’.
### 3.1 Pronouns

#### Table 3.3: Possessive pronoun paradigm with tone marked

<table>
<thead>
<tr>
<th>Possessive pronoun in NP</th>
<th>Surface tone</th>
<th>Underlying tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1S ɗāf úwlā ‘my loaf’</td>
<td>HM</td>
<td>HL</td>
</tr>
<tr>
<td>2S ɗāf ŋ̃g̃ʷ ‘your loaf’</td>
<td>HL</td>
<td>HL</td>
</tr>
<tr>
<td>3S ɗāf āhāŋ ‘your loaf’</td>
<td>HM</td>
<td>HL</td>
</tr>
<tr>
<td>1PIN ɗāf álɔ̄kʷɔ́ ‘our (inclusive) loaf’</td>
<td>HMH</td>
<td>HLH</td>
</tr>
<tr>
<td>1PEx ɗāf álɪ̄mɛ́ ‘our (exclusive) loaf’</td>
<td>HMH</td>
<td>HLH</td>
</tr>
<tr>
<td>2P ɗāf álʊ̄kọ́jɛ́ ‘your (P) loaf’</td>
<td>HMH</td>
<td>HLH</td>
</tr>
<tr>
<td>3P ɗāf átə̄tá ‘their loaf’</td>
<td>HMH</td>
<td>HLH</td>
</tr>
</tbody>
</table>

#### Table 3.4: Tonal melodies in possessive constructions

<table>
<thead>
<tr>
<th>Example</th>
<th>Gloss</th>
<th>2S</th>
<th>3S</th>
<th>1PEx</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>[tsáf] ‘shortcut’</td>
<td>[tsáf ŋ̃g̃ʷ]</td>
<td>[tsáf āhāŋ]</td>
<td>[tsáf álɪ̄mɛ́]</td>
</tr>
<tr>
<td></td>
<td>[bɔ́hɔ̄m] ‘cheek’</td>
<td>[bɔ́hɔ̄m ŋ̃g̃ʷ]</td>
<td>[bɔ́hɔ̄m āhāŋ]</td>
<td>[bɔ́hɔ̄m álɪ̄mɛ́]</td>
</tr>
<tr>
<td>L</td>
<td>[ɗāf] ‘loaf’</td>
<td>[ɗ āhāŋ]</td>
<td>[ɗ álɪ̄mɛ́]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[dāndāj] ‘intestines’</td>
<td>[dāndāj āhāŋ]</td>
<td>[dāndāj álɪ̄mɛ́]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[m̥k̥t̥f] ‘knife’</td>
<td>[m̥k̥t̥f ŋ̃g̃ʷ]</td>
<td>[m̥k̥t̥f āhāŋ]</td>
<td>[m̥k̥t̥f álɪ̄mɛ́]</td>
</tr>
<tr>
<td></td>
<td>[m̥g̃ʷd̥ɔ̄k] ‘hawk’</td>
<td>[m̥g̃ʷd̥ɔ̄k ŋ̃g̃ʷ]</td>
<td>[m̥g̃ʷd̥ɔ̄k āhāŋ]</td>
<td>[m̥g̃ʷd̥ɔ̄k álɪ̄mɛ́]</td>
</tr>
<tr>
<td>LH</td>
<td>[l̥m̥j] ‘ear’</td>
<td>[l̥m̥j āhāŋ]</td>
<td>[l̥m̥j álɪ̄mɛ́]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[b̥g̃ʷm] ‘hoe’</td>
<td>[b̥g̃ʷm āhāŋ]</td>
<td>[b̥g̃ʷm álɪ̄mɛ́]</td>
<td></td>
</tr>
<tr>
<td>LH</td>
<td>[ák̥f̥ʃm] ‘mouse’</td>
<td>[ák̥f̥ʃm ŋ̃g̃ʷ]</td>
<td>[ák̥f̥ʃm āhāŋ]</td>
<td>[ák̥f̥ʃm álɪ̄mɛ́]</td>
</tr>
<tr>
<td></td>
<td>[d̥d̥l̥n̥] ‘black’</td>
<td>[d̥d̥l̥n̥ ŋ̃g̃ʷ]</td>
<td>[d̥d̥l̥n̥ āhāŋ]</td>
<td>[d̥d̥l̥n̥ álɪ̄mɛ́]</td>
</tr>
<tr>
<td>LHL</td>
<td>[s̥s̥s̥j̥k] ‘wart’</td>
<td>[s̥s̥s̥j̥k ŋ̃g̃ʷ]</td>
<td>[s̥s̥s̥j̥k āhāŋ]</td>
<td>[s̥s̥s̥j̥k álɪ̄mɛ́]</td>
</tr>
<tr>
<td></td>
<td>[m̥ng̃ʷh̥] ‘crow’</td>
<td>[m̥ng̃ʷh̥ ŋ̃g̃ʷ]</td>
<td>[m̥ng̃ʷh̥ āhāŋ]</td>
<td>[m̥ng̃ʷh̥ álɪ̄mɛ́]</td>
</tr>
</tbody>
</table>

---

81
3 Grammatical classes

(20) hor golo
ga_ho
woman HON
‘my dear wife’

(21) zar golo
zar ga_ho
man HON
‘my dear husband’

(22) baba ya
baba ja
father HON
‘my dear father’

(23) dede ya
dede ja
grandmother HON
‘my dear grandmother’

(24) Mama ya asaw daf.
mama ja a-s=aw daf
mother HON 3s-please=1s.10 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 3.5.7

The normal position for interrogative pronouns is clause or noun phrase final (25–38).8 Two of the interrogative pronouns (memey ‘how,’ and malmay ‘what’) question a clause in and of themselves (33–35). In each example, the interrogative pronoun is bolded.

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7 Table adapted from Boyd (2003).
8 See interrogative constructions in Moloko, Section 10.3.
### 3.1 Pronouns

Table 3.5: Interrogative pronouns

<table>
<thead>
<tr>
<th>Element questioned</th>
<th>Interrogative pronoun</th>
<th>Gloss</th>
<th>Example numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clause constituent</td>
<td><code>way</code></td>
<td>‘who’ (human)</td>
<td>25 and 26</td>
</tr>
<tr>
<td></td>
<td><code>almay</code></td>
<td>‘what’ (non-human)</td>
<td>27 and 28</td>
</tr>
<tr>
<td></td>
<td><code>epeley</code></td>
<td>‘when’</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td><code>amtamay</code></td>
<td>‘where’</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td><code>kamay</code></td>
<td>‘why’</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td><code>memey</code></td>
<td>‘how/ explain’</td>
<td>32 and 33</td>
</tr>
<tr>
<td></td>
<td><code>malmay</code></td>
<td>‘what is this’</td>
<td>35 and 34</td>
</tr>
<tr>
<td>Noun phrase constituent</td>
<td><code>mətəmey</code></td>
<td>‘how much’</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td><code>weley</code></td>
<td>‘which one’</td>
<td>37 and 38</td>
</tr>
</tbody>
</table>

(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 amənjər `way`?
    Mana à-mənζəɾ waj
    Mana 3S+PFV-see who
    ‘Whom did Mana see?’

(27) Kənjakay `almay`?
    kə-nzak-aj almaj
    2S+PFV-find-CL what
    ‘What did you find?’

(28) Kəzom `almay`?
    kə-zəm almaj
    2S+PFV-eat what
    ‘What did you eat?’
3 Grammatical classes

(29) Kálala epeley?
ká-l=ala epelej
2s+IFV-go=to when
‘When are you coming?’

(30) Kólo amtamay?
kó-lɔ amtamaj
2s+IPV-go where
‘Where are you going?’

(31) Kólo a Lalaway kamay?
kó-lɔ a Lalawaj kamaj
2s+IFV-go at Lalaway why
‘Why are you going to Lalaway?’

(32) Kəlala na memey?
kə̀-l=ala na memej
2s+PFV-go=to PSP how
‘Why did you come?’

(33) Memey?
memej
how
‘Explain?’ (what do you mean?, lit. how?)

(34) Nehe na malmay?
nehɛ na malmaj
DEM PSP what
‘What is this here?’

(35) Malmay?
malmaj
what
‘What is it?’

(36) Dala mɔtɔme?
dala mütımɛ
money how much
‘How much money [is that]?’
3.1 Pronouns

(37) Məlama ango na weley?
  məlama=əŋgʷɔ na  wɛlej
  sibling=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 wɛlej tɔx an=əŋ dəraj na abaj
  youth =Pl which ID:put 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,’ meme ‘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 meme becomes mey (41) and almay becomes may (40, 42).

(39) Wa andaday way?
  wa  a-ndaɗ-aj waj
  who 3s-love-cl who
  ‘No one loves him.’ (lit. who loves him?)

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

(41) Meme ege mey?
  mɛmɛ ɛ-g-ɛ mej
  how 3s-do-cl how
  ‘What is going on here? [when something is wrong]/ ‘What are you doing?’ (lit. how is it doing?)
3 Grammatical classes

(42) Snake, S. 7
Alma aməðəvala okfom na may?
almə amə-dəv=ala ək*ʃəm 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.
nə-mənzar meɬɛnɛŋ baj
1s+PFV-see no one NEG
‘I didn’t see anyone.’

(44) Anjaka aməɓezlata azla mana mana mana.
a-nz=aka amə-ɓɛlɛ =ata alɡa mana mana mana
3s-left=on DEP-count =3P.IO now so and so so and so and so
‘He started telling their names: so and so, and so and so, and so on.’

(45) [Nafat enen] aba
[nafat enɛŋ] 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.\textsuperscript{9} Manner adverbials are derived from local adverbial demonstratives.

Table 3.6 shows a complete list of 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. For comparison, place/time adverbs are also shown. The proximal demonstratives are morphologically similar to the locational adverb \textit{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.

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, 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 ngɛhe].
\text{"ná-sʊkʷɔm [zana ngɛhe]"}
\text{1s+IFV-buy cloth DEM}
\text{"I will buy this particular cloth here.’ (pointing to or holding a particular cloth among others)}

(47) Asaw [awak ngɔndaye].
\text{"a-s=aw [awak ngɔndiŋɛ]"}
\text{3s=please=1s.IO goat DEM}
\text{"That particular goat there pleases me.’ (pointing to a particular goat among others)}

\textsuperscript{9}Dixon (2003) describes three types of demonstratives: nominal, local adverbia, and verbal. Verbal demonstratives do not occur in Moloko. Dixon considers manner adverbiaal demonstratives to be a subtype of nominal demonstratives.
Table 3.6: Demonstratives in Moloko

<table>
<thead>
<tr>
<th>Nominal demonstratives</th>
<th>Local adverbial demonstratives</th>
<th>Manner adverbial demonstratives</th>
<th>Place/time adverbs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proximal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(near speaker)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ngehe / nəngehe / nengehe(^a)</td>
<td>nehe</td>
<td>ka nehe</td>
<td>ehe</td>
</tr>
<tr>
<td></td>
<td>‘this’</td>
<td>‘like this’</td>
<td>‘here’</td>
</tr>
<tr>
<td></td>
<td>‘here’</td>
<td>kəygehe</td>
<td>cəcəngehe</td>
</tr>
<tr>
<td></td>
<td>(near speaker)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>nənəndəye / nəndəge(^b)</td>
<td>nəndəye / nendəge(^c)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘that’</td>
<td>‘there’</td>
<td></td>
</tr>
<tr>
<td><strong>Distal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(away from speaker)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ngəndəye / ngəndəge(^b)</td>
<td>nəndəye / nendəge(^c)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘that’</td>
<td>‘there’</td>
<td></td>
</tr>
<tr>
<td><strong>Distant from speaker</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>toho(^d)</td>
<td>toho</td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘over there’</td>
<td>‘over there’</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Anaphoric</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ndana</td>
<td>ka ndana</td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘that previously mentioned’</td>
<td>‘like what was described’</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>kəyga</td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘like that’</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)The demonstrative ngehe is a contraction of nəngehe.
\(^b\)This demonstrative is pronounced either [nɪŋgɪndîjɛ] or [nɪŋgɪndɪgɛ] by speakers from different regions.
\(^c\)Likewise, dialect differences account for the different pronunciations.
\(^d\)In a genitive or possessive construction.
3.2 Demonstratives and demonstrationals

(48)  [Babəza ahay ngəndəye] anga əwla ahay.
[babəza=ahaj ngəndi]e] aŋa=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. 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.

(49)  Cicada, S. 14
[Agwazla ngəndvəye] ágasaka ka mahay ango aka.
[agwazla ngəndije] á-gas=aka ka mahaj=angʷɔ 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 family from one grain of millet. The blessing occurred because the millet would multiply during its grinding. The story describes how a young, newly-married non-Moloko girl hears how to handle the millet yet disobeys the rules on how to handle it. As a result, the disobedient girl was killed by the millet. The story tells how the Creator was offended by her act and withdrew his blessing from the Moloko people such that millet would not multiply any more and the Moloko had to work hard to even get enough food to feed their families. The suffering that the Moloko people experienced as a result of the withdrawal of God’s blessing is described in lines 33-37 but it is not named as such until line S. 38. In that line, the particular suffering of the Moloko people that was brought on by the girl is marked by the proximal nominal demonstrative avəya nengehe ‘this particular previously mentioned suffering.’ Also, the young woman who, by her disobedience, brought suffering to the entire Moloko population is marked in lines 33 and 38 by the distal nominal demonstrative. Line 33 contains war dalay na amecen

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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).
3 Grammatical classes

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 bərav va
Mʊlɔkʷ=ahaj tawij Hʊrmbʊlɔm á-ga bərav =va
Moloko=Pl 3P+said God 3S+IFV-do heart =PRF
‘The Molokos say, God got angry (lit. God did heart)’

kəwaya war dalay na, amecen sləmay bay ngəndəye.
kəwaya war dalay na amɛ-tʃɛŋ ɬəmaj
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-əz=ata=aka barka=ahan=va
because DEM God 3S+IFV-take=3P.IO=on blessing=3S.POSS=PRF
‘Because of that, God had taken back his blessing from them.’

Disobedient Girl, S. 35
Cəcəngehe na, war élɛ háy bəlen na, ásak asabay.
tʃɪtʃɪŋgɛhɛ now na, PSp child eye millet one
‘And now, one grain of millet, it doesn’t multiply anymore.’

Disobedient Girl, S. 36
Talay war élɛ háy bəlen kə ver aka na, ásak asabay.
talaj war élɛ haj bəlen kə ver aka na á-sak asa-baj
10:put 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 gʷəbaj
only 2S+IFV-prepare=PLU a lot
‘You must put on a lot.’
3.2 Demonstratives and demonstrationals

Disobedient Girl, S. 38
Ka nehe tawəy, metesle anga war dalay **ngandəye**
ka nehe tawij *me-tɛɬ-ɛ* anga war dalaj **ŋgɛndiɛ**
like DEM 3P+said NOM curse CL POSS child girl DEM

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

amazata aka ala [avəya **nengehe**] ana məze ahay na.
ama-z=ata=aka=ala avija **nengehe** ana mirɛ=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 four local adverbial demonstratives: proximal (near the speaker), distal (away from the speaker) (Section 3.2.2.1), far away from the speaker, and an anaphoric demonstrative used only in discourse (Section 3.2.2.2).

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). In the examples in this section, the demonstrative is bolded and the noun phrase is marked by square brackets.

(51) *[Daf nehe] acar.*
    [daf **nehe**] a-tsar
    millet loaf DEM 3S-taste good
    ‘This millet loaf here (in this place) tastes good.’

(52) *Nazalay [awak ahay nɔndəye] a kosoko ava.*
    na-z-alaj *[awak=ahaj nɛndiɛ] a kɔsɔkʷɔ ava*
    1S-carry-away goat=Pl DEM at market in
    ‘I take the goats there (in that place) to the market.’

Note that nominal demonstratives do not occur after the adjectiviser, Section 5.1.
3 Grammatical classes

(53) Disobedient Girl, S. 13
[War elé hāy bəlen ga nándaye] [nok amɛzəɗe na],
[war élɛ haj bîlɛŋ ga nündîje] [nokʷ amɛ-zid-ɛ na]
child eye millet one ADJ DEM 2S DEP-take-CL PSP
‘That one grain there (highlighted12), the one that you have taken,’
káhaya na kə ver aka.
ká-h=aja na kə ver aka
2S+IFV-grind=PLU 3S.DO on grinding stone on
‘grind it on the grinding stone.’

(54) Values, S. 3
Səwat na, [təta a məsəyon na ava nándaye na], pester áhata.
suwat na [təta a musijɔŋ na ava nündîje na] pɛʃɛr á-h=ata
ID:disperse PSP 3P at mission PSP in DEM PSP pastor 3S-tell=3P.IO
‘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 daw?
nde [nehe=ahaj na] ɬa=anɡʷɔ=ahaj daw
so DEM=Pl PSP cow=2S.POSS=Pl Q
‘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 əwlɔ aŋga toho na], eleməzəɓe tanday tozom na.
[haj=uwla aŋga tɔhʷɔ na] ɬemɪɮɪɓɛ 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)

12See below for the discourse function of local adverbial demonstratives.
3.2 Demonstratives and demonstrationals

(57)  [Awak ahay a toho] anga əwla.
[awak=ahaj a tɔhʷə] ənga=uwla

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 3p+pfv go tə̀-nzak-aj 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 ała [mama agwazla nəndəye]

‘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. In the ‘Cows in the Field’ story (not illustrated in its entirety in this work), dərəywel nɛndɪge ‘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 it didn’t. Its marking with a demonstrative therefore has the function to highlight the paper at that moment of the event line.

(60)  Alala na, ta anaw [dərəywel nɛndɪge].
a-l=ala na ta an =aw [dəriwijel nɛndɪge]

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

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.
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 notifies the reader of the importance of the new information. Note that the demonstrative is not functioning cataphorically here. It is the narrator who specifies the things that people are not supposed to do in the discourse which follows (S. 4–5 in 61), not the pastor in his speech.

(61) Values, S. 3
Səwat na, [təta a məsayon na ava nəndəye na], Pester ahata, suwat na [təta a musijəŋ na ava nmdije na] Pəster a-h-ata
ID:disperse PSP 3P at mission PSP in DEM PSP pastor 3S-tell=3P.IO
‘As the people go home from church (lit. disperse, they in the mission there), the Pastor said,

“Ey, [ele nehe na] kogom bay!”
ej [ele nehe na] kə-gʷ-əm baj
hey thing DEM PSP 2-do-2P NEG
“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 ADJ 3S+IFV-insult-CL mother=3S.POSS
‘Well, the girls insult their mothers.’

Values, S. 5
War zar ga ándaway baba ahan.
war zar ga á-ndaw-aj baba=ahaŋ child male ADJ 3S+IFV-insult-CL father=3S.POSS
‘[And] the boys insult their fathers.’

¹⁴Note that the local adverbial demonstrative *nəndəye* ‘here’ in the same example functions to simply point out a place in the phrase *təta a məsayon 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 (Section 3.2.1) in the phrase *ele-ahay aməgye bay nəngehe* ‘these particular things that one shouldn’t do’ points out particular things which are previously mentioned.
3.2 Demonstratives and demonstrationals

Values, S. 6
Yo, [ele ahay aməgəye bay nəngehe pat],
jo [ɛlɛ=ahaj amr-g-ijɛ  baj nịŋgehe 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 daftere aka.
ta-h=ata na =va kə dfteɾe aka.
3p-tell=3p.1o 3s.do =prf on book on
‘they have already told them in the book.’

The highlighting function of local adverbial demonstratives does not have to be associated with the introduction of new information. For example, in the Disobedient Girl story (62, shown in its entirety in Section 1.5), the one grain of millet is introduced in the first line of the husband’s speech to his wife (line S. 13 in 62). The next mention of the one grain of millet is in the next line of his speech is where the grain is marked by the local adverbial demonstrative in war 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, kázaɗ war elé háy bəlen.
asa à-s=ɔkʷ amə-h=aja na ká-zad war élɛ haj
if 3s+pfv-please=2s.1o DEP-grind=PLU PSP 2s+IFV-take child eye millet
bilen  one
‘If you want to grind, you take only one grain.’
[War elé háy bəlen ga nəndəye] [nok amezəɗe na],
[war élɛ haj bìlɛŋ ga məndəyə nokʷ amɛ-ziɗ-ɛ na]
child eye millet one ADJ DEM 2s DEP-take-CL PSP
‘That (highlighted) one grain, the one that you have taken,’
káhaya na kə ver aka.
ká-h=aja na kə ver aka
2s+IFV-grind=PLU 3s.do on grinding stone on
‘grind it on the grinding stone.’
3 Grammatical classes

The distal non local demonstrative is employed in a common discourse idiom – *a slam nendaye ava* 'at that time.' The idiom notifies the reader of an important pivotal moment in a story. Example (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 nendaye ava* marks the transition point in the way that the speaker dealt with the cows.

(63) A [slam *nendaye*] ava na, nawəy,
a [ɬam *nendije*] 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-məkʷ-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 Kəɗəmbɔr,
gʷəl-ɔkʷ ta a Kʊɗʊmbɔr
drive[IMP]-1PIN 3P.DO at Tokombere
‘let’s drive them to Tokombere,’

dɛdɛn bay na memey?”
dɛdɛŋ baj na memej
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.
3.2 Demonstratives and demonstrationals

(64) Disobedient Girl, S. 11
Aznána, [war dalay ndana] cezlere ga.
alŋa [war dalaj ndana] tʃɛɮɛrɛ 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 S.3 and the tree introduced in S.5.

(65) Cicada, S. 3 and S. 5
Albay ahay aba….Təlo təŋjakay agwazla malan ga a ləhe.
albaja=ahaj aba….
young man=Pl EXT
‘There were some young men…
tə-łɔ tə-ŋzak-aj agʷaŋa malan ga a lɪhe 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 təŋgalala ma ana bahay.
albaja=ahaj ndana] kəleŋ tə-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
Káazədɔm anaw ala [agwazla ndana] ka mahay owla aka.
káá-zədɔm an=aw=ala [agʷaŋa 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 the above-mentioned tree to my door for me.’

Ndana ‘the above-mentioned’ can also have an abstract antecedent. Example (68) is from line S. 34 of the Millet story. In this sentence, ndana ‘the above-
3 Grammatical classes

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 Ḥarmbəlom ázata aka barka ahan va.
  waja ndana Ḥarmbəlom á-z=ata=aka barka=ahan=va
  because DEM God 3s+IFV=take=3p.IO=on blessing=3s.Poss=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. Dixon (2003) notes that manner adverbial demonstratives are morphologically derived from nominal demonstratives. In Moloko they are derived from the nominal demonstrative.

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 dören *ka nehe*.
  ë-ndʒ-ɛ ële=ahan dîrɛŋ *ka nehe*
  3s+PFV=leave-CL thing=3s.Poss far like this
  ‘He went (lit. took his things away) far away like this.’

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

(70) a. Nɔwɔye ngehɛ na, ngama aməɡɔye jerne na eteme.
  nɪvɪjɛ ngehɛ na ŋgama amɪ-g-ɪɛ dʒɛɾɛŋ na etɛmɛ
  season DEM PSP better DEP-do-CL garden with onion
  ‘This season I think it is better to grow onions.’
3.3 Numerals and quantifiers

b. Nádəgalay ka ndana.
   ná-dágal-aj    ka ndana
   1s+ifv-think-cl like dem
   ‘I think so too.’

(71) a. Nəvəye ngehe na, ngama aməgəye jerne nə eteme.
   nivjɛ  nɛghɛ na ɛŋama əm-g-ɪɛ  dʒɛrɛne  nə  etɛmɛ
   season dem psp better dep-do-cl garden with onion
   ‘This season I think it is better to grow onions.’

b. Nádəgalay ka ndana bay.
   ná-dágal-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 Hʊrmʊbəlom ton    kijgɛhɛ
   3s+pfv-arrive=away dat God id:touch 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).
3 Grammatical classes

- 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

<table>
<thead>
<tr>
<th></th>
<th>bəlen</th>
<th></th>
<th>21</th>
<th>kokər cew hər bəlen</th>
<th></th>
<th>30</th>
<th>kokər makar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>bəlen</td>
<td>21</td>
<td>kokər cew hər bəlen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>cew</td>
<td>30</td>
<td>kokər makar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>makar</td>
<td>100</td>
<td>səkat</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>məfaɗ / əwfaɗ(^a)</td>
<td>101</td>
<td>səkat nə bəlen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>zlom</td>
<td>122</td>
<td>səkat nə kokər cew hər cew</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>məko</td>
<td>200</td>
<td>səkat cew</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>səsəre</td>
<td>300</td>
<td>səkat makar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>slalakar</td>
<td>1,000</td>
<td>dəbo</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>holombo</td>
<td>1,001</td>
<td>dəbo nə bəlen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>kəro</td>
<td>1,100</td>
<td>dəbo nə səkat</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>kəro hər bəlen</td>
<td>2,000</td>
<td>dəbo cew</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>kəro hər cew</td>
<td>3,000</td>
<td>dəbo makar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>kəro hər makar</td>
<td>5,000</td>
<td>dəbo zlom</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>kəro hər məfaɗ</td>
<td>10,000</td>
<td>dəbo kəro</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>kəro hər zlom</td>
<td>10,001</td>
<td>dəbo kəro nə bəlen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>kəro hər məko</td>
<td>100,000</td>
<td>dəbo dəbo səkat</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>17</td>
<td>kəro hər səsəre</td>
<td>100,001</td>
<td>dəbo dəbo səkat nə bəlen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>kəro hər slalakar</td>
<td>1,000,000</td>
<td>dəbo dəbo dəbo</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>kəro hər holombo</td>
<td>1,000,001</td>
<td>dəbo dəbo dəbo nə bəlen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>kokər cew</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)This numeral is pronounced either [məfad] or [uwoffad] 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 constituent order of the noun phrase is discussed in Section 5.1.
### 3.3 Numerals and quantifiers

(74) Məze ahay dəbo cew tolo aməmənjere məkəɗe balon.

Məze=ahaj dəbo tʃew tɔ̀-lo amɨ-mɪnɛr-ɛ mi-kid-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 (lit. the killing of the ball).’

(75) Nəmənjar awak ahay kəro a kosoko ava.

Nə̀-mənzǝr awak=ahaj kʊrɔ a ʞɔsɔkʷɔ ava

1s+PFV-see goat=Pl ten 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) only needs to 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.

na-nzak-aj bəlen

1s-find-cl one

‘I found one.’

(77) Babəza əwla ahay na cew.

babəza=uwla=ahaj na tʃew

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 kokɔr cew, which is some kind of derivitave of kɔrɔ ‘ten.’ After 100, numbers are made of a coordinate noun phrase composed of səkət ‘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 məvɔye daz (not *məvɔye bəlen ‘year one’). Məvɔye daz means that the child has lived
3 Grammatical classes

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.\(^\text{15}\) 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 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.

The basic unit for the monetary base ten system is the 100 Fcfa coin (*səloy səkat* 'coin 100'). This system uses the same number for one hundred as the 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 (*dab* 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 karo har makar na 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):

\(^{15}\)The generic term for money in Moloko is *dala*, possibly a borrowed term from the American *dollar*.
### Table 3.8: Numbers for money

<table>
<thead>
<tr>
<th>Amount of money</th>
<th>Base five system</th>
<th>‘Base ten’ system</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Fcfa (coin)</td>
<td>.say say</td>
<td></td>
</tr>
<tr>
<td>10 Fcfa (coin)</td>
<td>dal cew</td>
<td></td>
</tr>
<tr>
<td>15 Fcfa</td>
<td>dal makar</td>
<td></td>
</tr>
<tr>
<td>50 Fcfa (coin)</td>
<td>dal kəro</td>
<td></td>
</tr>
<tr>
<td>100 Fcfa (coin)</td>
<td>dal kokər cew</td>
<td>(səloy) səkat</td>
</tr>
<tr>
<td>150 Fcfa</td>
<td>dal kokər makar</td>
<td>səloy st nə dal kəro</td>
</tr>
<tr>
<td>200 Fcfa</td>
<td>dal kokər məfad</td>
<td>səkat cew</td>
</tr>
<tr>
<td>250 Fcfa</td>
<td>dal kokər zlom</td>
<td>səkat cew dal kəro</td>
</tr>
<tr>
<td>300 Fcfa</td>
<td>səkat makar</td>
<td></td>
</tr>
<tr>
<td>500 Fcfa (coin)</td>
<td>səkat zlom</td>
<td></td>
</tr>
<tr>
<td>1,000 Fcfa (bill)</td>
<td>ombolo</td>
<td></td>
</tr>
<tr>
<td>2,000 Fcfa (bill)</td>
<td>ombolo cew</td>
<td></td>
</tr>
<tr>
<td>3,250 Fcfa</td>
<td>ombolo makar nə səloy kokər zlom</td>
<td></td>
</tr>
<tr>
<td>5,000 Fcfa (bill)</td>
<td>ombolo zlom</td>
<td></td>
</tr>
<tr>
<td>10,000 Fcfa (bill)</td>
<td>ombolo kəro</td>
<td></td>
</tr>
<tr>
<td>50,000 Fcfa</td>
<td>ombolo kokər zlom</td>
<td></td>
</tr>
<tr>
<td>100,000 Fcfa</td>
<td>ombolo səkat</td>
<td></td>
</tr>
<tr>
<td>1,000,000 Fcfa</td>
<td>ombolo səkat kəro</td>
<td></td>
</tr>
</tbody>
</table>

(78) cekem
tʃɛkɛm
‘first’

(79) anga baya cew
anga baja tʃew
poss time two
‘second’

(80) anga baya makar
anga baja makar
poss time three
‘third’
3.3.4 Non-numeral quantifiers

Non-numeral quantifiers \(^{16}\) include *gam* ‘much’ (81–82), *nekwen* ‘little,’ *jəyga* ‘all,’ *dɔyday* ‘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.

(81)  
\[
[Məze ahay *gam*] təlala afa ne.  
\[
[mɪʒɛ=ahaj *gam*] tə-l=ala afa ne  
\]
people=Pl much 3p-go=to at house of 1s

‘Many people came to my house.’

(82)  
Slərele *gam!* 
\[hɛrɛlɛ *gam*\] 
work much 

[That is] a lot of work!

(83)  
Disobedient Girl, S. 4 
Ávata [məvəye *haɗa*]. 
\[á-v=ata \ [mɪ-v-ɛjɛ *haɗa*]\] 
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 prototypical existential *aba* ‘there exists’ (85). carries the most basic idea of existence. Its negative is *abay* ‘there does not exist.’ \(^{17}\) 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

\(^{16}\)Some of these quantifiers can also pattern as adverbs, e.g., *gam* ‘much’ (107).

\(^{17}\)Historically, this existential is perhaps a compound of the existential *aba* and the negative *bay*. 
meaning. The possessive existential must be accompanied by an indirect object pronominal.

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

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.

(85)  
Məze *aba*.  

\[ \text{məze ext} \]

person \ext \`

‘There was a man …’ (a common beginning to a story)

(86)  
Babəza əwla ahay *aba*.  

\[ \text{babəza=uwla=ahaj ext} \]

children=1s.poss=Pl \ext \`

‘I have children.’ (lit. my children exist)

(87)  
Babəza əwla ahay *abay*.  

\[ \text{babəza=uwla=ahaj ext+neg} \]

children=1s.poss=Pl \ext+\neg \`

‘I have no children.’ (lit. my children do not exist)

(88)  
Dala *abay*.  

\[ \text{dala ext+neg} \]

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. Examples (89a) and (90) are greetings, which are questions that can occur with (89a) or without (90) the word *zay* ‘peace.’ Examples (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.
3 Grammatical classes

(89) a. Nok aba zay daw?
   nokʷ aba zaj daw
   2s EXT peace Q
   ‘Are you well?’ (lit. ‘Do you exist [in] peace?’)

b. Ne aba.
   ne aba
   1s EXT
   ‘I am well.’ (lit. I exist)

(90) Nok aba daw?
    nokʷ aba daw
    2s EXT Q
    ‘Are you well?’ (lit. ‘Do you exist?’)

(91) Asak uwla abay.
    asak=uwla abaj
    foot=1s.poss EXT+NEG
    ‘My foot hurts.’ (lit. my foot doesn’t exist)

(92) a. Baba ango aba daw?
    baba=angʷo aba daw
    father=2s.poss EXT Q
    ‘Is your father well?’ (lit. does your father exist?)

b. Ayaw, ndahan aba.
    ajaw ndahan aba
    yes 3s EXT
    ‘Yes, he is well.’ (lit. yes, he exists)

(93) Baba uwla na, hərva ahan abay.
    baba=uwla na hərva=ahan abaj
    father=1s.poss psp body=3s.poss EXT+NEG
    ‘My father is sick.’ (lit. my father, his body doesn’t exist)

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

(94) Cicada, S. 3-4
Albaya ahay aba. Tânday tátalay a ləhe.
albaja=ahaj  aba tá-naj  tá-tal-aj  a  ləhe
young man=Pl  ext 3p+ifv-prg 3p+ifv-walk-cl at bush
'There were some young men. They were walking in the bush.'

In some presentational clauses both the prototypical existential and the loca-
tional 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  ete  ò-łò  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 ex-
tension =ava ‘in’ (see Section 7.5.1) and the 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 daw?
    ṣefe  ava  daw
    meat  ext+in  q
    'Is there any meat located here [for sale]?'

    b. Ayaw, sese ava.
    ajaw  ṣefe  ava
    yes  meat  ext+in
    'Yes, we have meat located here.'

(97) a. Baba ango, ndahan ava daw?
    baba=angʷɔ  ndahanj  ava  daw
    father=2s.poss  3s  ext+in  q
    'Is your father located here?' (lit. your father, is he here?)
3 Grammatical classes

b. Ndahan ava bay; enjé amətele.
   ndahanə ava  baj  è-n3ɛ   am-tel-ɛ
   3S  EXT+in NEG 3S+PFV-left DEP-travel-CL
   ‘No, he is not located here; he went somewhere.’

(98) Ndahan ava.
   ndahanə ava
   3S  EXT+in
   ‘He/she is here.’

(99) Ndahan ava alay.
   ndahanə 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. A question and response pair is shown in (100).

(100) a. Dala anok aka daw?
   dala  an=ɔkʷ  aka  daw
   money DAT=2S.IO EXT+on Q
   ‘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.’
3.5 Adverbs

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

### 3.5.1 Simple verb phrase-level adverbs

Verb phrase adverbs give information concerning the location, quality, quantity, or manner of the action expressed in the verb phrase. These adverbs occur after any adpositional phrases (106–108).

(106) Disobedient Girl, S. 4

Təwasava neken kɔygehe.

tə̀-was=ava nekʷɛŋ kijgɛhɛ

3P+PFV-cultivate=in little like this

‘They cultivated a little like this.’

(107) Hawa andadaŋ nok gam.

Hawa a-ndaŋ-aj nokʷ gam

Hawa 3s-love-CL 2s much

‘Hawa 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 daren ‘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 ŋɛʃɛ təta

chief 3s+IFV-eat meat ability

‘The chief can eat meat.’
3.5 Adverbs

(111) Bahay ázom sese dewele.
    bahaj á-zɔm  jɛʃɛ  dewele
    chief 3s+1fv-eat meat necessary
    ‘The chief must eat meat.’

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

(112) dɔren  dɔrren
    dɪrɛŋ  dɪrɛŋ
    ‘far’  ‘very far’

(113) ɗɛɗen  ɗɛɗɛŋ
    ɗɛɗɛŋ  ɗɛɗɛŋ
    ‘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) 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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18 Adverbs of ability and necessity cannot be reduplicated, nor can adverbs which function beyond the verb phrase level.
19 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.
3 Grammatical classes

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
    dēdeŋ dēdeŋ=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 dəw, ndahan ava rəbokka
    zar akar dəw ndahan ava rəbokʷ=ka
    man theft also 3s EXT+in hiding place=ADV
    ‘There was (in that place) a thief, hiding.’

(119) nege slərwle hərəkka
    nɛ-gɛ hərəkʷ=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 initially or verb phrase finally (120 and 121, respectively). These include egəne ‘today,’ hajan ‘tomorrow,’ apazan ‘yesterday.’

20Note that a kosoko ava ‘in the market’ is a complex adpositional phrase (see Section 5.6.2).
21The order of constituents in the verb phrase is given in Chapter 8.
3.5 Adverbs

(120) **EgANE** nólo a kosoko ava.
*EgiNE* nọ-lọ a kọsọkọ ava
*today IS+IFV-go to* *market in*
‘Today I will go to the market.’

(121) Nólo a kosoko ava **hajan.**
*nọ-lọ a kọsọkọ ava **hadʒaŋ**
*1S+IFV-go to* *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 deonte the relationship between their clause to the previous 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.**
*nọ-lọ *efe
*1S+POT-go* *again*
‘I will go again.’

(123) Nóolo **ete.**
*nọ-lọ *ete
*1S+POT-go* *also*
‘I will go too.’

(124) Nege na **fan.**
*nè-g-ɛ na faŋ
*1S+PFV-do-CL 3S.DO* *already*
‘I did it already.’

(125) Nəmənjar ndahan **kəlo.**
*nə-mənzar ndahan kəlo
*1S-see 3S* *before*
‘I have seen him/her before.’
3 Grammatical classes

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

(126) Cicada, S. 20
Náá-mənzar na alay memele ga ndana əwɗe.
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.
3S ID:pour NOM-pour-CL millet=3S.POSS DEP-put=to 3S.DO on stone
aka aŋa
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.
ID:grind DEP-grind=PLU now
‘Njəw njəw njəw [she] ground [the millet] now.’

Ɗəwge ‘actual’ indicates that the events in the clause actually happened (129).

(129) Snake, S. 24
Ka nehe ləbara a ma ndana dəwge.
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.
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 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 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. Ideophones are treated as a separate grammatical class in Moloko 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 an abstract idea (for example, an insult, 135).
3 Grammatical classes

(131)  gəɗəgəzl
gàɗgàŋ
‘the noise of something closing or being set down’

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

(133)  podococo
pàɗɔtsɔtsɔ
‘taste of sweetness’

(134)  pəyecece
pijɛtʃɛtʃɛ
‘feeling of coldness’

(135)  keɓəf keɓəf keɓəf
kèkɪf kɪf kəf
‘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 their final syllable.

(136)  pəvbəw pəvbəw
pəvuw pəvuw
‘sight of rabbit hopping’

(137)  pəvba pəvba
pəva pəva
‘sound of a whip’

(138)  pəvban pəvban
pəvɑn pəvɑn
‘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) while others have no full vowel (131, 139, 142).
3.6 Ideophones

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

(139)  jəɓ jəɓ
dʒɪɓ dʒɪɓ
‘completely wet’

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

(140)  vɓaɓ
vȁɓ
‘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. Ideophones which carry a distinctive lexical meaning even when spoken in isolation are exemplified by (142). If a Moloko speaker hears someone say njəw njəw, 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).

(142)  njəw njəw
nzùw nzùw
‘the sound of someone grinding something on a grinding stone’

(143)  pəcəkəɗək
pʊ́tsʊ́kʊ́ɗʊ́k
‘the sight of a toad hopping’

In contrast, a Moloko speaker will need to understand a wider context to determine 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).
3 Grammatical classes

(144) dergwecek
dergʷɛtʃɛk
'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, bɔwɛfere.
ɛhɛ na təta na kuw na buwɛfere
here PSP 3P PSP ID:take PSP ID:foolishness
‘Here, what they are taking is foolishness!’ (lit. here, they, taking, foolishness)

(146) Values, S. 48
Kə wijɛŋ aka ehe tɛzɛl tɛzlezl.
kə wijɛŋ aka ehe tek tekɛk
on earth on here ID:hollow
‘[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 gʷɔgʷɔlʊnəŋ
1s+1fv-see 3s.do ID:something 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 hamay ‘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 ḡemaj ‘run’

<table>
<thead>
<tr>
<th>#</th>
<th>Ideophone</th>
<th>Meaning</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>zar a-ḥem-ay gədo gədo gədo</td>
<td>A man runs gədo gədo gədo.</td>
<td>man 3s-run-cl in:man running</td>
</tr>
<tr>
<td>2</td>
<td>war a-ḥem-ay njadok njadok</td>
<td>A toddler runs njadok njadok.</td>
<td>child 3s-run-cl in:child running and jumping</td>
</tr>
<tr>
<td>3</td>
<td>albaya a-ḥem-ay njal njal</td>
<td>A young man runs njal njal.</td>
<td>youth 3s-run-cl in:young youth running (also mice run like this)</td>
</tr>
<tr>
<td>4</td>
<td>madehwer a-ḥem-ay təta baj; old person a-ḥem-ay karwad wəɗ, karwad wəɗ</td>
<td>An old person can’t run; he moves karwad wəɗ, karwad wəɗ.</td>
<td>old person 3s-run-cl ability neg 3s-run-cl in:someone with no stomach</td>
</tr>
<tr>
<td>5</td>
<td>zlevek a-ḥem-ay pavbəw pavbəw</td>
<td>A rabbit runs pavbəw pavbəw.</td>
<td>rabbit 3s-run-cl in:rabbit hopping</td>
</tr>
<tr>
<td>6</td>
<td>sla =aha y ta-ḥem-ay gərap gərap</td>
<td>Cows run gərap gərap.</td>
<td>cow =pl 3p-run-cl in:something heavy running</td>
</tr>
<tr>
<td>7</td>
<td>javar =ahay y ta-ḥem-ay cuŋŋ</td>
<td>Guinea fowl run cuŋŋ.</td>
<td>guinea fowl =pl 3p-run-cl in:guinea fowl taking off (when they are taking off)</td>
</tr>
<tr>
<td>8</td>
<td>erkece a-ḥem-ay yed yed yed</td>
<td>An ostrich runs yed yed yed.</td>
<td>ostrich 3s-run-cl in:ostrich running</td>
</tr>
<tr>
<td>9</td>
<td>moktonok a-ḥem-ay pəcəkəɗək, pəcəkəɗək</td>
<td>A toad runs pəcəkəɗək, pəcəkəɗək.</td>
<td>toad 3s-run-cl in:toad hopping</td>
</tr>
<tr>
<td>10</td>
<td>məwta a-ḥem-ay fəhh</td>
<td>A truck runs fəhh.</td>
<td>truck 3s-run-cl in:truck humming</td>
</tr>
<tr>
<td>11</td>
<td>ḡemaj a-ḥem-ay foowə</td>
<td>The wind runs foowə.</td>
<td>wind 3s-run-cl in:wind blowing</td>
</tr>
</tbody>
</table>
3 Grammatical classes

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) [Azla̱galay] avolo zor!
    [à-ŋag=alaj]     avolo zɔr
    3s+PFV=throw=away above ID:throwing
    ‘She threw [the pestle] up high (movement of throwing).’

(149) [Anday azla̱ba'y ele] kɔndal, kɔndal, kɔndal.
    [a-ndaj a-kab-aj ele] kɔndâl, kɔndâl, kɔndâl
    3s-PRG 3s-pound-CL thing ID:pounding millet
    ‘She was pounding the [pestle] (threshing millet) pound, pound pound.’

(150) [Həmbo ga anday asak ele ahan] wasekeke.
    [hʊmbɔ ga a-ndaj a-sak ele=ahan] wufeseke
    flour ADJ 3s-PRG 3s-multiply thing=3s.Poss ID:multiply
    ‘The flour was multiplying all by itself (lit. its things), sound of multiplying.’

When the verb it modifies 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 [pɔk mapata aka va pɔr̃gɔm ahay na].
    nata ndahan [pɔk ma=p=ata=aka=va
    also 3s ID:open door or bottle NOM-open=3P.IO=ON=PRF
    pɔr̃gʷɔm=ahaj na]
    trap=Pl PSP
    ‘He opened the traps for them.’

(152) Dərlenge [pɔyetɛf mɔhɔme ele ahan] ete.
    dɪrlɛŋɛ [pijtef mɪ-hɪm-ɛ ele=ahan] etɛ
    hyena ID:crawling NOM-run-CL thing=3s.Poss also
    ‘The hyena, barely escaping, ran home (lit. ran his thing) also.’
3.6 Ideophones

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 pronouns. 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
[\[Mək ava alay\].
\[mək=ava=alaj\]
ID:position [self] for throwing=in=away
‘[I] positioned [myself].’

(154)  Cicada, S. 26
Albaya ahay weley [\[təh anan dəray na\], abay.
albaja=ahaj welej [\[təx an=an dəraj na\] abaj
youth=Pl which ID:put 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. Example (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 [\[dəl na, ma Hərməlom nendəye\].
təta [\[dəl na ma Hərməlom nendije\]
3P ID:insult 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 *colar*, saw *mbajak mbajak* (something big and reflective), a snake. He *mbət* turned off his light, *kaləw* took his spear, *mək* (positioned himself). Penetration *mbəraɓ*. It
3 Grammatical classes

fell \textit{vbaɓ} on the ground. Note that at the climactic moment (156), the entire clause is expressed by a single ideophone \textit{mək}, followed by verbal extensions.

\begin{enumerate}
\item[(156)] Snake, S. 14
\begin{verbatim}
Mək ava alay.
mək=ava=alaj
\end{verbatim}
ID:position for throwing=in=away
\begin{quote}
\textquote{[I] positioned myself mək!}
\end{quote}

Likewise, in the peak episode of the Cicada text (lines S. 25–29 in Section 1.6) ideophones are frequent and at the climactic moment as shown in (157–158), the ideophone is the only element in the clause. The cicada and young men go to the tree \textit{sen} to move it. All of the young men \textit{təh} (tried to lift the tree) on their head, but none could lift it. Then the cicada \textit{təh} (lifted) the tree onto his head. \textit{Kəw na} (he got it). \textit{Dergwejek} (he lifted it to his head). In line S. 26 the ideophone \textit{tax} takes the place of the verb in the main clause and in lines S. 28 and S.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.

\begin{enumerate}
\item[(157)] Cicada, S. 28
\begin{verbatim}
Kəw na.
kuw na
\end{verbatim}
ID:getting 3S.DO
\begin{quote}
\textquote{[He] got it.}
\end{quote}

\item[(158)] Cicada, S. 29
\begin{verbatim}
Dergwecek.
derg*ɛtfek
\end{verbatim}
ID:lifting onto head
\begin{quote}
\textquote{[He] lifted [it] onto [his head].}
\end{quote}
\end{enumerate}

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 them so that the hearer can see and hear and imagine that they are participating 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 a hold of something, and then lifts 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 is 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 themselves, thus drawing the listener into the story.

A third example is found in the Snake story. In S. 14 and 15, both the ideophone clause (S.14) and the nominalised form plus ideophone (S.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 themselves there right beside the speaker in the darkness, wondering where the snake was, hearing only the sounds of the events.
3 Grammatical classes

(160) Snake, S. 14  
\[Mək \text{ ava alay.} \]
\[mək=\text{ava}=\text{alaj} \]
\[\text{ID:take position for throwing=in=to} \]
\[\text{'[He] positions himself for throwing [the spear].'] \]

Snake, S. 15  
\[Məcəsle mərəɓ. \]
\[me-\text{tʃɛɬ-ɛ} \]  
\[mərəɓ \text{id} \]
\[\text{NOM-penetrate-CL IDpenetrate} \]
\[\text{'[The spear] penetrates [the snake].'] \]

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)  
\[məf \]
\[məf \]
\[\text{‘get away! (to put off an animal or a child from continuing to do an undesirable action).’} \]

(162)  
\[təde \]
\[tədə \]
\[\text{‘good’} \]

(163)  
\[Apazan nəməŋjər, \text{ andakaj, Hawa.} \]
\[apazəŋ \text{nə-məŋzar andakaj Hawa} \]
\[\text{yesterday 1S+PFV-see what’s her name Hawa} \]
\[\text{‘Yesterday I saw … what’s her name … Hawa.’} \]

(164)  
\[tətəde \]
\[\text{‘very good’} \]
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 (Givón 2001: 50–51), 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
məzɛ=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 angə
ɬɪrɛlɛ=aŋgʷɔ
work=2s.poss
‘your work’

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

• 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 nehe
child DEM
‘this child’

(8) ma ndana
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
ɡədaŋ ga
strength ADJ
‘strong’

(10) ɓərav ga
ɓərav ga
heart ADJ
‘perseverant’

• They can be modified by a derived adjective (11–12, see Section 4.3).
4.1 Phonological structure of the noun stem

(11) memele malan ga
    mɛmɛlɛ malanŋ ga
    tree greatness ADJ
    ‘a large tree’

(12) yam pəyecece 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 (1997c) studied syllable patterns in nouns. Table 4.1 (from Bow 1997c) 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.
### Table 4.1: Syllable patterns in nouns with different prosodies

<table>
<thead>
<tr>
<th></th>
<th>Neutral</th>
<th>Gloss</th>
<th>Labialised</th>
<th>Gloss</th>
<th>Palatalised</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV</td>
<td>sla</td>
<td>‘cow’</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVC</td>
<td>fat</td>
<td>‘day/sun’</td>
<td>hod</td>
<td>‘stomach’</td>
<td>jen</td>
<td>‘chance’</td>
</tr>
<tr>
<td>VCV</td>
<td>ava</td>
<td>‘arrow’</td>
<td>oko</td>
<td>‘fire’</td>
<td>elé</td>
<td>‘eye’</td>
</tr>
<tr>
<td>V.CVC</td>
<td>ahar</td>
<td>‘hand/arm’</td>
<td>otos</td>
<td>‘hedgehog’</td>
<td>enen</td>
<td>‘snake’</td>
</tr>
<tr>
<td>CV.CV</td>
<td>gala</td>
<td>‘yard’</td>
<td>sono</td>
<td>‘joke’</td>
<td>jere</td>
<td>‘truth’</td>
</tr>
<tr>
<td>CV.CVC</td>
<td>mavad</td>
<td>‘sickle’</td>
<td>tohor</td>
<td>‘cheek’</td>
<td>pembez</td>
<td>‘blood’</td>
</tr>
<tr>
<td>V.CV.CV</td>
<td>adama</td>
<td>‘adultery’</td>
<td>obolo</td>
<td>‘yam’</td>
<td>eteme</td>
<td>‘onion’</td>
</tr>
<tr>
<td>V.CV.CVC</td>
<td>adangay</td>
<td>‘stick’</td>
<td>ombodoc</td>
<td>‘sugar cane’</td>
<td>emelek</td>
<td>‘bracelet’</td>
</tr>
<tr>
<td>CV.CV.CV</td>
<td>manjara</td>
<td>‘termite’</td>
<td>mozongo</td>
<td>‘chameleon’</td>
<td>zetene</td>
<td>‘salt’</td>
</tr>
<tr>
<td>CV.CV.CVC</td>
<td>maslalam</td>
<td>‘sword’</td>
<td>dolokoy</td>
<td>‘syphilis’</td>
<td>debezem</td>
<td>‘jawbone’</td>
</tr>
</tbody>
</table>
4.2 Morphological structure of the noun word

where the nouns do not carry the prefix. Table 4.2 illustrates three nouns in Moloko and in Mbuko.²

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

<table>
<thead>
<tr>
<th>Moloko</th>
<th>Mbuko</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>[anzakar]</td>
<td>[nzakar]</td>
<td>‘chicken’</td>
</tr>
<tr>
<td>[ɔzʊŋgʷɔ]</td>
<td>[zʊŋgʷɔ]</td>
<td>‘donkey’</td>
</tr>
<tr>
<td>[ɛtɛmɛ]</td>
<td>[temɛ]</td>
<td>‘onion’</td>
</tr>
</tbody>
</table>

Bow (1997c) discovered that tonal melodies on nouns are different than for verbs (see Section 6.7 for verb tone melodies). Table 4.3 (from Bow 1997c) shows 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 tone³ or it can be an underlying low tone in a word with no depressor consonants.⁴

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,⁵ 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.⁶

²Mbuagbaw (1995), Richard 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.
³Therefore there are no surface LH combinations since an underlying LH will be realised as LM.
⁴There are also very few examples of ML combinations in the surface form. The only example was [kimɛ̄dɛ̄ŋ], an underlying LHL that had depressor consonants.
⁵We 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.
⁶Because 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

<table>
<thead>
<tr>
<th>Underlying tonal melody</th>
<th>No depressor consonants</th>
<th>Depressor consonants present</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Surface tone</td>
<td>Phonetic transcription</td>
</tr>
<tr>
<td>H</td>
<td>H</td>
<td>[tsáf]</td>
</tr>
<tr>
<td></td>
<td>HH</td>
<td>[tʃɛ́tʃɛ́]</td>
</tr>
<tr>
<td></td>
<td>HHH</td>
<td>[mʊ́lɔ́kʷɔ́]</td>
</tr>
<tr>
<td>L</td>
<td>M</td>
<td>[ɗāf]</td>
</tr>
<tr>
<td></td>
<td>MM</td>
<td>[kə̄rā]</td>
</tr>
<tr>
<td></td>
<td>MMM</td>
<td>[mɪ̄tɛ̄nɛ̄n]</td>
</tr>
<tr>
<td>HL</td>
<td>HM</td>
<td>[mɛ́kɛ̄tʃ]</td>
</tr>
<tr>
<td></td>
<td>HMM</td>
<td>[átɔ̄kʷɔ̄]</td>
</tr>
<tr>
<td></td>
<td>HHM</td>
<td>[mʊ̄sɔ́kʷɔ̄j]</td>
</tr>
<tr>
<td>LH</td>
<td>MH</td>
<td>[ɬə̄máj]</td>
</tr>
<tr>
<td></td>
<td>MMH</td>
<td>[kɪ̄tɛ̄fɛ́r]</td>
</tr>
<tr>
<td></td>
<td>MHH</td>
<td>[āmɛ́lɛ́k]</td>
</tr>
<tr>
<td>HLH</td>
<td>HMH</td>
<td>[ākʊ̄fɔ́m]</td>
</tr>
<tr>
<td>LHL</td>
<td>MHM</td>
<td>[sɔ́sājąk]</td>
</tr>
<tr>
<td></td>
<td>MHL</td>
<td>[mə̄ŋgáhą́k]</td>
</tr>
</tbody>
</table>
4.2 Morphological structure of the noun word

(16) hay
  hàj
  ‘house’

(17) ndən nden
  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 */aye* 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. A one-syllable verb with no prefix takes the prefix */mə-* and the suffix */aye* (18). A two consonant root with */a-/* prefix takes the prefix */me-* and the suffix */e* (19).

(18) / v ɛ /  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).
4 Noun morphology

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

<table>
<thead>
<tr>
<th>Line</th>
<th>Underlying form of verb root</th>
<th>2s imperative</th>
<th>Nominalisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>/k r/</td>
<td>kar-ay</td>
<td>mə-ker-e</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Steal!’</td>
<td>‘stealing’</td>
</tr>
<tr>
<td>2</td>
<td>/h r/</td>
<td>har</td>
<td>mə-hər-e</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Carry by hand!’</td>
<td>‘carrying’</td>
</tr>
<tr>
<td>3</td>
<td>/h r ɓɔ/</td>
<td>hərɓ-oy</td>
<td>mə-hərɓ-e</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Heat up!’</td>
<td>‘heating’</td>
</tr>
<tr>
<td>4</td>
<td>/t w/</td>
<td>təw-e</td>
<td>mə-təw-e</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Cry!’</td>
<td>‘crying’</td>
</tr>
<tr>
<td>5</td>
<td>/ɬ r/</td>
<td>slar</td>
<td>mə-slər-e</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Send!’</td>
<td>‘sending’</td>
</tr>
<tr>
<td>6</td>
<td>/dz n/</td>
<td>jən-ay</td>
<td>məjene</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Help!’</td>
<td>‘helping’</td>
</tr>
</tbody>
</table>

*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-/.
4.2 Morphological structure of the noun word

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

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) /atamaɛ =ahj/ → [ɛtɛmɛhaj]
    onion  =Pl    ‘onions’

(21) /akfamɔ =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 1997c) 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

<table>
<thead>
<tr>
<th>Underlying form</th>
<th>Surface form</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td>/g s n/</td>
<td>[gəsaŋ][=ahaj] → [gəsahaj] ‘bulls’</td>
</tr>
<tr>
<td>Labialised</td>
<td>/t la l nɔ/</td>
<td>[tʊlɔlɔŋ][=ahaj] → [tʊlɔlɔhaj] ‘hearts’</td>
</tr>
<tr>
<td>Palatalised</td>
<td>/da d nɛ/</td>
<td>[dɛdɛŋ][=ahaj] → [dɛdɛhaj] ‘truths’</td>
</tr>
</tbody>
</table>
We consider the plural marker to be a type of clitic and not an affix\(^7\) because it does show some evidence of phonological attachment and because it binds to words of different grammatical classes in order to maintain its position at the right edge of the noun phrase permanent attribution construction (see Section 5.4.2). The plural [=ahaj] will cliticise to a noun (22), possessive pronoun (23, 24), or pronoun. The plural modifies the entire construction in a permanent attribution construction (Section 5.1 example 10).

\[(22) \quad /\text{ɓ r l ɮ} n =\text{ahj}/ \rightarrow [\text{ɓərɮahaj}] \quad \text{mountain =Pl 'mountains'}\]

\[(23) \quad /\text{g l n} =\text{ahn} =\text{ahj}/ \rightarrow [\text{gəlahahaj}] \quad \text{kitchen =3s.poss =Pl 'his/her kitchens'}\]

\[(24) \quad /\text{plas} =\text{ahn} =\text{ahj}/ \rightarrow [\text{pəlɛʃahahaj}] \quad \text{horse =3s.poss =Pl 'his horses'}\]

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

### 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).

\(^7\)Bow (1997c) considered the plural marker to be an affix.
4.2 Morphological structure of the noun word

Table 4.6: Concrete noun plural

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
<th>Plural with numeral</th>
</tr>
</thead>
<tbody>
<tr>
<td>anjakar</td>
<td>anjakar=ahay</td>
<td>anjakar=ahay zlom</td>
</tr>
<tr>
<td>‘chicken’</td>
<td>‘chickens’</td>
<td>‘five chickens’</td>
</tr>
<tr>
<td>sləmay</td>
<td>sləmay=ahay</td>
<td>sləmay=ahay cew</td>
</tr>
<tr>
<td>‘ear’/’name’</td>
<td>‘ears’/’names’</td>
<td>‘two ears’/’two names’</td>
</tr>
<tr>
<td>jogo</td>
<td>jogo=ahay</td>
<td>jogo=ahay makar</td>
</tr>
<tr>
<td>‘hat’</td>
<td>‘hats’</td>
<td>‘three hats’</td>
</tr>
<tr>
<td>albaya</td>
<td>albaya=ahay</td>
<td>albaya=ahay kəro</td>
</tr>
<tr>
<td>‘young man’</td>
<td>‘young men’</td>
<td>‘ten young men’</td>
</tr>
<tr>
<td>dede</td>
<td>dede=ahay</td>
<td>dede=ahay məko</td>
</tr>
<tr>
<td>‘grandmother’</td>
<td>‘grandmothers’</td>
<td>‘six grandmothers’</td>
</tr>
</tbody>
</table>

^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

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>yam</td>
<td>yam=ahay</td>
</tr>
<tr>
<td>‘water’</td>
<td>‘waters’ (in different locations)</td>
</tr>
<tr>
<td>sese</td>
<td>sese=ahay</td>
</tr>
<tr>
<td>‘meat’</td>
<td>‘meats’ (from different animals)</td>
</tr>
<tr>
<td>agwəjer</td>
<td>agwəjer=ahay</td>
</tr>
<tr>
<td>‘grass’</td>
<td>‘grasses’ (of different species)</td>
</tr>
</tbody>
</table>
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 noun plurals

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
<th>Alternate plural form</th>
</tr>
</thead>
<tbody>
<tr>
<td>hor</td>
<td>hawər=ahay</td>
<td>hawər hawər</td>
</tr>
<tr>
<td>‘woman’</td>
<td>‘women’</td>
<td>‘women’</td>
</tr>
<tr>
<td>zar</td>
<td>zawər=ahay</td>
<td>zawər zawər</td>
</tr>
<tr>
<td>‘man’</td>
<td>‘men’</td>
<td>‘men’</td>
</tr>
<tr>
<td>war</td>
<td>babəza=ahay</td>
<td>babəza babəza</td>
</tr>
<tr>
<td>‘child’</td>
<td>‘children’</td>
<td>‘children’</td>
</tr>
</tbody>
</table>

4.3 Compounding

In a language like Moloko where 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,
4.3 Compounding

- 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>
<thead>
<tr>
<th>Line</th>
<th>Compound noun</th>
<th>Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>alahar</td>
<td>ele</td>
</tr>
<tr>
<td></td>
<td>‘weapon, bracelet’</td>
<td>thing</td>
</tr>
<tr>
<td>2</td>
<td>oloko</td>
<td>ele</td>
</tr>
<tr>
<td></td>
<td>‘wood’</td>
<td>thing</td>
</tr>
<tr>
<td>3</td>
<td>memele</td>
<td>mama</td>
</tr>
<tr>
<td></td>
<td>‘tree’</td>
<td>mother</td>
</tr>
<tr>
<td>4</td>
<td>slərele</td>
<td>slar</td>
</tr>
<tr>
<td></td>
<td>‘work’</td>
<td>send</td>
</tr>
</tbody>
</table>

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 =ahan
    3S-enter=in inside house =3S.POSS
    ‘He goes into his house.’
4 Noun morphology

Table 4.10: Compounds made with ma

<table>
<thead>
<tr>
<th>Compound</th>
<th>Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>mahay</td>
<td>ma hay</td>
</tr>
<tr>
<td>‘door’</td>
<td>mouth house</td>
</tr>
<tr>
<td>maslar</td>
<td>ma aslar</td>
</tr>
<tr>
<td>‘front teeth’</td>
<td>mouth tooth</td>
</tr>
</tbody>
</table>

(26) Asan ayva bay.
a-s=aŋ ajva baj
3s-please=3s.1o inside house NEG

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

4.4 Proper Names

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

Twins are usually given special names according to their birth order, Masay ‘first twin,’ Aləwa ‘second twin.’ A single child after a twin birth is named Aban.
### Table 4.11: Proper names

<table>
<thead>
<tr>
<th>Line</th>
<th>Name</th>
<th>Type of name</th>
<th>Components of name (where applicable)</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jere</td>
<td>person</td>
<td></td>
<td>‘truth’</td>
</tr>
<tr>
<td>2</td>
<td>Gajəlah</td>
<td>person</td>
<td>broken piece of pottery</td>
<td>(no meaning outside its name)</td>
</tr>
<tr>
<td>3</td>
<td>Fčak</td>
<td>person/village</td>
<td></td>
<td>(no meaning outside its name)</td>
</tr>
<tr>
<td>4</td>
<td>Mokwayo</td>
<td>village</td>
<td></td>
<td>(no meaning outside its name)</td>
</tr>
<tr>
<td>5</td>
<td>Məslay</td>
<td>tribe</td>
<td></td>
<td>(no meaning outside its name)</td>
</tr>
<tr>
<td>6</td>
<td>Məloko</td>
<td>language</td>
<td>ma aloko</td>
<td>‘our language’ (Moloko)</td>
</tr>
<tr>
<td>7</td>
<td>Anjakəyma</td>
<td>person</td>
<td>a-njak-ay ma</td>
<td>‘here comes trouble’</td>
</tr>
<tr>
<td>8</td>
<td>Kosəyməze</td>
<td>person</td>
<td>kos-ay məze</td>
<td>‘he unites the people’</td>
</tr>
<tr>
<td>9</td>
<td>Kavəyaka</td>
<td>person</td>
<td>kə avəya aka</td>
<td>‘in suffering’</td>
</tr>
<tr>
<td>10</td>
<td>Angaɗay</td>
<td>person</td>
<td>a-ngaɗ-ay</td>
<td>‘he is joyful’</td>
</tr>
<tr>
<td>11</td>
<td>Mərəyabay</td>
<td>person</td>
<td>məray abay</td>
<td>‘no shame’</td>
</tr>
</tbody>
</table>

(139)
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 élé háy* ‘millet grain’ in 3 and *war dalay* ‘girl’ in 4) or free pronoun (*ne* 1S 2) is the head of the NP. In the examples in this chapter, the noun phrases are delimited by square brackets.¹

1. [Nafat enen] anday atalay a [ləhe].
   *nafatɛnɛŋ* a-ndaj a-tal-aj a [lɪhɛ]
   ‘One day, he was walking in the bush.’

2. [Ne ahan] aməgəye.
   *nɛ=ahaŋ* =3S.POSS DEP-do-CL
   ‘It was me (emphatic) that did it.’

   *tʃɪtʃɪŋɛhɛ* na [war élɛ haj bɪlɛŋ] na á-sak asa-baj
   ‘And now, one grain of millet, it doesn’t multiply anymore.’

4. Disobedient Girl, S. 38
   Metesle anga [war dalay ngendəye].
   *mɛ-tɛɬɛ* anɡa [war dalaj ñɛɛndɪjɛ]
   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

¹The first line in each example is the orthographic form. The second is the phonetic form (slow speech) with morpheme breaks.
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) Nāmənjar [awak ahay].
    nə́-mənzar [awak=ahaj]
    1S+IFV-see goat=Pl
    'I see goats.'

(6) [Awak ahay na ], [səłom ahay ga].
    [awak=ahaj na] [səłəm=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) Nāmənjar [awak əwla].
    nə́-mənzar [awak=uwla]
    1S+IFV-see goat=1S.Poss
    'I see my goat.'
5.1 Noun phrase constituents

(8) [Awak əwlə na], [səlom ga].
    [awak=uwla na] [sələm 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) Nómnənjər [awak enen].
    nə̄-mənzər [awak enən]
    1S+IFV-see goat another
    ‘I see another goat.’

(10) [Awak enen ahay na], [səlom ahay ga].
    [awak enən=ahaj na] [sələm=ahaj ga]
    goat other=Pl PSP good=Pl ADJ
    ‘Other goats [are] good.’

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

(11) Nómnənjər [awak əwlə ahay makar].
    nə̄-mənzər [awak=uwlə=ahaj makar]
    1S+IFV-see goat=1S.POSS=Pl three
    ‘I see my three goats.’

(12) [awak əwlə ahay makar ahay na], [səlom ahay ga].
    [awak=uwlə=ahaj makar=ahaj na] [sələm=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) (see Section 5.3).

(13) Nómnənjər [awak ahay malan ahay ga].
    nə̄-mənzər [awak=ahaj malan=ahaj ga]
    1S+IFV-see goat=Pl great=Pl ADJ
    ‘I see the big goats.’

(14) [awak ahay malan ahay ga na], [səlom ahay ga].
    [awak=ahaj malan=ahaj ga na] [sələm=ahaj ga]
    goat=Pl great=Pl ADJ PSP good=Pl ADJ
    ‘The big goats [are] good.’
5 Noun phrase

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

(15) Nämənjar [awak ahay makar ngəndəye].
    nó-mənzar [awak=ahaj makar ngindije]
    1S+IFV-see goat=Pl three DEM
    ‘I see those three goats.’

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

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

(17) Nämənjar [awak əwla ahay makar [nok amə̄lvəlaw].]
    nó-mənzar [awak=uwlə=ahaj makar [nokʷ amə-vl=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 amə̄lvəlaw] na], [səlom ahay ga].
    [awak=uwlə=ahaj makar [nokʷ amə-avl=aw] na] [səlom=ahaj ga]
    goat=1S.POSS=Pl three 2S DEP-give=1S.IO PSP good=Pl ADJ
    ‘My three goats that you gave me [are] good.’

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

(19) Nämənjar [awak ahay gam].
    nó-mənzar [awak=ahaj gam]
    1S+IFV-see goat=Pl many
    ‘I see many goats.’

(20) [Awak ahay gam na], [səlom ahay ga].
    [awak=ahaj gam na] [səlom=ahaj ga]
    goat=Pl many PSP good=Pl ADJ
    ‘Many goats [are] good.’

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

(21) Nämənjar [awak ahay məfaɗ ga].
    nó-mənzar [awak=ahaj məfaɗ ga]
    1S+IFV-see goat=Pl four ADJ
    ‘I see the four goats.’
5.1 Noun phrase constituents

(22) [Awak ahay məfaɗ ga], [səlom ahay ga].
[awak=ahaj məfaɗ ga] [səlɔm=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.

<table>
<thead>
<tr>
<th>head</th>
<th>possessive</th>
<th>plural</th>
<th>numeral</th>
<th>relative</th>
<th>nominal</th>
<th>quantifier</th>
<th>ADJ</th>
<th>local adverbial</th>
</tr>
</thead>
<tbody>
<tr>
<td>noun</td>
<td></td>
<td></td>
<td></td>
<td>clause</td>
<td>demonstrative</td>
<td></td>
<td></td>
<td>demonstrative</td>
</tr>
</tbody>
</table>

Figure 5.1: Structure of the Moloko noun phrase

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

(23) Nämənjar [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] [səlɔm=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) Námənjar [awak ahay ngəndəye [nok aməvəlaw]].
nə́-mənzar [awak=ahaj ngɛndje [nɔkʷ amə-vəl=aw]]
1S+IFV-see goat=Pl DEM 2S DEP=give=1S.IO

‘I see those goats that you gave me.’
5 Noun phrase

(26) \[Awak \text{awla ahay } [\text{nok aməvəlaw} \text{ ngəndəye na}], [səlom ahay ga].\]  
\[awak=uwla=ahaj [\text{nək}^w \text{ amə-vəl}=aw] \text{ ngəndi}\text{dəye na} \ [\text{sələm}=ahaj ga] \]  
goat=1S.POSS=Pl 2S DEP-give=1S.IO DEM PSP good=Pl ADJ  
‘Those goats of mine that you gave me [are] good.’

Modification by quantifier, relative clause, and plural marker (27–28).

(27) \[Nə́mənjar [awak ahay gam] [\text{nok aməvəlaw va na}].\]  
\[nə́-mənzar [awak=ahaj gam] [\text{nək}^w \text{ amə-vəl}=aw \text{ }=\text{va na}] \]  
1S+IFV-see goat=Pl many 2S DEP-give=1S.IO =PRF PSP  
‘I see many goats, the ones that you gave me.’

(28) \[Awak \text{awla ahay } [\text{nok aməvəlaw} \text{ jəyga na}], [səlom ahay ga].\]  
\[awak=uwla=ahaj [\text{nək}^w \text{ amə-vəl}=aw] \text{ dʒi}\text{jga na} \ [\text{sələm}=ahaj ga] \]  
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) \[Nə́mənjar [awak ahay ngəndəye jəyga].\]  
\[nə́-mənzar [awak=ahaj ngən\text{d}\text{i}\text{dəye dʒi}\text{jga}] \]  
1S+IFV-see goat=Pl DEM all  
‘I see all those goats.’

(30) \[Awak ahay ngəndəye jəyga na], [səlom ahay ga].\]  
\[awak=ahaj ngən\text{d}\text{i}\text{d}\text{e} dʒi\text{jga na} \ [\text{sələm}=ahaj ga] \]  
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.
5.2 Noun phrase heads

(31) [Albaya ahay] tán̄day táwas.  
[albaja=ahaj] tán̄daj 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] áṇday áwas.  
[ndahajan ga] áṇdaj áṇ-was  
3S ADJ 3S+IFV-PROG 3S+IFV-cultivate  
‘He himself is cultivating.’

5.2.1 Noun phrases with nominalised verb heads

When the head noun is a nominalised verb, the other elements in the noun phrase represent clausal arguments of the nominalised verb. The modifying noun represents the direct object Theme of the nominalised verb and the possessive pronoun or noun in a modifying genitive construction represents the subject of the verb. In (34), the noun modifier daf ‘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.’

a [mɪ-ʒum-ɛ daf=ata] ava na tá-ŋap-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.’
5 Noun phrase

(35) Snake, S. 19
Anjakay nok ha a slam [məndaye ango] ava.
à-nzak-aj nəkʷ ha a ɬam [mr-nd-ije=angʷɔ] 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]
[me-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. The pronoun heads are bolded in the examples.

(37) [Ndahan ga] [aməgəye].
[ndahan gə] [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 elele nmdijɛ na] [ne ga]
derp-prepare-cl sauce dem psp 1s adj
'The one that prepared the sauce there [was] me.'

(39) [Ne ahan] [aməgəye].
[ne=ahan] [amɪ-g-ijɛ]
1s=3s.poss dep-do-cl
'I myself [am] the one that did it.'

2Pronouns can be the subject of a relative clause, see (17) and Section 5.4.3.
5.3 Derived adjectives

All adjectives in Moloko are derived from nouns – there is no separate grammatical class of adjectives. 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

<table>
<thead>
<tr>
<th>Noun</th>
<th>Derived Adjective</th>
</tr>
</thead>
<tbody>
<tr>
<td>səlom</td>
<td>səlom ga 'good'</td>
</tr>
<tr>
<td>gədan</td>
<td>gədan ga 'strong'</td>
</tr>
<tr>
<td>deden</td>
<td>deden ga 'true'</td>
</tr>
<tr>
<td>gogwez</td>
<td>gogwez ga 'red'</td>
</tr>
<tr>
<td>dalay</td>
<td>dalay ga 'feminine'</td>
</tr>
<tr>
<td>bərav</td>
<td>bərav ga 'with ability to support suffering'</td>
</tr>
<tr>
<td>daz daz</td>
<td>daz daz ga 'red'</td>
</tr>
<tr>
<td>kwəleɗeɗe</td>
<td>kwəleɗeɗe ga 'smooth'</td>
</tr>
<tr>
<td>pəyecece</td>
<td>pəyecece ga 'cold'</td>
</tr>
<tr>
<td>malan</td>
<td>malan ga 'great' / 'big'</td>
</tr>
<tr>
<td>hwəsese</td>
<td>hwəsese ga 'small'</td>
</tr>
</tbody>
</table>

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.

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

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. In the examples in this section, the adjectiviser *ga* is bolded and

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(40) [Ne ahan] nólo a kosoko ava.
    [ne=ahan] nó-1s a kosək'ɔ ava

1s=3S.POSS 1s+IFV-go at market in

‘I myself am going to the market.’
5 Noun phrase

Table 5.2: Adjectives derived from nominalised verbs

<table>
<thead>
<tr>
<th>Verb</th>
<th>Nominalised verb</th>
<th>Derived adjective</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-nj-e</td>
<td>mə-nj-əye</td>
<td>mə-nj-əye ga</td>
</tr>
<tr>
<td>3s-sit-cl</td>
<td>NOM-sit-cl</td>
<td>NOM-sit-cl ADJ</td>
</tr>
<tr>
<td>'He sat.'</td>
<td>‘sitting’ (the event)</td>
<td>‘seated’ (adjective)</td>
</tr>
<tr>
<td>a-dar-ay</td>
<td>me-der-e</td>
<td>me-der-e ga</td>
</tr>
<tr>
<td>3s-plant-cl</td>
<td>NOM-plant-cl</td>
<td>NOM-plant-cl ADJ</td>
</tr>
<tr>
<td>'He planted.'</td>
<td>‘planting’ (the event)</td>
<td>‘planted’ (adjective)</td>
</tr>
</tbody>
</table>

the whole noun phrase construction including ga is delimited by square brackets.

(41) Nazalay [awak gogwez ga].

nà-z=alaj [awak gʷəgʷeʒ 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 [agʷaɮa 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 enen] [tʃɛɮɛre 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. The adjectiviser maintains its position at the right edge of a noun phrase regardless of the noun phrase components (44–49). This fact indicates that it might be a clitic. However, we find no undisputable evidence that it is phonologically bound to the noun. Example (42) shows noun-final changes /n/ → [ŋ] before ga. These changes might be due to assimilation of

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

/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). Also, the prosody of ga does not neutralise any prosody on the word to which it is bound.

(44) Tákəwala [kəra motece elé ga.]
    tá-kuw=ala [kəra mr-tetʃ-e elə 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, nəmbəɗom a dəray ava na,
    lɪmɛ Mʊłɔkʷ=ahaj na nə-mbud-om a dəraj ava na
    1PEx Moloko=Pl PSP 1S+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 [kərkəɗaw ahay nə hərgov ahay ga] a bərlən ava na.
    ka [kərkəɗaw=ahaj nə hʊrgʷəv=ahaj ga] a bərkəj 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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5 We have not no examples of word-final altertions of /h/ before ga.
5 Noun phrase

(46) Naharalay [awak babəɗ ga] a mogom.

Nà-har=alaj [awak babəɗ ga] a məgʷɔm
1s+PFV-carry=away goat white ADJ at home
‘I carried the white goat home.’

(47) Naharala [awak ahay babəɗ ahay ga] a mogom.

nà-har=alaj [awak=ahaj babəɗ=ahaj ga] a məgʷɔm
1s+PFV-carry=away goat=Pl white=Pl ADJ at home
‘I carried the white goats home.’

(48) [Məze ahay solom 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] ngama
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.

[agʷʊdʒɛr 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 Derived adjectives

5.3.2 Functions of noun phrases containing ga

The morpheme ga has two other functions besides adjectiviser. Ga 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. Examples (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.
 tà-lo tà-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] òwɗɛ.
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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6These 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.
5 Noun phrase

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 limɛ nə-gus-um na [dəraj ga] na [suɬəm ga]
    if 1Pex 1s+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] anɡa limɛ [mɪtɛnɛŋ ga] anɡa 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 sɪlo
    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
5.3 Derived adjectives

to go to the police to resolve the problem (59 and 60), and the problem (\textit{ma ga} ‘that word’) that developed when they couldn’t find justice (61 and 62).

(59) [Məlama ahay məfaɗ ga] tanday tāgalay ta [sla ahay na] a Kədəmbor.  
[məlama =ahaj məfaɗ ga] ta-ndaj tā-gal-aj ta [la =ahaj na]  
brother =Pl four ADJ 3P-PRG 3P+IFV-drive-CL 3P.DO cow =Pl PSP  
a Kədəmbor  
to Tokembere  
‘The four brothers, they were driving the cows to Tokembere.’

(60) Nəbohom ta alay ləme [zlom ga].  
nə̀-bɔh-ɔm ta=alaj lɪmɛ [ɬəm ga]  
1SPEX+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 nendɪge na nə̀-mənjɔr-ɔm [ma ga]  
1DInf walk at place PSP in DEM PSP 1S+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  
1SPEX+PFV-pour-1PEX word ADJ at Brigade in  
‘We took the problem to the Brigade.’

The emphatic function of \textit{ga}\textsuperscript{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 \textit{Hərmbəlom awacala kə okor aka} ‘God wrote on the stone,’ and line 12 (64) exhorts the hearer \textit{koogəsok ma Hərmbəlom} ‘you should accept the word of God.’ Further in the text, the mention of \textit{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 \textit{ga} has an emphatic function.

\textsuperscript{7}The emphatic function of \textit{ga} is discussed with respect to pronouns in Section 3.1.1.2.
5 Noun phrase

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’
5.4 Nouns as modifiers

(68) [war [aməgəye cəɗoy] akaray zana aloko apazan.  
[war [amr-g-ijɛ tsuɗoj] à-kar-aj zana=alɔkʷɔ apazan]  
child dep-do-cl wickedness 3s+PFV-steal-cl clothes=1PIN yesterday  
‘The child that did wickedness stole our clothes yesterday.’

5.4.1 Genitive construction

The genitive construction follows the head noun in a noun phrase. The genitive noun phrase consists of the genitive particle a plus a noun phrase expressing the possessor (69 and 70).

(69) [zar [a Hawa]]  
[zar [a gen Hawa]]  
man gen Hawa  
‘Hawa’s husband’

(70) [hay [a baba ango]]  
[haj [a gen baba=angʷɔ]]  
house gen father=2S.POSS  
‘your father’s house’

Bow (1997c) remarks that the particle a appears to carry the tone HL, with a floating L. She demonstrates in (71) that the floating low tone lowers the high tone of the noun (háy) to become M.

(71) [ɗāf] + [á] + [háj] → [ɗə̄f 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. The semantic relationship between head noun and genitive expresses the same range of semantic notions as the possessive pronoun (see Section 3.1.2.1). In the examples below, the genitive construction expresses ownership (both alienable and inalienable, 72), kinship (73), partitive (74), and other looser associations (75–77). When applicable, a corresponding pronominal possessive construction is also given for comparison.

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

(72) [hay [a Mana]] [haj=uwla]
    house GEN Mana house=1s.poss
    ‘Mana’s house’ ‘the house that I live in’ (not the house I made)\(^\text{10}\)

(73) [hor [a Mana]] [hʷɔr=ahaŋ]
    woman GEN Mana woman=3s.poss
    ‘Mana’s wife’ ‘his wife’

(74) [daray [a Mana]] [dəraj=ahaŋ]
    head GEN Mana head=3s.poss
    ‘Mana’s head’ ‘his head’

(75) [slærele [a Mana]] [ɬɪrɛlɛ=ahaŋ]
    work GEN Mana work=3s.poss
    ‘Mana’s work’ ‘his work’

(76) [pəra [a Mala]] [pəra ahan]
    spirit-place GEN Mala spirit-place=3s.poss
    ‘the spirit-place that Mala worships’ ‘his spirit-place’

(77) [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 *hod* ‘stomach’ (81).

(78) [ma [a gəver]]
    mouth GEN liver
    ‘gall bladder’

\(^{10}\)”The house I made” requires a relative clause: [hay [əwla amə-her-e =va]] ‘house mine to build.’
5.4 Nouns as modifiers

(79) [ma [a gəlan]]
    [ma [a gəlan]]
    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.
    ne 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 aŋga=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 nehe] 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=ahəŋ=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 Noun phrase

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.\(^\text{11}\) The glosses in each of the examples below confirm this observation.

(85) [zar F\text{tak}]  
[zar F\text{tak}]  
man F\text{tak}  
‘a man who was born in F\text{tak}’

(86) [zar akar]  
[zar akar]  
man theft  
‘thief’ (someone who makes his living from stealing)

(87) [zar j\text{ə}g\text{w}ɛr]  
[zar dʒ\text{ig}ʷɛp]\text{ɛr}  
man shepherd  
‘a shepherd’ (paid for his work)

(88) [zar s\text{ə}lɔm]  
[zar s\text{ə}lɔm]  
man goodness  
‘a man who is known for his goodness’

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

\(^{11}\) As compared with the genitive construction which gives a more temporary attribute Section 5.4.1.
5.4 Nouns as modifiers

(90) [zar məðan]
[zar mədən]
man sorcery
‘a known sorcerer’

(91) [zar sərəle]
[zar lərəle]
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 élé 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 élé 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 lərəle=ahəŋ=ahəj makar]
people work=3S.poss=Pl three
‘his three workmen’

(93) Disobedient Girl, 13
[War élé háy bəlen ga nendəye nok ameze na],
[wər élə həj bəleŋ ga nəndiə beləŋ aŋə-əŋə-əŋə] na
child eye millet one ADJ DEM 2S DEP-take-CL PSP
‘That one grain of millet that you took,’

kəhaya na kə ver aka.
kə-h=aja na kə ver 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). Example (94) 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  ami-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 (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) 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  ami-kɪr-ɛ  mɪʒɛ
    person  DEP-steal-CL person
    ‘the person that steals’ (lit. person to steal from person)

12 Akar is the irregular nominalised form of the verb karay (see Section 4.2).
5.4 Nouns as modifiers

(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.

<table>
<thead>
<tr>
<th>(pronoun)</th>
<th>dependent verb</th>
<th>complement</th>
<th>(presupposition marker)</th>
</tr>
</thead>
</table>

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
    metɛɬɛ aŋga [war dalaj ngɛndijɛ 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’
5 Noun phrase

avayə nənɛgehə ana məze ahay na].
aviʃa nənɛgehə ana məzə=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],
[lokʷəjə 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-əm ma a zawər=alokʷəjə=ahaj
only 2-catch-2p mouth gen men=2p.poss=pl
‘you must listen to your husbands.’

(101) Disobedient Girl, S. 33
Hərmələm ága bərav va kəwaya
Hərmələm á-g-a bərav =va kuwaja
God 3s+fv-do-cl heart =prf because of
‘God had gotten angry because of’
[war dalay na amecen sləmay bay ngəndəye].
[war dalaj na Ø amɛ-tʃɛŋ ɭəmaj bəj ngəndə]
child girl psp dep-hear ear neg dem
‘that girl, that one that was disobedient.’

(102) Nde [ləbara əwla ga amətaraləkwəye ma] nehe.
nde [ləbara =uwla ga Ø amə-tar=alokʷəjə ma] nehe
so news =1s.poss adj dep-call=2p.io mouth dem
‘So, this is my news that I have called you together (to hear).’ (lit. So, my
news which called mouth to you [is] this here)

When the head noun is the direct object of the relative clause, the relative
clause must contain a subject pronoun. The pronoun must be inserted before the
verb in the relative clause (103–105). It is interesting that this subject pronoun of
the relative clause is sometimes a free pronoun (104, 105, 109, see Section 3.1.1)
but in other cases is a possessive pronoun (103, see Section 3.1.2). Two examples
from the same narrative13 (103 and 104) use different pronouns for the subject of

13The entire narrative is not included in this work.
5.4 Nouns as modifiers

the relative clause. While (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 represents the noun phrase head. In the examples below, the direct object pronominal na is underlined. A gap for the direct object in the relative clause (104 and 109) is indicated by Ø.

(103)  Tasan oko ana [hay atə aməgəye na va].
   tə-s=an çəkʷə ana [haj=atə atə-geo na=va]
   3P+PFV-cut=3S.DO 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 amr-g-ije Ø a dala kʊskʷə 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 na va] shouldn’t ngəndəye na,
   [war haj ngindijɛ nokʷ ame-ʒ-ɛ na=va] bilen njindjɛ 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 ver aka
   2S+POT-grind=PLU on grinding stone on
   ‘grind it on the grinding stone.’

(106)  is more complex since the subject of the relative clause includes the speaker along with the head of the noun phrase (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)  Dayday anɡa fat amədɛde va nəŋgala a mogom
   dijdaj anɡa fat amr-dɛd-ɛ =va nə-ŋg=ala
   ID:approximately POSS sun DEP-fall-CL =PRF 1S+IFV-return=to
   a mogʷəm
   at home
   ‘At sunset, I went home’ (lit. [it was] approximately [time] belonging to
   the sun which already fell, I returned home)
5 Noun phrase

waya amazata ala ɗaf ana
waja ama-z=ata=ala ɗaf ana
because DEP-take=3P.IO=to millet.loaf DAT
‘to bring food for ’ (lit. because to bring food to)

[məze enen ahay ləme aməngele alay sla ahay jəygə na].
[mrʒe ənəŋ=ahaj ɪme am-ŋgel-ɛ=alaj ɬa=ahaj ɬəjɡə na]
person another=Pl 1Pex DEP-return-CL=away cow=Pl all PSP
‘all the people that drove the cows [to Tokembere].’ (lit. some other people 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). Examples (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. Example (108) is an emphatic construction (see Section 10.3.5).

(107)  [Aməzəɗe dəray na] way?
        [Ø am-ʒidi-ɛ dəraj na] waj
        DEP-carry-CL head PSP who
‘Who will win?’ (lit. the one to carry the head, who?)

(108) Snake, S. 7
Alma [amədəvala əkfom nehe] may?
alma [amə-dəv=ala ək′fom nehe] 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 eле ‘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
5.4 Nouns as modifiers

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
à-gə na=va
3s+PFV-do 3s.DO=PRF
‘She did it’ (lit. she did it, [the thing] that I told her;)

[ele ne amahan aməjəye |mege bay| na] esəmey.
[ele ne ama-h=an Ø amr-dʒ-i=je |mɛ-g-e Ø baj| na] efimej
thing 1S DEP-say=3S.IO DEP-tell-CL 3S+HOR-do-CL NEG PSP not so
‘the thing that I told her she should not 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. The plural precedes the relative clause in (110–111).

(110) [Ele ahay nok amazəde na], anga əwla bay.
[ele=ahaj nokʷ amə-ʒɪ-ɗ-ɛ na] anga=uwla baj
thing=Pl 2s DEP-take-CL PSP POSS=1S.POSS NEG
‘The things that you brought [are] not belonging to me.’

(111) [Məze ahay amazəde dəray na], tolo a mogom na memle ga.
[məʒɛ=ahaj amə-ʒɪ-ɗ-ɛ dəraj na] to-lə a mɛgʷəm na memle 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. The relative clause follows a singular head noun in (112). However, when the head noun is plural, the relative clause is sandwiched between the head noun and the plural marker (113). 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. Thus, when plural forms are used in Moloko discourse, which possibility is correct must be already clear from the context.
5 Noun phrase

(112) Dala ɬərɛlɛ asan
dala ɬərɛlɛ a-s=aŋ
money work 3s-please=3s.10
ana [məze aməhere hay a bahay].
ana [mɪʒɛ Ø amɪ-her-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 ɬərɛlɛ asata
dala ɬrɛlɛ a-s=ata
money work 3s-please=3p.10
'Wages please'
ana [ndam aməhere hay a bahay ahay].
ana [ndam Ø amɪ-her-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
Metele anga [war dalay ngəndəye amazata aka ala
Metele  anga [war dalay ngəndəye Ø ama-z=ata=aka=ala
NOM-curse POSS child girl DEM DEP-take=3p.10=on=to
'The curse belongs to that young woman that brought’
avəya nengehe ana məze ahay na].
avija nengehe ana mɪʒɛ=ahaj na]
suffering DEM DAT person=Pl PSP
'this suffering onto the people.'

Any information inside a relative clause must be known or presupposed information expected to be shared by the hearer. Relative clauses function in two
ways. Firstly, relative clauses may specify the head noun among others. Secondly, in a narrative, relative clauses identify their content as carrying information concerning a key participant in the discourse and may allude to the moral of the story.

Consider the Disobedient Girl text (see Section 1.5 for the full narrative). The moral of the story is to instruct children (especially girls) to be obedient. There are relative clauses in S. 13 (115), S. 29 (109), S. 33 (101), and S. 38 (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 élé háy bəlen.
ká-zaɗ war élé haj bilɛŋ
2s+IFV-take child eye millet one
‘you take only one grain.’

[War élé háy bəlen ga nəndɔye nok amezəɗe na],
[war élé haj bilɛŋ ga ñindjɛ nok* amɛ-ʒɪɗ-ɛ na]
child eye millet DEM ADJ DEM 2s DEP-take-CL PSP
‘That one grain that you have taken,’

Káhaya na kə ver aka. Anjaloko de pew.
ká-h=aja na kə ver aka à-nz=alɔkʷɔ de pew
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.’
5 Noun phrase

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-lo a-z=ala [dalaj] aża na [war dalaj ndana]
3S+PFV-go 3S+PFV-take=to girl now PSP child girl DEM
[cezlere ga].
[tfɛɮɛɾɛ 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, amədəvala 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 anga [[bahaj a haj] nə [ndam ɪɾɛle=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.’
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,’ anga ‘belonging to,’ afa ‘at the house of,’ and ka ‘like.’

The preposition a ‘at’ marks the relationship of location of the event (at, to, in; 120, 121).

(120) Cicada, S. 4
Tə́nday tə́talay a lʊhe.
tə́-ndaj tə́-tal-aj a lʊhe
3P+IFV-PRG 3P+IFV-walk-CL at bush
‘They were walking in the bush.’

This particle is a homophone with the genitive particle (Section 5.4.1).
5 Noun phrase

(121) Olo 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.
3P-go PSP 3P-cut=3s.DO fire DAT house=3s.POSS DEP-do-CL 3s.DO=PRF
‘They went and set fire to the house that they had built.’

(123) Adəkaka alay *ana* Hərmbəlom.
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* mekɛc.
1s-slay-cl cow with knife
‘I kill the cow with a knife.’

(125) Olo *nə* zar ahan.
3s-go with man=3s.POSS
‘She went with her husband.’

(126) Zar *nə* hor ahan təta a mogom.
man with woman=3s.POSS 3P at home
‘The man and his wife [are] at home.’
5.6 Adpositional phrase

(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.’ 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 səber
    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 gədan
    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-fɪr-ɛ
    child PSP 3S+IFV-overtake older sibling=3S.POSS with NOM-know-CL

    ele
    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).
5 Noun phrase

(131) Ádal məze ahay jəyga nə məsəre ele a lekwel ava.
á-dal mɪʒɛ=ahaj dzijga nə mɪ-ʃɪr-ɛ ele a lekwel
3S+IFV-overtake person=Pl all with NOM-know-cl thing at school
ava
in
'He/she is the smartest child in his school.'

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

(132) Aban olo aka yam.
Aban ɔ-lɔ aka jam
Aban 3S-go on water
‘Aban goes to get water.’ (lit. she goes on water)

The adpositionanga 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] [anga lɛme]
head ADJ POSS 1PEx
'We got the head.’ (lit. the head, belonging to us)

The adpositionafa ‘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.
nu-ƚɔ afa bahaj
1S-go at.house.of chief
'I go to the chief’s house.’

The adpositionka ‘like’ introduces an adverbial complement that expresses manner. Ka appears twice in (135). In the second instance, ka carries the directional extensionala ‘towards.’
5.6 Adpositional phrase

(135) Values, S. 47
Nəmbəɗom a dəray ava na,
Nə̀-mbʊɗ-ɔm a dəraj ava na
1S+PFV-change-1PEx at head in PSP
‘We have become’ (lit. changed in the head)

[kə kərkadaw ahay nə hərgov ahay ga a ɓərzlan ava na],
[ka kərkadaw=ahaj nə hʊrgʷɔv=ahaj ga a ɓərləŋ̣ a va na]
like monkey=Pl with baboon=Pl ADJ at mountain in PSP
‘like monkeys and baboons on the mountains;’

[kə ala kəra na], nəsərom dəray bay pat.
[ka=ala kəra na] nə-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 adpositions give locational information. The first, kə…aka ‘on’ marks the noun phrase as being a location to 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
Káafaɗom anaw kə mahay əwla aka.
Káá-fʊɗ-ɔm an=aw kə mahaj=uwlə 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 delme te aka a ɬam ɛnəŋ
3S-leave-CL on neighbor on at place another
‘He left to go to his neighbor at some other place.’

(138) Azad olako kə dəray a məwta aka.
à-zad oloko kə dəraj a məwta 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)
5 Noun phrase

(139) Ḥərməłəm a-gə ɓərav va ka war anɡa məze dedelen ga aka.

‘God did heart on the child that belongs to the black person’

The second complex adpositional phrase, a...ava ‘in,’ the preposition and post-position 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.

’a-lo a kosɔkwɔ ava

‘He/she goes to market.’

(141) Afaɗ dala a ombolo ava.

’a-faɗ dala a ambɔlɔ ava

‘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). In the examples, the postpositions and verbal extensions are both bolded.

(142) Afəɗaka war elé háy na kɔ ver aka.

’a-fəɗ=aka war elé haj na kɔ ver aka

‘She put the grain of millet on the grinding stone.’

(143) Məmətava alay a ver ava.

’mə-mət=ava=alaj a ver ava

‘She died in the room.’

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 (1997c) 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).

¹Note 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 Verb root and stem

6.1 The basic verb root and stem

Bow (1997c) 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.

![Figure 6.1: Structure of the verb stem](image)

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 (1997c) 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 1997c).

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²Bow’s 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

<table>
<thead>
<tr>
<th>Root type</th>
<th>Underlying form of stem</th>
<th>3s Perfective a-</th>
<th>3s Perfective with directional a=-ala</th>
<th>1Ptn Perfective mo-ok</th>
<th>Nominalised form mə-(-yy)=e</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>One-consonant</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>neutral</td>
<td>/p -j/ a-p-ay</td>
<td>a-p=a=ala</td>
<td>mo-p-ok</td>
<td>mə-p-yy=e</td>
<td></td>
</tr>
<tr>
<td>palatalised</td>
<td>/g e/ e-g-e</td>
<td>'he opened'</td>
<td>'he opened towards'</td>
<td>'opening'</td>
<td></td>
</tr>
<tr>
<td>labialised</td>
<td>/l o/ o-lo</td>
<td>'he did'</td>
<td>'he did towards'</td>
<td>'doing'</td>
<td></td>
</tr>
<tr>
<td><strong>Two-consonant</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>neutral</td>
<td>/f d/ a-fad</td>
<td>a-fd=a=ala</td>
<td>mə-fd-ok</td>
<td>mə-fd-e</td>
<td></td>
</tr>
<tr>
<td>palatalised</td>
<td>/ɛ̃ s g e/ e-zl-g-e</td>
<td>'he put'</td>
<td>'he put towards'</td>
<td>'putting'</td>
<td></td>
</tr>
<tr>
<td>labialised</td>
<td>/nl d ʒ o/ a-nzol-oy</td>
<td>'he sowed'</td>
<td>'he sowed towards'</td>
<td>'sowing'</td>
<td></td>
</tr>
<tr>
<td><strong>Three-consonant</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>neutral</td>
<td>/p d k-aj/ a-pədək-ay</td>
<td>a-pədək=a=ala</td>
<td>mə-pədək-ok</td>
<td>mə-pədək-e</td>
<td></td>
</tr>
<tr>
<td>palatalised</td>
<td>/ts ʃ d e/ e-ʃə-d-e</td>
<td>'he asked'</td>
<td>'he asked'</td>
<td>'questioning'</td>
<td></td>
</tr>
<tr>
<td>labialised</td>
<td>/b r ts -j o/ o-bə-r-c-oy</td>
<td>'he pounded'</td>
<td>'he pounded towards'</td>
<td>'pounding'</td>
<td></td>
</tr>
</tbody>
</table>

\(^3\)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.

\(^4\)Note there are consonantal allophones in palatalised and labialised words.

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

<table>
<thead>
<tr>
<th>Line</th>
<th>Underlying form showing consonants in verb root</th>
<th>2s Imperative form</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Neutral prosody</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>/f ɗ/</td>
<td>fad</td>
<td>‘put’</td>
</tr>
<tr>
<td>2</td>
<td>/g s/</td>
<td>gas</td>
<td>‘catch’</td>
</tr>
<tr>
<td>3</td>
<td>/m nz r/</td>
<td>mənjər</td>
<td>‘look’</td>
</tr>
<tr>
<td>4</td>
<td>/p -j/</td>
<td>p-ay</td>
<td>‘open’</td>
</tr>
<tr>
<td>5</td>
<td>/t l-aj/</td>
<td>tal-ay</td>
<td>‘walk’</td>
</tr>
<tr>
<td>6</td>
<td>/ɬ-aj/</td>
<td>sl-ay</td>
<td>‘kill (by cutting the throat)’</td>
</tr>
<tr>
<td>7</td>
<td>/p ɗ k-aj/</td>
<td>pəɗak-ay</td>
<td>‘wake’</td>
</tr>
<tr>
<td><strong>Palatalised prosody</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>/g e/</td>
<td>g-e</td>
<td>‘do’</td>
</tr>
<tr>
<td>9</td>
<td>/s e/</td>
<td>s-e</td>
<td>‘drink’</td>
</tr>
<tr>
<td>10</td>
<td>/ɮ g e/</td>
<td>zəg-e</td>
<td>‘bring’</td>
</tr>
<tr>
<td>11</td>
<td>/ts f d e/</td>
<td>cafəd-e</td>
<td>‘ask’</td>
</tr>
<tr>
<td>12</td>
<td>/ts a n e/</td>
<td>cen</td>
<td>‘understand’</td>
</tr>
<tr>
<td><strong>Labialised prosody</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>/l o/</td>
<td>lo</td>
<td>‘go’</td>
</tr>
<tr>
<td>14</td>
<td>/z m o/</td>
<td>zom</td>
<td>‘eat’</td>
</tr>
<tr>
<td>15</td>
<td>/nd a ɬ -j o/</td>
<td>ndozl-oy</td>
<td>‘explode’</td>
</tr>
</tbody>
</table>

The consonants in a verb stem in Moloko are remarkably constant. We have found only two irregular verbs where there are changes in the verb consonants. Firstly, the irregular verb /l o/ adds an epenthetic [h] in some conjugations to break up vowels (the full conjugation of /l o/ is in Appendix B). Secondly, the root-final ɗ of the verb /z d/ ‘take’ drops off when affixes and clitics are added
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 (1997c) 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 be at least synchronically 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). Examples (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., \([b, mb, d, nd, dz, nz, g, ng, g^*\), \(ng^\), 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 Verb root and stem

(6) Apala.
   a-p=ala
   3s-open=to
   ‘It opens towards.’

Verb stems with the underlying suffix but no underlying (i.e. neutral) prosody take the surface suffix form [-aj]; verb stems that are labialised carry the surface form suffix [-ɔj]. With the exception of verbs with the root-final consonant /n/,
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.

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
equivalent 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 fɛʃɛ]
    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’, cajen ‘lose’, njeren ‘groan’, mbesen
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.
6.4 Underlying vowel in the root

Table 6.3: Stems with and without underlying suffix

<table>
<thead>
<tr>
<th>Number of consonants</th>
<th>One-consonant verb root</th>
<th>Two-consonant verb root</th>
<th>Three-consonant verb root</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stems with no suffix</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No underlying prosody</td>
<td>tah ‘reach out’</td>
<td>mənjər ‘see’</td>
<td>təkam ‘taste’</td>
</tr>
<tr>
<td>Labialised verb stems</td>
<td>lo ‘go’</td>
<td>zom ‘eat’</td>
<td>səkom ‘buy/sell’</td>
</tr>
<tr>
<td>Palatalised verb stems</td>
<td>cen ‘understand’</td>
<td>mbezlen ‘count’</td>
<td>mbezen ‘spoil’</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stems with suffix</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No underlying prosody</td>
<td>l-ay ‘dig’</td>
<td>hab-ay ‘dance’</td>
<td>təwad-ay ‘cross’</td>
</tr>
<tr>
<td>-ay suffix</td>
<td>j-ay ‘say’</td>
<td>lag-ay ‘accompany’</td>
<td>sləbat-ay ‘repair’</td>
</tr>
<tr>
<td>Labialised verb stems</td>
<td>cok-oy ‘undress’</td>
<td>təkos-oy ‘cross legs’</td>
<td></td>
</tr>
<tr>
<td>-oy suffix</td>
<td>bor-oy ‘climb’</td>
<td>təlok-oy ‘drip’</td>
<td></td>
</tr>
<tr>
<td>Palatalised verb stems</td>
<td>g-e ‘do’</td>
<td>cək-e ‘stand up’</td>
<td></td>
</tr>
<tr>
<td>-e suffix</td>
<td>z-e ‘smell’</td>
<td>zlag-e ‘plant’</td>
<td></td>
</tr>
</tbody>
</table>

Table 6.4 (adapted from Bow 1997c 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 (1997c) 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

---

10Bow 1997c, page 24. Her database of 350 verb stems has 189 with the internal vowel.
### 6 Verb root and stem

#### Table 6.4: Verb stems with and without 

<table>
<thead>
<tr>
<th>Underlying Form of Stem</th>
<th>Verb Stem</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>/bar/</td>
<td>[ɓár]</td>
<td>‘shoot an arrow’</td>
</tr>
<tr>
<td>/bar-aj/</td>
<td>[ɓár-áj]</td>
<td>‘toss and turn when sick’</td>
</tr>
<tr>
<td>/tsar/</td>
<td>[tsár]</td>
<td>‘taste good’</td>
</tr>
<tr>
<td>/tsar-aj/</td>
<td>[tsàr-àj]</td>
<td>‘tear’</td>
</tr>
<tr>
<td>/dar/</td>
<td>[dâr]</td>
<td>‘move’</td>
</tr>
<tr>
<td>/dar-aj/</td>
<td>[dâr-àj]</td>
<td>‘plant’</td>
</tr>
<tr>
<td>/dak/</td>
<td>[ɗâk]</td>
<td>‘fill up a hole’</td>
</tr>
<tr>
<td>/dak-aj/</td>
<td>[ɗâk-áj]</td>
<td>‘show’/‘tell’</td>
</tr>
<tr>
<td>/fad/</td>
<td>[fàd]</td>
<td>‘put’</td>
</tr>
<tr>
<td>/fad-aj/</td>
<td>[fád-áj]</td>
<td>‘fold’</td>
</tr>
<tr>
<td>/f t/</td>
<td>[fàt]</td>
<td>‘grow’ (plant)</td>
</tr>
<tr>
<td>/fat-aj/</td>
<td>[fàt-áj]</td>
<td>‘lower’</td>
</tr>
<tr>
<td>/g r/</td>
<td>[gár]</td>
<td>‘grow’ (human)</td>
</tr>
<tr>
<td>/gar-aj/</td>
<td>[gár-àj]</td>
<td>‘govern’</td>
</tr>
<tr>
<td>/h b/</td>
<td>[hàɓ]</td>
<td>‘break’</td>
</tr>
<tr>
<td>/hab-aj/</td>
<td>[hàɓ-àj]</td>
<td>‘dance’</td>
</tr>
<tr>
<td>/k d/</td>
<td>[káɗ]</td>
<td>‘kill’</td>
</tr>
<tr>
<td>/kad-aj/</td>
<td>[káɗ-áj]</td>
<td>‘prune’</td>
</tr>
<tr>
<td>/l r/</td>
<td>[làr]</td>
<td>‘send’</td>
</tr>
<tr>
<td>/a-lar/</td>
<td>[làr-áj]</td>
<td>‘slide’</td>
</tr>
<tr>
<td>/mb d/</td>
<td>[mbàɗ]</td>
<td>‘change position’</td>
</tr>
<tr>
<td>/mbad-aj/</td>
<td>[mbàɗ-áj]</td>
<td>‘swear’</td>
</tr>
<tr>
<td>/ng r/</td>
<td>[ŋgár]</td>
<td>‘prevent’</td>
</tr>
<tr>
<td>/ngar-aj /</td>
<td>[ŋgár-àj]</td>
<td>‘rip’</td>
</tr>
<tr>
<td>/s k/</td>
<td>[sák]</td>
<td>‘multiply’</td>
</tr>
<tr>
<td>/sak-aj/</td>
<td>[sàk-áj]</td>
<td>‘sift’</td>
</tr>
<tr>
<td>/t r/</td>
<td>[tàr]</td>
<td>‘enter’</td>
</tr>
<tr>
<td>/tar-aj/</td>
<td>[tàr-áj]</td>
<td>‘call’</td>
</tr>
<tr>
<td>/v r/</td>
<td>[vá]</td>
<td>‘roof’ (a house)</td>
</tr>
<tr>
<td>/var-aj/</td>
<td>[vàr-àj]</td>
<td>‘chase away’</td>
</tr>
<tr>
<td>/w l/</td>
<td>[wàl]</td>
<td>‘attach’</td>
</tr>
<tr>
<td>/wal-aj/</td>
<td>[wàl-áj]</td>
<td>‘look among things’</td>
</tr>
<tr>
<td>/w s/</td>
<td>[wàs]</td>
<td>‘cultivate’</td>
</tr>
<tr>
<td>/was-aj/</td>
<td>[wàs-àj]</td>
<td>‘populate’</td>
</tr>
</tbody>
</table>
6.4 Underlying vowel in the root

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

<table>
<thead>
<tr>
<th>Line</th>
<th>2s Imperative</th>
<th>2p Imperative</th>
<th>Consonantal skeleton with stem vowel</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>No internal vowel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>sl-ay</td>
<td>sl-om</td>
<td>/l-j/</td>
<td>‘kill’</td>
</tr>
<tr>
<td>2</td>
<td>tar</td>
<td>tər-om</td>
<td>/t r/</td>
<td>‘enter’</td>
</tr>
<tr>
<td>3</td>
<td>həm-ay</td>
<td>həm-om</td>
<td>/h m-j/</td>
<td>‘run’</td>
</tr>
<tr>
<td>4</td>
<td>mənjar</td>
<td>mənjər-om</td>
<td>/m nz r/</td>
<td>‘see’</td>
</tr>
<tr>
<td>Internal vowel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>tar-ay</td>
<td>tor-om</td>
<td>/tar-j/</td>
<td>‘call’</td>
</tr>
<tr>
<td>6</td>
<td>ndozl-oy</td>
<td>ndozl-om</td>
<td>/ndaɭʊ/</td>
<td>‘explode’</td>
</tr>
<tr>
<td>7</td>
<td>məndac-ay</td>
<td>məndoc-om</td>
<td>/m ndats-j/</td>
<td>‘gather’</td>
</tr>
<tr>
<td>8</td>
<td>bəjəgam-ay</td>
<td>bəjəgom-om</td>
<td>/b dz gam-j/</td>
<td>‘crawl’</td>
</tr>
</tbody>
</table>

11 The 2p imperative is formed by adding the suffix -om and labialisation prosody.
6 Verb root and stem

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 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 (1997c) called this a historical a- prefix on the verb stem. She reported that 83 out of 231 bi-consonantal verb stems that she studied have the (now frozen) a- prefix. Whether a verb stem has this prefix or not can be determined from the nominalised form. Bow illustrates the presence of this prefix with the minimal pair /a-ndaw/ ‘swallow’ and /ndaw/ ‘insult.’ (13) and (14) show the nominalised form of the two verb stems.12 The verb stem 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 1997c) 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.

12The nominalised form has a mə- or me- prefix, an -e suffix, and is palatalised (Section 7.6).
6.6 Prosody of verb stem

Table 6.6: Minimal pairs showing presence of historical /a-/ prefix

<table>
<thead>
<tr>
<th>Underlying form</th>
<th>Gloss</th>
<th>Nominalised form</th>
<th>Underlying tone of stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ndaw-j/</td>
<td>‘swallow’</td>
<td>[mɪ-ndɛw-ɛ]</td>
<td>toneless</td>
</tr>
<tr>
<td>/a-ndaw-j/</td>
<td>‘insult’</td>
<td>[mɛ-ndɛw-ɛ]</td>
<td>L</td>
</tr>
<tr>
<td>/ɮ r/</td>
<td>‘pierce’</td>
<td>[mɪ-ɮɪr-ɛ]</td>
<td>H</td>
</tr>
<tr>
<td>/a-ɮ r/</td>
<td>‘kick’</td>
<td>[mɛ-ɮɪr-ɛ]</td>
<td>L</td>
</tr>
<tr>
<td>/tsah-j/</td>
<td>‘ask’</td>
<td>[mɪ-tʃɛh-ɛ]</td>
<td>H</td>
</tr>
<tr>
<td>/a-tsah-j/</td>
<td>‘scar’</td>
<td>[mɛ-tʃɛh-ɛ]</td>
<td>L</td>
</tr>
<tr>
<td>/law-j/</td>
<td>‘hang’</td>
<td>[mɪ-lɛw-ɛ]</td>
<td>L</td>
</tr>
<tr>
<td>/a-law-j/</td>
<td>‘mate’</td>
<td>[mɛ-lɛw-ɛ]</td>
<td>L</td>
</tr>
<tr>
<td>/k w-j/</td>
<td>‘get drunk’</td>
<td>[mɪ-kuw-ɛ]</td>
<td>L</td>
</tr>
<tr>
<td>/a-k w-j/</td>
<td>‘search’</td>
<td>[mɛ-kuw-ɛ]</td>
<td>L</td>
</tr>
</tbody>
</table>

*aNote 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). The Potential form for the verbs /a-ndaw/ ‘swallow’ and /ndaw/ ‘insult’ are identical (15–16).

(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 (1997c) 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). Although prosodies can carry predictable lexical weight in some

13The effects of labialisation and palatalisation are discussed in Section 2.1. Note that there are also some morphological processes where palatalisation or labialisation is a part of the morpheme, for example, palatalisation is part of the formation of the nominalised form (Section 7.6), and labialisation is a part of the 1P and 2P subject forms Section 7.3.1.
other related languages,\textsuperscript{14} in Moloko, labialisation and palatalisation carry very little lexical weight. Table 6.7 (adapted from Bow 1997c, 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\textsuperscript{15} are added, compare example (17) and (18) for the verb /$s\, j^e$/ ‘drink.’

\begin{itemize}
\item[(17)] Nese.
\texttt{nè-ʃ-ɛ}
\texttt{1s+PFV-drink-CL}
\texttt{‘I drank.’}
\item[(18)] Nasala.
\texttt{nà-s=ala}
\texttt{1s+PFV-drink=to}
\texttt{‘I drank already.’ (lit. I drank towards)}
\end{itemize}

6.7 Tone classes

Bow (1997c) concluded that verb stems in Moloko belong to one of three underlying tone classes: high (H), low (L), or toneless ($\emptyset$). She discovered that the underlying tone of a verb stem can be identified by comparing the 2s imperative with the Potential form. The Potential form has a high tone on a lengthened subject prefix (see Section 7.4.3). If the tone melody of the stem is high on both imperative and Potential forms, then that stem has an underlying high tone. If the tone melody is mid or low on both forms due to the presence of depressor consonants (see Section 2.4.1), then the stem has underlying low tone. If the tone melody of the stem syllable is low in the imperative but high following the high tone of the subject prefix in the Potential form, that verb stem is toneless. The high tone of the Potential form of the subject prefix spreads to the toneless stem. For the imperative form of a toneless stem, a default low tone is applied to the stem.

\textsuperscript{14}All causatives in Muyang involve the palatalisation of the root (Smith 2002). In Mbuko, the data show a correlation between palatalisation and pluractionality (Richard Gravina 2001).

\textsuperscript{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

<table>
<thead>
<tr>
<th>Neutral</th>
<th>Labialised</th>
<th>Palatalised</th>
</tr>
</thead>
<tbody>
<tr>
<td>[s-aj] ‘cut’</td>
<td>[ʃɛ] ‘drink’</td>
<td>[v-ɛ] ‘spend time’</td>
</tr>
<tr>
<td>[dak-aj] ‘show, tell’</td>
<td>[dɔkʷ-ɛ] ‘arrive’</td>
<td>[ʃɛ] ‘drink’</td>
</tr>
<tr>
<td>[sar] ‘know’</td>
<td>[səɾ-ɛ] ‘slide’</td>
<td>[ʃɛ] ‘drink’</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Line</th>
<th>Underlying form of stem</th>
<th>Imperative Form</th>
<th>Potential Form</th>
<th>Tone Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>/d ɾ/</td>
<td>[dár]</td>
<td>[náá-dár]</td>
<td>H</td>
</tr>
<tr>
<td></td>
<td>‘Burn!’</td>
<td></td>
<td>‘I will burn’</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>/a-dar-j/</td>
<td>[där-āj]</td>
<td>[náá-dār-āj]</td>
<td>L</td>
</tr>
<tr>
<td></td>
<td>‘Plant!’</td>
<td></td>
<td>‘I will plant’</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>/d ɾ/</td>
<td>[där]</td>
<td>[náá-där]</td>
<td>Ø</td>
</tr>
<tr>
<td></td>
<td>‘Recoil!’</td>
<td></td>
<td>‘I will recoil’</td>
<td></td>
</tr>
</tbody>
</table>

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 (1997c) 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 (1997c) demonstrated that an underpinnelly 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
### Table 6.9: Tone patterns for selected verb stems

<table>
<thead>
<tr>
<th>CV pattern</th>
<th>Underlying form of stem</th>
<th>Imperative form</th>
<th>Potential (Irrealis) form (/náá-/ prefix)</th>
<th>Tone class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>/g-jɛ/ ‘do’</td>
<td>[g-ɛ́] ‘Do!’</td>
<td>[nɛ́ɛ́-g-ɛ́ ] ‘I will do’</td>
<td>H</td>
</tr>
<tr>
<td></td>
<td>/d-jɛ/ ‘cook’</td>
<td>[d-ɛ̀] ‘Cook!’</td>
<td>[nɛ́ɛ́- d-ɛ̀ ] ‘I will cook’</td>
<td>L</td>
</tr>
<tr>
<td>CC</td>
<td>/mb r/ ‘heal, cure’</td>
<td>[mbár] ‘Heal!’</td>
<td>[náá- mbár] ‘I will heal’</td>
<td>H</td>
</tr>
<tr>
<td></td>
<td>/m t/ ‘die’</td>
<td>[māt] ‘Die!’</td>
<td>[náá-māt] ‘I will die’</td>
<td>L</td>
</tr>
<tr>
<td></td>
<td>/g s/ ‘catch’</td>
<td>[gàs] ‘Catch!’</td>
<td>[náá-gàs] ‘I will catch’</td>
<td>toneless</td>
</tr>
<tr>
<td>CaC</td>
<td>/tsar/ ‘taste good’</td>
<td>[tsär] ‘Taste good!’</td>
<td>[náá-tsär] ‘I will taste good’</td>
<td>L</td>
</tr>
<tr>
<td>a-CaC-aj</td>
<td>/a-pas-j/ ‘spread out’</td>
<td>[pās-áj] ‘Spread out!’</td>
<td>[náá- pās-áj] ‘I will spread out’</td>
<td>L</td>
</tr>
<tr>
<td>CCC-aj</td>
<td>/d b n-j/ ‘learn’</td>
<td>[dɔ̀bɔ̀n-áj] ‘Learn!’</td>
<td>[náá- dɔ̀bɔ̀n-áj] ‘I will learn’</td>
<td>L</td>
</tr>
<tr>
<td>CCCaC-aj</td>
<td>/b dz gam-j/ ‘crawl’</td>
<td>[bɒ̀dzàgàm-áj] ‘Crawl!’</td>
<td>[náá-bɒ̀dzàgàm-áj] ‘I will crawl’</td>
<td>L</td>
</tr>
</tbody>
</table>
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 1997c) 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

<table>
<thead>
<tr>
<th>Underlying</th>
<th>Depressor</th>
<th>Surface</th>
<th>Underlying</th>
<th>Surface</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tonal melody</td>
<td>consonants</td>
<td>tone</td>
<td>form of stem</td>
<td>form</td>
<td></td>
</tr>
<tr>
<td>Toneless</td>
<td>–</td>
<td>L</td>
<td>/haɓ-j/</td>
<td>[hàɓ-āj]</td>
<td>‘dance!’</td>
</tr>
<tr>
<td></td>
<td>+</td>
<td>L</td>
<td>/daɮ-j/</td>
<td>[dàɮ-āj]</td>
<td>‘join!’</td>
</tr>
<tr>
<td>L</td>
<td>–</td>
<td>M</td>
<td>/pàɗ-j/</td>
<td>[pāɗ-áj]</td>
<td>‘bite!’</td>
</tr>
<tr>
<td></td>
<td>+</td>
<td>L</td>
<td>/ɮàv-j/</td>
<td>[ɮàv-āj]</td>
<td>‘swim!’</td>
</tr>
<tr>
<td>H</td>
<td>–</td>
<td>H</td>
<td>/fáɗ-j/</td>
<td>[fáɗ-áj]</td>
<td>‘fold!’</td>
</tr>
<tr>
<td></td>
<td>+</td>
<td>H</td>
<td>/bál-j/</td>
<td>[bál-āj]</td>
<td>‘wash!’</td>
</tr>
</tbody>
</table>

6.7.2 Effect of underlying form on tone of stem

Bow (1997c) 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:

<table>
<thead>
<tr>
<th>Underlying</th>
<th>Depressor</th>
<th>Surface</th>
<th>Underlying</th>
<th>Surface</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>–</td>
<td>H</td>
<td>/fáɗ-j/</td>
<td>[fáɗ-áj]</td>
<td>‘fold!’</td>
</tr>
<tr>
<td>L</td>
<td>–</td>
<td>M</td>
<td>/pàɗ-j/</td>
<td>[pàɗ-áj]</td>
<td>‘bite!’</td>
</tr>
<tr>
<td>H</td>
<td>+</td>
<td>H</td>
<td>/hàɓ-j/</td>
<td>[hàɓ-āj]</td>
<td>‘dance!’</td>
</tr>
</tbody>
</table>
6.7 Tone classes

- Verb stems with the *a-* prefix (always two-consonant) always have under-
  lying low tone (line 4, Section 6.5).

- Verb stems with three or more consonant roots (line 5-6) always have un-
  derlying 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-con-
sonant roots with no *a-* prefix allow all underlying tone patterns (line 3 of Ta-
ble 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. 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.

    nʒ-ɛ́       née-nʒ-ɛ́
    leave[2S.IMP]-CL 1S+POT-leave-CL
    ‘leave!’        ‘I will leave.’

(20) Nje. Néenje.
    nʒ-ɛ̀       née-nʒ-ɛ̀
    sit[2S.IMP]-CL 1S+POT-sit-CL
    ‘Sit!’        ‘I will sit.’

Additional examples illustrating underlying stem tone in verb stems with one
root consonant are given in Table 6.13 (from Friesen & Mamalis 2008). Imper-
ative and Potential forms are given for each example. Stems with and without
depressor consonants are included.

16 One possible exception is /dz-j/ ‘say,’ which may be toneless.
Table 6.12: Underlying tones for different verb stem structures

<table>
<thead>
<tr>
<th>Line</th>
<th>Verb stem structure</th>
<th>Underlying tone of 316 verb stems</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>H</td>
</tr>
<tr>
<td>1</td>
<td>One-consonant</td>
<td>7 verb stems</td>
</tr>
<tr>
<td></td>
<td>non-palatalised</td>
<td></td>
</tr>
<tr>
<td></td>
<td>verb roots</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>One-consonant</td>
<td>4 verb stems</td>
</tr>
<tr>
<td></td>
<td>palatalised verb</td>
<td>8 verb stems</td>
</tr>
<tr>
<td></td>
<td>roots</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2 consonant verb</td>
<td>36 verb stems</td>
</tr>
<tr>
<td></td>
<td>roots with no a-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>prefix</td>
<td>49 verb stems</td>
</tr>
<tr>
<td></td>
<td>no a-prefix</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>38 verb stems</td>
</tr>
<tr>
<td>4</td>
<td>a-prefix verb stems</td>
<td>82 verb stems</td>
</tr>
<tr>
<td></td>
<td>(all have 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>consonants)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>3 consonant verb</td>
<td>58 verb stems</td>
</tr>
<tr>
<td></td>
<td>roots</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>4 consonant verb</td>
<td>12 verb stems</td>
</tr>
<tr>
<td></td>
<td>roots</td>
<td></td>
</tr>
</tbody>
</table>
6.7 Tone classes

Table 6.13: Tone patterns in stems with one root consonant

<table>
<thead>
<tr>
<th>Syllable pattern and Aspect/mood</th>
<th>H</th>
<th>L – depressor consonants</th>
<th>+ depressor consonants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palatalised</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative</td>
<td>[g-ɛ]</td>
<td>[f-ɛ]</td>
<td>[d-ɛ]</td>
</tr>
<tr>
<td>‘do, make’</td>
<td>‘drink’</td>
<td>‘prepare’</td>
<td></td>
</tr>
<tr>
<td>Potential</td>
<td>[kɛ̄-ɛ̄-g-ɛ̄]</td>
<td>[kɛ̄-ɛ̄-f-ɛ̄]</td>
<td>[kɛ̄-ɛ̄-d-ɛ̄]</td>
</tr>
<tr>
<td>‘you will do’</td>
<td>‘you will drink’</td>
<td>‘you will prepare’</td>
<td></td>
</tr>
<tr>
<td>Non-palatalised</td>
<td>Ø</td>
<td>[p-āj]</td>
<td>[b-āj]</td>
</tr>
<tr>
<td>Imperative</td>
<td></td>
<td>‘open’</td>
<td>‘light’</td>
</tr>
<tr>
<td>Potential</td>
<td>[kā-ā-p-āj]</td>
<td>[kā-ā-b-āj]</td>
<td></td>
</tr>
<tr>
<td>‘you will open’</td>
<td>‘you will light’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.7.2.2 Verb Stems with two root consonants

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.

Table 6.14: Tone patterns in a- prefix verbs

<table>
<thead>
<tr>
<th>Stem structure</th>
<th>L – depressor consonants</th>
<th>+ depressor consonants</th>
</tr>
</thead>
<tbody>
<tr>
<td>/a-CC/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative</td>
<td>Ø</td>
<td>[dāl]</td>
</tr>
<tr>
<td>‘surpass’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potential</td>
<td>[kā-ā-dāl]</td>
<td></td>
</tr>
<tr>
<td>‘you will surpass’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/a-CC-j/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative</td>
<td>[sāl-āj]</td>
<td>[gə-āj]</td>
</tr>
<tr>
<td>‘fry’</td>
<td></td>
<td>‘frighten’</td>
</tr>
<tr>
<td>Potential</td>
<td>[kā-ā-sāl-āj]</td>
<td>[kā-ā-gə-āj]</td>
</tr>
<tr>
<td>‘you will fry’</td>
<td></td>
<td>‘you will fear’</td>
</tr>
<tr>
<td>/a-CaC-j/ (60)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative</td>
<td>[pās-āj]</td>
<td>[dār-āj]</td>
</tr>
<tr>
<td>‘spread out’</td>
<td></td>
<td>‘plant’</td>
</tr>
<tr>
<td>Potential</td>
<td>[kā-ā-pā-sāj]</td>
<td>[kā-ā-dār-āj]</td>
</tr>
<tr>
<td>‘you will spread out’</td>
<td></td>
<td>‘you will plant’</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Stem structure</th>
<th>H</th>
<th>L&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Toneless</th>
</tr>
</thead>
<tbody>
<tr>
<td>/CC/</td>
<td>Imperative</td>
<td>[mbár]</td>
<td>[māt]</td>
</tr>
<tr>
<td></td>
<td>‘heal, cure’</td>
<td>‘die’</td>
<td>‘catch’</td>
</tr>
<tr>
<td></td>
<td>Potential</td>
<td>[kāá-mbár]</td>
<td>[kāá-māt]</td>
</tr>
<tr>
<td></td>
<td>‘you will heal’</td>
<td>‘you will die’</td>
<td>‘you will get’</td>
</tr>
<tr>
<td>/CaC/</td>
<td>Imperative</td>
<td>Ø</td>
<td>[tsār]</td>
</tr>
<tr>
<td></td>
<td>‘taste good’</td>
<td>‘you will taste good’</td>
<td>‘make’</td>
</tr>
<tr>
<td></td>
<td>Potential</td>
<td>[kāá-tsār]</td>
<td>[kāá-hār]</td>
</tr>
<tr>
<td>/CC-j/</td>
<td>Imperative</td>
<td>[ŋgōl-āj]</td>
<td>[rōb-āj]</td>
</tr>
<tr>
<td></td>
<td>‘defend’</td>
<td>‘be beautiful’</td>
<td>‘run’</td>
</tr>
<tr>
<td></td>
<td>(only example)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Potential</td>
<td>[kāá-ŋgōl-āj]</td>
<td>[kāá-rōb-āj]</td>
</tr>
<tr>
<td></td>
<td>‘you will defend’</td>
<td>‘you will be beautiful’</td>
<td>‘you will run’</td>
</tr>
<tr>
<td>/CaC-j/</td>
<td>Imperative</td>
<td>[bāl-āj]</td>
<td>[māk-āj]</td>
</tr>
<tr>
<td></td>
<td>‘wash’</td>
<td>‘stop’</td>
<td>‘fear’</td>
</tr>
<tr>
<td></td>
<td>Potential</td>
<td>[kāá-bāl-āj]</td>
<td>[kāá-māk-āj]</td>
</tr>
<tr>
<td></td>
<td>‘you will wash’</td>
<td>‘you will leave’</td>
<td>‘you will fear’</td>
</tr>
</tbody>
</table>

<sup>a</sup>No two-consonant verbs without a-prefix with low tone have depressor consonants.

<sup>b</sup>Most CC roots that have high tone end in /r/.

<sup>c</sup>Note that these are the only structures that have no counterpart a-prefix forms.
6.7 Tone classes

6.7.2.3 Verb stems with three or more root consonants

Bow (1997c) 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 /-j/ 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 6.16: Tone patterns in verb stems with three root consonants

<table>
<thead>
<tr>
<th>L</th>
<th>No depressor consonants</th>
<th>Depressor consonants</th>
</tr>
</thead>
<tbody>
<tr>
<td>/CCC/</td>
<td><strong>Imperative</strong></td>
<td>[sʊkʷɔ́m] ‘buy’</td>
</tr>
<tr>
<td></td>
<td><strong>Potential</strong></td>
<td>[kʊ́-sʊkʷɔ́m] ‘you will buy’</td>
</tr>
<tr>
<td>/CCaC/</td>
<td><strong>Imperative</strong></td>
<td>[tə̀kár] ‘try, taste’</td>
</tr>
<tr>
<td></td>
<td><strong>Potential</strong></td>
<td>[káá-tə̀kár] ‘you will try’</td>
</tr>
<tr>
<td>/CCC-j/</td>
<td><strong>Imperative</strong></td>
<td>[tsə̀fə̄ɗ-áj] ‘ask’</td>
</tr>
<tr>
<td></td>
<td><strong>Potential</strong></td>
<td>[káá-tsə̀fə̄ɗ-áj] ‘you will ask’</td>
</tr>
<tr>
<td>/CCaC-j/</td>
<td><strong>Imperative</strong></td>
<td>[pə̀ɗə̀k-áj] ‘wake’</td>
</tr>
<tr>
<td></td>
<td><strong>Potential</strong></td>
<td>[káá-pə̀ɗə̀k-áj] ‘you will wake’</td>
</tr>
<tr>
<td>/CCCaC-j/</td>
<td><strong>Imperative</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Potential</strong></td>
<td></td>
</tr>
</tbody>
</table>
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. 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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1I 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.

²Bow (1997c) considered tense and mood.
³The only stems which take the pluractional which we have so far identified are a-h=aya ‘he/she grinds,’ a-s=aya ‘he/she cuts,’ and d=aya ‘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. 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](image)

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

(1) Gaka ala.
   \[g=aka=ala\]
   do\[2s.IMP\]=on=to
   ‘Put some more on!’ (lit. do on towards)

(2) Alala va.
   \[\text{à-l=ala=va}\]
   3S+PFV-go=to=PRF
   ‘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

---

4 The structure of the nominalised or dependent forms of the verb is similar. The derivational prefixes are in the same location as the subject prefix. All other affixes and extensions are possible with the exception of the Perfect extension.

5 Note that the verb stem is /g -j/. The palatalisation drops with the extensions.
7 The verb complex

The verb complex 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](image)

The word break is initiated by both the direct and indirect object pronouns 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 [æŋ] (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 pronoun is indicated by the fact that the 3s DO pronoun does not neutralise the prosody on the verb stem, and does not cause the /-j/ suffix to drop (4–5, see Section 7.3.3).6

(3) Ambaɗan aka alay.
verb word ‘extension word’
[à-mbaɗ=an] [=aka=alaj]
3s+PFV-change=3s.IO =on=away
‘He/she replied.’ (lit. he changed on away)

(4) Aslay na.
[à-l-aj] [na]
3s+PFV-slay-CL 3s.DO
‘He killed it.’

(5) Ege na.
[è-g-ɛ] [na]
3s+PFV-do -CL 3s.DO
‘He did it.’

When there is no indirect object pronominal enclitic, the extensions cliticise to the direct object pronominal (6). When both direct and indirect object pronouns are present, again the extensions cliticise to the direct object pronounal (7).

6The first line in each example is the orthographic form. The second is the phonetic form (slow speech) with morpheme breaks.
7.1 The phonological structure of the verb word

When there is an indirect object pronominal enclitic but no direct object pronominal, the extensions form a separate phonological word in and of themselves (8, see also 3).

(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.

<table>
<thead>
<tr>
<th>Verb word</th>
<th>Indirect object word</th>
<th>Extension word</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject Irrealis-</td>
<td>Verb stem</td>
<td>-1P/2P subject#</td>
</tr>
</tbody>
</table>

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.
7 The verb complex

(9) Kəslom anan na aka awak.
verb word ‘indirect object word’ ‘extension word’
[kʊ-ɬ-ɔm] [an=an] [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=an] [=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.

1 <- Verbal word <- Irrealis <- Verb stem <- adpositional <- directional <- Perfect
subject + aspect

2 <- Verbal word <- Irrealis <- Verb stem <- 1p/2p subject# <- direct object <- adpositional <- directional <- Perfect
directional

3 <- Verbal word <- Irrealis <- Verb stem <- 1p/2p subject# <- an=indirect object pronominal# <- direct object
subject + aspect <- adpositional <- directional <- Perfect

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, 1p1n 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).

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
Table 7.1: Singular and plural imperative forms

<table>
<thead>
<tr>
<th>2s form</th>
<th>1P inclusive form</th>
<th>2P form</th>
</tr>
</thead>
<tbody>
<tr>
<td>faɗ</td>
<td>faɗ-ok</td>
<td>faɗ-om</td>
</tr>
<tr>
<td>‘Put! (2s)’</td>
<td>‘Let’s put! (1P)’</td>
<td>‘Put! (2P)’</td>
</tr>
<tr>
<td>zom</td>
<td>zəm-ok</td>
<td>zəm-om</td>
</tr>
<tr>
<td>‘Eat! (2s)’</td>
<td>‘Let’s eat! (1P)’</td>
<td>‘Eat! (2P)’</td>
</tr>
<tr>
<td>s-e</td>
<td>s-ok</td>
<td>s-om</td>
</tr>
<tr>
<td>‘Drink! (2s)’</td>
<td>‘Let’s drink! (1P)’</td>
<td>‘Drink! (2P)’</td>
</tr>
<tr>
<td>fat-ay</td>
<td>fot-ok</td>
<td>fot-om</td>
</tr>
<tr>
<td>‘Descend! (2s)’</td>
<td>‘Let’s descend! (1P)’</td>
<td>‘Descend! (2P)’</td>
</tr>
</tbody>
</table>

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.
### 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 (1997c) 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\(^{c}\)/ ‘do,’ and (12) presents the labialised verb /l\(^{p}\)/ ‘go.’

---

\(^7\)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).
### 7.3 Verb complex pronominals

Table 7.3: Conjugations with subject pronominal affixes for /m nzar/ ‘see’

<table>
<thead>
<tr>
<th>Person</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>nə-ᵂmənjar awak</td>
<td>mə-ᵂmənjor-ok awak</td>
</tr>
<tr>
<td></td>
<td>‘I saw a goat’</td>
<td>‘we (inclusive) saw a goat’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>nə-ᵂmənjor-om awak</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘we (exclusive) saw a goat’</td>
</tr>
<tr>
<td>2</td>
<td>kə-ᵂmənjar awak</td>
<td>kə-ᵂmənjor-om awak</td>
</tr>
<tr>
<td></td>
<td>‘you saw a goat’</td>
<td>‘you (plural) saw a goat’</td>
</tr>
<tr>
<td>3</td>
<td>a-ᵂmənjar awak</td>
<td>tə-ᵂmənjar awak</td>
</tr>
<tr>
<td></td>
<td>‘he/she saw a goat’</td>
<td>‘they saw a goat’</td>
</tr>
</tbody>
</table>

Table 7.4: Conjugations with subject pronominal affixes for /h m-j/ ‘run’

<table>
<thead>
<tr>
<th>Person</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>nə-ʰʰʰm-ay</td>
<td>mə-ʰʰʰm-ok</td>
</tr>
<tr>
<td></td>
<td>‘I ran’</td>
<td>‘we (inclusive) ran’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>nə-ʰʰʰm-om</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘we (exclusive) ran’</td>
</tr>
<tr>
<td>2</td>
<td>kə-ʰʰʰm-ay</td>
<td>kə-ʰʰʰm-om</td>
</tr>
<tr>
<td></td>
<td>‘you ran’</td>
<td>‘you (plural) ran’</td>
</tr>
<tr>
<td>3</td>
<td>a-ʰʰʰm-ay</td>
<td>tə-ʰʰʰm-ay</td>
</tr>
<tr>
<td></td>
<td>‘he/she ran’</td>
<td>‘they ran’</td>
</tr>
</tbody>
</table>
7 The verb complex

(11) Nege.
\[nɛ-g-ɛ\]
1s-do-cl
‘I did.’

(12) Olo.
\[ɔ-lo\]
3s-go
‘he/she went.’

Bow (1997c) 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-jɛ/ ‘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) Necəkom.
\[nʊ-tʃʊkʷ-ɔm\]
1s-stand-1Pex
‘We (exclusive) stand.’

Bow (1997c) 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
7.3 Verb complex pronominals

directed to – the recipient or beneficiary of the action. 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)  Ajənan.
     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. When the indirect object pronominal enclitic is attached (19), there is no word-final alternation of /h/ → [x] / _#.10

---

9 Employing the Agent-Theme-Location analysis developed by DeLancey (1991), the indirect object in Moloko expresses the semantic loc (see Chapter 9). The direct object pronominal expresses the semantic Theme – the participant that changes position or state (see Section 7.3.3).

10 See Section 2.6.1, c.f. (18). Likewise, we do not see the word-final process of n → [ŋ] / _# between the verb stem and the indirect object pronominal.
7 The verb complex

Table 7.5: Verb /v l/ ‘give’ conjugated for indirect object pronominal enclitic

<table>
<thead>
<tr>
<th>Person</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>a-vəl=aw</td>
<td>a-vəl=aloko</td>
</tr>
<tr>
<td></td>
<td>‘he/she gave to me’</td>
<td>‘he/she gave to us (inclusive)’</td>
</tr>
<tr>
<td>2</td>
<td>a-vəl=ok</td>
<td>a-vəl=aləkwəye</td>
</tr>
<tr>
<td></td>
<td>‘he/she gave to you’</td>
<td>‘he/she gave to you (plural)’</td>
</tr>
<tr>
<td>3</td>
<td>a-vəl=an</td>
<td>a-vəl=ata</td>
</tr>
<tr>
<td></td>
<td>‘he/she gave to him/her’</td>
<td>‘he/she gave to them’</td>
</tr>
</tbody>
</table>

(18) Abah zana.
    a-bax  zana
    3s-sew clothing
    ‘He/she sews clothing.’

(19) Abahaw zana.
    a-bah=aw  zana
    3s-sew=1s.1o 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-cl
    ‘He/she speaks.’

(21) Ajan.
    a-dz=aŋ
    3s-speak=3s.1o
    ‘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 akaɗaf. 
   a-s=ɔk =akaɗaf 
   3s-please=2s.10 =on  millet loaf
   ‘You want to have more millet loaves.’ (lit. millet loaf is pleasing to you)

(23) Asaləkwọye akaɗaf. 
   a-s=alʊkʷọjɛ =akaɗaf 
   3s-please=2p.10 =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) Kaslan awak. 
   ka-l=ɑŋ  awak 
   2s-slay=3s.10 goat
   ‘You slay the goat for him.’

(25) Kəslom anan awak. 
   kə-l-ɔm an=ɑŋ awak 
   2-slay-2p to=3s.10 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 [ɑŋ] even when there are other
7 The verb complex

clitics following the verb word (see 26–27). The word-final [ŋ] will delete in fast speech (see Section 2.5.2). These clitics (e.g., the adpositional clitics in these examples, see Section 7.5.1) would otherwise attach to the verb (compare with example 28):

(26) Asan aka daf.
    [a-s=an] [=aka] daf
    3s-please=3s.10 =on millet loaf
    ‘He/she wants to have more millet loaves.’ (lit. millet loaf is pleasing to him)

(27) Adan aka daf.
    [a-d=an] [=aka] daf
    3s-prepare=3s.10 =on millet loaf
    ‘She made more loaves of millet for him.’

(28) Adaka daf.
    [a-d=aka] daf
    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. Examples (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-l-aj la
    2s+PFV-slay-CL cow
    ‘You slew the cow.’

(30) Kaslay na.
    kà-l-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-reference 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 (Friesen 2003).
Moktonok na, abək ta aya va məlama ahan ahay jəyga.
məkʷtoŋʷ na a-bək ta=aja=va məlama=ahan=ahaj dzįga
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.
ne-f-ɛ
1S-drink-CL
‘I drink.’
7 The verb complex

(35) Nese na.
   nɛ-tsɛ 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=an na
   1s-give=3s.do 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=an na=alaj] ana mʒɛ
   father=2s.poss 3s.give=3s.do 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.
   tə-lo [tə-mənzar na=ala] mama agʷaŋə na=alaj
   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.
7.3 Verb complex pronominals

(39) [Kazalay] ne a kosoko ava daw?
    [ka-z=alaj] ne a kɔsɔkʷɔ ava daw
2s-take=away 1s at market in Q
‘Will you take me to the market?’

(40) Baba ango [avəlata] nok va a ahar ata ava
    baba=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 amɔmbede 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). Examples (41) and (42) are from the Snake story (see Section 1.4). The snake is introduced with a noun phrase gogolvan ‘snake’ (41). Further on in the narrative, the snake is referred to by the 3s DO pronominal na (42).

(41) Snake story, S. 4
    Alala na, gogolvan na, olo alay.
    a-l=la na gʷɔgʷɔlvaŋ na ɔ-λ=alaj
3s-go=to PSP snake PSP 3s+PFV-go =away
‘Some time later, the snake went.’

(42) Snake story, S. 18
    Ne dayday məkəɗe na aka.
    ne dijdaj mi-krd-ɛ na=aka
1s ID: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. Four consecutive lines from a narrative not illustrated in this work are shown in (43). 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
The verb complex

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.\(^\text{11}\)

\((43)\) Bahay a hay olo a kosoko ava.
\text{bahaj a haj c-\text{-}lo a kɔsɔk워 ava}  
\text{chief GEN house 3s-go at market in}

‘The head of the house went to the market.’

Askomala ele ahay gam.
a-sʊkʷɔm=ala ele=ahaj gam  
3s-buy=to thing=Pl many

‘He bought many things.’

Awəɗakata ele ngəndaye ana ndam slərele ahan ahay, awəy,
a-wudak=ata ele ngəndijə ana ndam ɬɪrɛlɛ=ahaŋ=ahaj awij  
3s-divide=3p.10 thing DEM DAT people work=3s.poss=Pl said

‘[When he got home], he divided the things among his workmen, saying,’

“Horom alay ayva!”  
\text{hʷɔr-r=cm} =alaj ajva  
\text{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.
\text{tàà-z=ala Ø təta baj}  
3p+hør-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 \text{memele ga}

\(^{11}\)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.
7.4 Aspect and mood

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.
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. Replication of a consonant in the verb stem indicates habitual iterative aspect (see Section 7.4.4). Replication 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).\(^\text{12}\)

7.4.1 Perfective

The Perfective (PFV) aspect in Moloko is the aspect that presents a realis event as completed (Friesen & Mamalis 2008).\(^\text{13}\) 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

\(^\text{12}\) 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).

\(^\text{13}\) 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.
7 The verb complex

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

<table>
<thead>
<tr>
<th>Underlying verb stem</th>
<th>Underlying tone of verb stem</th>
<th>Phonetic tone of Perfective verb word</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>/nz a k -j/</td>
<td>H</td>
<td>[nə̄-nzák-áj]</td>
<td>‘I found’</td>
</tr>
<tr>
<td>/a-p a s/</td>
<td>L, no depressor consonants</td>
<td>[nà-pās-áj]</td>
<td>‘I spread (something) out’</td>
</tr>
<tr>
<td>/a-d-a r -j/</td>
<td>L, with depressor consonants</td>
<td>[nà-dār-áj]</td>
<td>‘I planted’</td>
</tr>
<tr>
<td>/ɮ w -j/</td>
<td>Toneless</td>
<td>[nə̀-ɮə̀w-áj]</td>
<td>‘I feared’</td>
</tr>
</tbody>
</table>

The default verbal aspect for the main event line in a narrative is Perfective. Perfective verb forms are found in the main event line 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 gʷɔgʷɔlvan na ɔ̃-l=alaj
3S-go=to PSP snake PSP 3S+PFV-go=away
‘Some time later, the snake went.’

Acar a hay kare ava fo fo fo.
à-tsar a haj kirɛ ava fɔ fɔ fɔ
3S+PFV-climb at house beams in ID:sound of snake
‘It climbed into the roof of the house fo fo fo.’

Sen ala na, okfom adɔfala bav.
ʃɛŋ =ala na ɔkʷfom à-dɔf=ala bav
ID:go =to PSP mouse 3S+PFV-fall=to ID:sound of falling
‘And walking, a mouse fell bav!’

(47) Kəlen na, zar ahan na, enjé ele ahan ametele.
kîleŋ na zar=ahan na ɛ-nŋ=ɛle=ahanj 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;’
### 7.4 Aspect and mood

7.4 Aspect and mood

| Enjé kə delmɛtɛ aka a slam enen. |
| ë-nʒɛ  kə delmɛtɛ aka a ĭam ĭɛnɛ |
| 3s+PFV-leave-CL on place on at place another |
| ‘he left for some place.’ |

(48) Cicada, S. 6
Albaya ahay ndana kəlen tɔŋalə ala ma ana bahay.
albaja=ahaj ndana kileŋ tɔ-ŋala=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. 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 (1997c) 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. Examples (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). Example (49) refers to an event in process of happening (going to the market; already en route).

(49) Kόlo amtamay?
kό-lɔ  amtamaj
2s+IFV-go where
‘Where are you going?’

---

14 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.

15 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.
7 The verb complex

(50) Kolo amtamay?
kɔ-ɔ̃ 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) Nákaɗ bərek ʂəŋgehe.
ña-kàɗ 1s+birɛk tʃɪtʃɪŋgehe
1S+IFV-kill brick now
‘I am making bricks (now).’

(52) Nakad bərek ʂəŋgehe.
ña-kàɗ 1s+birɛk tʃɪtʃɪŋgehe
1S+PFV-kill brick now
‘I made bricks just now.’

(53) is an Imperfective that marks an event about to begin (compare with the Perfective in 54).

(53) Nápasay agaban.
nà-pàs-āj agaban
1S+IFV-take away-CL sesame
‘I’m about to take away the sesame seeds.’

(54) Napasay agaban.
nà-pàs-āj agaban
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) ʂəŋgehe ne awəy, “Nége hay əwla etc.”
tʃɪtʃɪŋgehe ne awiŋ nɛ-g-ɛ haj=uwlə etc
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.”’
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

<table>
<thead>
<tr>
<th>Underlying verb stem</th>
<th>Underlying tone of verb stem</th>
<th>Phonetic tone of verb word</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>/nz a k-aj/</td>
<td>H</td>
<td>[ná-nzák-áj]</td>
<td>‘I’m finding’</td>
</tr>
<tr>
<td>/a-p a s/</td>
<td>L, no depressor consonants</td>
<td>[ná-pās-áj]</td>
<td>‘I’m spreading (something) out’</td>
</tr>
<tr>
<td>/a-d-a r-aj/</td>
<td>L, with depressor consonants</td>
<td>[ná-dâr-áj]</td>
<td>‘I’m planting’</td>
</tr>
<tr>
<td>/ɮ w-aj/</td>
<td>Toneless</td>
<td>[nə́-ɮáw-áj]</td>
<td>‘I’m fearing’</td>
</tr>
</tbody>
</table>

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. All the main verbs are Imperfective in (57–60). They are general statements and not speaking of a particular situation.

(56) Cəcəngehe ne away, “Nege hay øwlə ete.”
now 1S said 1S+PFV-do-CL house=1S.POSS also
‘Now I said, “I made a house for myself too.”’

(57) Sləreɛle áyəɗay mæze.
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-l-aj awak nə mɪ-l-ɪɛ
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

<table>
<thead>
<tr>
<th>Underlying tone of verb stem</th>
<th>Structure of verb stem</th>
<th>Perfective (lower tone on subject prefix)</th>
<th>Imperfective (higher tone on subject prefix)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>/CaC-j/</td>
<td>[nā-nzák-áj] 'I found'</td>
<td>[ná-nzák-áj] 'I am finding'</td>
</tr>
<tr>
<td></td>
<td>/CC/</td>
<td>[nā-mbár] 'I healed'</td>
<td>[ná-mbár] 'I am healing'</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[nā-ɗák] 'I blocked up'</td>
<td>[ná-ɗák] 'I am blocking up'</td>
</tr>
<tr>
<td>L</td>
<td>/a-CaC-j/</td>
<td>[nā-pās-áj] 'I took away'</td>
<td>[ná-pās-áj] 'I am taking away'</td>
</tr>
<tr>
<td>no depressor consonants</td>
<td>/CaC-j/</td>
<td>[nā-tāts-áj] 'I close'</td>
<td>[ná-tāts-áj] 'I am closing'</td>
</tr>
<tr>
<td></td>
<td>/CC/</td>
<td>[nā-fāɗ] 'I put'</td>
<td>[ná-fāɗ] 'I am putting'</td>
</tr>
<tr>
<td>L</td>
<td>/a-CaC-j/</td>
<td>[nā-dār-āj] 'I recoil'</td>
<td>[ná-dār-āj] 'I am recoiling'</td>
</tr>
<tr>
<td>depressor consonants in verb stem</td>
<td>/CCaC-j/</td>
<td>[nā-və̀nàh-āj] 'I vomited'</td>
<td>[ná-və̀nàh-āj] 'I am vomiting'</td>
</tr>
<tr>
<td>Toneless</td>
<td>/CaC-j/</td>
<td>[nà-ɮàw-āj] 'I feared'</td>
<td>[ná-ɮàw-āj] 'I am fearing'</td>
</tr>
<tr>
<td></td>
<td>/CC/</td>
<td>[nà-ndàz] 'I pierced'</td>
<td>[ná-ndàz] 'I am piercing'</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[nà-dâɗ] 'I fell'</td>
<td>[ná-dâɗ] 'I am falling'</td>
</tr>
</tbody>
</table>
7.4 Aspect and mood

(60) Kákad əkfol o məkəɗe. Káslay bay.
ká-kadj ək-əfom o mə-kəɗɛ ká-l-adj bay
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) (a sentence from the introduction of a narrative not
illustrated in this work).

(61) Asa təmənjar zar Məloko andalay ásəya ele
asa tə-mənzar zar Mɔlɔkʷɔ a-nd=alaj á-s=ija ele
if 3P-see man Moloko 3S-PRG=away 3S+IFV-cut=PLU thing
‘If they found a Moloko cutting [his fields]’

nə ẓərgə coco fan na,
with axe ID:cutting already PSP
‘with his axe, tsotso’

талала təta gam na, tarəbokoy na ala rəbok rəbok.
tə-l=ala təta gam na ta-rəbokʷ-əj na=ala rəbokʷ rəbokʷ
3S=to 3P many PSP 3P-hide-CL 3S.DO=to ID:hide
‘many came stealthily upon him rəbok, rəbok.’

In narratives, the Imperfective is found in the introduction to stories to de-
scribe the way things were at the beginning of the story.¹⁶ For example, in the
Disobedient Girl story, the main verbs in the introduction (lines 1–8) are all Im-
perfective. 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

¹⁶ 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.
The verb complex

year. While grinding on the grinding stone, they take one grain of millet. 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. 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

17Only two moods were distinguished in previous documents (Friesen & Mamalis 2008; Boyd 2003).
expresses an action desired by the speaker that is under his or her influence to perform. It carries a mild hortatory force for second person forms. 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 áálala ete daw?
      a-s=aw bahaj mə-l=ala azana áà-l=ala ete daw
      3S-please=1S.10 chief 3S+HOR-go=to maybe 3S+PBL-go=to polite Q
      ‘I would like the chief to come; maybe he will come (if he wants to).’

(64)  Áalala.
      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 aámakay loko émbəzen loko asabay.
      adan baj áà-mak-aj ləkʷə ɛ-mbrəə ə ləkʷə 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.
7 The verb complex

(66) Hajan nóolo a kosoko ava.
    hadzaŋ nóó-ló a kósókʷa ava
    tomorrow 1s+pót-go at market in
    ‘Tomorrow I will go to the market.’

(67) Ólo.
    áá-ló
    3s+pót-go
    ‘He/she will hopefully go.’ (if I have a say in it)

(68) Káazala təta bay.
    káá-z=ala təta baj
    2s+pót-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) Mooolo a kosoko ava.
    mòó-ló a kósókʷa ava
    3s+hór-go at market in
    ‘He/she should go to the market.’

(70) Koozomom enen bay.
    kòò-zöm-oʊm eneŋ baj
    2p+hór-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 dəw noólo bay daw?
    ēpēlēj ēpēlē j dəw nóó-ló baj daw
    whenever whenever also 1s+pbl-go neg q
    ‘Far in the future also, might I not go perhaps?’
7.4 Aspect and mood

(72) **Aálo.**

áá-łɔ̀

3S+PBL-go

‘He/she might go.’ (it is up to him whether he goes, and I don’t know what he is thinking)

(73) **Adan bay bərav ahan aándeslen aámakay məɗəgele ahan.**

aáŋ bərav=aḥaŋ áá-ndɛɬɛŋ áá-məɗ-aj mi-dígɛl-e
perhaps heart=3S.POSS 3S+PBL-cool 3S+PBL-leave-CL NOM-think-CL

=aḥaŋ =3S.POSS

‘Perhaps his heart will cool, and he might leave behind his anger (lit. his thinking).’

(74) **Maáhəzlok 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.’

The three irrealis moods are illustrated in Table 7.9 for the high tone verb /lɔ̀/ ‘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-łɔ̀ a kɔsɔkʷɔ ava
1S+IFV-go at market in

‘I am going to the market.’

18Note 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).
### 7 The verb complex

#### Table 7.9: Mood for the verb /ḻo/ ‘go’

<table>
<thead>
<tr>
<th>2s form</th>
<th>3s form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential mood</td>
<td></td>
</tr>
<tr>
<td>[káá-l=àlà]</td>
<td>[áá-l=àlà]</td>
</tr>
<tr>
<td>2s+POT-go=to</td>
<td>3s+POT-go=to</td>
</tr>
<tr>
<td>‘You will come.’ (I am sure you will come)</td>
<td>‘He/she will come.’ (I am sure he will come)</td>
</tr>
<tr>
<td>Hortative mood</td>
<td></td>
</tr>
<tr>
<td>[kàà-l=àlá]</td>
<td>[mə̀-l=àlá]</td>
</tr>
<tr>
<td>2s+HOR-go=to</td>
<td>3s+HOR-go=to</td>
</tr>
<tr>
<td>‘You come now!’ (I want you to come)</td>
<td>‘He/she should come.’ (I want him to come)</td>
</tr>
<tr>
<td>Possible mood</td>
<td></td>
</tr>
<tr>
<td>[káà-l=àlà]</td>
<td>[áà-l=àlà]</td>
</tr>
<tr>
<td>2s+PBL-go=to</td>
<td>3s+PBL-go=to</td>
</tr>
<tr>
<td>‘I want you to come (but I am not sure if you will).’</td>
<td>‘I want him to come (but am not sure if he will).’</td>
</tr>
</tbody>
</table>

#### Table 7.10: Realis and irrealis forms of /tats/ ‘close’

<table>
<thead>
<tr>
<th>2s form</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfective</td>
<td>[kə̀-tāts-āj mahaj]</td>
</tr>
<tr>
<td>2s+PFV-close-CL door</td>
<td>‘You closed the door.’</td>
</tr>
<tr>
<td>Imperfective</td>
<td>[kə́-tāts-āj mahaj]</td>
</tr>
<tr>
<td>2s+IFV-close-CL door</td>
<td>‘You are closing the door.’/ ‘You are about to close the door.’</td>
</tr>
<tr>
<td>Potential</td>
<td>[káá-tāts-āj mahaj]</td>
</tr>
<tr>
<td>2s+POT-close-CL door</td>
<td>‘I would like you to close the door.’/ ‘You should close the door.’/ ‘You will close the door.’</td>
</tr>
<tr>
<td>Hortative</td>
<td>[kàà-tāts-āj mahaj]</td>
</tr>
<tr>
<td>2s+HOR-close-CL door</td>
<td>‘I strongly suggest you close the door.’/ ‘You should have already closed the door.’</td>
</tr>
<tr>
<td>Possible</td>
<td>[káà-tāts-āj mahaj]</td>
</tr>
<tr>
<td>2s+POT-close-CL door</td>
<td>‘You might close the door.’/ ‘I want you to close the door but I don’t know if you will.’</td>
</tr>
</tbody>
</table>
7.4 Aspect and mood

(76) Náalo a kosoko ava.
    náá-ló a kɔsɔkʷɔ ava
1s+pot-go at market in
‘I will go to the market.’

(77) Asa hay ango andava na mɛ, áarəbay.
    asa haj=ɑŋgʷɔ 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’

<table>
<thead>
<tr>
<th>Person</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>[náá-fāt-aj]</td>
<td>[má-fɔ́t-ɔkʷ]</td>
</tr>
</tbody>
</table>
1s+pot-descend-cl 1PIN+pot-descend-1PIN
‘I will go down.’
‘We will go down.’
|        | [ná-fɔ́t-ɔm] | |
1s+pot-descend-1PIN
‘We (exclusive) will go down.’ |
| 2      | [káá-fāt-aj] | [ká-fɔ́t-ɔm] |
2s+pot-descend-cl 2P+pot-descend-2P
‘I would like you to go down (you should go down).’
‘You will all go down.’ |
| 3      | [áá-fāt-aj] | [táá-fāt-aj] |
3s+pot-descend-cl 3P+pot-descend-cl
‘He/she will go down.’
‘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.
### 7 The verb complex

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

<table>
<thead>
<tr>
<th>Person</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>[nàà-fàt-aj]</td>
<td>[mà-fàt-ɔkʷ]</td>
</tr>
<tr>
<td></td>
<td>1s+HOR-descend-cl</td>
<td>1PIN+HOR-descend-1PIN</td>
</tr>
<tr>
<td></td>
<td>‘I should go down.’</td>
<td>‘I would like us (inclusive) to go down (we should go down).’</td>
</tr>
<tr>
<td></td>
<td>nà-fɔ̀t-ɔm</td>
<td>1PIN+HOR-descend-1PIN</td>
</tr>
<tr>
<td></td>
<td>‘I would like us (exclusive) to go down (we should go down).’</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Person</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>kàà-fàt-aj</td>
<td>[kàà-fɔ̀t-ɔm]</td>
</tr>
<tr>
<td></td>
<td>2s+HOR-descend-cl</td>
<td>2P+HOR-descend-2P</td>
</tr>
<tr>
<td></td>
<td>‘I would like you to go down (you should go down).’</td>
<td>‘I would like you all to go down (you should go down).’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Person</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>[màà-fàt-aj]</td>
<td>[tàà-fàt-aj]</td>
</tr>
<tr>
<td></td>
<td>3s+HOR-descend</td>
<td>3P+HOR-descend-cl</td>
</tr>
<tr>
<td></td>
<td>‘I would like him to go down (he should go down).’</td>
<td>‘I would like them to go down (they should go down).’</td>
</tr>
</tbody>
</table>

(78) **Máazəmok daf.**

[mo-ʒʊm-ɔkʷ] daf  
1PIN+IFV-eat-1P millet loaf  
‘We are eating millet loaves.’

(79) **Lomala máazəmok daf.**

l-ɔm =ala [máá-ʒʊm-ɔkʷ] daf  
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-dɔr-ɔkʷ] meher  
go[IMP]-2P =to 1PIN+HOR-pray-1PIN forehead  
‘Come; I want us to pray together.’
### 7.4 Aspect and mood

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

<table>
<thead>
<tr>
<th>Person</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>[náà-fɔ̀t-ɔm]</td>
<td>[máà-fɔ̀t-ɔm]</td>
</tr>
<tr>
<td></td>
<td>1S+PBL-descend-CL</td>
<td>1P+PBL-descend-1P</td>
</tr>
<tr>
<td></td>
<td>‘I might go down.’</td>
<td>‘We (exclusive) might go down.’</td>
</tr>
<tr>
<td>2</td>
<td>[káà-fɔ̀t-ɔm]</td>
<td>[káà-fɔ̀t-ɔm]</td>
</tr>
<tr>
<td></td>
<td>2S+PBL-descend-CL</td>
<td>2P+PBL-descend-2P</td>
</tr>
<tr>
<td></td>
<td>‘You might go down.’</td>
<td>‘You might all go down.’</td>
</tr>
<tr>
<td>3</td>
<td>[táà-fɔ̀t-ɔm]</td>
<td>[táà-fɔ̀t-ɔm]</td>
</tr>
<tr>
<td></td>
<td>3S+PBL-descend-CL</td>
<td>3P+PBL-descend-3P</td>
</tr>
<tr>
<td></td>
<td>‘He/she might go down.’</td>
<td>‘They might go down.’</td>
</tr>
</tbody>
</table>

Table 7.14 (from Friesen & Mamalis 2008) shows the second and third person forms of a verb from each of the tone classes (H, L, toneless) in irrealis and realis moods.

Verb forms in irrealis mood occur in Moloko discourse to express events that might occur. In the Cicada text, some young men go out to bring back a tree that was desired by their chief. The men try but can’t bring home the tree (which constitutes contrastive relief for the cicada’s success in the end). A negative modal statement relates the unsuccessful attempt by the young men (81, from S.14). The lengthened subject prefix characterising irrealis mood is bolded in (81).

(81) Cicada, S. 16

Albaya ahay tolo amazala agwazla na, taazala tɔta bay.

albaja=ahaj tɔ-lo ama-z=ala ag”ala na tɔta-zad=ala

young man=Pl 3P-go DEP-take=to spp. of tree PSP 3P+HOR-take=to

tɔta baj

ability NEG

‘The young men left to bring back the tree; [but] they were not able to bring [it].’
Table 7.14: Tone of realis and irrealis verb forms

<table>
<thead>
<tr>
<th>Underlying tone</th>
<th>Realis</th>
<th>Irrealis</th>
<th>Potential</th>
<th>Hortative</th>
<th>Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Imperfective tone</td>
<td>Perfective tone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2s form</td>
<td>[ká-nzák-äj]</td>
<td>[ká-nzák-äj]</td>
<td>[káá-nzák-äj]</td>
<td>[káá-nzák-äj]</td>
<td>[káá-nzák-äj]</td>
</tr>
<tr>
<td></td>
<td>‘you find’</td>
<td>‘you found’</td>
<td>‘I would like you to find’</td>
<td>‘you should find’</td>
<td>‘you might find’</td>
</tr>
<tr>
<td>3s form</td>
<td>[á-nzák-äj]</td>
<td>[á-nzák-äj]</td>
<td>[áá-nzák-äj]</td>
<td>[má-nzák-äj]</td>
<td>[máá-nzák-äj]</td>
</tr>
<tr>
<td></td>
<td>‘he finds’</td>
<td>‘he found’</td>
<td>‘I would like him to find’</td>
<td>‘he should find’</td>
<td>‘he might find’</td>
</tr>
<tr>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2s form</td>
<td>[ká-táts-äj]</td>
<td>[ká-táts-äj]</td>
<td>[káá-táts-äj]</td>
<td>[káá-táts-äj]</td>
<td>[káá-táts-äj]</td>
</tr>
<tr>
<td></td>
<td>‘you close’</td>
<td>‘you closed’</td>
<td>‘I would like you to close’</td>
<td>‘you should close’</td>
<td>‘you might close’</td>
</tr>
<tr>
<td>3s form</td>
<td>[áá-táts-äj]</td>
<td>[á-táts-äj]</td>
<td>[á-táts-äj]</td>
<td>[má-táts-äj]</td>
<td>[má-táts-äj]</td>
</tr>
<tr>
<td></td>
<td>‘he closes’</td>
<td>‘he closed’</td>
<td>‘I would like him to close’</td>
<td>‘he should close’</td>
<td>‘he might close’</td>
</tr>
<tr>
<td>toneless</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2s form</td>
<td>[ká-ğáw-äj]</td>
<td>[ká-ğáw-äj]</td>
<td>[káá-ğáw-äj]</td>
<td>[káá-ğáw-äj]</td>
<td>[káá-ğáw-äj]</td>
</tr>
<tr>
<td></td>
<td>‘you fear’</td>
<td>‘you feared’</td>
<td>‘I would like you to fear’</td>
<td>‘you should fear’</td>
<td>‘you might fear’</td>
</tr>
<tr>
<td>3s form</td>
<td>[á-ğáw-äj]</td>
<td>[á-ğáw-äj]</td>
<td>[áá-ğáw-äj]</td>
<td>[má-ğáw-äj]</td>
<td>[máá-ğáw-äj]</td>
</tr>
<tr>
<td></td>
<td>‘he fears’</td>
<td>‘he feared’</td>
<td>‘I would like him to fear’</td>
<td>‘he should fear’</td>
<td>‘he might fear’</td>
</tr>
</tbody>
</table>
Also, dependent complement clauses represent things that were still future relative to the time of particular events on the event line (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 \textit{aməhaya} na, kázaɗ war élé háy bəlen.
\begin{verbatim}
asà à-s=ɔkʷ \textit{amə-h=aja} na ká-záɗ \textit{war élɛ}
\end{verbatim}
if \textit{3S+PFV-please=2S.IO DEP+PFV-grind=PLU PSP 2S+IFV-take child eye}
\scriptsize{haj bilɛŋ millet one}
‘If you want to grind, you take only one grain.’

(83) Cicada, S. 7
Agasaka na ka mahay ango aka \textit{aməmbese}.
\begin{verbatim}
a-gas=aka na ka mahaj=āŋgʷɔ aka \textit{amɪ-mɛʃ-ɛ}
\end{verbatim}
\textit{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$^{19}$ presents the actor(s) performing an action repeatedly as their usual habit. This aspect is formed by the gemination of the onset of the final syllable of the verb word.$^{20}$ 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 \textit{tóllo} a ləhe.
\begin{verbatim}
kafta kɔsɔkʷɔ ḥaba na Mʊlɔkʷɔ anga eɛŋ=ahaj tɔ̃-llɔ\textit{3p+IFV-go+itr at}
ləhe bush
‘Each Sunday (the market of Dogba), some Molokos go to [work] their fields.’
\end{verbatim}

$^{19}$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 \textit{=aya} or \textit{=əya}, see Section 7.5.2).

$^{20}$There are no examples in the corpus with verbal extensions.
In a CC root with no suffix, the first C of the stem is doubled (85–86).

(85) Tətərak ango nehe na, káfɛd ele ango a mogom waya azaf merkwe bay
tətərak=angʷ  nehe na  ká-ffɛd  ele=angʷ  a  mogʷ  om
shoes=2S.PSSP here PSP 2S+IFV-put+ITR thing=2S.PSSP at home
‘Your shoes there, you should put them on (habitually, repeatedly, day after day) at home,’
waja à-zàd  mɛrkʷɛ baj
because 3S+PFV-take travel  NEG
‘because you can’t travel with them.’ (lit. it doesn’t take travel)

The fact that the reduplicated consonant is on the onset of the final syllable of
the verb word (and not a particular consonant in the verb root) is illustrated by
(86) and (87), which show the same verb /z m⁰/ in the 2s and 2P forms. The 2P
form has an extra syllable in the verb word because of the 2P subject pronominal
suffix. In the 2s form, the reduplicated consonant is z – the first consonant of the
root. In the 2P form, the reduplicated consonant is m – the second consonant of
the root. However in both cases, the reduplicated consonant is the consonant at
the onset of the final syllable in the verb word.

(86) A məjəvoko ava na, kózzom daf.
a  mʊdzʊvɔkʷ  a va na  kó-zzum  daf
at feast  in  PSP 2S+IFV-eat+ITR millet loaf
‘During a feast, you eat repeatedly (many times at many people’s houses).’

(87) A məjəvoko ava na, kózəmmom daf.
a  mʊdzʊvɔkʷ  a va na  kó-zóm-om  daf
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 téssé gəzom.
kɔsɔkʷ  molom na  ndam  pəra=ahaj té-fʃ-ɛ  gʊzɔm
market  home  PSP  person  idol=Pl  3P+IFV-drink+ITR-CL beer
‘On market day, the traditionalists drink millet beer (many people, much
beer).’
7.5 Verbal extensions

(89) **Adarray** eteme waya gəvah gam.

\[\text{à-dārr-āj} \quad \text{etemē waja} \quad \text{gəvax gam}\]

\[3s+\text{PFV-plant}+\text{ITR-CL} \quad \text{onion because field \ lots}\]

‘He/she planted many onions because his field was large.’

7.4.5 Intermittent iterative

The intermittent iterative\(^{21}\) expresses the idea of the intermittent repetition of the same action, possibly by the same actor, over a period of time.\(^ {22}\) The intermittent iterative is formed by complete reduplication of the verb. Example (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.**

\[\text{andəbaba=}\text{aŋgʷɔ} \quad [a-mət \ a-mat]\]

\[\text{duck=}2s.\text{poss} \quad 3s-\text{die} \quad 3s-\text{die}\]

‘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.

(91) **A kosoko ava na, nəskwəmom nəskwəmom ala.**

\[\text{a} \quad \text{kosokʷɔ \ ava \ na} \quad [\text{nʊ-sʊkʷʊm-om} \text{ nʊ-sʊkʷʊm-om=}\text{ala}]\]

\[\text{at \ market \ in} \quad \text{PS} \quad 1s-\text{buy-1PEx} \quad 1s-\text{buy-1PEx} \quad =\text{to}\]

‘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.

\(^{21}\) Friesen & Mamalis (2008) called this aspect simply "iterative."

\(^{22}\) 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).
The verb stem and the extensions may be separated syntactically by the indirect object pronominal clitics and third person do pronouns (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’) 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: =aka ‘on, on top of’ and =ava ‘in.’ These extensions give the verb an added sense of the location of the action in the discourse. The extension =aka ‘on, on top of’ (92) resembles the second element of the adposition kə…aka ‘on.’ In like manner, =ava ‘in’ (93) resembles the adposition a...ava ‘in’ (see Section 5.6.2). The corresponding adpositional phrases often co-occur with the adpositionals. In the examples, the adpositions and adpositionals are bolded.

(92)  
Afəɗaka war élé háy na, kə ver aka.
   a-fəɗ=aka war élé haj na kə ver aka
   3s-place=on child eye millet PSP on stone on
   ‘She put the grain of millet on the grinding stone.’

(93)  
Məmətava alay a ver ava.
   mə-mət=ava=alaj a ver ava
   nom-die=in=away at room in
   ‘She died in the room.’

Adpositional extensions are phonological enclitics at the right edge of the verb. Friesen & Mamalis (2008) showed them to be phonologically bound to the verb stem because the /-j/ suffix drops off when the clitic attaches (95) (see also Section 6.3). Compare (94) and (95) which illustrate the verb /g -jɛ/ ‘do.’ Note that the

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23 These locational extensions are the same as the locational clitics on adpositional phrases; see Section 5.6.2.

24 Friesen & Mamalis (2008) called these “locationals.”

25 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).
/-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 palatation of the verb stem is neutralised by the extension. There is no adpositional extension and the verb word is palatalised in (94), whereas in (95) the locational extension =aka has neutralised the prosody of the entire verb complex.

(94) Tege cəɗoy.
   tɛ-g-ɛ tɔɗɔj
   3p-do-cl trick
   ‘They played a trick.’ (lit. they did trick)

(95) Tagaka cəɗoy.
   ta-g=aka tɔɗɔj
   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. When the extension =va cliticises to the verb /r h/ ‘fill,’ word-final alterations of /h/ do not occur (96). These allophones would be expected if the verb stem and Perfect extension were separate words.

(96) Arahva pɛɗɛɗe.
   à-rah=va pɛɗɛɗe
   3s+PFV-fill=PRF ID:full
   ‘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.10 =on
   ‘You are better than me.’ (lit. you sit on me)
7 The verb complex

(98)  Nədozlom ava a ɓaɗeɗ ava nə məzə.
[ŋə-byə-əm]  [=ava] a ɓaɗeɗ ava nə məzə
1S+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.
dar=ala
move[2S.imp]=to
‘Come closer (to me).’

(100)  Dəraka ala.
dar=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-please=2s.1o =on Ə
‘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)  Ambadaŋ aka.
a-mbaɗ=aŋ =aka
3s-change=3s.1o =on
‘He/she replied.’ (lit. he changed to him on)
7.5 Verbal extensions

7.5.2 Directionals

Friesen & Mamalis (2008) 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-zad=aka=ala hʷɔr ɛʃɛ
2s-take=on=to woman again
‘You take another wife’ (on top of the one you already have).26 (lit. you take a wife on again)

(104) Təjapata aka ala ana Məloko enen ahay.
tə-dzap=ata =aka=ala ana Mɔłkʷə ɛnɛ=ahaj
3p-group=3s.10 =on=to DAT Moloko another=Pl
‘They grouped together again against some of the Molokos.’ (point of reference is the Molokos)

(105) Daraka alay.
dər=aka=alaj
move[2s.IMP]=on=away
‘Move further away (from me).’

(106) Race story27
Moktonok na, abək ta aya va məlama ahan ahay jəyga.
mɔkʷtɔnɔkʷ na a-bək ta=aja=va məlama=ahan=ahaj dzijga
toad PSP 3s-invite 3P=PLU=PRF brothers=3P.POSS=Pl all
‘The toad, he had already invited all of his brothers.’ (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].

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26The root-final d of the verb zad ‘take’ drops off when affixes and clitics are added (Section 6.2).
27Friesen 2003.
7 The verb complex

(107) Anjala.
   a-nz=ala
   3S-go=to
   'He/she is coming.'

Directional extensions orient the event expressed by the verb relative to a centre of reference. In speech, that point of reference is usually the speaker, so actions are seen as going towards the speaker (=ala), away from the speaker (=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) Nəskomala awak.
   nə-səkʷɔm=ala awak
   1S+PFV-buy/sell=to goat
   'I bought a goat.'

(109) Nəskomalay awak.
   nə-səkʷɔm=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 d/ 'take' (112 and 113). In each example pair, the first shows an action towards the speaker and the second shows an action away from the speaker.

(110) Dərala.
   dər=ala
   move[2S.IMP]=to
   'Come closer (to me).'</n
(111) Dəralay.
   dər=alaj
   move[2S.IMP]=away
   'Move away (from me).'
7.5 Verbal extensions

(112) Zala eteme.
    zad=ala  eteme
    take[2S.IMP]=to onion
    ‘Bring the onion (to me).’

(113) Zalay eteme.
    zad=alaj  eteme
    take[2S.IMP]=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. 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. Example (106) above involves the subject going from person to person to invite them to help.

(114) Zar asəya memele.
    zar  a-s=ija  memele
    man 3s-saw=PLU tree
    ‘The man saws the tree.’

(115) Aban ahaya háy.
    Aban  a-h=aja  haj
    Abang 3s-grind=PLU millet
    ‘Abang grinds millet.’

Directionals are a device used in Moloko discourse to help provide cohesion. 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

28 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.

29 Other discourse devices which function in cohesion include demonstratives (Section 3.2), the adjectiviser ga (Section 5.3), the presupposition marker na (Chapter 11), and participant tracking (Section 7.3).
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 millet beer). 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 təŋalaala ma ana bahay.
aldo=ahaj ndana kileŋ təŋala=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 təmnjar na ala mama agwazla ndəye.
təlo=ahaj təmnzar na=ala mama agʷala ndəye
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 amazala agwazla na, təaza təta bay.
lileŋ albaja=ahaj təlo ama-z=ala agʷala 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];'
tənza=ala təta baj
3P+HOR-take=to ability NEG
'but they were not able to bring it [to him].'

(119) Cicada, S. 30
Amagala lames.
amag=ala limɛʃ
DEP-do=to song
'He was singing towards [the chief’s house].’ (lit. to do towards a song)

(120) Cicada, S. 31
Sen ala.
ʃɛn=ala
ID:go=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 m⁰/ 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) Nəzəmala toho.
    nə̀-zəm=ala təhʷə
    1s+pfv-eat=to dem
    ‘I already ate over there (some other person’s house – before I arrived here).’

(122) Nəzəmvə pew.
    nə̀-zəm=va pəw
    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-səkʷəm 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.
7 The verb complex

(124) Tawəy, “Ambəɗə vaanga ləme.”
  tawij  à-mbəɗ=va  anγa 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  nængɛhe  asa-baj
  1S+PFV-know medicine thing DEM again-NEG
  ‘I didn’t know how to resolve the problem,’
  waya nəlva afa sowpərefe.
  waja nə-l=va  afa  suwpɨrefɛ
  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  mɪʒɪm-ɛ
  3P  PSP 3P+PFV-find=PRF thing NOM-eat-CL
  ‘And so they had found something to eat.’

(127) Arahəva pedɛde.
  à-rah=va  pedɛde
  3S+PFV-fill=PRF ID:full
  ‘It had filled right to the rim.’

(128) Nəzəmwə.
  nə-zəm=va
  1S+PFV-eat=PRF
  ‘I already ate.’

Unlike the other extensions, the Perfect enclitic has two possible positions in the verb phrase. It can either be phonologically bound to the right edge of the verbal complex (see Section 7.1) or to the right edge of the clause (Chapter 8) after the direct object and adpositional. 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.
7.5 Verbal extensions

(129) Disobedient Girl, S. 17
Azlana, hor na, asərkala afa təta va na,
aɫəna hʷɔr na ã-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 palatalisation of the verb stem (compare 130–131 where the stem is /s-ʃə/). Also, verb stems drop their /-ʃə/ 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. When the verb carries the Perfect extension (131), the stem loses its palatalisation.

(130) Nese gəzom.
nɛ̀-ʃ-ɛ guzəm
1S+PFV-drink-CL millet beer
‘I drank millet beer.’

(131) Nasava gəzom.
nà-sa=va guzəm
1S+PFV-drink=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-sa guzəm=va
1S+PFV-drink millet beer=PRF
‘I drank millet beer already.’

Likewise (133) illustrates the loss of palatalisation from the root /g-ʃə/ ‘do’ when the Perfect is added.
7 The verb complex

(133) Ləho aga.
  lʊhʷɔ à-ga=va
late afternoon 3S+PFV-do=PRF
'It is the cool of the day (after three o’clock).’ (lit. late afternoon has done)

Bow (1997c) established that the Perfect extension\(^{30}\) 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 [hāj] ‘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-bál-áj háj]
1S+IFV-wash-CL millet
'I wash the millet.’

(135) Nəbalva háy.
  [nə̄-bál=vá háj]
1S+PFV-wash=PRF millet
'I washed the millet already.’

(136) Nə́daray háy.
  [nə́-dàr-āj háj]
1S+IFV-plant-CL millet
'I plant the millet.’

(137) Nədarva háy.
  [nə̀-dàr=vā háj]
1S+PFV-plant=PRF millet
'I planted the millet already.’

The Perfect extension can mark information in a relative clause (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).

\(^{30}\)Bow (1997c) called it an aspect or tense marker.
7.5 Verbal extensions

(138) War élé háy ngəndəye nok ameze na va, bəlen ngəndəye na, war élé haj ngəndijɛ [nɔkʷ ame-ʒɛɗ-ɛ na=va] bïlen ngəndijɛ na child eye millet DEM 2S DEP-take-CL 3S.DO=PRF one DEM PSP
‘That grain that you have taken, that one [grain],’

káahaya kɔ ver aka.
káá-h=aja kɔ ver aka
2S+POT-grind=PLU on grinding stone on
‘grind it on the grinding stone.’

When the Perfect co-occurs with Perfective aspect (124–129, 135, 137), it indicates that the event expressed by the verb took place before the point of reference established in the discourse. When the Perfect co-occurs with Imperfective aspect (139–142), the verb is resultative, referring to an ongoing state that is the result of a previous completed event (filling, becoming tired, ripening, or becoming angry).

(139) Árahəva.
á-ráh=va
3S+IFV-fill=PRF
‘It is full.’

(140) Mana áyəɗəva.
Mana á-jəɗ=va
Mana 3S-tire=PRF
‘Mana is tired.’

(141) Háy ánahəva.
haj á-nah=va
millet 3S-ripen=PRF
‘The millet is ripe.’

(142) Disobedient Girl, S. 33
Moloko ahay tawəy, “Hərməlom ága bərav va
molɔ̄=ahaj tawij Hərməlom á-ga bərav=va
Moloko=Pl 3P+said God 3S+IFV-do heart=PRF
‘The Molokos say, “God got angry’
7 The verb complex

kəwaya war dalay na, amecen sləmay bay ngəndaye.”
kuwaja war dalaj na amɛ-tʃɛŋ ɬəmaj 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 occur prior to the events on the main story line, and which supply flashback information to the story. For example, in the setting of the Disobedient Girl story (S. 2), the Perfect marks God giving his blessing to the people. This blessing preceded the events of the story (143) and had an ongoing effect at the time of the story.

(143) Disobedient Girl, S. 3
Zlezle na, Məloko ahay na, 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 reader/hearer for what will happen next in the story. In the body of another fable (the race between the giraffe and the toad, Friesen 2003), the Perfect marks a flashback to a prior action of the toad.

(144) Macəkəmbay moktonok na, abək ta aya va
matsəkəmbaj məkw′tənjək′ 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=ahaj=ahaj dzijga
brother=3S.poss=Pl all
‘all of his brothers.’
7.6 Nominalised verb form

The nominalised verb form\(^{31}\) is derived from a verb stem by the addition of the prefix /m-/ plus a palatalised suffix [-ɛ].\(^{32}\) 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/ [mr-hm-ɛ]
     ‘run’ ‘race’

(146) /tʃafɛ/ [mr- tʃɛf-ɛ]
     ‘betray’ ‘betrayal’

(147) /r b-j/ [mr-rbɛ-ɛ]
     ‘be beautiful’ ‘beauty’

(148) /ndaɬ-jɛ/ [mr-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/ [mr-dʒ-ijɛ]
     ‘say’ ‘saying’

(150) /s-jɛ/ [mr-ʃ-ijɛ]
     ‘drink’ ‘drinking’

(151) /lɔ/ [mr-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 [mr-] is the prefix for verb stems with no a- prefix.

\(^{31}\)Friesen & Mamalis (2008) called this form the ‘infinitive.’

\(^{32}\)There is also an irregular nominalisation process that has already been discussed (Section 4.2).
7 The verb complex

(152) /a-d a r–aj/ [mɛ̄-dɛ̄r-ɛ̄] ‘plant’ ‘planting’

(153) /a-d l/ [mɛ̄-dil-ɛ̄] ‘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>
<thead>
<tr>
<th>Tone class</th>
<th>Underlying form</th>
<th>Nominalised form</th>
<th>Imperative</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>High tone verb stems</td>
<td>/nz a k-j /</td>
<td>[mɪ́-nʒɛ̀k-ɛ̀]</td>
<td>[nzák-áj]</td>
<td>‘find’</td>
</tr>
<tr>
<td></td>
<td>/ z m o /</td>
<td>[mɪ́-ʒùm-ɛ̀]</td>
<td>[zám]</td>
<td>‘eat’</td>
</tr>
<tr>
<td>Low tone verb stems</td>
<td>/f d /</td>
<td>[mɪ̄-fɪ̄ɗ-ɛ̄]</td>
<td>[fāɗ]</td>
<td>‘put’</td>
</tr>
<tr>
<td>without depressor consonants</td>
<td>/tats-j /</td>
<td>[mɪ̄-tētʃ-ɛ̄]</td>
<td>[tāts-áj]</td>
<td>‘close’</td>
</tr>
<tr>
<td>Low tone verb stems</td>
<td>/v h n-j /</td>
<td>[mɪ̄-vɪ́hɪ̄n-ɛ̄]</td>
<td>[və̀hə̀n-āj]</td>
<td>‘vomit’</td>
</tr>
<tr>
<td>with depressor consonants</td>
<td>/a-dar-j /</td>
<td>[mɛ̄-dɛ̄r-ɛ̄]</td>
<td>[dàr-āj]</td>
<td>‘plant’</td>
</tr>
<tr>
<td>Toneless verb stems</td>
<td>/d d /</td>
<td>[mɪ̀-dɪ́ɗ-ɛ̄]</td>
<td>[dàɗ]</td>
<td>‘fall’</td>
</tr>
<tr>
<td></td>
<td>/nd z /</td>
<td>[mɪ́-ndɛ́ʒ-ɛ̀]</td>
<td>[ndàz]</td>
<td>‘pierce’</td>
</tr>
</tbody>
</table>

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?
[mi-hɪm-ɛ=alɔkʷɔ nom-run-cl=1Pin.poss psp when] epelej
‘When is our race?’ (lit. our running [is] when)
7.6 Nominalised verb form

(155) Disobedient Girl, S. 4
Ávata [məvəye hada].
á-v=ata [mr-v-ijective hada]
3s+spend time=3p.1o nom-spend time-cl many
‘It would last them the whole year.’ (lit. it will spend time for them many
time-spending)

(156) Ege [məvəye məko] ehe, nawas háy əwlə.
ɛ-g-ɛ [mr-v-ijective mʊkʷɔ] ehe na-was haj=uwla
3s-do-cl nom-spend time-cl six here 1s-cultivate millet=1s.poss
‘Six years ago (lit. it did six years), I cultivated my millet.’

(157) [Medəre nehe na], səlom ga.
[me-dɪr-ɛ nehe na] səlom ga
nom-plant-cl dem psp goodness adj
‘This planting is good.’

Adjectives can be further derived from a nominalised verb form by adding
[263]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 [andəra məngɛlɗe ga].
na-d=ɔkʷ [andəra mi-ngɛlɗ-ɛ ga]
1s-prepare=2s.1o peanut nom-grind-cl adj
‘I made peanut butter (lit. ground peanuts) for you.’

(159) Avəlaw [war dalay marəbe ga].
a-v=əl=aw [war dalaj mr-riɓ-ɛ ga]
3s-give=1s.1o child female nom-be beautiful-cl adj
‘He/she gave me a beautiful girl.’

(160) Ndahan [mənʒəye ga].
ndahaŋ [mr-nʒ-ijective ga]
3s nom-sit-cl adj
‘He/she [is] seated.’

33 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 məŋɔlde ga
     andəra mɪ-ŋgɪlɗ-ɛ ga
     peanut NOM-grind-CL ADJ
     ‘ground peanuts’

(163) məŋjɔye a Mana
     mɪ-nʒ-ijɛ a Mana
     NOM-sit-CL GEN Mana
     ‘Mana’s behaviour’ (lit. the sitting of Mana)

(164) məhɔme 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). Examples (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).
7.6 Nominalised verb form

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

ndahan ŋah ma-ŋəh=ata=aka=va jam a ver=ahan av
3s hide NOM-hide=3P.IO=ON=PRF water in room=3S.POSS in
‘He had hidden the water in his room’ (lit. he hide-hiding water in his room)

(166) Məmətava alay a ver ava.

mə-mət=ava=alaj a ver ava
NOM-die=in=away in room in
‘[She] died in the room.’

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 na maskwəme ‘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) Away, “Nəskom na maskwəme.”

awij no-sʊkʷom na mi-sʊkʷəm-ɛ
said 1s-buy with NOM-buy-CL
‘He said, ‘I actually bought it.’” (lit. I bought it with buying)

(168) Káslay awak na məsləye.

ká-ɬ-aj awak nə mi-ɬ-ɪɛ
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 na məkəɗe. Káslay bay.

ká-kəɗ ɔkfom nə mi-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.’
7 The verb complex

(170) Kándaz na mändazə awak anGa pəra.
     ká-ndaz na m-ndʒ-ɛ awak anGa pəra
     2s+IFV-kill(pierce) with NOM-kill(pierce)-CL goat poss idol
‘You kill a goat for the idols by piercing it (you don’t cut its throat).’ (lit. you kill with killing a goat that belongs to an idol)

7.7 Dependent verb forms

A dependent verb form is formed by prefixing \textit{am-} to the verb stem, palatalisation, and the suffix -e (or -aye for verb roots of one syllable). Historically, this construction may involve the nominalised form (see Section 7.6) preceded by the preposition \textit{a} ‘to.’\textsuperscript{34} 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

<table>
<thead>
<tr>
<th>Underlying form</th>
<th>Gloss</th>
<th>3s form</th>
<th>Nominalised form</th>
<th>Dependent form</th>
</tr>
</thead>
<tbody>
<tr>
<td>/h m-j/</td>
<td>‘run’</td>
<td>a-həm-ay mə-həm-e</td>
<td>amə-həm-e</td>
<td></td>
</tr>
<tr>
<td>/ d-j\textsuperscript{e}</td>
<td>‘prepare’</td>
<td>e-d-e</td>
<td>mə-d-əye</td>
<td>amə-d-əye</td>
</tr>
<tr>
<td>/s kʷ m/</td>
<td>‘buy’/’sell’</td>
<td>a-səkom mə-skəm-e</td>
<td>amə-skəm-e\textsuperscript{a}</td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{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 \textit{Ø} in 171, 173, and 174) or a pronoun within the dependent clause indicating subject (172–176). 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.

\textsuperscript{34}Crosslinguistic studies reveal that locatives can give rise to Imperfectives (Comrie 1976: 103; Bybee, Perkins & Pagliuca 1994: 142; Heine & Kuteva 2002: 99).
7.7 Dependent verb forms

<table>
<thead>
<tr>
<th>(subject)</th>
<th>Dependent verb plus</th>
<th>(direct object)</th>
<th>(oblique adpositional phrase)</th>
<th>(adverb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>pronoun</td>
<td>extensions expressing event</td>
<td>noun phrase</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 ngendaye
war  dalaj ga  ngɛndiɛ
child girl  ADJ DEM
‘that young woman ’

[amazata aka ala avya nengehe ana mɛze ahay na.]
[Ø ama-z=ata=aka=ala avija nɛŋgehɛ ana mɪʒɛ=ahaj na]
\[
\text{DEP-carry}=3\text{P.IO}=on=to \text{suffering DEM}\quad \text{DAT person=Pl Shrine}
\]
‘that had brought this suffering to the people.’

(172) Tasan oko ana hay [ata aməgəye na va].
ta-s-aŋ  ɔkʷɔ ana haj=[atəta  am-ɡ-ɪɛ  na=va]
\[
\text{3P-cut}=3\text{S.DO fire} \quad \text{DAT house }=3\text{P.POSS DEP-do-CL 3S.DO=PRF}
\]
‘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.
7 The verb complex

(173) [Aməhaya həmbo na], anday asakala wəsekeke.
[Ø amə-h=aja həmbo na] a-ndaj a-sak =ala wəʃekə]
  dep-grind=plu flour PSP 3s-prg 3s-multiply =to ID:multiply
  ‘While [she] was grinding the flour, [the millet] was multiplying
  washekeke.’

(174) Cicada, S. 16
Kəlen albaya ahay tolo [amazala agwazla na].
kɪlɛŋ then albaja=ahaj tɔ-ɔ [Ø ama-z=ala agʷalɔ 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=əŋ [Ø ama-d=ata=aka=va azan]
  3s-please=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 [aɬame aməzəɬe va].
mə-kəɗ va aɬa ta-ʃ=əŋ [aɬame amr-ʃɪg-e va]
nom-kill body now 3p-begin=3s.io 1pex.poss dep-plant-CL body
  ‘Combat now, they began to fight with us.’ (lit. killing body now, they
  started it, our planting bodies)
8 Verb phrase

The verb phrase is the third of four chapters that concern the Moloko verb. Chapter 6 explores the structural features of the verb root and stem. Chapter 7 discusses what we have called the verb complex, which is a phonological unit consisting of the verb stem plus the pronominal affixes and enclitics, aspect/mood markings, and verbal extensions. These components are closely phonologically bound even though they may comprise from one to three phonological words. The chapter also covers derived forms. Chapter 9 describes verb types and transitivity. Moloko has a flexible valence system which allows variations in the transitivity of a given verb with no morphological marking. This chapter1 concerns the structure and functions of the verb phrase. Section 8.1 concerns 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.

<table>
<thead>
<tr>
<th>(Auxiliary)</th>
<th>Verb complex</th>
<th>(Noun phrase or ‘body-part’)</th>
<th>(Adpositional phrases)</th>
<th>(Adverb)</th>
<th>(Ideophone or negative)</th>
</tr>
</thead>
</table>

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

1This chapter is adapted from Friesen & Mamalis (2008).
8 Verb phrase

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 wəshekeke].
   həmbo ga [a-ndaj a-sak ele=ahaj wupekeke]
flour ADJ 3S-PRG 3S-multiply thing=3S.Poss ID:multiply
‘The flour was multiplying all by itself (lit. its things), wəshekeke.’

(2) [Tandalay talala təzəgə va ana Məloko ahay].
   [ta-nd=alaj ta-l=ala tə-ʒəg-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 delmete aka a ɬam enɛŋ]
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 1s+ifv-carry at head in without help]
‘I can carry it on my head myself!’

(5) [Nəvəlan yam ana Mana zayəxha].
   [nə-va=əŋ jəm ana Mana zəx=xə]
1S+PFV-give=3S.IO water DAT Mana care=ADV
‘I gave water to Mana carefully.’

(6) [Azəgalay a vəlo zor].
   [a-ʒəg =alaj a vəlo zor]
3S-throw =away at above ID:throwing
‘She threw [the pestle] up high, zor.’

Radford (1981: 69) gives diagnostic criteria for determining whether a given string of words is a sentence constituent or not. Following these criteria, all of the above elements are part of the verb phrase as a constituent of the clause. The elements of the verb phrase behave distributionally as a single structural unit that does not permit intrusion of parenthetical elements internally, but rather only
at the boundaries. For Moloko, the distribution of adverbs, emphatic interrogative pronouns, ideophones, the Perfect enclitic, and the manner of fronting all attest to the unity of the verb phrase as described above. Only the presupposition marker can intrude into the verb phrase, and only in a particular construction. Each of these factors is discussed below.

Some temporal adverbs (bolded in 7–8) can occur first in the clause or last in the verb phrase, but not in the interior of the verb phrase. Likewise, emphatic interrogative pronouns (bolded in 9) occur first or last in the clause (see Section 10.3.5).

(7) **Egõne** [nóło a kosoko ava].
    **egõne** [nó-ł a kɔʊkʷɔ ava]
    today 1S+IFV-go at market in
    ‘Today I will go to the market.’

(8) [Nólo a kosoko ava **egõne**].
    [nó-ł a kɔʊkʷɔ ava **egõne**]
    1S+IFV-go at market in today
    ‘I will go to the market today.’

(9) **Wa** [amazaw ala agwazla ana ne na] way?
    **wa** [ama-z=aw =ala agʷa=kə ana ne na] **waj**
    who dep-take=1S.1O =to spp. of tree DAT 1S PSP who
    ‘Who can I find to bring me this tree?’

Idiophones 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 idiophones are italicised in the examples.

(10) Snake, S. 13
    **Kalaw** [nazala ezlere əwla].
    **kaluw** [nà-z=ala ɛkẹrẹ=uwla]
    ID:take quickly 1S+PFV-take=to spear=1S.POSS
    ‘I quickly took my spear.’

---

2Note that an ideophone that is first in the clause is sometimes delimited by *na* (19).

3When the ideophone is first in the verb phrase it necessitates the nominalised form of the verb
   Section 8.2.3.
8 Verb phrase

(11) Cicada, S. 15
Ndahan [gədok mədəye ɡəzəm].
ndahan [gədokʷ m-d-iə ɡəzəm ]
3s id:prepare beer nom:prepare-cl beer
‘He gədok made millet beer.’

(12) Snake, S. 5
[Acar a hay kəre ava fo fo fo].
[à-tsər a həj kɪrɛ ava fo fo fo]
3s+pfv-climb at house beams in id:sound 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 deftəɾe aka].
[tà-h=atə na=va kə deftəɾe 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 Hərməɔlɔm [ázata aka barka ahan va].
waja ndana Hərməɔlɔm [á-z=atə=aka barka=ahan=va]
because dem God 3s+ifv-take=3p.io=on blessing=3s.poss=prf
‘Because of that, God had taken back his blessing from them.’

(15) Baba ango [avəlata nok va a ahar ata ava].
baba=angʷɔ [a-va=atə nokʷ =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].’
8.1 Verb phrase constituents

(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 of . . .’

Only certain elements in the verb phrase can be fronted in the clause and marked with the presupposition marker na (see Section 11.2 for the explanation of this construction). The fact that some elements cannot be fronted indicates that they are closely bound to the verb phrase structure. These elements include the ‘body-part’ incorporated noun (cf. Section 9.3), the negative (see Section 10.2.1), and adverbs which are bound to the negative. Some of these elements are from the far right edge of the verb phrase. The elements that may be fronted are underlined in (17–19) and include direct object and oblique (17), derived adverb (18), indirect object and ideophone (19).

(17) Values, S. 13
A məsəyon ava na ele ahay aməwəsle na, [tége bay].
a mʊsijɔŋ ava na əle =ahaj ami-wuɬ-e na [tɛ-gɛ 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
Pepenna na, [takaɗ sla].
pepɛŋ =ŋa na [tà-kad ɬa]
long ago =ADV PSP 3P+PFV-kill cow
‘Long ago, they killed cows.’

(19) Values, S. 3
Səwat na, təta a məsəyon na ava nəndəye na,
suwat na təta a mʊsijɔŋ na ava nndiʃɛ na
ID:disperse 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] ej əle nehe na kə-gʷ-əm 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!”’

261
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) where 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. *Na* does not intrude into any other position. In each of (20–22), the penultimate placing of *na* (bolded) 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*,
ækəna hʷor *na* [ə-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’
[aməhayə həya *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 agʷağa ava a ɪhe *na* malan ga *na*
mother spp. of tree EXT at bush PSP large ADJ PSP
‘There is a mother-tree in the bush, a big one,’
[agasaka *na* ka mahay ango aka] amambese.
[ə-gas=ağa *na* ka mahaj=angʷo aka] âmí-mbeʃ-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].’
8.2 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.

\(^4\)These criteria for verb auxiliaries are given by Payne (1997: 84).
8 Verb phrase

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 \textit{nday} ‘to be’ (see Section 9.2.1) plus the main verb (23–25). The auxiliary \textit{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 \textbf{[anday ége slrele]}.
\hspace{1cm} Mala \textbf{[a-ndaj ē-g-ɛ \textit{lrele}]} \\
\hspace{1cm} Mala 3S-PRG 3S+IFV-do-CL work \\
\hspace{1cm} ‘Mala is working (in the process of doing work).’

(24) Mana \textbf{[anday òlo a kosoko ava]}.
\hspace{1cm} Mana \textbf{[a-ndaj ɔ-3lo a kɔsɔkʷɔ ava]} \\
\hspace{1cm} Mana 3S-PRG 3S+IFV-go at market in \\
\hspace{1cm} ‘Mana is going to the market.’ (lit. he is currently at going to the market)

(25) Apazan nanjakay nok, \textbf{[kanday kəhaya háy]}.
\hspace{1cm} apazan 1S+PFV-find-CL 2S 2S-PRG 2S+PFV-grind=PLU millet \\
\hspace{1cm} ‘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), \textit{nday} takes subject prefixes only.\(^6\)

(26) \textbf{[Nondoy nombosom va]}.
\hspace{1cm} \textbf{[nɔ-ndɔj nɔ-mbos-ɔm va]} \\
\hspace{1cm} 1S-PRG 1P-rest-1PEX body \\
\hspace{1cm} ‘We are resting.’

(27) \textbf{[Nondoy nodorom amsoko]}.
\hspace{1cm} \textbf{[nɔ-ndɔj nɔ-dɔr-ɔm amsɔkʷɔ]} \\
\hspace{1cm} 1S-PRG 1P-plant-1PEX dry season millet \\
\hspace{1cm} ‘We (exclusive) are planting dry season millet.’

\(^5\)Note that the verb \textit{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, \textit{Hawa anday a mogom} ‘Hawa is at home’.

\(^6\)Some Moloko say that the plural form is \textit{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 (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.’  
Tânday tőtalay a lôhe.  
tá-ndaj tő-tal-aj a lîhe  
3P+IFV-PRG 3P+IFV-walk-CL at bush  
‘They were walking in the bush.’  
Tânday tőtalay a lôhe na,  
tá-ndaj tő-tal-aj a lîhe na  
3P+IFV-PRG 3P+IFV-walk-CL at bush PSP  
‘[As] they were walking in the bush,’  
tolo tñojakay agwazla malan ga a lôhe.  
tə-lo tə-nzak-aj agʷaľə malan ga a lîhe  
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. Example (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.
8 Verb phrase

(29) Disobedient Girl, S. 13

‘He said,’

“He said, ‘Hor golo, afa ləme na, mənjəye aləme na, kəyga ehe:
hʷɔr gʷɔlɔ afa lɪmɛ na mɪ-ŋ-ɪje=alɛme na kijga
woman HON 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 élɛ a háy bəlen.
ká-zad 3S+IFV-take child eye GEN millet one
‘you take only one grain.’

War élɛ háy bəlen ga nəndəye nok amezəɗe na,
war élɛ haj bɪlɛŋ ga nəndijɛ nokʷ 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 ver aka
2S+IFV-grind=plu 3S.DO on grinding stone on
‘grind it on the grinding stone.’

Ánjaloko de pew.
á-nz=alɔkʷɔ de pew
3S+IFV-suffice=1Pin.IO just enough
‘It will suffice for all of us just enough.’

Ádaloko ha ámbad ɛʃɛ.
á-d=alɔkʷɔ ha á-mbad 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.’
8.2 Auxiliary verb constructions

Waya a məhaya ahan ava na,
waja a ma-h=aja=ahaŋ ava na
because at NOM-grind=PLU=3S.POSS in PSP
‘Because, while you grind (lit. because in its grinding),

Hərməbəlom anday ásakələme na aka.”
Hərməbəlom a-ndaj á-sak=əlmɛ na aka
God 3S-PROG 3S+IFV-multiply=1PEx.1O 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. Example (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
 ‘[She] prepared lots of millet.’

S. 21
Ndahan bah məbehe háy ahan
ndahaŋ bax mɪ-bɛh-ɛ haj=ahaŋ
3S pour NOM-pour-CL millet=3S.POSS
‘She poured her millet’
amadala na kə ver aka azla.
amə-d=ala na kə ver aka aلاقات
 ‘to prepare it on the grinding stone.’

S. 22
Njəw njəw njəw aμəhaya azla.
nzuw nzuw nzuw amə-h=aja aلاقات
 ‘Njəw njəw njəw [she] ground [the millet] now.’
8 Verb phrase

S. 23
Hambo na dəw anday ásak ásak ásak.

hʊmbɔ na duw a-ndaj á-sak á-sak flour PSP also 3s-PRG 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 ñdahan aka nzuw nzuw nzuw

3s PSP 3s EXT+on ID:grind

‘And she, she is grinding some more njəw njəw njəw.’

S. 25
Anday ahaya nə məzere ləmes ga.

à-ndaj à-h=aja nə mi-ʒɛr-e limeʃ 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 ver na á-rəx mbaf nə hʊmbɔ na 3s-go=to PSP room PSP 3s+IFV-fill ID:up to the roof with flour PSP

‘After a while, the room, it filled up to the roof with the flour.’

dək mədəkaka alay ana hor na,

dək mə-dək=aka=alaj ana hʷɔr na plug NOM-plug=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 ndahan dəɓəsolək mə-mət=ava=alaj a hʷɔɗ a and then 3s ID:collapse/die NOM-die=in=away at stomach GEN

haj na ava house PSP in

‘And she collapsed dəɓəsolək, dying inside the house.’
8.2 Auxiliary verb constructions

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 tənjaːkay agwaːzła malan ga a ləhe].
[tə-lo tə-zA-ŋə ajʷələgə maləŋ ga a lɪhe]
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 ahaŋ].
[ɔ́-lɔ 3s+ifv-go á-b=aŋ 3s+ifv-hit=3s.IO DAT father=3s.POSS

‘He goes and hits his father.’

(33) Values, S. 19

[Ólo ápaɗay məze nə madan].
[3-lo á-paɗ=aj mɪʒə nə madəŋ]
3s+IFV-go 3s+IFV-crunch-CL person with magic

‘He goes and eats someone with sorcery.’

(34) [Lohom komənjɔrom na ala góvah na].
[bl̥-əm kə-məŋər-əm na=ala ɡəvax 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) since the /-j/ suffix is present (37). Neither the main verb nor the auxiliary is inflected for subject, and
8 Verb phrase

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 plus ideophone are bolded.

(35) [Bah məbehe kə ver aka azla].
    [bax mɪ-bɛh-ɛ kə vɛr aka aŋa]
    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 mangohata aka va yam a ver ahan ava].
    ndahanə [ŋɡax ma-ŋɡəh=ata=aka=va jam a vɛr=ahanə 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].
    ndahanə [ŋɡ-aj ma-ŋɡ=aka=alaj]
    3s make with grass-CL NOM-make with grass=on=away
    pʊrgʷɔm=ahaj
    trap=Pl
    'He made the traps out of grass.'

(38) Disobedient Girl, S. 12
    Sen ala na zar ahan na,
    ʃɛn=ala id:go=to PSP man=3S.POSS PSP
    'Then, her husband,'
    [dək mədəkan na mənjaye ata].
    [dək mə-dək=an 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]  
ID:take 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]  
ID:open NOM-open=away door PSP  
‘[He] opened the door [and looked around],’

həmbo [árah na a hoɗ a hay ava].  
həmbo [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 məngwalva a dəwer ahan ava].  
ndahan [vəh ma-ŋʷul=va a duwər=ahan ava]  
3s ID:return NOM-return=PRF at sleep=3s.POSS in  
‘He had already gone back to sleep.’

(42) Nata ndahan [pək mapata aka va pɔrgom ahay na].  
nata ndahan [pək ma-p=ata=aka=va pʊrgʷɔm=ahaj na]  
also 3s ID:open 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 ndahan [dəɓəsolək ma-mət=ava=alaj a hʷɔɗ a haj na]  
and then 3s ID:collapse/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-ije na]  
ID:bury NOM-bury-CL 3s.DO  
‘She was buried.’ (lit. burying it)
8 Verb phrase

(45) Snake, S. 18

Ne [daːdyay məkəɗe na aka].

nε [diːdaj  mr-kiɗ-ɛ  na=aka]

1S ID: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. Example (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 from 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

The way Moloko expresses transitivity is one of its remarkable features. 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.

¹This 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).
²Causative verbal extensions, for example, are widespread in Chadic languages (Newman 1977: 276).
9 Verb types and transitivity

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 phrase 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.

Examples (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.’
Examples (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.1o DAT dog*
   ‘*Mana hits a dog.*’ (lit. he hits to him to dog)

(4) *Aɓan.*
   *a-ɓ=aŋ*
   *3s-hit=3s.1o*
   ‘*He hits him.*’ (lit. he hits to him)

Crosslinguistic studies might lead one to expect a verb like ‘hit’ to take a direct object; however verbs in Moloko require an Agent-Theme-loc semantic model to explain their behaviour. The indirect object *kəra* ‘dog’ is the semantic loc – here the recipient of the action – the participant that represents the place where the Theme (the hit) is directed to. The participant that changes position or state in this event (the hit) is implicit in verbs of this type (see Section 9.2.3).

Returning to the transitive clause with subject and direct object (1 and 2), the direct object *awak* ‘goat’ is the Theme – the participant that changes position or state because of an event (it is slain).

### 9.2 Verb types

Most Moloko verbs are ambitransitive (i.e., labile) in that they can occur in intransitive, transitive, and sometimes bitransitive clauses with no morphological change in the verb complex (except of course the addition of the appropriate pronominals, Section 7.3). Nevertheless, they can be divided into classes that exhibit different morphological and syntactic patterns relating with respect to transitivity. Verbs 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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3Some verbs in related Chadic languages can also be ambitransitive. These include Cuvok (Ndokobai 2006), Buwal (Viljoen 2013), and Vame (Kinnaird 2006).
9 Verb types and transitivity

- 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 pronouns. Examples with pronouns are necessary because the centrality of the distinction of verb types in Moloko is more apparent from the pronouns, especially for the indirect object. The indirect object can be expressed with a core pronoun 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*. It states that the subject is presently located somewhere. An explicit free noun phrase subject is not 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).

(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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4It is interesting that the locational extension =*aka* is also used to express progressive aspect Section 7.5.1.
9.2 Verb types

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 ě-njɛ́-a  mɔgʷom
Mana 3s+PFV-leave-CL at home
‘Mana went home.’ (lit. Mana left to home)

(8) Mana enjé awak a mogom.
Mana ě-njɛ́-a  awak  mɔgʷom
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 have been referring to as 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.’
### 9 Verb types and transitivity

**Table 9.1: Group 2 verbs**

<table>
<thead>
<tr>
<th>Intransitive</th>
<th>Transitive</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hawa e-nj-é</strong></td>
<td><strong>Hawa e-nj-é awak a mogom</strong></td>
</tr>
<tr>
<td>Hawa 3s+PFV-leave-CL</td>
<td>Hawa 3s+PFV-leave-CL goat at home</td>
</tr>
<tr>
<td>‘Hawa is gone.’ (lit. Hawa left)</td>
<td>‘Hawa took the goat home.’</td>
</tr>
<tr>
<td><strong>e-nj-é</strong></td>
<td><strong>e-nj-é na a mogom</strong></td>
</tr>
<tr>
<td>3s+PFV-leave-CL</td>
<td>3s+PFV-leave-CL 3s.DO at home</td>
</tr>
<tr>
<td>‘She left.’</td>
<td>‘She took it home.’</td>
</tr>
<tr>
<td><strong>Hawa a-həɓ-ay</strong></td>
<td><strong>məwta a-həɓ-ay məze</strong></td>
</tr>
<tr>
<td>Hawa 3s+PFV-dance-CL</td>
<td>car 3s+PFV-dance-CL person</td>
</tr>
<tr>
<td>‘Hawa danced.’</td>
<td>‘The car shook people up.’</td>
</tr>
<tr>
<td>(lit. the car danced people)</td>
<td></td>
</tr>
<tr>
<td><strong>a-həɓ-ay</strong></td>
<td><strong>a-həɓ-ay na</strong></td>
</tr>
<tr>
<td>3s+PFV-dance-CL</td>
<td>3s+PFV-dance-CL 3s.DO</td>
</tr>
<tr>
<td>‘She danced.’</td>
<td>‘It shook him.’</td>
</tr>
<tr>
<td><strong>Hawa e-cək-e</strong></td>
<td><strong>Hawa e-cək-e zar</strong></td>
</tr>
<tr>
<td>Hawa 3s+PFV-stand-CL</td>
<td>Hawa 3s+PFV-stand-CL man</td>
</tr>
<tr>
<td>‘Hawa stood up.’</td>
<td>‘Hawa helped the man to stand up.’</td>
</tr>
<tr>
<td>(lit. Hawa stood man)</td>
<td></td>
</tr>
<tr>
<td><strong>e-cək-e</strong></td>
<td><strong>e-cək-e na</strong></td>
</tr>
<tr>
<td>3s+PFV-stand-CL</td>
<td>3s+PFV-stand-CL 3s.DO</td>
</tr>
<tr>
<td>‘She stood up.’</td>
<td>‘She stood him up.’</td>
</tr>
<tr>
<td><strong>Hawa a-yəɗ-ə=va</strong></td>
<td><strong>sərele a-yəɗ-ay Hawa</strong></td>
</tr>
<tr>
<td>Hawa 3s+PFV-tire-CL =PRF</td>
<td>work 3s+PFV-tire-CL Hawa</td>
</tr>
<tr>
<td>‘Hawa is tired.’</td>
<td>‘Work tired Hawa out.’</td>
</tr>
<tr>
<td><strong>Hawa á-yəɗ-ay</strong></td>
<td></td>
</tr>
<tr>
<td>Hawa 3s+IFV-tire-CL</td>
<td></td>
</tr>
<tr>
<td>‘Hawa can/might get tired.’ (lit. Hawa tires)</td>
<td></td>
</tr>
</tbody>
</table>
9.2 Verb types

(10) Dalay arəɓaw.
    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 $daf$ ‘millet loaf’ tastes good to the semantic LOC expressed by the indirect object (the pronominal enclitic =aw ‘to me’).

(11) Daf acaraw.
    ðaf 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-b=aŋ ana kəra
    Hawa 3s+IFV-hit=3s.io DAT dog
    'Hawa hits the dog.'

b. áɓan.
    á-b=aŋ
    3s+IFV-hit=3s.io
    'She hits it.'
### Verb types and transitivity

#### Table 9.2: Group 3 verbs

<table>
<thead>
<tr>
<th>Intransitive</th>
<th>Transitive</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hawa á-rəɓ-aj</strong></td>
<td><strong>h*ɔr á-rəɓ=an ana Mana</strong></td>
</tr>
<tr>
<td>Hawa 3s+PFV-be beautiful-CL</td>
<td>Hawa 3s+PFV-be beautiful =3s.10 DAT Mana</td>
</tr>
<tr>
<td>‘Hawa was beautiful.’</td>
<td>‘The woman was beautiful to Mana.’</td>
</tr>
<tr>
<td><strong>a-rəɓ-ay</strong></td>
<td><strong>a-rəɓ=an</strong></td>
</tr>
<tr>
<td>3s+PFV-be beautiful-CL</td>
<td>Hawa 3s+PFV-be beautiful =3s.10</td>
</tr>
<tr>
<td>‘She was beautiful.’</td>
<td>‘She was beautiful to him.’</td>
</tr>
<tr>
<td><strong>ɗaf a-car</strong></td>
<td><strong>ɗaf a-car=an ana Mana</strong></td>
</tr>
<tr>
<td>millet loaf 3s+PFV-taste good</td>
<td>millet loaf 3s+PFV-taste good =3s.10 DAT Mana</td>
</tr>
<tr>
<td>‘Millet loaf tasted good.’</td>
<td>‘Millet loaf tasted good to Mana.’</td>
</tr>
<tr>
<td><strong>a-car</strong></td>
<td><strong>a-car=an</strong></td>
</tr>
<tr>
<td>3s+PFV-taste good</td>
<td>3s+PFV-taste good =3s.10</td>
</tr>
<tr>
<td>‘It tasted good.’</td>
<td>‘It tasted good to him.’</td>
</tr>
<tr>
<td><strong>Mana a-gar-ay</strong></td>
<td><strong>mbelele a-gar=an ana Mana</strong></td>
</tr>
<tr>
<td>Mana 3s+PFV-fear-CL</td>
<td>elephant 3s+PFV-fear =3s.10 DAT Mana</td>
</tr>
<tr>
<td>‘Mana was afraid.’</td>
<td>‘An elephant made Mana afraid.’</td>
</tr>
<tr>
<td><strong>a-gar-ay</strong></td>
<td><strong>a-gar=an</strong></td>
</tr>
<tr>
<td>3s+PFV-fear-CL</td>
<td>3s+PFV-fear-CL =3s.10</td>
</tr>
<tr>
<td>‘He was afraid.’</td>
<td>‘It made him afraid.’</td>
</tr>
<tr>
<td><strong>fat á-war</strong></td>
<td><strong>fat á-war=an ana Mana</strong></td>
</tr>
<tr>
<td>sun 3s+IFV-hurt</td>
<td>sun 3s+IFV-hurt =3s.10 DAT Mana</td>
</tr>
<tr>
<td>‘The sun hurts.’</td>
<td>‘The sun hurts Mana.’ (lit. The sun hurts to Mana)</td>
</tr>
<tr>
<td><strong>á-war</strong></td>
<td><strong>á-wal=an</strong></td>
</tr>
<tr>
<td>3s+IFV-hurt</td>
<td>3s+IFV-hurt =3s.10</td>
</tr>
<tr>
<td>‘It hurts.’</td>
<td>‘It hurts him.’</td>
</tr>
<tr>
<td><strong>Mana á-das</strong></td>
<td><strong>Mana á-dɔs=an ana Hərməbləm</strong></td>
</tr>
<tr>
<td>Mana 3s+IFV-be heavy</td>
<td>Mana 3s+IFV-be heavy =3s.10 DAT God</td>
</tr>
<tr>
<td>‘Mana is honourable.’ (lit. Mana is heavy).</td>
<td>‘Hawa honours God.’ (lit. Hawa honours to God)</td>
</tr>
<tr>
<td><strong>á-das</strong></td>
<td><strong>á-dɔs=an</strong></td>
</tr>
<tr>
<td>3s+IFV-be heavy</td>
<td>3s+IFV-be heavy =3s.10</td>
</tr>
<tr>
<td>‘He is honourable.’</td>
<td>‘He honours him.’</td>
</tr>
<tr>
<td><strong>Hawa á-jən-ay</strong></td>
<td><strong>Hawa á-jən=an ana Mana</strong></td>
</tr>
<tr>
<td>Hawa 3s+IFV-help-CL</td>
<td>Hawa 3s+IFV-help =3s.10 DAT Mana</td>
</tr>
<tr>
<td>‘Hawa helps (Hawa is a helpful person.’</td>
<td>‘Hawa helps Mana.’</td>
</tr>
<tr>
<td><strong>á-jən-ay</strong></td>
<td><strong>á-jən=an</strong></td>
</tr>
<tr>
<td>3s+IFV-help-CL</td>
<td>3s+IFV-help =3s.10</td>
</tr>
<tr>
<td>‘She is a helpful person.’</td>
<td>‘She helps him.’</td>
</tr>
</tbody>
</table>
9.2 Verb types

9.2.4 Group 4: Verbs that can be bitransitive

Verbs that can occur in bitransitive clauses with subject, direct object, and indirect object can also occur in intransitive clauses (subject only) and transitive clauses (subject and direct 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-pay ‘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=aj mahaj ana Hawa
    Mana 3s+PFV-open=3s.IO door DAT Hawa
    ‘Mana opened the door for Hawa.’
9 Verb types and transitivity

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’).

(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-lo a-mənzar=əŋ 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 ə-h=əŋ 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’).

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 awla =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 where io expresses benefactive

<table>
<thead>
<tr>
<th>Intransitive</th>
<th>Transitive</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hawa a-bah yam</strong></td>
<td><strong>Hawa a-bah=an yam ana Mana</strong></td>
</tr>
<tr>
<td>Hawa 35+PFV-pour water</td>
<td>Hawa 35+PFV-pour=35.IO water DAT Mana</td>
</tr>
<tr>
<td>‘Hawa poured water.’</td>
<td>‘Hawa poured water for Mana.’</td>
</tr>
<tr>
<td>a-bah na</td>
<td>a-bah=an na</td>
</tr>
<tr>
<td>35+PFV-pour 35.DO</td>
<td>35+PFV-pour=35.IO 35.DO</td>
</tr>
<tr>
<td>‘She poured it.’</td>
<td>‘She poured it for him.’</td>
</tr>
</tbody>
</table>

| **Mana a-sl-ay awak** | **Mana a-sl=an awak ana bahay** |
| Mana 35+PFV-slay-CL goat | Mana 35+PFV-slay=35.IO goat DAT chief |
| ‘Mana slaughtered a goat.’ | ‘Mana slaughtered the goat for the chief.’ |
| a-sl-ay na | a-sl=an na |
| 35+PFV-slay-CL 35.DO | 35+PFV-slay=35.IO 35.DO |
| ‘He slaughtered it.’ | ‘He slaughtered it for him.’ |

| **Hawa e-d-e daf** | **Hawa a-d=an daf ana Mana** |
| Hawa 35+PFV-make-CL millet loaf | Hawa 35+PFV-make=35.IO millet loaf DAT Mana |
| ‘Hawa made millet loaf.’ | ‘Hawa made millet loaf for Mana.’ |
| e-d-e na | a-d=an na |
| 35+PFV-make-CL 35.DO | 35+PFV-make=35.IO 35.DO |
| ‘She made it.’ | ‘She made it for him.’ |

| **Hawa a-bal-ay zana** | **Hawa a-bal=an zana ana Mana** |
| Hawa 35+PFV-wash-CL clothes | Hawa 35+PFV-wash=35.IO clothes DAT Mana |
| ‘Hawa washed clothes.’ | ‘Hawa washed clothes for Mana.’ |
| a-bal-ay na | a-bal=an na |
| 35+PFV-wash-CL 35.DO | 35+PFV-wash=35.IO 35.DO |
| ‘She washed it.’ | ‘She washed it for him.’ |

| **Hawa a-rah cafogal** | **Hawa a-rah=an cafogal ana Mana** |
| Hawa 35+PFV-fill bucket | Hawa 35+PFV-slay=35.IO bucket DAT Mana |
| ‘Hawa poured the bucket.’ | ‘Hawa poured the bucket for Mana.’ |
| a-rah na | a-rah=an na |
| 35+PFV-fill 35.DO | 35+PFV-fill=35.IO 35.DO |
| ‘She filled it.’ | ‘She filled it for him.’ |

| **Mala á-mənjar awak** | **Mala a-mənjar=an awak ana bahay** |
| Mala 35+IFV-see goat | Mala 35+see=35.IO goat DAT chief |
| ‘Mala sees a goat.’ | ‘Mala saw someone’s goat for the chief.’ |
| á-mənjar na | a-mənjar=an na |
| 35+IFV-see 35.DO | 35+see=35.IO 35.DO |
| ‘He sees it.’ | ‘He saw it for him.’ |
9 Verb types and transitivity

(20) Awak apaɗaw 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 tó-mbəz=ałkʷɔ 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)

Example (22) shows a bitransitive clause with the verb cen ‘hear’/’understand.’ 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.\(^8\) Example (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.

\(^7\) 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).
9.2 Verb types

Table 9.4: Group 4 verbs where io expresses malefactive

<table>
<thead>
<tr>
<th>Transitive</th>
<th>Bitransitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>awak a-pad-ay háy</td>
<td>awak a-pad=aw na háy=va</td>
</tr>
<tr>
<td>goat 3s+PVF-crunch-CL millet</td>
<td>goat 3s-crunch=1s.IO 3s.DO millet=PRF</td>
</tr>
<tr>
<td>‘The goat ate the millet.’</td>
<td>‘The goat has eaten my millet.’</td>
</tr>
<tr>
<td>a-pad-ay na</td>
<td>a-pad=aw na=va</td>
</tr>
<tr>
<td>3s+PVF-crunch-CL 3s.DO</td>
<td>3s-crunch=1s.IO 3s.DO=PRF</td>
</tr>
<tr>
<td>‘He ate it.’</td>
<td>‘The goat has eaten it to me.’</td>
</tr>
<tr>
<td>(the goat has eaten it and I am affected)</td>
<td></td>
</tr>
<tr>
<td>avar e-mbezen háy</td>
<td>sla a-mbəz=aloko na gəvah=va</td>
</tr>
<tr>
<td>rain 3s-ruin millet</td>
<td>cow 3s+PVF-ruin=1PIN.IO 3s.DO field=PRF</td>
</tr>
<tr>
<td>‘The rain ruined the millet.’</td>
<td>‘The cow has ruined our field.’</td>
</tr>
<tr>
<td>e-mbezen na</td>
<td>a-mbəz=aloko na=va</td>
</tr>
<tr>
<td>3s-ruin 3s.DO</td>
<td>3s+PVF-ruin=1PIN.IO 3s.DO=PRF</td>
</tr>
<tr>
<td>‘It ruined it.’</td>
<td>‘It has ruined it for us.’</td>
</tr>
<tr>
<td>awak a-zom háy</td>
<td>awak a-zom=an háy a Mana</td>
</tr>
<tr>
<td>goat 3s+PVF-eat millet</td>
<td>goat 3s+PVF-eat=3s.IO millet GEN Mana</td>
</tr>
<tr>
<td>‘The goat ate millet.’</td>
<td>‘The goat ate Mana’s millet.’</td>
</tr>
<tr>
<td>(lit. the goat ate to him millet of Mana).’</td>
<td></td>
</tr>
<tr>
<td>a-zom na</td>
<td>a-zom=an na</td>
</tr>
<tr>
<td>3s+PVF-eat 3s.DO</td>
<td>3s+PVF-eat=3s.IO 3s.DO</td>
</tr>
<tr>
<td>‘He ate it.’</td>
<td>‘It ate it, affecting him.’</td>
</tr>
</tbody>
</table>

(23) Tahok ma.
    ta-h=ɔkʷ ma
    3p-tell=2s.IO mouth
    ‘You are being greeted.’ (lit. they are telling word to you)
9 Verb types and transitivity

(24) Disobedient Girl, S. 30
Tazlərav na ala.
tà-ɮərav 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 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 è-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 è-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

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9 Intransitive clauses with transfer verbs Section 9.2.5 also show this semantic picture.
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).

(31) Mahay apava.
    mahaj a-pa=va
    door 3S-open=PRF
    ‘The door is open.’
Table 9.5: Group 4 Intransitive clauses

<table>
<thead>
<tr>
<th>Perfective</th>
<th>Imperfective</th>
<th>Perfect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>zom 'eat'</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mana a-zom</td>
<td>Mana á-zom</td>
<td>Mana a-zom=va</td>
</tr>
<tr>
<td>Mana 3s+PFV-eat</td>
<td>Mana 3s+IFV-eat</td>
<td>Mana 3s+PFV-eat=PRF</td>
</tr>
<tr>
<td>'Mana ate [something]'</td>
<td>'Mana is about to eat [something]'</td>
<td>'Mana ate [something] already.'</td>
</tr>
<tr>
<td>háy á-zom</td>
<td>háy á-zom=va</td>
<td></td>
</tr>
<tr>
<td>millet 3s+IFV-eat</td>
<td>millet 3s+IFV-eat=PRF</td>
<td></td>
</tr>
<tr>
<td>'There are insects in the millet.'</td>
<td>'The millet has been eaten.'</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>sl-ay 'slaughter'</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mana a-sl-ay</td>
<td>Mana á-sl-ay</td>
<td>Mana a-sla =va</td>
</tr>
<tr>
<td>Mana 3s+PFV-slay-cl</td>
<td>Mana 3s+IFV-slay-cl</td>
<td>Mana 3s+PFV-slay=PRF</td>
</tr>
<tr>
<td>'Mana slaughtered [something]'</td>
<td>'Mana is about to slaughter [something]'</td>
<td>'Mana has slaughtered [something]'</td>
</tr>
<tr>
<td>awak á-sl-ay</td>
<td>awak a-sla=va</td>
<td></td>
</tr>
<tr>
<td>goat 3s+IFV-slay-cl</td>
<td>goat 3s+IFV-slay=PRF</td>
<td></td>
</tr>
<tr>
<td>'The goat is good for slaughtering.'</td>
<td>'The goat has been slaughtered.'</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>s-e 'drink'</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mana e-s-e</td>
<td>Mana é-s-e</td>
<td></td>
</tr>
<tr>
<td>Mana 3s+PFV-drink-cl</td>
<td>Mana 3s+IFV-drink-cl</td>
<td></td>
</tr>
<tr>
<td>'Mana drank [something]'</td>
<td>'Mana is about to drink [something]'</td>
<td></td>
</tr>
<tr>
<td>Perfective</td>
<td>Imperfective</td>
<td>Perfect</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
<td>---------</td>
</tr>
<tr>
<td>yam é-s-e</td>
<td>yam a-sə=va</td>
<td>yam a-sə=va</td>
</tr>
<tr>
<td>water 3s+IFV-drink-CL</td>
<td>water 3s+PFV-drink=PRF</td>
<td>water 3s+PFV-drink=PRF</td>
</tr>
<tr>
<td>'The water is drinkable.' (lit. water drinks.)</td>
<td>'The water has been drunk.'</td>
<td>'The water has been drunk.'</td>
</tr>
</tbody>
</table>

**bal-aj 'wash'**

<table>
<thead>
<tr>
<th>Perfective</th>
<th>Imperfective</th>
<th>Perfect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hawa a-bal-ay</td>
<td>Hawa á-bal-ay</td>
<td>Hawa a-bal=va</td>
</tr>
<tr>
<td>Hawa 3s+PFV-wash-CL</td>
<td>Hawa 3s+IFV-wash-CL</td>
<td>Hawa 3s+PFV-wash=PRF</td>
</tr>
<tr>
<td>'Hawa washed [herself].'</td>
<td>'Hawa washes [herself].'</td>
<td>'Hawa is washed.'</td>
</tr>
<tr>
<td>zana á-bal-ay</td>
<td>zana a-bal=va</td>
<td></td>
</tr>
<tr>
<td>cloth 3s+IFV-wash-CL</td>
<td>cloth 3s+PFV-wash=PRF</td>
<td></td>
</tr>
<tr>
<td>'The cloth can be washed.'</td>
<td>'The cloth is clean.' (washed)</td>
<td></td>
</tr>
<tr>
<td>(lit. the cloth washes)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p-ay 'open'**

<table>
<thead>
<tr>
<th>Perfective</th>
<th>Imperfective</th>
<th>Perfect</th>
</tr>
</thead>
<tbody>
<tr>
<td>mahaj a-p-ay</td>
<td>mahay á-p-ay</td>
<td>mahay a-p=va</td>
</tr>
<tr>
<td>door 3s+PFV-open-CL</td>
<td>door 3s+IFV-open-CL</td>
<td>door 3s-open=PRF</td>
</tr>
<tr>
<td>'The door opened.'</td>
<td>'The door opens.' (is able to open)</td>
<td>'The door is open.'</td>
</tr>
<tr>
<td>bax 'pour'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>yam a-bah</td>
<td>yam á-bah</td>
<td>yam a-bah=va</td>
</tr>
<tr>
<td>water 3s+PFV-pour</td>
<td>water 3s+IFV-pour</td>
<td>water 3s-pour=PRF</td>
</tr>
<tr>
<td>'Water poured.'</td>
<td>'Water is able to be poured.' (lit. water pours)</td>
<td>'Water is poured out.'</td>
</tr>
<tr>
<td>mbɪʒɛŋ 'ruin'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>háy e-mbəzen</td>
<td>háy á-mbəzen</td>
<td>háy á-mbəzen=va</td>
</tr>
<tr>
<td>millet 3s+PFV-ruin</td>
<td>millet 3s+IFV-ruin</td>
<td>millet 3s+IFV-ruin=PRF</td>
</tr>
<tr>
<td>'The millet ruined.'</td>
<td>'The millet is ruining.'</td>
<td>'The millet has ruined.'</td>
</tr>
</tbody>
</table>
9 Verb types and transitivity

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 abilitative 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 ámənjər.
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.

The verb *vəl* ‘give’ is shown in a bitransitive clause in (33). 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.
9.2 Verb types

(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 in the state of not giving anything to anyone, or not being the giving kind.\textsuperscript{10} Without the negative marker, the meaning would probably be ‘the chief is the giving kind.’\textsuperscript{11}

(36) Bahay ávar baj.
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’/‘teach’ occurs in transitive and bitransitive clauses.\textsuperscript{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’).\textsuperscript{13}

(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.’

\textsuperscript{10}Note the phonological change of the final consonant (r becomes l when there is a suffix, see Section 6.2).

\textsuperscript{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.

\textsuperscript{12}We found no clauses with one core participant for this verb.

\textsuperscript{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.
9 Verb types and transitivity

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 Məloko
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 3s-learn=2s.io 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.
9.3 “Body-part” verbs (noun incorporation)

Friesen & Mamalis (2008) identified a unique group of verb constructions in Molo. In these constructions, a special, sometimes phonologically reduced noun form that represents a part of the body is incorporated into the verb phrase. This is a case of noun incorporation where these body-part nouns are closely associated with the verb complex and their incorporation changes the lexical characteristics of the verb. These body-part nouns include 

9.3 “Body-part” verbs (noun incorporation)
## Table 9.6: Group 5 verbs

<table>
<thead>
<tr>
<th>Intransitive</th>
<th>Transitive with direct object</th>
<th>Transitive with indirect object</th>
<th>Bitransitive</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hawa á-var bay</strong></td>
<td><strong>Hawa á-var yam</strong></td>
<td><strong>Hawa á-vəl=an ana Mana</strong></td>
<td><strong>Hawa á-vəl=an yam ana Mana</strong></td>
</tr>
<tr>
<td>Hawa 35+IFV-give NEG</td>
<td>Hawa 35+IFV-give water</td>
<td>Hawa 35+PFV-give=35.IO DAT Mana</td>
<td>Hawa 35+PFV-give=35.IO water DAT Mana</td>
</tr>
<tr>
<td>'Hawa is not the giving kind.'</td>
<td>'Hawa gives water [to someone].'</td>
<td>'Hawa gave [something] to Mana.'</td>
<td>'Hawa gave water to Mana.'</td>
</tr>
<tr>
<td>(lit. Hawa doesn’t give)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>á-var bay</th>
<th>á-var na</th>
<th>á-vəl=an</th>
<th>á-vəl=an na</th>
</tr>
</thead>
<tbody>
<tr>
<td>35+IFV-give NEG</td>
<td>35+IFV-give 35.DO</td>
<td>35+PFV-give=35.IO</td>
<td>35+PFV-give=35.IO 35.DO</td>
</tr>
<tr>
<td>'She is not the giving kind.'</td>
<td>'She gives it [to someone].'</td>
<td>'She gave [something] to him.'</td>
<td>'She gave it to him.'</td>
</tr>
</tbody>
</table>

| babəza=ahay tə-dəbən-ay Moloko | Moloko a-dəbən=ok na jajak | bahay a-dəbən=ata |
| children=Pl 3P-learn-Cl Moloko | Moloko 35-learn=25.IO PSP fast | chief 35-learn =3P.IO Moloko |
| 'The children learn Moloko.' | 'Moloko is easy for you to learn.' | 'The chief teaches Moloko to the children.' |
| (lit. Moloko learns to you quickly) | | |

<table>
<thead>
<tr>
<th>nə-skom=ala awak</th>
<th>nə-skom=an awak ana Mana</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-buy/sell=to goat</td>
<td>15-buy/sell=35.IO goat DAT Mana</td>
</tr>
<tr>
<td>'I bought a goat.'</td>
<td>'I sell a goat to Mana.'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mana a-h-ay bay</th>
<th>Hawa a-h=an ma ana Mana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mana 35-tell-Cl NEG</td>
<td>Hawa 35-tell=35.IO mouth DAT Mana</td>
</tr>
<tr>
<td>'Mana doesn’t say.'</td>
<td>'Hawa greets Mana.'</td>
</tr>
</tbody>
</table>
9.3 “Body-part” verbs (noun incorporation)

(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) Atarəŋ aka ma ana war ese.
   a-tar=əŋ =aka ma ana war efɛ
   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 aməŋjar ɛlɛ.
   Mala a-məŋzar ɛlɛ
   Mala 3s-see eye
   ‘Mala looks around attentively.’

(47) Acaka va sləməj ana mama ahan bay.
   a-ts=aka=va sləmaj ana mama=ahan 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 təzləge va ana Məloko ahay.
   ta-ndalaj ta-l=ala tr-ɫɪɡ-e va ana Mʊlɔk⁵=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=angʷɔ 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 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,

\(^{14}\)Note that the word-final /n/ is deleted on the root /ts n⁷/ when the verbal extension is attached Section 2.6.1.
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:

- **élé** ‘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 bərav.  
\[ \varepsilon - g - \varepsilon \quad bərav \]  
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!  
\[ g - \varepsilon \quad \varepsilon ndeɓ \]  
\text{do[2S_IMP]-cl 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 *manjar* 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 a-mənjar ɛlɛ.
Mala a-mənzar ɛlɛ
Mala 3s-see eye
‘Mala looks around attentively.’

(53) Mala olo aməmənzəre ɛlɛ a ləhe.
Mala o-ło am-ənzɛrɛ ɛlɛ a lɦɛ
Mala 3s-go dep-see eye at bush
‘Mala went to see his fields.’ (lit. Mala went to see in the bush)

With the verb *har* ‘carry’ (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 ɛlɛ a ɡəvah əwla ava jəyga.
 nɔ-ło na-har ɛlɛ a ɡəvax=uwla ava dzijga
 15-go 15-carry eye at field=15.Poss in all
‘I go [and] look around my whole field.’ (lit. I carry eye in my field all)

Table 9.7 compares examples with and without the body-part.

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
9 Verb types and transitivity

Table 9.7: Selected verbs with and without the incorporation of élé ‘eye’

<table>
<thead>
<tr>
<th>Clause without body-part</th>
<th>Clause with body-part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mana a-mɔŋjaɾ war</td>
<td>a-mɔŋjaɾ élé</td>
</tr>
<tr>
<td>Mana 3s-see child</td>
<td>3s-see eye</td>
</tr>
<tr>
<td>‘Mana sees the child.’</td>
<td>‘He/she looks around intently.’</td>
</tr>
<tr>
<td>Mana a-har eteɾa dɔray ava</td>
<td>ka-har=aka élé a ɡɔvah=ango ava jɔyga</td>
</tr>
<tr>
<td>Mana 3s-carry onion in head in</td>
<td>2s-carry=on eye at field=2s.poss in all</td>
</tr>
<tr>
<td>‘Mana carries onions on [his] head.’</td>
<td>‘You look around your whole field.’</td>
</tr>
</tbody>
</table>

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 slɔmay bay.
    Mana ɛ́-tʃɛŋ lɔmaj baj
    Mana 3s+IFV-hear ear NEG
    ‘Mana is deaf/disobedient.’

Examples are in Table 9.8.

Table 9.8: Selected verbs of cognition with and without incorporation of slɔmay ‘ear’

<table>
<thead>
<tr>
<th>Clause without ‘body-part’</th>
<th>Clause with body-part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mana a-c=awa=aka ma=ɔwla bay</td>
<td>Mana a-c=aka slɔmay ana mama=ahan bay</td>
</tr>
<tr>
<td>Mana 3s-hear=1s.IO =on word/mouth=1s.poss NEG</td>
<td>Mana 3s-hear=on=PRF ear DAT mother=3s.poss NEG</td>
</tr>
<tr>
<td>‘Mana didn’t understand my words.’</td>
<td>‘Mana is disobedient to his mother.’</td>
</tr>
<tr>
<td></td>
<td>(lit. Mana doesn’t hear ear to his mother)</td>
</tr>
</tbody>
</table>
9.3.3 *ma* ‘mouth’

The ‘body-part’ noun *ma* ‘mouth’ (which also means ‘word’ and ‘language’) collocates with some speech verbs. It is found in its full form in the verb plus body-part constructions. Example (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: *sokay 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.’
Table 9.9: Selected speech verbs with and without ma ‘mouth’ as direct object

<table>
<thead>
<tr>
<th>Transitive clause</th>
<th>Clause with ‘body-part’ incorporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mana a-tar-ay</td>
<td>Mana a-tar=an ma ana Hawa</td>
</tr>
<tr>
<td>Mana 3s-call-cl</td>
<td>Mana 3s-call=3s.1o mouth/word DAT Hawa</td>
</tr>
<tr>
<td>‘Mana calls out.’</td>
<td>‘Mana calls to Hawa.’</td>
</tr>
<tr>
<td>a-tar-ay</td>
<td>a-tar=an ma</td>
</tr>
<tr>
<td>3s-call-cl</td>
<td>3s-call=3s.1o mouth/word</td>
</tr>
<tr>
<td>‘He calls out.’</td>
<td>‘He calls to her.’</td>
</tr>
<tr>
<td>Mana a-h-ay bay</td>
<td>Mana a-h=an ma ana Hawa</td>
</tr>
<tr>
<td>Mana 3s-tell-cl NEG</td>
<td>Mana 3s-tell=3s.1o mouth/word DAT Hawa</td>
</tr>
<tr>
<td>‘Mana doesn’t say.’</td>
<td>‘Mana greets Hawa.’</td>
</tr>
<tr>
<td>a-h-ay bay</td>
<td>a-h=an ma</td>
</tr>
<tr>
<td>3s-tell-cl NEG</td>
<td>3s-tell=3s.1o mouth/word</td>
</tr>
<tr>
<td>‘He doesn’t say.’</td>
<td>‘He greets her.’</td>
</tr>
<tr>
<td>Mana a-j-ay</td>
<td>Mana a-j-ay ma</td>
</tr>
<tr>
<td>Mana 3s+PFV-speak-cl</td>
<td>Mana 3s+PFV-speak-cl mouth/word</td>
</tr>
<tr>
<td>‘Mana speaks!’</td>
<td>‘Mana greets.’</td>
</tr>
<tr>
<td>a-j-ay</td>
<td>a-j-ay ma</td>
</tr>
<tr>
<td>3s+PFV-speak-cl</td>
<td>3s+PFV-speak-cl mouth/word</td>
</tr>
<tr>
<td>‘He speaks!’</td>
<td>‘He greets.’</td>
</tr>
</tbody>
</table>
### 9.3 “Body-part” verbs (noun incorporation)

Table 9.10: Selected non-speech verbs that collocate with ma.

<table>
<thead>
<tr>
<th>Transitive clause</th>
<th>Clause with body part incorporation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hawa a-sok-oy ahar</strong></td>
<td><strong>Hawa a-sok-oy ma</strong></td>
</tr>
<tr>
<td>Hawa 3s-point-cl hand</td>
<td>Hawa 3s-point-cl mouth/word</td>
</tr>
<tr>
<td>‘Hawa points.’</td>
<td>^a</td>
</tr>
<tr>
<td><strong>Hawa o-zom dac</strong></td>
<td><strong>Hawa a-zom=an ma ana bahay</strong></td>
</tr>
<tr>
<td>Hawa 3s-eat millet loaf</td>
<td>Hawa 3s-eat=3s.10 mouth/word DAT chief</td>
</tr>
<tr>
<td>‘Hawa eats millet loaf.’</td>
<td>‘Hawa fed the chief.’ (made him eat)</td>
</tr>
<tr>
<td>o-zom na</td>
<td>a-zom=an ma</td>
</tr>
<tr>
<td>3s-eat 3s.DO</td>
<td>3s-eat=3s.10 mouth/word</td>
</tr>
<tr>
<td>‘She eats it.’</td>
<td>‘She fed him.’</td>
</tr>
<tr>
<td><strong>Hawa a-njak-ay asak =ahan</strong></td>
<td><strong>Hawa a-njak-ay ma</strong></td>
</tr>
<tr>
<td>Hawa 3s-find-cl foot=3s.poss</td>
<td>Hawa 3s-find-cl mouth/word</td>
</tr>
<tr>
<td>‘Hawa gives birth.’</td>
<td>‘Hawa is in trouble.’</td>
</tr>
<tr>
<td>(lit. Hawa finds her feet)^b</td>
<td>(lit. she finds mouth/word)</td>
</tr>
<tr>
<td>a-njak-ay na</td>
<td>a-njak-ay ma</td>
</tr>
<tr>
<td>3s-find-cl 3s.DO</td>
<td>3s-find-cl mouth/word</td>
</tr>
<tr>
<td>‘She finds it.’</td>
<td>‘Here comes trouble.’</td>
</tr>
</tbody>
</table>

^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.’

### 9.3.4 va ‘body’

There are two different phonologically reduced forms of the word harva ‘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.
9 Verb types and transitivity

The first reduced form of *hərva* ‘body’ is *va*. This body-part is used for forming reciprocals with plural subjects of a few verbs in a context of killing and loving (*zləge* ‘throw’ 58–59, *kad* ‘kill by clubbing’ 60, and *ndaday* ‘need,’ 61). The body-part *va* indicates that the plural subjects are performing the actions against one another.

(58) Tandalay talala təzləgə va ana Məloko ahay.
    ta-nd=alaj ta-l =ala tr-ɮɪg-ɛ va ana Mʊlokoʷ=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 tr-ɮɪgɪ va =va na nu-wudəkʷ-əm =ala
day person =Pl 3P-throw body =PRF PSP 1S-separate-1PEX =to
dəraj
head

‘On the day that they had finished fighting each other, we separated as equals.’

(60) Takaɗ va.
    ta-kad va
    3P-kill body

‘They kill each other.’ (lit. they kill.by.clubbing body)

The body-part *va* ‘body’ occurs twice in the clause expressing the reciprocal idea of loving one another in (61) – as incorporated noun and also as the noun phrase within an adpositional phrase (*va* is bolded in the example).

(61) Kondodom va a va ava.
    kɔ-ndəf-əm 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

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15Note 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.
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.

Table 9.11: Selected verbs with and without the body-part \( va \) ‘body’

<table>
<thead>
<tr>
<th>Transitive clause</th>
<th>Clause with body-part incorporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>( Moloko =ahay tə-zləg-e hay )</td>
<td>( kəra=ahay tə-zləg-e ( va ) )</td>
</tr>
<tr>
<td>( Moloko =Pl 3p-sow-cl millet )</td>
<td>( dog=Pl 3p-sow-cl body )</td>
</tr>
<tr>
<td>‘Moloko people sow/throw millet.’</td>
<td>‘Dogs fight each other.’</td>
</tr>
</tbody>
</table>

\( tə-zləg-e na \) | \( tə-zləg-e \( va \) \) |
| \( 3p-sow-cl 3s.do \) | \( 3p-sow-cl body \) |
| ‘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.’ |

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.
9 Verb types and transitivity

(62) Məlama ango azad va nə nok.
\(\text{məlama} = \text{ang}^\circ \ a\text{-zad} \ va \ nə \ \text{nok}\)
sibling=2S.poss 3S-take body with 2S
‘Your sibling resembles you.’ (lit. your sibling takes body with you)

(63) Məlama ango ahay jəyga tazad va.
\(\text{məlama} = \text{ang}^\circ = \text{ahaj} \ dʒi\text{jga} \ ta\text{-zad} \ va\)
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.
\(\text{ɛ-mbɛʃɛŋ} \ va \ kə \ tʃɪvɛɗ \ aka\)
3s-breathe body on road on
‘He rests enroute [to somewhere].’

9.3.5 har ‘body’

A second reduced form of harva, 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
\(\text{tə́lala}, \ a \ həlan \ ga \ ava \ ese, \ təwəɗakalə \ \text{hələŋ} \ \text{ava}\)
tə́-l=ala a həlan ga ava eʃə tə-wəɗak=ala hələŋ a musijəŋ
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).
9.4 Clauses with zero grammatical arguments

There are clauses in Moloko with no grammatically explicit arguments - these clauses have a transitivity of zero. Nominalised and dependent verb forms are not inflected for subject (see Sections 7.6 and 7.7, respectively). When they also carry no do or io 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.

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. The climactic moment when the storyteller spears the snake is in a clause with zero transitivity. Participants are out of sight in the discourse.

(66) Membese va nə nok əgne na, agəsaw har ava gam.
     me-mbɛʃ-ɛ va nə nokʷ əgne na a-gəs=aw har=va gam
     NOM-breathe-CL body with 2s today PSP 3S-catch=1S.IO body=PRF a lot
     ‘Spending time with you today pleased me a lot.’ (lit. it catches body to me)

(67) Disobedient Girl, S. 22
     Njəw njəw njəw aməhaya azla.
     nzuw nzuw nzuw amə-h=aja ağa
     ID:grind DEP-grind=PLU now
     ‘Njəw njəw njəw [she] ground [the millet] now.’

(68) Snake story, S. 15
     Mecesle mbəraɓ!
     me-tʃɛɬ-ɛ mbəraɓ
     NOM-penetrate-CL ID:penetrate
     ‘It penetrated, mbəraɓ!’

The ideophone clause can also have zero transitivity (Section 3.6.3). See also zero transitivity in nominalised forms, Section 8.2.3.
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 \textit{na} construction can be superimposed upon the basic clause structure, changing the word order. Since the \textit{na} construction is more complex and can involve more than one clause, \textit{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 \textit{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

\footnote{Elements can be fronted only in a special \textit{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.
   - *apazan* 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 (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.
   - ne=ahaj 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) Nəhəməy.
    nə-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.
    nə-vəl=anj 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 Clause

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.

<table>
<thead>
<tr>
<th>Subject noun phrase</th>
<th>Predicate noun phrase</th>
</tr>
</thead>
</table>

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 me-hɛr-ɛ]
    ‘Mana [is] a builder.’ (lit. Mana, building-man)

(11) [Sləmay əwla] [Abangay].
    [ɬəmaj=uwla] [Abangaj]
    ‘My name [is] Abangay.’

(12) [Zar nehe] [baba əwla].
    [zar nɛhɛ] [baba=uwla]
    ‘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].
    [ndahanj] [malan ɡa]
    ‘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 nəndijɛ] [anga 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] [anga ləme]
    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].
    [malan ən a] na [ndahan]
    largeness ADJ PSP 3S
    ‘The biggest one [is] him.’ (lit. big, him)
10 Clause

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.

\[(19) \ [\text{Alala bay}.\]
\[\text{à-l=ala baj}\]
\[3\text{S+PFV-go}=to \text{NEG}\]
\[\text{‘He/she didn’t come.’}\]

\[(20) \ [\text{War ga ecen sləməy bay}.\]
\[\text{war ga e-tʃɛŋ ɬəmaj baj}\]
\[\text{child ADJ 3}\text{S-hear ear NEG}\]
\[\text{‘That child did not obey.’ (lit. that child, he hears ear not)}\]

\[(21) \ [\text{Táazləgalay avʊlo bay}.\]
\[\text{táá-ɮəg=alaj avʊlo baj}\]
\[3\text{P+POT-throw}=away \text{above NEG}\]
\[\text{‘They should not throw it too high.’}\]

In (22–24) the negative is clause-final and may have semantic 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.’

\[(22) \ [\text{Tagaw ele lala bay}.\]
\[\text{ta-g=aw ele lala baj}\]
\[3\text{P-do}=\text{1.S.IO thing good NEG}\]
\[\text{‘They do bad things to me.’ / ‘They don’t do good things to me.’}\]
10.2 Negation constructions

(23) [Kārasay məze cəɗew ga bay].
   [kā-ras-aj mɪʒɛ tfiɗəw ga baj]
   2S+IFV-minimise-CL person smallness ADJ NEG
   ‘Don’t insult one of the little people.’

(24) [Anday dəren bay].
   [à-ndaj dirɛŋ 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.’

    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 [aməgaye bay] nəngehe pat tahata na va.
    ɛlɛ=ahaj [amɪ-g-ijɛ baj] nɪŋgehe 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 élɛ bay] táslay na gəraw.
    kəra [am-ʊndʒəɾ-ɛ ɛlɛ baj] tâ-ɬ-aj na gəraw
    dog DEP-see-CL eye NEG 3P+IFV-slay-CL 3S.DO ID:cut through middle
    ‘The dog that couldn’t see they slew it through the middle.’

The negative can form a compound with some adverbs. Negated and non-negated clauses with four adverbs are shown in Table 10.1. 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., kolo ‘before,’ line 3 in Table 10.1).

Table 10.1: Negation of clauses with adverbs

<table>
<thead>
<tr>
<th>Line</th>
<th>Non-negated clause with adverb</th>
<th>Negated clause</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>nóo-lo ese</td>
<td>nóo-lo asabay</td>
</tr>
<tr>
<td></td>
<td>1S+POT-go again</td>
<td>1S+POT-go again+NEG</td>
</tr>
<tr>
<td></td>
<td>‘I will go again.’</td>
<td>‘I will not go again.’</td>
</tr>
<tr>
<td>2</td>
<td>né-g-e na fan</td>
<td>né-g-e na fabay</td>
</tr>
<tr>
<td></td>
<td>1S+IFV-do-CL 3S.DO already</td>
<td>1S+IFV-do-CL 3S.DO already+NEG</td>
</tr>
<tr>
<td></td>
<td>‘I have done it already.’</td>
<td>‘I haven’t done it yet.’</td>
</tr>
<tr>
<td>3</td>
<td>n₃-mənjar ndahan kolo</td>
<td>n₃-mənjar ndahan kolo bay</td>
</tr>
<tr>
<td></td>
<td>1S-see 3S before</td>
<td>1S-see 3S before NEG</td>
</tr>
<tr>
<td></td>
<td>‘I have seen her before.’</td>
<td>‘I have never seen her before.’</td>
</tr>
<tr>
<td>4</td>
<td>k₃a-z=ala təta</td>
<td>k₃a-z=ala təta bay</td>
</tr>
<tr>
<td></td>
<td>2S+POT-take=to ability</td>
<td>2S+POT-take=to ability NEG</td>
</tr>
<tr>
<td></td>
<td>‘You can bring [it].’</td>
<td>‘You can’t bring [it].’</td>
</tr>
</tbody>
</table>

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. Various types of clausal negation in Moloko are illustrated in (28–43). Each pair of examples represents a positive and a negative assertion for comparison.

The negation of an intransitive clause is illustrated in (28) and (29).

(28) Ahəmay.
    a-həm-aj
    3S-run-CL
    ‘He/she runs.’
10.2 Negation constructions

(29) Ahəmay bay.
a-həm-aj baj
3s-run-cl neg
‘He/she doesn’t run.’

The negation of a transitive clause is shown in (30–35).

(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 sɛʃɛ
3s-please=1s.io meat
‘I want meat.’

(35) Asaw sese bay.
a-s=aw sɛʃɛ baj
3s-please=1s.io meat neg
‘I do not want meat.’

The negation of existentials is shown in (36–39).
10 Clause

(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.’

The negation of a predicate adjective is illustrated in (40–43).

(40)  Ndahan zləle ga.
      ndahanŋ  ɮɪlɛ  ga
      3S  richness  ADJ
     ‘He/she is rich.’

(41)  Ndahan zləle ga bay.
      ndahanŋ  ɮɪlɛ  ga  baj
      3S  richness  ADJ  NEG
     ‘He/she is not rich.’

(42)  Ndahan gədan ga.
      ndahanŋ  ɡədaŋ  ga
      3S  strength  ADJ
     ‘He/she is strong.’

(43)  Ndahan gədan ga bay.
      ndahanŋ  ɡədaŋ  ga  baj
      3S  strength  ADJ  NEG
     ‘He/she is not strong.’
10.2 Negation constructions

10.2.3 Constituent negation

Most frequently, it seems that the element closest to the negative that is under the scope of negation, even though a clause-final negative marker can have scope over the whole verb phrase or even over the entire clause. To negate only one constituent in a clause, the clause is sometimes rearranged so that the constituent that is negated is placed in the clause-final position adjacent to the negation particle. Examples (44–46) show a question (44) with two responses (45–46) where each of the two ambiguous elements is negated. The subject (Mana) is part of the presupposition (marked off by na in the question, see Section 11.2). In (45) the oblique is negated and in (46) the entire predicate. The clauses were not restructured since the elements in question were already clause-final. In the following examples, the element that is negated is delimited by square brackets and the negative is bolded.

(44) Mana na, olo [a kosoko ava] daw?
Mana na ɔ-1ɔ [a kəsəkʷɔ ava] daw
Mana ɔpsp 3s-go at market in Q
‘As for Mana, is he going to the market?’

(45) Ehe, olo [a kosoko ava] bay; olo afa bahay.
ɛhe ɔ-1ɔ [a kəsəkʷɔ ava] baj ɔ-1ɔ afa bahaj
no 3s-go at market in NEG 3s-go house of chief
‘No, he isn’t going to the market; rather he is going to the chief’s house.’

(46) Ehe, olo [a kosoko ava] bay; enjé a mogom.
ɛhe, ɔ-1ɔ a kəsəkʷɔ ava] baj ɛ-n3-ɛ a məgʷɔm
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).’

Examples (47–50) show some restructuring when different constituents are negated. Example (47) illustrates a question and (48) to (50) illustrate three possible answers, each negating a different constituent. Normal SVO structure is maintained for all answers. The responses each use two clauses. The first clause expresses the negation of the element in final position, and the second restates the clause giving the corrected information. In each case the first clause is restructured so as to move the element to be negated to the clause-final position. The response in (48) indicates that the hearer accepts ‘that Mana gave the guitar to someone,’ but it was not his father. In this clause, 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 \textit{ana baba ahan} 'to his father' is replaced by the indirect object pronominal so that the negated element \textit{kəndew} 'guitar' can be placed next to the negative.

(47) Mana avəlan kəndew ana baba ahan ɗaw?
\begin{verbatim}
Mana à-vəl=əŋ kəndew ana baba=ahaŋ ɗaw
Mana 3s+PFV-give=3s.IO guitar DAT father=3s.POSS Q
\end{verbatim}
‘Did Mana give the guitar to his father?’

(48) Ehe, avəlan na [ana baba ahan] bay,
\begin{verbatim}
ɛhɛ à-vəl=əŋ na [ana baba=ahaŋ] baj
no 3s+PFV-give=3s.IO 3s.DO DAT father=3s.POSS NEG
avəlan na ana gəmsodo ahan.
à-vəl=əŋ na ana gəmsodo=ahaŋ
3s+PFV-give=3s.IO 3s.DO DAT mother’s brother=3s.POSS
\end{verbatim}
‘No, he didn’t give it to his father, he gave it to his mother’s brother.’

(49) Ehe, avəlan [kəndew] bay, avəlan cecewk.
\begin{verbatim}
ɛhɛ à-vəl=əŋ [kəndew] baj à-vəl=əŋ tʃɛtʃœkʷ
no 3s+PFV-give=3s.IO guitar NEG 3s+PFV-give=3s.IO flute
\end{verbatim}
‘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 \textit{na}. The nominal is the negated subject \textit{Mana bay} 'not Mana.'

(50) Ehe, aməvəlan kəndew ana baba ahan na, [Mana] bay;
\begin{verbatim}
ɛhɛ amə-vəl=əŋ kəndew ana baba=ahaŋ na [Mana] baj
no DEP-give=3s.IO guitar DAT father=3s.POSS PSP Mana NEG
\end{verbatim}
‘No, \textit{Mana} didn’t give the guitar to his father. (lit. the one that gave guitar to his father, not \textit{Mana})’
10.3 Interrogative constructions

amə-wəlan na, Majay.
amə-vəl=aŋ na Madzaj
DEP-give=3S.IO PSP Madzay
‘The person that gave [it was] Madzay.’

Examples (51–52) show a similar restructuring of a verbal clause into a predicate nominal in order to negate the subject of a clause. A question with a verbal clause structure is shown in (51). 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 daw?
Hawa à-d=aŋ daf ana Mana daw
Hawa 3S+PFV-prepare=3S.IO millet loaf DAT Mana Q
‘Did Hawa prepare food for Mana?’

(52) Amadan ɗaf ana Mana na, [Hawa] bay.
amo-d=aŋ daf 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 welej ‘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 ac-
cording 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>
<thead>
<tr>
<th>Construction</th>
<th>Structure and example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Verbal clause structure</strong></td>
<td>clause – interrogative word</td>
</tr>
<tr>
<td>Questions clausal element</td>
<td>zar a-\text{mənjar} way</td>
</tr>
<tr>
<td></td>
<td>man 3s+PFV-see who</td>
</tr>
<tr>
<td></td>
<td>‘Who did the man see?’</td>
</tr>
<tr>
<td><strong>Predicate nominal</strong></td>
<td>dependent clause marked with na – interrogative word</td>
</tr>
<tr>
<td>Questions subject</td>
<td>hor am\text{r}-d\text{ye} daf na way</td>
</tr>
<tr>
<td></td>
<td>woman dep-make-cl millet loaf psp who</td>
</tr>
<tr>
<td></td>
<td>‘Who is making millet loaf?’</td>
</tr>
<tr>
<td></td>
<td>(lit. the woman that is making millet loaf [is] who?)</td>
</tr>
<tr>
<td><strong>Right-shifted na marked element</strong></td>
<td>clause – interrogative word – right-shifted na marked element</td>
</tr>
<tr>
<td>Questions internal element</td>
<td>Mala a-vəl=an \text{almay} ana məlama=ahan na</td>
</tr>
<tr>
<td></td>
<td>Mala 3s-give=35.10 what DAT sibling=35. Poss psp</td>
</tr>
<tr>
<td></td>
<td>‘Mala gave what to his brother?’</td>
</tr>
</tbody>
</table>

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. Information questions in verbal clauses are paired with a response in (53–65) 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?’
A noun modifier is questioned in (55). 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 [ɛlele welej]
    woman 3S-prepare sauce which
    ‘The woman is making which kind of sauce?’

(56) Hor ede [elele kəlef].
    hʷɔr ɛ-dɛ [ɛlele kɪlɛf]
    woman 3S-prepare-cl sauce fish
    ‘The woman is making fish sauce.’

Example (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-ije 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-ije ɬɪrɛlɛ]
    1S+PFV-go=to  DEP-do-cl work
    ‘I came to do work.’
10 Clause

(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     delijwer [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     delijwer [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-ło a kɔsɔkʷɔ ava [epelej]
    woman 3s-go at market in when
    ‘When is the woman going to market?’

(63) Hor olo a kosoko ava [hajan].
    hʷɔr ɔ-ło a kɔsɔkʷɔ ava [hadzan]
    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-lɔ̂ [amtamaj]
2s+PFV-go where
’Where did you go?’

(65) Nolo [a kosoko ava].
nɔ́-lɔ̂ [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 question-
ing 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 preposi-
tional phrase. The prepositional phrase is delimited by square brackets.

(66) Mogom nehe [anga way]?
mɔgʷɔm nɛhɛ [anga waj]
house DEM poss who
’This house here belongs to whom?’

(67) Mogom nehe [anga Mana].
mɔgʷɔm nɛhɛ [ŋa 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=ŋaŋwɔ [amtamaj]
home=2s.Poss where
’Where is your home?’
10 Clause

(69) Mogom əwla [a Laway].
    mɔgʷəm=uwla [a Lawaj]
    home=1s.POSS to Lalawaj
    ‘My home is in Lalaway.’

(70) Bahay a slala aləkwəye na [way]?
    bahaj a ɬala=alʊkʷojɛ 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 (72) using the SVO verbal clause construction.

(72) Hor ede daf.
    hʷɔr ɛ-d-ɛ daf
    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 daf na way?
    hʷɔr amɪ-d-ɪɛ daf 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?)

2Unless the emphatic question construction is used Section 10.3.5.
10.3 Interrogative constructions

(74) Hor amədəye ɗaf na weley?
    hʷər amə-d-ijɛ ɗaf na welej
    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) 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 azad dəray.
    Mana a-zad ɗəraj
    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 malama 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).
10 Clause

(79) Mala avəlan alməy ana məlama ahan na?
Mala a-vəl=aŋ alməj ana məlama=ahaŋ na
Mala 3s-give=35.IO what DAT sibling=35.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=35.IO money DAT sibling=35.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 marker 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 ndahan baba a Mala ɗaw
man PSP 3S father GEN Mala Q
‘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 ál=a-ala ɗaw
Mana PSP 3S+IPV-go=to Q
‘Mana, is he coming?’

³Expectation 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.
10.3 Interrogative constructions

(83) Zar ango ndahan aba daw?  
\[
\begin{align*}
\text{zar} &= \text{ang}^\text{w} \text{ ndahan} \; \text{aba daw} \\
\text{man} &= \text{2S.POSS} \; \text{3S EXT Q}
\end{align*}
\]
‘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 markers and the negative particles are bolded.

(84) Baba ango, ndahan ava a mogom daw?  
\[
\begin{align*}
\text{baba} &= \text{ang}^\text{w} \text{ ndahan} \; \text{ava a mōg}^\text{w} \text{m daw} \\
\text{father} &= \text{2S.POSS} \; \text{3S EXT+in at home Q}
\end{align*}
\]
‘Is your father in?’

(85) Baba ango, ndahan ava a mogom baj daw?  
\[
\begin{align*}
\text{baba} &= \text{ang}^\text{w} \text{ ndahan} \; \text{ava a mōg}^\text{w} \text{m baj daw} \\
\text{father} &= \text{2S.POSS} \; \text{3S EXT+in at home NEG Q}
\end{align*}
\]
‘Is your father not in?’

(86) Ólo a kosoko ava daw?  
\[
\begin{align*}
\text{ɔ́-lɔ} \; \text{a kōsōk}^\text{w} \text{c ava daw} \\
\text{3S+IFV-go at market in Q}
\end{align*}
\]
‘Is he going to the market?’

(87) Ólo a kosoko ava baj daw?  
\[
\begin{align*}
\text{ɔ́-lɔ} \; \text{a kōsōk}^\text{w} \text{c ava baj daw} \\
\text{3S+IFV-go at market in NEG Q}
\end{align*}
\]
‘Is he not going to the market?’

(88) Məlama ango álala daw?  
\[
\begin{align*}
\text{məlama} &= \text{ang}^\text{w} \text{ á-l=ala daw} \\
\text{sibling} &= \text{2S.POSS} \; \text{3S+IFV-go=to Q}
\end{align*}
\]
‘Is your brother coming?’

(89) Məlama ango álala baj daw?  
\[
\begin{align*}
\text{məlama} &= \text{ang}^\text{w} \text{ á-l=ala baj daw} \\
\text{sibling} &= \text{2S.POSS} \; \text{3S+IFV-go=to NEG Q}
\end{align*}
\]
‘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 daw?
    awak=aŋgʷɔ na káá-ɬ-aj na daw
    goat=2S.POSS PSP 2S+POT-slay-CL 3S.DO Q
    ‘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 daw ‘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?
    [kɔ́-lɔ a Marva hadzan] kijga baj daw
    2S+IFV-go at Maroua tomorrow like that NEG Q
    ‘You are going to Maroua tomorrow, not so?’

(92) [Apazan kolo a kosoko ava] kəyga bay daw?
    [apazan kɔ̀-lɔ a kosɔkʷɔ ava] kijga baj daw
    yesterday 2S+PFV-go at market in like that NEG Q
    ‘You went to the market yesterday, right?’

(93) Nə alməmar na, [avar abay] kəyga bay daw?
    nə alməmar na [avar abaj] kijga baj daw
    with dry season PSP rain EXT+NEG like this NEG Q
    ‘In dry season, there is no rain, right?’
Other question tags are evaluative. Example (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] ḅaw?

[Səlom ga] ḅaw

goodness ADJ Q

‘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?

məʒɛ=ahaj 3p-do=1S.IO thing good NEG 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

Hɔɾmbəlɔm na, amadəslava ala məze na, ndahan ese na,

Hʊrmbʊlm na ama-da=ava=ala məʒɛ na ndahan ɛʃɛ na

God PSP DEP-multiply=in=to person PSP 3S again PSP

‘God, the one who multiplied the people, him again,’

kagas ma Hɔɾmbəlɔm na, asabay na,

ka-gas ma Hʊrmbʊlm 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?
2S+POT-catch PSP POSS who
‘you won’t listen to anyone.’ (lit. ‘you will catch it [word] of whom?’)

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 daw ‘[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 solom ga ‘[it is] good’ to the rhetorical question solom ga bay daw ‘[is that] not good?’

(97) Kólo kagas anga məze kək, lala daw?
2S+IFV-go 2S+PFV-catch POSS person ID:catch by throat good Q
‘[If] you catch [something] belonging to someone else [and steal it], [is that] good?’

(98) Kólo ele ango, solom ga bay daw?
2S+IFV-go thing=2S.POSS good ADJ NEG Q
‘[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?
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
10.3 Interrogative constructions

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 aməgok na way?**

`wa a-mə-g=ɔk na waj`

who DEP=do=2S.IO 3S.DO who

‘*What* is wrong?’ / ‘Stop crying!’ (lit. who to do it to you, who)

(101) **Kege *may* ana war ga *may*?**

`ka-ge máj ana war ga máj`

2S-do what DAT child ADJ what

‘*What* are you doing to the child, *what*?’ / ‘Stop doing that!’

(102) Cicada, S. 18

Nánjakay na *wa* [amazaw ala agwazla ana ne na] *way*?

`náá-nzak-aj na wa [ama-z=aw =ala agʷaغا ana ne 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 amədəvala okfom na *may*?**

`alma a-mə-dəval=ala əkʷfom na máj`

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=əkʷ maj*

what 3s-hurt=2s.1o what

‘What is bothering (hurting) you? What?’ / ‘Nothing should be bothering you.’

(106) **Meme ege mej?**

*meme ɛ-gɛ mej*

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 imperative mood form of the verb (see Section 7.2), others use Imperfective aspect or irrealis mood or are in the form of a rhetorical question (see Section 10.3.4). Table 10.3 illustrates all of the imperative constructions for the verb /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 mogom.**

*lɔhʷ-ɔm a mɔgʷɔm*

go-2p at home

‘Go home!’
### Table 10.3: Imperative constructions

<table>
<thead>
<tr>
<th>Line</th>
<th>2s forms</th>
<th>3s forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Declarative, Perfective aspect</td>
<td>(k\tilde{a}-l=ala) 2s+PFV-go=to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'You came.'</td>
</tr>
<tr>
<td>2</td>
<td>Declarative, Imperfective aspect</td>
<td>(k\tilde{a}-l=ala) 2s+IFV-go=to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'You come.'</td>
</tr>
<tr>
<td>3</td>
<td>Imperative</td>
<td>(l=ala) go[2s.IMP]=to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'Come (now)!'</td>
</tr>
<tr>
<td>4</td>
<td>Polite request</td>
<td>(k\tilde{a}-l=ala\ ete \text{ daw}) 2s+IFV-go=to polite Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'Please come.'</td>
</tr>
<tr>
<td>5</td>
<td>Negative expectation</td>
<td>(k\tilde{a}-l=ala\ bay) 2s+IFV-go=to NEG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'Don’t come.'</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(I don’t expect you to come)</td>
</tr>
<tr>
<td>6</td>
<td>Hortative</td>
<td>(k\tilde{a}a-l=ala) 2s+HOR-go=to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'You come now!'</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(I want you to come)</td>
</tr>
<tr>
<td>7</td>
<td>Adverb of obligation</td>
<td>(s\tilde{a}y\ k\tilde{a}\tilde{a}-l=ala=va) only 2s+PFV-go=to PRF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'You must come.'</td>
</tr>
<tr>
<td>8</td>
<td>Rhetorical question</td>
<td>(k\tilde{a}-l=ala\ bay \text{ daw}) 2s+IFV-go=to NEG Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'You should come.'</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(lit. Are you not coming?)</td>
</tr>
</tbody>
</table>
10 Clause

(108) Zəmok daf.
zung-əkʷ daf
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 daw?
nə́-nzak-aj jam ɛtɛ daw
1S+IFV-find-cl water please Q
‘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) Kámənjər fabay.
ká-mənʒər fə-bəj
2S+IFV-see already-NEG
‘Don’t look at it yet.’ (I don’t expect you to look at it).

(113) Á-mənjər fabay.
á-mənʒər fə-bəj
3S+IFV-see already-NEG
‘I don’t think he looked at it.’ (I don’t expect that he looked at it).
10.5 Exclamatory constructions

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. This form is illustrated for 3s in (114).

(114) Mamənjar fabay.
      mà-mənzär fā-bāj
      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), say ‘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 ɛndeɓ
      only 2p-do-2p wisdom
      ‘You must be wise (lit. do only wisdom).’

(116) Dewele səy keege na.
      dewele 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 anga dewele
      only 2s+HOR-do-CL 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.
10 Clause

(118)Kay, nege na bay!

kaj nɛ-gɛ 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 nay!
matsakəmbaj amə-l=ala na ndahan baj niğ
meanwhile dep-go=to psp 3s neg exclamation

‘but the one that came was not him after all!’

(120) Enje bay ðefen dey!

ɛ̀-ŋɛ 3s+pfv-suffice-cl neg truth exclamation

‘It really wasn’t enough!’

(121) Gaw endeɓ dey!

g=aw endeɓ dej
do[2s.imp]=1s.io brain exclamation

‘Be careful!’ (lit. do brain for me)

(122) Values, 50

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

epelɛ epele na me Hərməbəlom a-ndaj a-gas ta
in the future psp opinion God 3s-prog 3s-catch 3p.do

a ahar ava re

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. Example (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 Aban̂gaj
   name=1s.poss Abangay
   ‘My name is Abangay.’

(2) *Sləmay əwla *na*, Abangay.*
   *ɬəmaj=*uwla *na* Aban̂gaj
   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 fol-
11 The na marker and na constructions

This structure for marking information as presupposed is a basic organisational structure with a major function in certain Moloko clause structures and discourse.

(3) Həmbo na, anday ásəkala azla wəshekeke.

Həmbɔ na ə-ndaj ə-sək=ala aɣə wəshekeke
flour PSP 3s+PFV-PRG 3s+IFV-multiply=to now ID:multiply

‘The flour, it is multiplying wəshekeke.’

(4) Cicada, S. 5
Tánday tətalay a ləhe na,

tá-ndaj tə-tal-aj a lihɛ na
3P+IFV-PRG 3P+IFV-walk-CL at bush PSP

‘[As] they were walking in the bush,’

tolo tənjakay agwazla malan ga a ləhe.

tə-ŋə tə-nzak-aj agʷaɣə malan ga a lihɛ
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, the first gives

---

1The presupposition marker and the 3s direct object pronominal (Section 7.3.3) are homophones; both function (in different ways) to mark previously identified information.
2Bow (1997c) 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.
3Adapted from Boyd 2002.
the normal SVO clause structure without any *na*-marked element. The rest have *na*-marked elements (underlined). In the first triplet, (5) represents a context where there is no specific presupposed information (and there is no *na* marker). Example (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. A context where the presupposed information is ‘beans’ is shown in (7).

(5) Hahar asaw.
   hahar a-s=aw
   beans 3s-like=1s.10
   ‘I like beans.’ (lit. beans are pleasing to me)
   Presupposition: Nothing specific.

(6) Asaw *na*, hahar.
   a-s=aw    *na*  hahar
   3s-like=1s.10 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.10
   ‘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). There is no specific presupposition (and no *na* marker) in (8) while (9) represents a situation where Hawa is presupposed – the hearer knows who she is and Hawa is the topic of discussion. Example (10) is similar to (9) except that the relative clause also indicates known information (see Section 5.4.3) so the fact that someone prepared the food is also presupposed. In (11), the presupposed information is ‘someone made the food’ (or ‘X made the food’).
11  The na marker and na constructions

(8)  Hawa adan daf ana Mana.
    Hawa a-d=aŋ        daf        ana Mana
    Hawa 3s-prepare=3s.10 millet loaf Dat Mana
    ‘Hawa prepared millet loaf for Mana.’
    Presupposition: No specific presupposition.
    Assertion: Hawa prepared millet loaf for Mana.

(9)  Hawa na, adan daf.
    Hawa na a-d=aŋ        daf
    Hawa psp 3s-prepare=3s.10 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)  Hawa na, amadan daf.
    Hawa na ama-d=aŋ        daf
    Hawa psp dep-prepare=3s.10 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)  Amadan daf na, Hawa.
    ama-d=aŋ        daf        na        Hawa
    dep-prepare=3s.10 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-assertion construction:** fronted *na*-marked clause (Section 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* precedes 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

Tánday tátalay a l̓ehe *na*,
\[ \text{3P+IFV-PRG 3P+IFV-walk-CL at bush PSP} \]
‘[As] they were walking in the bush,’
tolo tənjakay agwazla malan ga a l̓ehe.
\[ \text{3P+PFV-go 3P+PFV-find-CL spp. of tree large ADJ at bush} \]
‘[As] they were walking in the bush, they went and found a large tree (a particular species) in the bush.’

(13) Tánday táhaya *na*, həmbo ga
\[ \text{3P+IFV-PRG 3P+IFV-grind=PLU PSP flour ADJ} \]
‘They were grinding it, [and] the flour’
ánday ásak ele ahan wəsekeke.
\[ \text{3S+IFV-PRG 3S+IFV-multiply thing =3S.POSS ID:multiply} \]
‘was multiplying all by itself, wəsekeke.’

(14) Disobedient Girl, S. 36

Talay war élé háy bəlen kə ver aka *na*, ásak asabay.
\[ \text{ID:put child eye millet one on stone on PSP 3S+IFV-multiply} \]
11.1 Presupposition-assertion construction: na-marked clause

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 semantic relationship between the two clauses. The only thing it indicates is that the na-marked clause is presented as presupposed, and somehow relevant to the following clause. The relations that na clauses are employed in are temporal or logical sequence (see Section 11.1.1), simultaneous or coordinated events (see Section 11.1.2), and tail-head linking for cohesion (see Section 11.1.3).

11.1.1 Temporal or logical sequence

The default relation between a na-marked clause and the matrix clause in a na construction is that there is a sequence (temporal or logical) and the event/state expressed by the na-marked clause precedes the event/state in the main clause. Examples (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. A reason-result construction is shown in (15). 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-l=aw =aka babəza=ahaj=va
    3P-PROG-CL 3P-KILL=1S.IO =ON children=PL=PRF

‘They have killed my children.’

---

4 It is also an example of tail-head linking, see Section 11.1.3.
11 The na marker and na constructions

Nde, taslaw aka babəza ahay va na,
nde ta=l=aw =aka babəza =ahaj =va na
so 3P-kill=1S.IO =on children=PI=PRF PSP
‘So, [because] they are killing my children,’
na-həm-aj magʷə ələ=uwla
1S-run-CL anger thing=1S.poss

Example (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.”
tʃɪdɛ a-g =aŋ ana məze na tawij kʊɗ-əm kəra
disease 3S-do=3S.IO DAT person 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].’

Examples (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 bərav ahan atəkam alay na, avahay ele ahan botot.
Hərmbəlom na bərav =ahan a-təkam =alaj na a-vah-aj
God PSP heart=3S.poss 3S-taste=away PSP 3S-fly-CL

ələ=aŋə botə
ting=3S.poss ID:flying
‘God (for his part) got angry; [and so] he went away.’ (lit. God, he tasted his heart, he flew his thing)
11.1 Presupposition-assertion construction: na-marked clause

Example (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, Hərməblom enjé daren.*

| mə-nzök-ək* | egine təlaj mbəlom na     | Hərməblom e-nəz-ə |
| 1PIN-seek/find-2PIN today root sky | PSP God | 3S-left-CL |

dirəŋ
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.)

Example (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*

| Hərməblom na, amadəslava ala məze na, ndahan ese na, |
| Hərməblom na ama-dəl=ava=ala məzə na ndahan eʃə na |

God PSP DEP-multiply=in=to person PSP 3S again PSP

‘God, the one who multiplied the people, him again’

| ka-gas ma Hərməblom na, asabay na, |
| ka-gas ma Hərməblom na asa-baj na |

2S-catch word God PSP again-NEG PSP

‘[if] you no longer accept the word of God,’

[káagas na anga waj]?

[káːgas na anga 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. In (20) (from the Leopard story, Friesen 2003) a *na* clause indicates a presupposed event that is occurring while the event in the main clause happens. The verb *anday etəwe* ‘she is crying’ is progressive aspect. Also see (12), (13).

(20) Atəwalay “Bababa kəlak kəlak kəlak.” *Anday etəwe na*, anjakay awak.

\[\text{a-tuw}=\text{alaj} \quad \text{bababa kəlak kəlak kəlak} \quad \text{a-ndaj} \quad \text{ɛ-tuw-ɛ} \quad \text{na} \quad \text{a-nzak-aj}\]

3s-cry=away sound of hen 3s-PRG 3s-cry-CL PSP 3s-find-CL

awak

‘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 event line 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. Example (21) comes from a different retelling of the Disobedient Girl text than is shown in Section 1.5. The final element 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 təhaya 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.

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5Example (20) is an example of tail-head linking (Section 11.1.3) where the example is repeated.
11.1 Presupposition-assertion construction: na-marked clause

(21) Tázaɗ na háy, war élé háy bəlen na,
tá-zaɗ na haj, war élε haj bəleŋ na
3P+IFV-take 3S.DO millet child eye millet one PSP
‘They would take one grain of millet;’

[táhaya na kə ver aka].
[tó-h=aja na kə ver aka]
3S+IFV-grind=PLU 3S.DO on stone on
‘they ground it on the grinding stone.’

Tónday táhaya na,
tó-ndaj tá-h =aja na
3P+IFV-PRG 3P+IFV-grind=PLU PSP
‘As they were grinding it,’

hombo ga ánday ásak ele ahan wəsekeke.
hombo ga á-ndaj á-sak ele=ahan wuʃekeke
flour ADJ 3S+IFV-PRG 3S+IFV-multiply thing=3S.POSS ID:multiply
‘the flour was multiplying all by itself wəshekeke.’

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 wuʃekeke na
3S+IFV-PRG 3S+IFV-multiply=on ID:multiply PSP
‘As it is multiplying wəshekeke,’

ver árəhva mbaf.
ver á-əh=va mbaf
room 3S+IFV-fill=PRF ID: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 tátalay a lāhe].
tá-ndaj tá-tal-aj a līhe
3P+IFV-PRG 3P+IFV-walk-CL to bush
'They were walking in the bush.'

Cicada, S. 5
Tánday tátalay a lāhe na, tolo tánjakay agwazla malan ga a lāhe.
tá-ndaj tá-tal-aj a līhe na
3P+IFV-PRG 3P-walk-CL at bush PSP
'[As] they were walking in the bush,'

tə-lə tə-nzak-aj ag"aḷaŋ malan ga a līhe
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.PSS
'I took my flashlight.'

[Nabay cəzlarr].
[nà-b-aj tsəɬarr]
1S+PFV-light-CL ID:shining 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 ID:something big and reflective
'[As] I shone [it], I was seeing it, something big and reflective mbajak,'
gogolvan.
11.1 Presupposition-assertion construction: na-marked clause

`gʷɔgʷɔlvaŋ`

snake

‘a snake!’

(25)  

[Atəwalay “Bababa kəlak kəlak kəlak.”]

[a-\text{tuw}=alaj bababa kəlak kəlak kəlak]

3s-cry=away sound of hen

‘She cried, “Bababa kəlak kəlak kəlak.”’

Anday etəwe na, anjakay awak.

\text{a-ndaj} \text{e-tuw-ɛ} \text{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 \textit{na}. Example (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 \textit{pok mapalay mahay} ‘opening the door,’ which is an expected event when a person returns home. The \textit{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-mbeʃɛŋ \text{tsatsapa} na, zar=a\text{ha}ŋ \text{a}-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 həf a hay ava.

\text{pɔk ma-p=alaj mahaj na həmbo á-rax na a hʷɔd}

ID:open 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 The na marker and na constructions

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.

![Figure 11.1: Constituents of the clause](image)

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.

![Figure 11.2: Constituent order of Presupposition construction](image)

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).
11.2 Presupposition-assertion construction: na-marked clausal element

Na-marked element  Assertion

(27)  Cicada, S. 19  
Kəlen bahay na, olo kə mətəde aka.  
Then chief PSP 3S+PFV-go on cicada on  
‘Then the chief, he went to the cicada.’

(28)  Həmbo na, anday ásəkala azla wəsekeke.  
hʊmbɔ flour PSP à-andaj á-sək=ala aɣa wuʃekɛ  
‘The flour, it is multiplying wəsekeke.’

(29)  Ele ahay nendaye 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, kündokom ne asabay.  
1S PSP kɔ́-nzɔ́k-ɔ́m 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 agʷaɬə 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 ele =ahaj amu-wulɛ na te-gɛ 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
The na marker and na constructions

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 conjunction marked with na (34) or a na-marked temporal phrase (33, 35). All na-marked elements are underlined in the examples.

(33) Disobedient Girl, S. 3 (the beginning of the setting)
Zlezle na, Məloko ahay na, Hərmbəlom ávəlata barka va.

Long ago PSP Moloko=Pl PSP God 3S+IFV-send=3S.10

barka=va
blessing=PRF

‘Long ago, to the Moloko people, God had given to them his blessing.’

(34) Disobedient Girl, S. 9 (the beginning of episode 1)
Nde ehe na, albaya ava aba.

So here PSP young man EXT+in EXT

‘And so, there once was a young man.’

(35) Disobedient Girl, S. 27 (the beginning of the dénouement)
Embesen cacapa na, zar ahan angala.

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

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6Called ‘subject’ in Chafe (1976).
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. Lines S. 12, 14, and 15 from the Disobedient Girl text are shown in (36).

In S. 12, *zar ahan ‘her husband’* is marked with *na*. 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.

(36) **Disobedient Girl, S. 12**

Sen ala *na*, *zar ahan na*, dək medakan na mənəye ata.

\[\text{Sen ala na, zar ahan na, dək medakan na mənəye ata.}\]

<table>
<thead>
<tr>
<th>Sen ala na, zar ahan na, dək medakan na mənəye ata.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID:go=to PSP man=3S.POSS PSP ID:show NOM-show=3S.IO 3S.DO</td>
</tr>
</tbody>
</table>

‘Then her husband instructed her in their habits.’ (lit. going, her husband instructing their sitting)

(37) **Disobedient Girl, S. 14-15**

Hor *na*, ambəɗan aka awəy, “Ayokon zar golo.”

\[\text{Hor na, ambəɗan aka awəy, “Ayokon zar golo.”}\]

<table>
<thead>
<tr>
<th>Hor na, ambəɗan aka awəy, “Ayokon zar golo.”</th>
</tr>
</thead>
<tbody>
<tr>
<td>woman PSP 3s-change=3S.IO =on said agreed man HON</td>
</tr>
</tbody>
</table>

‘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.\(^8\)

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\(^7\)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).

\(^8\)This is called ‘contrastiveness’ in Chafe (1976).
11 The na marker and na constructions

(38) Ndam akar ahay ténje a avɔya ava.
  ndam akar=ahaj te-n3-ɛ a avija ava
people theft=Pl 3P+IFV-sit-CL at suffering in
‘(On that day) thieves will be in suffering;’

Ne na, nénje nɔ memle ga.
  ne na né-n3-ɛ nɔ memle 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. In (39), from the concluding lines of a narrative, the na-marked elements that occur in a dependent clause that occurs after the matrix clause explain the problem that the discourse deals with – the fact that cows have destroyed a field.

(39) Kógom ala na memey, sla ahay na aməzəme gəvah na.
  kɔ́-gʷ-ɔm =ala na memej ła=ahaj na amɪ-zʊm-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 ngəndaye,
    me-tɛl-ɛ anga war dalaj ngɪndijɛ
  NOM-curse-CL POSS child girl DEM
‘The curse [is] belonging to that young woman,’

9It is also seen in some information questions Section 10.3.1.
10Note that the other two occurrences of na in this example function in focus (Section 11.5) and definiteness (Section 11.4), respectively.
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 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 gəvah na ava].
    tə-ɮərav ta=ala=va [a gəvax na ava]
    3P+PFV-move out 3P.DO=to=PRF at field PSP in

‘They had driven them out of the field.’

Example (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 ndahan dəɓəsolək ma-mət=ava=alaj
    and then 3S ID:collapse/die NOM-die=in=away

‘And she collapsed dəɓəsolək, dying’
11. The na marker and na constructions

11.5 Presupposition-focus construction: na precedes the final element of the verb phrase

The presupposition-focus construction in Moloko makes prominent the final element of a clause.\textsuperscript{11} Na precedes the final element in the verb phrase. This is the only na construction where the na-marker follows the verb complex but is not

\textsuperscript{11}Longacre & Hwang (2012: 221) define prominence as "spotlighting, highlighting, or drawing attention to something."
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.

Example (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.

(45) Disobedient Girl, S. 20

Jo madala háy *na, gam.*

\[\text{id:take NOM-prepare=to millet PSP a lot}\]

‘She prepared lots of millet.’

Multiple elements in a clause or sentence that are marked with *na* will add even more prominence to the final element. This kind of construction is seen at summation points in a narrative. It is also seen in a hortatory text when the speaker is reiterating his or her argument to make an important point. The many marked elements 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

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

\[\text{so woman PSP 3S+PFV-habitually=to at place of 3P=PRF PSP}\]

‘Now that woman, she was in the habit at their house,’

aməhaya háy *na, gam.*

\[\text{dep-grind=plu millet PSP a lot}\]

‘[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  

\[
\begin{align*}
\text{Hərməłɔm } & \text{na, amadaslav ala mæz na, ndahan ese na,} \\
\text{Hurmbəłɔm } & \text{na ama-dəl=ava=ala mrgə na ndahan eʃe na}
\end{align*}
\]

God PSP DEP-multiply=in=to person PSP 3s again PSP

‘God, the one that multiplied the people, him again,’

\[
\begin{align*}
\text{kagas ma Hərməłɔm } & \text{na asabay na,} \\
\text{ka-gas } & \text{ma Hurmbəłɔm na asa-baj na}
\end{align*}
\]

2s-catch word God PSP again-NEG PSP

‘[if] you catch God’s word no longer,’

\[
\begin{align*}
\text{káagas na, anga way?} \\
\text{káá-gas } & \text{na anga waj}
\end{align*}
\]

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 sla ahay na, tozom gəvah na, jəyga anga lôme zlom.  

\[
\begin{align*}
\text{waja } & \text{la=ahaj na tɔ́-zɔ́m gəvax na dzijga anga līme kəm}
\end{align*}
\]

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, lôme dəw, nəzəlogem va na, jəyga.  

\[
\begin{align*}
\text{nde } & \text{na līme duw nə-koŋ-əm va na dzijga}
\end{align*}
\]

so PSP 1PEx also 1s+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 kəy élɛ na, nazəmom ɛle ata na, bay.

\[\text{nde kij} \quad \text{ɛlɛ} \quad \text{na} \quad \text{nə-zum-ɔm} \quad \text{ɛlɛ =atəta} \quad \text{na baj}\]

so ID:looking eye PSP 1S+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

\[\text{Alala na, ver na, árah mbəf na həmbø na,}\]

\[\text{a-l=ala na ver na á-rax mbəf na həmbø na}\]

3S-go=to PSP room PSP 3S+IFV-fill ID:up to the roof with flour PSP

‘Later, the room, it filled up to the roof with the flour;’

\[\text{ɗək məɗəkaka alay ana hor na,}\]

\[\text{ɗək mə-dək=aka=alaj ana hʷɔr na}\]

plug NOM-plug=on=away DAT woman PSP

‘[the flour] suffocated the woman,’

\[\text{nata ndahan dəɓəsolək mamətava alay a hɔf a hay na ava.}\]

\[\text{nata ndahan dəɓəsolək w ma-mət=ava=alaj a hʷɔf a haj}\]

then 3S ID:collapse/die NOM-die=in=away at stomach GEN house

\[\text{na ava}\]

PSP in

‘and then she collapsed *dəɓəsolək*, dying inside the house.’

The 3S DO pronominal *na* (see 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). Two examples showing the ambiguity are (52–53). 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*, dək mədakan *na* *mənjəye ata*.

ʃɛŋ=ala na zar=ahan na dək mə-dak=an na
ID:go=to PSP man=3S.POSS PSP show NOM-show=3S.IO PSP

mi-n3-ije=atəta
NOM-sit-CL=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*,

nde asa bahaj a ɬa *na* ndahanaka 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 na gəvah] *na*, deden *na*, ndahan *na*,
11.5 Presupposition-focus construction

[tɔ̀-zɔm na ɡəvax] na dɛfɛŋ na ndahɑŋ 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 élé ahan bay na, [məɡɔye na ahan] na memey?
á-mənzar nə ɛlɛ=ahɑŋ baj na [mu-g-iɛ na=ahɑŋ] na
3S+IFV-see with thing=3S.POSS NEG PSP NOM-do-CL 3S.DO=3S.POSS PSP
memɛj
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 may combine in six 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.

- Conjunction (Section 12.3). A clause linked to another clause by a conjunction.

- Juxtaposition (Section 12.4). Two independent clauses may be linked by juxtaposition.

- Relative clause (discussed in Section 5.4.3). Relative clauses are clauses embedded in a noun phrase within the matrix clause.

- Expectation marker (discussed in Section 11.1). One clause may be marked with na or other expectation marker. The na-marked clause contains known or presupposed information.

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 Clause combining

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 or aspectual values. The nominalised form collocates with constructions that represent a finished, accomplished event, e.g., the nominalised form is found as a complement of ndav ‘finish,’ (1, see Section 7.6). In contrast, the dependent form is found in constructions that refer to an event that is incomplete or unachieved at the time of the matrix situation, e.g., the dependent form is found as a complement of the verb of inception zlan ‘begin’ as in (7) (see also Section 7.7). In the examples, the subject of the complement clause is indicated by Ø when it is the same as the subject of the matrix clause. 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-wutf-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 indicates that the event expressed by the verb is completed.

(2) [[Məmbəɗe ahan na], asaw].
   [[mu-mbid-ɛ=ahan na] a-s=aw]
   NOM-remain-CL=3S.POSS PSP 3S-please=1S.IO
   'I want the leftovers.' (lit. its remains pleases me)

(3) [Bahay amakay [məzame sese]].
   [bahaj à-mak-aj [Ø mi-ʒʊm-ɛ [ɛɛ]]]
   chief 3S+PFV-leave-CL NOM-eat-CL meat
   'The chief stopped eating meat.' (lit. the chief left the eating of meat)

1The situation refers to something that occurred in the past with ongoing effects to the point of reference.
12.1 Complement clauses

(4) [Nasar [mədaye daf bay].
[na-sar [Ø mi-d-ije daf] baj]
1s-know NOM-prepare-CL millet loaf NEG
‘I don’t know how to make millet loaves.’ (lit. I don’t know the preparing of millet loaf).

(5) Disobedient Girl, S. 4
[Ávata [məvəye hada]].
[á-v=ata [mi-v-ije hada]]
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-spending; the nominalised form of the verb ‘spend time’ has been lexicalized as ‘year’)

(6) [Ege [məvəye məko ehe], [nawas hāy əwla].
[ɛ-g-e [mi-v-ije mɔkʷɔ əhɛ] [na-was haj=uwla]
35-do-CL NOM-spend time-CL six here 1s-cultivate millet=1s.POSS
‘Six years ago (lit. it did six years here), I cultivated my millet.’

In contrast, the dependent form is found in clauses where the event is incomplete or unachieved idea at the time of the matrix situation, e.g., the verb of inception zlan ‘begin’ (7 and 8) (see also 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-ƚaŋ [Ø amu-wutʃ-ɛ]]
1s-begin DEP-write-CL
‘I begin to write.’

(8) [Tazlan aləme [aməzlæge va]].
[ta-ƚaŋ =alɛm [Ø amɪ-kɪg-ɛ va]]
3p-begin =1PEx.IO DEP-plant-CL body
‘They started to fight us.’ (lit. they started to us planting bodies)

(9) [Asarkva [amapəɗe sese]].
[a-sark=va [Ø amɪ-ŋɪfɛ ʃɛʃɛ]]
3s-habitually=PRF DEP-crunch-CL meat
‘He usually eats meat.’ (lit. He had a habit to eat meat)
12 Clause combining

(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. Note that the subject of the complement clause (Ø) has the same referent as the indirect object of the matrix clause (=aw ‘to me’) in (11).²

(11) [Asaw [aməpede sese]].
[a-s=aw [Ø ami-ped-ε ⚬εε]]
3s-please=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=an [Ø ama-d=ata =aka=va azan]]
3s-please=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 story³
[Asaw [aməgoye ambele mbɛle na məktonok]].
[a-s=aw [Ø ami-g-ijɛ ambele mbɛle na məkʷtənəkʷ]]
3s-please=1s.io DEP-do-cl race with toad
‘I want to race with the toad.’ (lit. to do a race with the toad 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

²Compare with (22) in Section 12.1.2 where the subject of the complement clause is different and must be specified in the clause.
³Friesen 2003.
12.1 Complement clauses

the direct object of verbs expressing propositional attitude: ‘know’ (14), ‘think’ (15), ‘believe’ (16), ‘doubt’ (17), ‘forget’ (18), and ‘worry’ (19). Many of the examples in this section are elicited and therefore the first clause is followed by the presupposition marker na (Section 11.1). This marker indicates that the first clause contains presupposed (mutually known) information (in this case, the presupposition was established by the elicitation question).

(14) [Nasar na va, [bahay apadɔva sese]].
    [na-sar na =va [bahaj á-padɔ=va fεfε]]
1s-know DO =PRF chief 3s+PFV-crunch=PRF meat
‘I know it, the chief ate meat.’

(15) [Nəɗagalay na, [bahay apadɔva sese]].
    [nə-ɗagal-aj na [bahaj á-padɔ=va fεfε]]
1s-think-CL PSP chief 3s+PFV-crunch=PRF meat
‘I think [that] the chief ate meat.’

(16) [Nafaɗ na, [bahay apadɔva sese]].
    [na-faɗ na [bahaj á-padɔ=va fεfε]]
1s-place PSP chief 3s+PFV-crunch=PRF meat
‘I believe [that] the chief ate meat.’ (lit. I place, the chief already ate meat)

(17) [Nəkaɗ waya na, [bahay apadɔva sese]].
    [nə-kad waʒa na [bahaj á-padɔ=va fεfε]]
1s-kill because PSP chief 3s+PFV-crunch=PRF meat
‘I doubt [that] the chief ate meat.’ (lit. I counsel that)

(18) [Acrastlaw a har ava [bahay apadɔva sese]].
    [a-τʃaŋɔ=aw a har ava [bahaj á-padɔ=va fεfε]]
3s-forget=15.10 at body in chief 3s+PFV-crunch=PRF meat
‘I forgot [that] the chief ate meat.’

(19) [Nazlaway na, [bahay apadɔva sese]].
    [na-ɮaw-aj na [bahaj á-padɔ=va fεfε]]
1s-fear-CL PSP chief 3s+PFV-crunch=PRF meat
‘I am afraid [that] the chief ate meat.’

Indirect speech is often expressed using a complement clause with a finite verb (20–21).
12 Clause combining

(20) [Ne awəy [bahay apəda va sese]].
[ne awij [bahaj à-padə-va ije]]
1S said chief 3S+PFV-crunch=PRF meat
‘I said [that] the chief ate meat.’

(21) [Məloko ahay baba ahay tawəy na,
[Mʊlɔkʷɔ=ahaj Moloko=Pl 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 e-g-ɛ ɓərav=va kə war anga mɪʒɛ dedelen ga
God 3S+PFV-do-CL heart=PRF on child poss person black ADJ
aka]]
‘God got mad at the black people.’ (lit. Creator did heart on the child that belongs to black person)

Complement clauses with irrealis verbs are embedded under matrix verbs of will and desire (‘wish,’ ‘want,’ ‘hope’). (22) shows a complement of the verb asaw ‘it pleases me.’ The complement shows the object of the desire expressed in the matrix clause. The complement has a different subject than the LOC of the desire in the matrix clause. The verb is finite and its subject is made explicit.4

(22) Asaw na, [bahay mapadaj sese].
[a-s=aw na [bahaj mà-pad-aj ije]]
3S-please=1S.IO PSP chief 3S+HOR-crunch-CL meat
‘I want the chief to eat meat.’ (lit. that the chief should eat meat pleases me).

In (22) above, the complement clause is the subject of the main verb; in (23), it is the indirect object.5

4Compare 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.
5In Moloko, the indirect object uniformly expresses the semantic LOC (e.g., recipient or beneficiary, see Chapter 9). In this case, the metaphorical location of the imploring is its purpose – where the speaker wants to go with his actions towards the chief. The semantic Theme (the chief) is being persuaded to the LOC (eating meat).
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; in (24), the subject is Ø and in (25–26) the subject pronoun *ndahan* precedes the dependent clause.

(24) Disobedient Girl, S. 5
[[Aməhaya kə ver aka na], tázař war élé háy bəlen].
[[Ø amə-h=aja kə ver aka na] tá-zař war élé haj bəlen]
     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 aməcen məbele a mbəko ahay dəreffefe na], awəy, “Almay?!”]
[[ndahan amə-tʃen mi-bel-ɛ a mbəkʷɔ=ahaj dɪrɛffɛfɛ id]
     3S DEP-hear NOM-move-CL GEN Mbuko=Pl ID:movement PSP

‘He, hearing the movement of the Mbuko’ (lit. he to hear moving of Mbukos *dɪrɛffɛfɛ*),
awij almaj]
said what
‘he said, “What?!”’

(26) Disobedient Girl, S. 16
[[Ndahan amandava bəl na], zar ahan olo ametele
[[ndahan amə-nd=ava bəl na] zar=ahaj 3-ŁO amə-tel-ɛ]
     3S DEP-sleep=in ID:some 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’
12 Clause combining

kə dəlməte əhan aka a ɬam ənəŋ.

kə dəlmətə=əhan aka a ɬam ənəŋ

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’). The dependent clause expresses the (as yet unachieved) purpose of the going; in (27) the reader does not know if the subject actually bought fish or not, although it is expected.

(27) [Olo a kosoko ava [amasakwame ənəf]].

ɔ-lo a kosokʷə ava [Ø amisokʷəm-ɛ ənəf]]

3s-go at market in DEP-buy/sell-CL fish

‘He/she went to the market [in order] to buy fish.’

(28) [Kəlen zar əhan na, enjé ele əhan [amatele]].

kɪlɛŋ then zar=əhan na ɛ-nž-ɛ ele=əhan [Ø amitɛl-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-lo [Ø amaz=ala agʷala 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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6We have not found clause-final adverbial clauses with other verbs.
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 specifies the relationship between the two linked clauses. Conjunctions can be either subordinating or coordinating. Clauses subordinated by a conjunction can be divided into two types, depending on whether the subordinate clause follows or precedes the main clause (discussed in Sections 12.3.1 and 12.3.2, respectively). Coordinating conjunctions link clauses that are not syntactically dependent on one another (Section 12.3.3). Conjunctive adverbs also function to link clauses (Section 12.3.4). Table 12.1 shows the characteristics of all of the conjunctions and conjunctive adverbs in Moloko.

12.3.1 Adverbial clauses introduced by a subordinating conjunction

When an adverbial clause introduced by a subordinating conjunction follows the main clause, the adverbial clause supplies new information to the discourse. The different subordinate conjunctions specify the relationship between the new information and the matrix clause. Subordinating conjunctions include \textit{bəyna} ‘because,’ \textit{waya} ‘because,’ and \textit{kəwaya} ‘because,’ (all involved in reason-result constructions) and \textit{ha} ‘until.’ Sentences in Moloko do not normally have multiple subordinate clauses. In the examples, each of the subordinate clauses is delimited by square brackets.

\textit{Bəyna} \footnote{\textit{Bəyna} ‘because’ may be a compound of the negative \textit{bay} and the presupposition marker \textit{na}.} ‘because’ (31–34) is used in result-reason clause constructions that link only two clauses. The clause subordinated by \textit{bəyna} demonstrates the proof for the statement in the matrix clause.
Table 12.1: Subordinating and coordinating conjunctions

<table>
<thead>
<tr>
<th>Conjunction</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subordinate conjunction</strong></td>
<td></td>
</tr>
<tr>
<td><em>boyna</em> 'because'</td>
<td>Demonstrates the proof for the statement in the matrix clause</td>
</tr>
<tr>
<td><em>waya</em> 'because'</td>
<td>Indicates the reason for something described in the previous clauses</td>
</tr>
<tr>
<td><em>kɔwaya</em> 'because' / 'that is'</td>
<td>Introduces clauses (or noun phrases) that give the reasoning of the speaker with regard to the situation expressed in previous clauses.</td>
</tr>
<tr>
<td><em>ha</em> 'until'</td>
<td>Expresses a literal or metaphorical boundary that marks the end of the activity or situation expressed in the matrix clause.</td>
</tr>
<tr>
<td><strong>Conditional conjunction</strong></td>
<td></td>
</tr>
<tr>
<td><em>asa...na</em> 'if...pɔp'</td>
<td>Condition is presupposed or a real possibility</td>
</tr>
<tr>
<td><em>asa...dɔw</em> 'if...also'</td>
<td>Condition presents a new possibility.</td>
</tr>
<tr>
<td><em>ana asa...na</em> 'to if...pɔp'</td>
<td>Condition presents a strong expectation to be fulfilled.</td>
</tr>
<tr>
<td><em>azana asa...na</em> 'maybe if...pɔp'</td>
<td>Condition might be fulfilled.</td>
</tr>
<tr>
<td><strong>Coordinate conjunction</strong></td>
<td></td>
</tr>
<tr>
<td><em>nata</em> 'and (then)'</td>
<td>Marks a clause which contains the most pivotal event in a narrative.</td>
</tr>
<tr>
<td><em>azlɔna</em> 'but'</td>
<td>Contains an element of counterexpectation with something in the previous clause.</td>
</tr>
<tr>
<td><strong>Conjunctive adverb</strong></td>
<td></td>
</tr>
<tr>
<td><em>kolen</em> 'next'</td>
<td>Indicates the next mainline event.</td>
</tr>
<tr>
<td><em>nde</em> 'therefore'</td>
<td>Often follows a digression</td>
</tr>
<tr>
<td><em>macɔ ámbay</em> 'meanwhile'</td>
<td>Marks conclusive statements.</td>
</tr>
<tr>
<td><em>macɔ ámbay</em> 'meanwhile'</td>
<td>Marks information off the main event line.</td>
</tr>
</tbody>
</table>
12.3 Clauses linked by conjunctions and conjunctive adverbs

(31) Snake, S. 19
Nəngehe na, Hərməłom aloko ehe, [bəyna anjakay nok
nŋehe na Hərməłəm=alɔkʷo ehe [bijna ə-nzak-aj nokʷ
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 mə-nd-ije=angʷɔ 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) Náavələkwəye səloy [bəyna kogom va slərele gam].
Náá-vəl=alʊkʷøyɛ
[bijna kə-gʷ-om =va hərele 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 lopijtal ava
1s+PFV-take=to sibling=1s.POSS at hospital in
‘I took my brother to the hospital’
[bəyna dəngə awəlan].
[bijna dəngʷɔ a-wəl=aj]
because throat 3s-hurt=3s.IO
‘because his throat was hurting.’

(34) Cicada, S. 14
Déden bahay, agwazla ngəndəye ágasaka ka mahay ango aka,
Déden bahay agʷa.Interval ngəndəye ágasaka ka mahaj=angʷɔ 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
doors,’
[bəyna agwazla ga səlom ga; aɓəsay ava bay].
[bijna agʷa.Interval ga səlom 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 that is 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 provides an explanation for the events in the preceding paragraph. 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 élé háy bəlen fan na,
war élé haj bîlɛn fαŋ na
child eye millet one yet PSP
‘Just one grain of millet,’
ánjata pew ha ámbad ēse.
á-nz= ata pɛw ha á-mbad ēfɛ
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=ahan av na
because at NOM-grind=PLU=3s.Poss in PSP
‘Because, during its grinding,’
ásak kə ver aka nə məsəke].
á-sak kə ver aka nə məsəke
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 subprefect.

(36) Nasar həraf əle əngehe asabay
nə-sar həraf əle əngehe 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),’
12.3 Clauses linked by conjunctions and conjunctive adverbs

[waya nəlva afa swəpərefe].
[waja nə-l=va afa suwpərefe]
because 1S+PFV-go=PRF at house of subprefect
‘because I had already been to the subprefect [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-ga ɓərav=va kuwaja war dalaj na
God 3S+IFV-do heart=PRF because of child girl PSP
‘God got angry because of that girl,’
amecen sləmay baj ngəndəye.
amɛ-tʃɛŋ ɬəmaj baj ɳgɪndijɛ
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=aḥaŋ=va]
because DEM God 3S+IFV-take=3P.IO=on blessing=3S.Poss=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 explanation 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.
12 Clause combining

(38) Disobedient Girl, S. 3
Zlezele na, Məloko ahay na, Hərmbəlom ávəlata barka va.
ɮɛɮɛ long ago PSP Moloko=Pl PSP God 3s+IFV-send=3s.10
barka=va blessing=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 nekʷɛŋ 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 hada
3s+IFV-spend time=3p.10 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 reason for God’s anger.

(39) Disobedient Girl, S. 33
Hərməlom ága bərav va
Hərməlom á-ga bərav=va
God 3s+IFV-do heart=PRF
‘God got angry (lit. did heart)’
[kəwaya war dalay amecen sləmay bay ngəndaye].
[kuwaja war dalaj amɛ-tʃɛŋ ləmaj baj ɬəmaj ɲgɪndijɛ]
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 cessation of the activity or situation expressed by the matrix clause (40,8 41).

8From the Race story, Friesen 2003.
12.3 Clauses linked by conjunctions and conjunctive adverbs

(40) Kərcece ahəməy ahəməy ahəməy
kɪrtʃɛtʃɛ a-həm-aj a-həm-aj a-həm-aj
giraffe 3s-run-cl 3s-run-cl 3s-run-cl
‘The giraffe ran and ran and ran’

[ha ayadəy ndele pəs pəsəs]a.
[ha a-jad-aj ndele pəs pəs=sa]
until 3s-tire-cl ID:completely 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 elè háy bolen fan na, ánjata pew
war elè haj bîlɛŋ fən na ánz=ata pew
cchild eye millet one already PSP 3s+ifv-suffice=3p.1o enough
‘One grain of millet, it sufficed for them’

[ha ambaɗ ese]a.
[ha a-mbad ɛɛ]a
until 3s-remain again
‘even to leaving leftovers.’ (lit. until it remained again)

12.3.2 Conditional construction

The subordinating conjunction asa ‘if’ introduces a condition on the realisation of the event expressed by 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 particle dəw ‘also.’ Which marker is employed depends upon speaker assessment. 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], náaabok.
[asa kɛ-g-ɛ akar na náá-b=ɔk⁵]a
if 2s+ifv-do-cl theft PSP 1s+pOT-beat=2s.1o
‘If you steal, I will beat you.’
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 nekʷɛŋ kijgɛhɛ ɗuw]  
if 3P+PFV-cultivate=PRF little  like this also
‘Even if they had only cultivated a little [millet] like this,’
ávata məvəye hada.  
á-v=ata mə-v-ijɛ hada  
3S+IFV-spend time=3P.IO NOM-spend time-CL many
‘it would last them enough for the whole year.’

(46) [Asa məze ahay tɔcahay ele dəw], Hɔrbəlɔm ecen asabay.  
[asa mɪʒɛ=ahaj tɔ-tsah-aj ele ɗuw] Hɔrbəlɔm 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.
12.3 Clauses linked by conjunctions and conjunctive adverbs

(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,’ (lit. if grinding pleases to you)

kázaɗ war élé háy bəlen.
ká-zaɗ 2s+ifv-take child eye millet one

‘you take only one grain.’

(48) Gəbar anday agaw [asa bahay apəfay sese na].
gəbar a-ndaj a-g=aw [asa bahaj à-pad-aj [eʃɛ 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 modify its force. 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 kɛ̀-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 tənday təzləbag eyel memey na],
azána asa ta-ndaj ta-ɡaɓ-aj ɛlɛ memɛj na]
maybe if 3P-PROG 3P-pound-CL thing how PSP

‘When something is being pounded,’ (lit. if perhaps they are pounding something.)

tázləgalay avəlo bay.
tá-ɡag=alaj avəlo 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 Clause combining

12.3.3 Coordinate constructions

Coordinate constructions consist of two independent clauses linked by a coordinate conjunction. The coordinating conjunction specifies the way that the clauses are connected. They include \textit{nata} ‘and then’ and \textit{az\lona} ‘but.’ In (51–55), the conjunction is bolded and the coordinate clause is delimited by square brackets.

\textit{Nata} ‘and then’ marks the clauses which contain the most pivotal events in a narrative. Two clauses from the Cicada narrative are marked with \textit{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 \textit{nata} (52). This marked peak event is the death of the girl, the result of her disobedience.

(51) \textit{Cicada}, S. 25
\begin{verbatim}
[Nata olo],
[nata 3-lɔ]
and then 3S+PFV-go
‘And then he went,’
\end{verbatim}

\begin{verbatim}
Cicada, S. 26
albaya ahay tolo sen na,
albaja=ahaj tə-lɔ ʃɛŋ na
youth=Pl 3P-go ID:go PSP
‘The young men went,’
\end{verbatim}

albaya ahay weley tɔh anan dəray na, abay.
albaja=ahaj wɛlɛj ʃɛŋ təx an=aŋ dəraj na abaj
youth=Pl which ID:put DAT=3S.IO head PSP EXT+NEG
‘None of the young men could lift it.’ (lit. whichever young man put his head [to the tree in order to lift it], there was none)

(52) \textit{Cicada}, S. 27
\begin{verbatim}
[Nata mətəde tɔh anan dəray ana agwazla ngəndəye].
[nata mitiə tɔx an=aŋ dəraj ana ag*aŋa ŋəndiə]
and then cicada ID:put on head DAT=3S.IO head DAT spp. of tree DEM
\end{verbatim}

‘And then the cicada put his head to that tree.’
12.3 Clauses linked by conjunctions and conjunctive adverbs

(52) Disobedient Girl, S. 26
Alala na, ver na árah mbəf na həmbo na,
a-l=ala na ver na á-rax mbəf na həmbo na
3s-go=to psp room psp 3s+ifv-fill id:up 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
plug nom-plug=on=away dat woman psp
‘it suffocated the woman,’

[ndata ndahan dəɓəsolək məmətava alay a hɔf a hay na ava].
[ndata ndahan dəɓəsoləkw̃ mə-mət=ava=alaj a hʷɔd a haj then 3s id:collapse/die nom-die=in=away at stomach gen house
na ava]
psp in
‘and then she collapsed dəɓəsolək, dying inside the house.’

Azləna9 ‘but’ indicates that the clause that follows will contain an element of counter-expectation to 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 [akəna war dalaj ndana tʃəkiʃere
3s+pfv-go 3s+pfv-take=to girl but girl female dem disobedience
ga]
adj
‘He went and took a wife, but the girl [was] disobedient.’

(54) Avəyon agan va gəɓar ana Abangay. Ahəman alay nekwən.
aviŋ a-g=aŋ =va gəɓar ana Abangaj a-həm=an =alaj nekwəŋ
airplane 3s-do=3s.10 =prf fear dat Abangay 3s-run=3s.10 =to little
‘The airplane made Abangay afraid (lit. did fear to her), [so] she ran away a little.’

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9Azləna ‘but’ may be a compound of azla ‘now’ and the presupposition marker na.
12.3.4 Adverbial clauses with conjunctive adverbs

Conjunctive adverbs are adverbs that function to connect clauses within a larger discourse. 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 follow the first argument in the clause (56).

(56) Cicada, S. 5–6
Tánday tə́talay a lsruhe na,
tá-nə́daj tə́-tal-aj a lihe na
3P+IFV-PROG 3P+IFV-walk-CL at bush PSP
‘[As] they were walking in the bush,’
12.3 Clauses linked by conjunctions and conjunctive adverbs

təlo tənjakay agwazla malan ga a ləhe.
tə̀-lɔ tə̀-nzak-aj agʷała malan ga a lɪhɛ
3P+PFV-go 3P+PFV-find-CL spp. of tree large ADJ to bush
‘they went and found a large tree (a particular species) in the bush.’

[Albaya ahay ndana ƙalen təŋgalala ma ana bahay].
[albaja=ahaj ndana kilen tɔŋgala=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). ƙalen functions to signal to the hearer that the events in S. 8 are part of the event line (the reported speech in S. 7 was a digression from the event line).

(57) Cicada, S. 7
Tawəy, “Bahay, mama agwazla ava a ləhe na, malan ga na,
tawij bahaj mama agʷała 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=aŋʷɔ 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
[ƙalen albaya ahay ndana tolo].
[kilen albaja=ahaj ndana təlo]
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.’ Example (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. Example (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. Nde marks a concluding statement in an instruction in (60).
12 Clause combining

(58)  Disobedient Girl, S. 32–34

[ Ndɛ k"ɔ=ala a ɗəma ndana ava pew]! Mɔlɔko ahay tawɔy,  
[ ndɛ ɔ=ala a ɗəma ndana ava pew]  Mɔlɔk"ɔ=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 á-ga ɓərav va kəwaya war dalay na,  
Hʊrmbʊlɔm á-ga ɓərav=va kuwaja war dalaj na  
God 3s+ifv-do heart=prf because of child girl  psp  
‘God got angry because of that girl,’

amecen sləmay bay ngəndaye.  
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  
because DEM God 3s+ifv-take=3p.io =on  
barka=ahan=va  
blessing=3s.poss=prf  
‘Because of that, God had taken back his blessing from them.’

(59)  Tanday taslaw aka babəza ahay va.  
ta-ndaj ta-l=aw =aka babəza=ahaj=va  
3P-prog 3P-kill=1s.io =on children=Pl=prf  
‘They were killing more of my children.’

[Ndɛ taslaw aka babəza ahay va na,  
[ ndɛ ta-l=aw =aka babəza=ahaj=va na  
so 3P-kill=1s.io =on children=Pl=prf psp  
‘So [since] they killed more of my children,’

nəhəm=ai mogo ele əwla].  
nə-həm-aj məg*ɔ ele=uwla]  
1s-run-cl anger thing=1s.poss  
‘I ran away because of my anger (lit. I ran my anger thing).’
12.3 Clauses linked by conjunctions and conjunctive adverbs

(60) Nahok na va, kége akar bay.
\( nà-h=ɔkʷ \) na = va \( kɛ́-g-ɛ \) akar baj
1s+PFV-tell=2S.io 3s.do=PRF 2s+1fv-do-CL theft NEG
‘I already told you, don’t steal,’

[Asa bay na], náaɓok.
[asa  bay  na] náá-ɓ=ɔkʷ
again NEG PSP 1s+POT-beat=2S.io
‘if not, I will beat you.’

[Nde azləna kagəva akar] náaɓok azla.
[ndɛ aɮəna  ka=ɡə=va  akar] náá-ɓ=ɔkʷ aɮa
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 marked in this way occurred off the main event line. Example (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  mi-him-ɛ  birketem birketem birketem
id:sudden start 3p-prepare=plu nom-run-cl id:run id:run id:run
‘Paraw, they started the race, running birketem, birketem, birketem.’

Kərcece enjé təf na, awwəy, “Moktonok nok amta?”
kərʃɛtʃɛ ɛ-ŋə-ɛ  təf  na  awij mɔkʷtɔnɔkʷ  nɔkʷ  amta
giraffe 3s-leave-cl id:far PSP said toad 2s where
‘The giraffe went far away [along the race route]. He said, “Toad, where are you?”’

Moktonok awwəy, “Ne ko ehe.” Awəy, “Wa alma⁈”
mɔkʷtɔnɔkʷ awij ɛ kʷo  ehe  awij wa  alma
toad said 1s no matter here said what what
12 Clause combining

[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.’

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. 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 daren bay].
[ndahan bəfa] [a-ndaj dɪrɛŋ baj]
he ID:close 3S-PROG far NEG
‘So, he was close, he was not far.’

(63) [Makay war]; [mapadaj sese ahan].
[mak-aj war] [mà-pad-aj ʃɛʃɛ=ahaŋ]
leave[2S.IMP]-CL child 3S+HOR-crunch-CL meat=3S.POSS
‘Leave the child alone; let him eat his meat.’

The presupposition marker na aids in making a connection between two clauses, because it makes it explicit that the first (na-marked) clause is known information. Na constructions have already been discussed in Section 11.1.
12.4 Juxtaposed clauses

(64) [Nəmənjar bahay]; [ndahan aka ozom sese].
   [nə-mənzar bahaj] [ndahan əká ə-zəm ʃɛʃɛ]
1S-see chief 3S on 3S+IFV-eat meat

‘I see the chief; he is eating meat.’

Example (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
   [Mbaɗala ehe na, nabay əko],
   [mbaɗala ehe na əkʷə]
then here PSP 1S+PFV-light-CL fire

‘Then, I turned on a light,’

Snake, S. 9
   [nazala təystəlam əwla],
   [nà-zaɗ=ala tijstəlam=uwla]
1S+PFV-take=to torch=1S.Poss

‘I took my flashlight,’

Snake, S. 10
   [nabay əzəlarr].
   [nà-b-aj tsəɮarr]
1S+PFV-light-CL ID:shining the flashlight up

‘I shone it up əzəlarr.’

Two juxtaposed clauses can express a logical or chronological sequence. A temporal (or logical) sequence from the Cicada fable is seen in (66). 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
   [Káazəɗom anaw ala agwazla ndana ka mahay əwla aka].
   [káá-zʊɗ-ɔm an=aw =ala agʷə əkə 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.’
12 Clause combining

[\text{Káafɗom anaw ka mahay əwla aka}].
\text{[káá-fʊɗ-ɔm an=aw ka mahaj=uwla aka]}
\text{2P+POT-put-2P DAT=1S.IO on door=1S.Poss on}

‘You will put it down by my door.’

Example (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 \textit{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
\[\text{[Ne mbət məmbete oko əwla na].}\]
\text{[nɛ mbət mi-mbɛt-ɛ ɔkʷɔ=uwla na]}
\text{1S turn off NOM-turn off-CL light=1S.Poss PSP}

‘I turned off my light.’

\[\text{[Kaləw nazala ezlere əwla].}\]
\text{[kàluw nà-zaɗ=ala ɛɮɛrɛ=uwla]}
\text{1D:take quickly 1S+PFV-take=to spear=1S.Poss}

‘Quickly I took my spear.’

Snake, S. 14-15
\[\text{[Mək ava alay]. [Mecesle mbəraɓ].}\]
\text{[mək=ava=alaj [mɛ-tʃɛɬ-ɛ mbəraɓ]}
\text{1D:penetrate=in=to NOM-penetrate-CL 1D:penetrate}

‘Penetration mək! It penetrated, mbəraɓ!’

Snake, S. 16
\[\text{[Ele a Hərmbəlom, ele ga ajənaw ete}\]
\text{[ɛlɛ a Hʊrmbʊlɔm ɛl ɡa à-dzən=aw ɛtɛ}
\text{thing GEN God thing ADJ 3S+PFV-help=1S.IO also}

‘God helped me also’

\text{kol kə ndahan aka].}
\text{kol kə ndahan əkaka]

‘[that the spear] went exactly on him’
12.4 Juxtaposed clauses

Snake, S. 17
[Adədaala vbaɓ a wəyen ava].
[a-dəɗ=ala vab a wijen ava]
3s+ifv-fall=to id:falling 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 id:approximately nom-kill-cl 3s.do=on
‘I clubbed it to death (approximately).’

Two clauses linked by juxtaposition can also express a comparison (68–69). The first clause is a predicate-adjective clause (see Section 10.1.2) including the attribute being compared. The second clause establishes the comparison by means of the verb dal ‘pass.’

(68) [Kəra malan ga], [adal pataw].
[kəra malan ga] [a-dal pataw]
dog largeness adj 3s-pass cat
‘The dog is bigger than the cat.’ (lit. the dog [is] big, it is greater than the cat)

(69) [Ne mədehwer ga], [nadal nok].
[ne mʊɖəhʷər ga] [na-dal nɔkʷ]
1s old person adj 1s-pass 2s
‘I am older than you.’ (lit. I old person, I surpass 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 (1997c).

<table>
<thead>
<tr>
<th>2s Imperative</th>
<th>Underlying form</th>
<th>Underlying tone</th>
<th>Tone on Imperative</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>baday</td>
<td>/a-CC -j/</td>
<td>L</td>
<td>LM</td>
<td>‘marry’</td>
</tr>
<tr>
<td>balay</td>
<td>/CaC -j/</td>
<td>H</td>
<td>HH</td>
<td>‘wash’</td>
</tr>
<tr>
<td>batay</td>
<td>/a-CaC -j/</td>
<td>L</td>
<td>LM</td>
<td>‘evaporate’</td>
</tr>
<tr>
<td>bay</td>
<td>/C -j/</td>
<td>L</td>
<td>L</td>
<td>‘light’</td>
</tr>
<tr>
<td>baz</td>
<td>/a-CC/</td>
<td>L?</td>
<td>L</td>
<td>‘harvest’</td>
</tr>
<tr>
<td>bazlay</td>
<td>/a-CC -j/</td>
<td>L</td>
<td>LM</td>
<td>‘weed, breathe’</td>
</tr>
<tr>
<td>bajakay</td>
<td>/CCaC -j/</td>
<td>L</td>
<td>LLM</td>
<td>‘dig shallow’</td>
</tr>
<tr>
<td>bajogamay</td>
<td>/CCCaC -j/</td>
<td>L</td>
<td>LLLM</td>
<td>‘crawl’</td>
</tr>
<tr>
<td>borkaday</td>
<td>/CCCaC -j/</td>
<td>L</td>
<td>LLM</td>
<td>‘collect, squeeze’</td>
</tr>
<tr>
<td>børwaday</td>
<td>/CCCaC -j/</td>
<td>L</td>
<td>LLM</td>
<td>‘drive’</td>
</tr>
<tr>
<td>bokay</td>
<td>/a-CC -j°/</td>
<td>L</td>
<td>LM</td>
<td>‘cultivate second time, be bald’</td>
</tr>
<tr>
<td>bolay</td>
<td>/a-CaC -j°/</td>
<td>L?</td>
<td>LM</td>
<td>‘knead, soak’</td>
</tr>
<tr>
<td>bøay</td>
<td>/C -j/</td>
<td>H</td>
<td>H</td>
<td>‘hit’</td>
</tr>
<tr>
<td>bøah</td>
<td>/CaC/</td>
<td>L</td>
<td>M</td>
<td>‘sew’</td>
</tr>
<tr>
<td>bøal</td>
<td>/CC/</td>
<td>H</td>
<td>H</td>
<td>‘stir’</td>
</tr>
<tr>
<td>bøar</td>
<td>/CC/</td>
<td>H</td>
<td>H</td>
<td>‘shoot (arrow)’</td>
</tr>
<tr>
<td>bøaray</td>
<td>/CaC -j/</td>
<td>H</td>
<td>HH</td>
<td>‘restless when sick’</td>
</tr>
<tr>
<td>bøasay</td>
<td>/CC -j/</td>
<td>toneless</td>
<td>LM</td>
<td>‘put up with’</td>
</tr>
<tr>
<td>bøelen</td>
<td>/CaCC°/</td>
<td>L°</td>
<td>MH</td>
<td>‘build up to’</td>
</tr>
<tr>
<td>bøezlen</td>
<td>/ CaCC °/</td>
<td>L°</td>
<td>LL</td>
<td>‘count’</td>
</tr>
<tr>
<td>bøorzlay</td>
<td>/CCC -j/</td>
<td>toneless?</td>
<td>LM</td>
<td>‘throw a fit’</td>
</tr>
<tr>
<td>bøaslay</td>
<td>/CC -j/</td>
<td>toneless</td>
<td>LM</td>
<td>‘cough’</td>
</tr>
<tr>
<td>bøorcøy</td>
<td>/CCC -j°/</td>
<td>L</td>
<td>MH</td>
<td>‘first pounding, tear to pieces’</td>
</tr>
<tr>
<td>bøorøy</td>
<td>/a-CaC -j°/</td>
<td>L</td>
<td>LM</td>
<td>‘go up, climb’</td>
</tr>
<tr>
<td>cabay</td>
<td>/a-CaC -j/</td>
<td>L</td>
<td>MH</td>
<td>‘skewer’</td>
</tr>
</tbody>
</table>
### A List of verbs

<table>
<thead>
<tr>
<th>2s Imperative</th>
<th>Underlying form</th>
<th>Underlying tone</th>
<th>Tone on Imperative</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>caday</td>
<td>/a-CaC -j/</td>
<td>L</td>
<td>MH</td>
<td>‘smooth’</td>
</tr>
<tr>
<td>caday</td>
<td>/CC -j/</td>
<td>L</td>
<td>MH</td>
<td>‘clear’</td>
</tr>
<tr>
<td>caday</td>
<td>/a-CC -j/</td>
<td>L</td>
<td>LM</td>
<td>‘castrate’</td>
</tr>
<tr>
<td>cahay</td>
<td>/CaC -j/</td>
<td>L</td>
<td>M</td>
<td>‘get water’</td>
</tr>
<tr>
<td>cahay</td>
<td>/CaC -j/</td>
<td>H</td>
<td>HH</td>
<td>‘ask’</td>
</tr>
<tr>
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<td>/a-CaC -j/</td>
<td>L</td>
<td>MH</td>
<td>‘scar’</td>
</tr>
<tr>
<td>capay</td>
<td>/CaC -j/</td>
<td>L</td>
<td>MH</td>
<td>‘drape, double’</td>
</tr>
<tr>
<td>car</td>
<td>/CC/</td>
<td>H</td>
<td>H</td>
<td>‘climb’</td>
</tr>
<tr>
<td>car</td>
<td>/CaC/</td>
<td>L</td>
<td>M</td>
<td>‘taste good’</td>
</tr>
<tr>
<td>car</td>
<td>/CaC -j/</td>
<td>H</td>
<td>HH</td>
<td>‘tear up’</td>
</tr>
<tr>
<td>carzlay</td>
<td>/CCC -j/</td>
<td>toneless?</td>
<td>LM</td>
<td>‘fold (legs)’</td>
</tr>
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<td>cazlay</td>
<td>/a-CaC -j/</td>
<td>L</td>
<td>MH</td>
<td>‘pierce, cut’</td>
</tr>
<tr>
<td>cazlay</td>
<td>/CaC -j/</td>
<td>toneless</td>
<td>LM</td>
<td>‘have a headache’</td>
</tr>
<tr>
<td>ce</td>
<td>/C -j 😎/</td>
<td>H</td>
<td>H</td>
<td>‘be small’</td>
</tr>
<tr>
<td>cefie</td>
<td>/CaC - j 😎/</td>
<td>L?</td>
<td>MH</td>
<td>‘betray’</td>
</tr>
<tr>
<td>cen</td>
<td>/CC 😎/</td>
<td>H</td>
<td>H</td>
<td>‘understand’</td>
</tr>
<tr>
<td>codokay</td>
<td>/CCaC -j 😎/</td>
<td>L</td>
<td>MMH</td>
<td>‘crouch, squat’</td>
</tr>
<tr>
<td>cafaday</td>
<td>/CCC -j/</td>
<td>L</td>
<td>MMH</td>
<td>‘ask’</td>
</tr>
<tr>
<td>cojen</td>
<td>/CC 😎/</td>
<td>H</td>
<td>H</td>
<td>‘understand’</td>
</tr>
<tr>
<td>cokafay</td>
<td>/CCaC -j 😎/</td>
<td>L</td>
<td>MMH</td>
<td>‘get up’</td>
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<td>cokalay</td>
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<td>L</td>
<td>MMH</td>
<td>‘assemble, unite’</td>
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<td>/CCC -j/</td>
<td>L</td>
<td>LLM</td>
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<tr>
<td>coke</td>
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<td>L</td>
<td>MH</td>
<td>‘stand up, standing’</td>
</tr>
<tr>
<td>colokay</td>
<td>/CCC -j 😇/</td>
<td>toneless?</td>
<td>LM</td>
<td>‘peel’</td>
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<td>cozlahay</td>
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<td>L</td>
<td>LLM</td>
<td>‘cut, chop’</td>
</tr>
<tr>
<td>cokoy</td>
<td>/CaC -j 😇/</td>
<td>L</td>
<td>MH</td>
<td>‘undress’</td>
</tr>
<tr>
<td>dabay</td>
<td>/CC -j/</td>
<td>toneless</td>
<td>LM</td>
<td>‘follow, look for’</td>
</tr>
<tr>
<td>dad</td>
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<td>L</td>
<td>‘fall’</td>
</tr>
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<td>/a-CaC -j/</td>
<td>L</td>
<td>LM</td>
<td>‘bump’</td>
</tr>
<tr>
<td>dal</td>
<td>/a-CC/</td>
<td>L</td>
<td>L</td>
<td>‘go beyond, go past, overtake, pass’</td>
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<tr>
<td>damay</td>
<td>/CC -j/</td>
<td>LL?</td>
<td></td>
<td>‘succeed (at work)’</td>
</tr>
<tr>
<td>dar</td>
<td>/CC/</td>
<td>toneless</td>
<td>L</td>
<td>‘recoil’</td>
</tr>
<tr>
<td>dar</td>
<td>/CC/</td>
<td>H</td>
<td>H</td>
<td>‘burn, grill’</td>
</tr>
<tr>
<td>daray</td>
<td>/a-CaC -j/</td>
<td>L</td>
<td>LM</td>
<td>‘plant, snore, bow low, pray’</td>
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<tr>
<td>daslay</td>
<td>/a-CaC -j/</td>
<td>L</td>
<td>LM</td>
<td>‘castrate, sterilize’</td>
</tr>
<tr>
<td>dav</td>
<td>/CC/</td>
<td>?</td>
<td>L</td>
<td>‘drop, throw, lay eggs’</td>
</tr>
<tr>
<td>dazlay</td>
<td>/CaC -j/</td>
<td>?</td>
<td>LM</td>
<td>‘join, tie, cross’</td>
</tr>
<tr>
<td>2s Imperative form</td>
<td>Underlying tone</td>
<td>Tone on Imperative</td>
<td>Gloss</td>
<td></td>
</tr>
<tr>
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<td>de</td>
<td>/C é/</td>
<td>L</td>
<td>L</td>
<td>'cook, prepare'</td>
</tr>
<tr>
<td>dabakay</td>
<td>/CCaC -j/</td>
<td>L</td>
<td>LLM</td>
<td>'relieve'</td>
</tr>
<tr>
<td>dabanay</td>
<td>/CCC -j/</td>
<td>L</td>
<td>LLM</td>
<td>'teach, learn'</td>
</tr>
<tr>
<td>dôngaday</td>
<td>/CCC -j/</td>
<td>L</td>
<td>LLM</td>
<td>'lean back'</td>
</tr>
<tr>
<td>dọya</td>
<td>/C / =ija</td>
<td>?</td>
<td>HM</td>
<td>'take many'</td>
</tr>
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<td>/a-CaC -j°/</td>
<td>L</td>
<td>LM</td>
<td>'arrive'</td>
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<td>LM</td>
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<td>ge</td>
<td>/C -j é/</td>
<td>H</td>
<td>H</td>
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<td>'bend over'</td>
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<td>godagalay</td>
<td>/CCCaC -j/</td>
<td>L</td>
<td>LLLM</td>
<td>'get fat'</td>
</tr>
</tbody>
</table>
### A List of verbs

<table>
<thead>
<tr>
<th>2s Imperative</th>
<th>Underlying form</th>
<th>Underlying tone</th>
<th>Tone on Imperative</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>gədəgaray</td>
<td>/CCCaC-j/</td>
<td>L</td>
<td>LLM</td>
<td>'granulate, weave'</td>
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<td>gəjah</td>
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<td>L?</td>
<td>LL</td>
<td>'pull'</td>
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<td>L</td>
<td>LLM</td>
<td>'hang'</td>
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<td>MM</td>
<td>'take or steal by force'</td>
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<td>'rot meat or skin to flavour food'</td>
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<td>LLM</td>
<td>'lose weight'</td>
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<td>'tan'</td>
</tr>
<tr>
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<td>'throw, sow'</td>
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<td>/a-CaC -j°/</td>
<td>L</td>
<td>LM</td>
<td>'brush'</td>
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<td>'strip leaves from stalk'</td>
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<td>HH</td>
<td>'pay certain debt'</td>
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<td>H</td>
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<td>'run'</td>
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<td>'make, build'</td>
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<td>'jump, pull out'</td>
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<td>Underlying form</td>
<td>Underlying tone</td>
<td>Tone on Imperative</td>
<td>Gloss</td>
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<td>HH</td>
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<td>toneless</td>
<td>LM</td>
<td>'call'</td>
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</tbody>
</table>
### A List of verbs

<table>
<thead>
<tr>
<th>2s Imperative</th>
<th>Underlying form</th>
<th>Underlying tone</th>
<th>Tone on Imperative</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>mbar</em></td>
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<td>H</td>
<td>H</td>
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<td>L</td>
<td>LM</td>
<td>‘smile, laugh’</td>
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<td>toneless</td>
<td>L</td>
<td>‘destroy’</td>
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<tr>
<td><em>mbes</em></td>
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<td>L</td>
<td>M</td>
<td>‘argue, scold’</td>
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<td><em>mbesen</em></td>
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<td>?</td>
<td>HM</td>
<td>‘rest, breathe, live’</td>
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<td>?</td>
<td>HM</td>
<td>‘put out, extinguish’</td>
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<td>/CCC -j/</td>
<td>toneless?</td>
<td>LM</td>
<td>‘blink slowly, break violently’</td>
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<td>LM</td>
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<td>toneless?</td>
<td>LM</td>
<td>‘destroy violently’</td>
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<tr>
<td><em>mbøzen</em></td>
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<td></td>
<td>LL</td>
<td>‘spoil’</td>
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<td>L</td>
<td>LM</td>
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<td>toneless?</td>
<td>LM</td>
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<td>/a-CaC -j o/</td>
<td>L</td>
<td>LM</td>
<td>‘gather with a stick’</td>
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<td>/CCC -j o/</td>
<td>toneless?</td>
<td>LM</td>
<td>‘untie’</td>
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<td><em>mɔlay</em></td>
<td>/a-CC -j/</td>
<td></td>
<td>LM</td>
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<td>L</td>
<td>LLM</td>
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<tr>
<td><em>mɔnjar</em></td>
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<td></td>
<td>LL</td>
<td>‘see, resemble’</td>
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<td>/CCC -j/</td>
<td>L</td>
<td>MH</td>
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<td>L</td>
<td>M</td>
<td>‘ripen, mature’</td>
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<td>?</td>
<td>?</td>
<td>‘in progress’</td>
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<td>H</td>
<td>H</td>
<td>‘weave’</td>
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<td>HH</td>
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<td>L</td>
<td>‘to work with wood or grasses to make something’</td>
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<td>L</td>
<td>‘sit, stay, live’</td>
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<td>pol’ay</td>
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<td>‘shell’</td>
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<td>‘split in half’</td>
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<td>‘spray’</td>
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<tr>
<td>portay</td>
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<td>L</td>
<td>MH</td>
<td>‘remove forcibly’</td>
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1the only non /CaC/-aj HH verb
### A List of verbs

<table>
<thead>
<tr>
<th>2s Imperative</th>
<th>Underlying form</th>
<th>Underlying tone</th>
<th>Tone on Imperative</th>
<th>Gloss</th>
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<td>MMH</td>
<td>‘detach’</td>
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<td>H?</td>
<td>LM</td>
<td>‘wear a small article of leather clothing’</td>
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<td>LM</td>
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<td><em>rah</em></td>
<td>/CC/</td>
<td>H?</td>
<td>H?</td>
<td>‘fill up’</td>
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<tr>
<td><em>rah</em></td>
<td>/CC/</td>
<td>L?</td>
<td>M?</td>
<td>‘pluck’</td>
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<td><em>rabay</em></td>
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<td>L</td>
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<td>‘be beautiful’</td>
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<td>MH</td>
<td>‘block up’</td>
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<td>MH</td>
<td>‘slut’</td>
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<td>H</td>
<td>H?</td>
<td>‘multiply’</td>
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<td>MH</td>
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<td><em>sar</em></td>
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<td>H</td>
<td>H</td>
<td>‘know’</td>
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<td><em>se</em></td>
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<td>L</td>
<td>M</td>
<td>‘drink’</td>
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<td>MMH</td>
<td>‘trick, tempt’</td>
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<td>LLM</td>
<td>‘misbehave’</td>
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<td>L?</td>
<td>MH</td>
<td>‘buy, sell, pay’</td>
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<td>LM</td>
<td>‘cross ankles’</td>
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<td>L</td>
<td>MH</td>
<td>‘cook on fire’</td>
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<td>MH</td>
<td>‘get used to’</td>
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<td>HM</td>
<td>‘cut’</td>
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<td>HH</td>
<td>‘mix grain and ashes to prevent insects from eating seeds’</td>
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<td><em>slay</em></td>
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<td>H</td>
<td>H</td>
<td>‘plait’</td>
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<td>H</td>
<td>‘send’</td>
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<td>MH</td>
<td>‘slip, slide’</td>
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<td>L</td>
<td>M</td>
<td>‘hunt, slit throat’</td>
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<td>‘fix, repair’</td>
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<td>MH</td>
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<td>L</td>
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<td>MH</td>
<td>‘whisper’</td>
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<td>vərday</td>
<td>/CCC -j/</td>
<td>toneless?</td>
<td>LM</td>
<td>'boil'</td>
</tr>
<tr>
<td>wacay</td>
<td>/CaC -j/</td>
<td>H</td>
<td>HH</td>
<td>'write'</td>
</tr>
<tr>
<td>waday</td>
<td>/a-CaC -j/</td>
<td>L</td>
<td>MH</td>
<td>'spread out'</td>
</tr>
<tr>
<td>wahay</td>
<td>/a-CaC -j/</td>
<td>L</td>
<td>MH</td>
<td>'waste'</td>
</tr>
<tr>
<td>wal</td>
<td>/CC/</td>
<td>H</td>
<td>H</td>
<td>'attach, tie'</td>
</tr>
<tr>
<td>walay</td>
<td>/CaC -j/</td>
<td>H</td>
<td>HH</td>
<td>'dismantle'</td>
</tr>
</tbody>
</table>
### A List of verbs

<table>
<thead>
<tr>
<th>2s Imperative</th>
<th>Underlying form</th>
<th>Underlying tone</th>
<th>Tone on Imperative</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>waray</td>
<td>/CaC -j/</td>
<td>H</td>
<td>HH</td>
<td>‘to take upon oneself’</td>
</tr>
<tr>
<td>was</td>
<td>/CC/</td>
<td>L</td>
<td>M</td>
<td>‘cultivate, shave’</td>
</tr>
<tr>
<td>wasay</td>
<td>/CaC -j/</td>
<td>H</td>
<td>HH</td>
<td>‘populate’</td>
</tr>
<tr>
<td>wasl</td>
<td>/CC/</td>
<td>L</td>
<td>M</td>
<td>‘is forbidden’</td>
</tr>
<tr>
<td>waslay</td>
<td>/CaC -j/</td>
<td>H</td>
<td>HH</td>
<td>‘melt, liquidize’</td>
</tr>
<tr>
<td>wazaj</td>
<td>/a-CaC -j/</td>
<td>L</td>
<td>LM</td>
<td>‘shake, shine light’</td>
</tr>
<tr>
<td>wazlay</td>
<td>/a-CaC -j/</td>
<td>L</td>
<td>LM</td>
<td>‘shine’</td>
</tr>
<tr>
<td>we</td>
<td>/C -j/</td>
<td>L</td>
<td>M</td>
<td>‘give birth, be born’</td>
</tr>
<tr>
<td>wođaday</td>
<td>/CCaC -j/</td>
<td>L</td>
<td>MMH</td>
<td>‘shine’</td>
</tr>
<tr>
<td>wođakay</td>
<td>/CCaC -j/</td>
<td>L</td>
<td>MMH</td>
<td>‘share, divide’</td>
</tr>
<tr>
<td>wođoy</td>
<td>/CC -j°/</td>
<td>L</td>
<td>MH</td>
<td>‘populate’</td>
</tr>
<tr>
<td>wołdoòy</td>
<td>/CC -j° /</td>
<td>toneless?</td>
<td>LM</td>
<td>‘devour’</td>
</tr>
<tr>
<td>workay</td>
<td>/CCC -j/</td>
<td>L</td>
<td>MMH</td>
<td>‘pay’</td>
</tr>
<tr>
<td>wozlay</td>
<td>/CC -j/</td>
<td>toneless</td>
<td>LM</td>
<td>‘publish, announce’</td>
</tr>
<tr>
<td>yaday</td>
<td>/CaC -j/</td>
<td>L</td>
<td>MH</td>
<td>‘tire’</td>
</tr>
<tr>
<td>yamay</td>
<td>/CaC -j/</td>
<td>H</td>
<td>HH</td>
<td>‘spin’</td>
</tr>
<tr>
<td>zad</td>
<td>/CC/</td>
<td>L</td>
<td>L</td>
<td>‘take, carry’</td>
</tr>
<tr>
<td>zaray</td>
<td>/CaC -j/</td>
<td>H</td>
<td>HH</td>
<td>‘linger’</td>
</tr>
<tr>
<td>ze</td>
<td>/C -j°/</td>
<td>H</td>
<td>H</td>
<td>‘smell, stink’</td>
</tr>
<tr>
<td>zəmbaday</td>
<td>/CCaC -j/</td>
<td>L</td>
<td>LLM</td>
<td>‘glorify’</td>
</tr>
<tr>
<td>zorday</td>
<td>/CCC -j/</td>
<td>toneless?</td>
<td>LM</td>
<td>‘watch intently’</td>
</tr>
<tr>
<td>zoroy</td>
<td>/a-CC -j°/</td>
<td>L</td>
<td>LM</td>
<td>‘notice, inspect’</td>
</tr>
<tr>
<td>zlabay</td>
<td>/CaC -j/</td>
<td>toneless</td>
<td>LM</td>
<td>‘pound, beat, help up’</td>
</tr>
<tr>
<td>zlah</td>
<td>/CaC/</td>
<td>toneless</td>
<td>L</td>
<td>‘cry (dog, cock)’</td>
</tr>
<tr>
<td>zlan</td>
<td>/CC/</td>
<td>L</td>
<td>L</td>
<td>‘start, beginning’</td>
</tr>
<tr>
<td>zlapay</td>
<td>/CaC -j/</td>
<td>toneless</td>
<td>LM</td>
<td>‘discuss’</td>
</tr>
<tr>
<td>zlar</td>
<td>/CC/</td>
<td>H</td>
<td>H</td>
<td>‘pierce, inject’</td>
</tr>
<tr>
<td>zlar</td>
<td>/a-CC/</td>
<td>L</td>
<td>L</td>
<td>‘kick’</td>
</tr>
<tr>
<td>zlaway</td>
<td>/a-CaC -j/</td>
<td>L</td>
<td>LM</td>
<td>‘swim’</td>
</tr>
<tr>
<td>zlaway</td>
<td>/CaC -j/</td>
<td>toneless</td>
<td>LM</td>
<td>‘fear’</td>
</tr>
<tr>
<td>złoğe</td>
<td>/CC -j°/</td>
<td>L?</td>
<td>LL</td>
<td>‘throw, sow’</td>
</tr>
<tr>
<td>złoķay</td>
<td>/a-CC -j/</td>
<td>L</td>
<td>LM</td>
<td>‘suffer, pain, sorrow’</td>
</tr>
<tr>
<td>złoľav</td>
<td>/CCC/</td>
<td>L?</td>
<td>LL</td>
<td>‘go out, appear’</td>
</tr>
<tr>
<td>zlokoįy</td>
<td>/a-CaC -j°/</td>
<td>L</td>
<td>LM</td>
<td>‘gnaw’</td>
</tr>
<tr>
<td>zlokoįy</td>
<td>/a-CaC -j°/</td>
<td>L</td>
<td>LM</td>
<td>‘squeeze out’</td>
</tr>
<tr>
<td>zokay</td>
<td>/CaC -j°/</td>
<td>toneless</td>
<td>LM</td>
<td>‘try’</td>
</tr>
<tr>
<td>zom</td>
<td>/CC °/</td>
<td>H</td>
<td>H</td>
<td>‘eat’</td>
</tr>
</tbody>
</table>
## Appendix B: Verb paradigms

Table B.1: zɔ́m ‘eat’ (high tone)

<table>
<thead>
<tr>
<th>Nominalised Form</th>
<th>Dependent Form</th>
<th>Imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>ṃi-zʊ̄m-ē</td>
<td>āṃi-zʊ̄m-ē</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Perfective</th>
<th>Imperfective</th>
<th>Potential</th>
<th>Hortatory</th>
<th>Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1S</td>
<td>nɔ-ẓm</td>
<td>nɔ̀-ẓm</td>
<td>nɔ̄-ẓm</td>
<td>nɔ̀-ẓm</td>
<td>nɔ̀-ẓm</td>
</tr>
<tr>
<td>2S</td>
<td>kɔ-ẓm</td>
<td>kɔ̀-ẓm</td>
<td>kɔ̄-ẓm</td>
<td>kɔ̀-ẓm</td>
<td>kɔ̀-ẓm</td>
</tr>
<tr>
<td>3S</td>
<td>ɔ-ẓm</td>
<td>ɔ̀-ẓm</td>
<td>ɔ̄-ẓm</td>
<td>mɔ̀ɔ-ɔ̄m</td>
<td>ɔ̀-ẓm</td>
</tr>
<tr>
<td>1PIN</td>
<td>mɔ̀-ẓm-ɔ̄kʷ</td>
<td>mɔ̀-ẓm-ɔ̄kʷ</td>
<td>mɔ̀-ẓm-ɔ̄kʷ</td>
<td>mɔ̀-ẓm-ɔ̄kʷ</td>
<td>mɔ̀-ẓm-ɔ̄kʷ</td>
</tr>
<tr>
<td>1PEX</td>
<td>nɔ̀-ẓm-ɔ̄m</td>
<td>nɔ̀-ẓm-ɔ̄m</td>
<td>nɔ̀-ẓm-ɔ̄m</td>
<td>nɔ̀-ẓm-ɔ̄m</td>
<td>nɔ̀-ẓm-ɔ̄m</td>
</tr>
<tr>
<td>2P</td>
<td>kɔ̀-ẓm-ɔ̄m</td>
<td>kɔ̀-ẓm-ɔ̄m</td>
<td>kɔ̀-ẓm-ɔ̄m</td>
<td>kɔ̀-ẓm-ɔ̄m</td>
<td>kɔ̀-ẓm-ɔ̄m</td>
</tr>
<tr>
<td>3P</td>
<td>tɔ̀-ẓm</td>
<td>tɔ̀-ẓm</td>
<td>tɔ̀-ẓm</td>
<td>tɔ̀-ẓm</td>
<td>tɔ̀-ẓm</td>
</tr>
</tbody>
</table>
## B Verbal paradigms

Table B.2: ʃɛ ‘drink’ (Low tone)

<table>
<thead>
<tr>
<th>Nominalised Form</th>
<th>Dependent Form</th>
<th>Imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>mฎ-f-ᵣjɛ</td>
<td>ám תהיה</td>
<td>2S ʃɛ</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1Pex 5kʷ</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2P 5m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Perfective</th>
<th>Imperfective</th>
<th>Potential</th>
<th>Hortatory</th>
<th>Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1S</td>
<td>nǣ-ʃɛ</td>
<td>nē-ʃɛ</td>
<td>nē-ʃɛ</td>
<td>nē-ʃɛ</td>
<td>nē-ʃɛ</td>
</tr>
<tr>
<td>2S</td>
<td>kē-ʃɛ</td>
<td>kē-ʃɛ</td>
<td>kē-ʃɛ</td>
<td>kē-ʃɛ</td>
<td>kē-ʃɛ</td>
</tr>
<tr>
<td>3S</td>
<td>ē-ʃɛ</td>
<td>ē-ʃɛ</td>
<td>ē-ʃɛ</td>
<td>mē-ʃɛ</td>
<td>ē-ʃɛ</td>
</tr>
<tr>
<td>1PIN</td>
<td>mō-s-5kʷ</td>
<td>mō-s-5kʷ</td>
<td>mō-s-5kʷ</td>
<td>mō-s-5kʷ</td>
<td>mō-s-5kʷ</td>
</tr>
<tr>
<td>1PEx</td>
<td>nō-s-5m</td>
<td>nō-s-5m</td>
<td>nō-s-5m</td>
<td>nō-s-5m</td>
<td>nō-s-5m</td>
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<tr>
<td>2P</td>
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<td>kō-s-5m</td>
<td>kō-s-5m</td>
<td>kō-s-5m</td>
<td>kō-s-5m</td>
</tr>
<tr>
<td>3P</td>
<td>tē-ʃɛ</td>
<td>tē-ʃɛ</td>
<td>tē-ʃɛ</td>
<td>ēe-ʃɛ</td>
<td>tē-ʃɛ</td>
</tr>
</tbody>
</table>

Table B.3: ʃʊmah ‘run’ (toneless)

<table>
<thead>
<tr>
<th>Nominalised Form</th>
<th>Dependent Form</th>
<th>Imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>mḥɪmɛ</td>
<td>ámḥɪmɛ</td>
<td>2S ʃʊmah</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1Pex 5m</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2P 5m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Perfective</th>
<th>Imperfective</th>
<th>Potential</th>
<th>Hortatory</th>
<th>Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1S</td>
<td>nō-hōm-āj</td>
<td>nā-hōm-āj</td>
<td>nāa-hōm-āj</td>
<td>nāa-hōm-āj</td>
<td>nāa-hōm-āj</td>
</tr>
<tr>
<td>2S</td>
<td>kā-hōm-āj</td>
<td>kā-hōm-āj</td>
<td>kāa-hōm-āj</td>
<td>kāa-hōm-āj</td>
<td>kāa-hōm-āj</td>
</tr>
<tr>
<td>3S</td>
<td>ā-hōm-āj</td>
<td>ā-hōm-āj</td>
<td>āa-hōm-āj</td>
<td>māa-hōm-āj</td>
<td>āa-hōm-āj</td>
</tr>
<tr>
<td>1PIN</td>
<td>mō-hōm-5kʷ</td>
<td>mō-hōm-5kʷ</td>
<td>mō-hōm-5kʷ</td>
<td>mō-hōm-5kʷ</td>
<td>mō-hōm-5kʷ</td>
</tr>
<tr>
<td>1PEx</td>
<td>nō-hōm-5m</td>
<td>nō-hōm-5m</td>
<td>nō-hōm-5m</td>
<td>nō-hōm-5m</td>
<td>nō-hōm-5m</td>
</tr>
<tr>
<td>2P</td>
<td>kō-hōm-5m</td>
<td>kō-hōm-5m</td>
<td>kō-hōm-5m</td>
<td>kō-hōm-5m</td>
<td>kō-hōm-5m</td>
</tr>
<tr>
<td>3P</td>
<td>tā-hōm-āj</td>
<td>tāa-hōm-āj</td>
<td>tāa-hōm-āj</td>
<td>tāa-hōm-āj</td>
<td>tāa-hōm-āj</td>
</tr>
</tbody>
</table>
### Table B.4: lɔ ‘go’ (Low tone Irregular)

<table>
<thead>
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<th>Imperative</th>
</tr>
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<tr>
<td>mi-l-ijē</td>
<td>ámi-l-ijē</td>
<td>2s  lɔ</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1PIN  tókʷ́ʔ</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2p  lɔhʷ́ʔm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Perfective</th>
<th>Imperfective</th>
<th>Potential</th>
<th>Hortatory</th>
<th>Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s</td>
<td>nɔ̀-lɔ̄</td>
<td>nɔ̀-lɔ̄</td>
<td>nɔ̀ɔ́-lɔ̄</td>
<td>nɔ̀ɔ̀-lɔ̄</td>
<td>nɔ̀ɔ́-lɔ̄</td>
</tr>
<tr>
<td>2s</td>
<td>kɔ̀-lɔ̄</td>
<td>kɔ́-lɔ́</td>
<td>kɔ́ɔ́-lɔ́</td>
<td>kɔ́ɔ̀-lɔ̄</td>
<td>kɔ́ɔ́-lɔ̄</td>
</tr>
<tr>
<td>3s</td>
<td>ɔ̀-lɔ̄</td>
<td>ɔ́-lɔ́</td>
<td>mɔ́ɔ́-lɔ́</td>
<td>mɔ́ɔ̀-lɔ̄</td>
<td>mɔ́ɔ́-lɔ̄</td>
</tr>
<tr>
<td>1PIN</td>
<td>mɔ̀-tɔ̄nɔ̄</td>
<td>mɔ́-tɔ́nɔ́</td>
<td>mɔ́ɔ́-tɔ́nɔ́</td>
<td>mɔ́ɔ̀-tɔ̄nɔ́</td>
<td>mɔ́ɔ́-tɔ̄nɔ́</td>
</tr>
<tr>
<td>1PEX</td>
<td>nɔ̀-lɔ̄nɔ́</td>
<td>nɔ̀-lɔ̄nɔ́</td>
<td>nɔ̀-lɔ̄nɔ́</td>
<td>nɔ̀-lɔ̄nɔ́</td>
<td>nɔ̀-lɔ̄nɔ́</td>
</tr>
<tr>
<td>2P</td>
<td>kɔ̀-lɔ̄nɔ́</td>
<td>kɔ́-lɔ́nɔ́</td>
<td>kɔ́-lɔ́nɔ́</td>
<td>kɔ́-lɔ́nɔ́</td>
<td>kɔ́-lɔ́nɔ́</td>
</tr>
<tr>
<td>3P</td>
<td>tɔ̀-lɔ̄nɔ́</td>
<td>tɔ́-lɔ́nɔ́</td>
<td>tɔ́-lɔ́nɔ́</td>
<td>tɔ́-lɔ́nɔ́</td>
<td>tɔ́-lɔ́nɔ́</td>
</tr>
</tbody>
</table>
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.
abalgamay ID. n. the way a sick person walks.
abalan n. goat horn.
abəsay 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. 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.
-al a vclitic. towards.
alahar n. weapon, bracelet.
alay vclitic. away.
abaya 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.
<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>amar</td>
<td>n. oil</td>
</tr>
<tr>
<td>amata</td>
<td>n. outside.</td>
</tr>
<tr>
<td>ambay</td>
<td>n. manioc.</td>
</tr>
<tr>
<td>ambəlak</td>
<td>n. cut, sore.</td>
</tr>
<tr>
<td>amtamay</td>
<td>pn. where.</td>
</tr>
<tr>
<td>-an</td>
<td>vclitic. 3s indirect object.</td>
</tr>
<tr>
<td>ana</td>
<td>adp. to.</td>
</tr>
<tr>
<td>andakay</td>
<td>interj. what's his/her name.</td>
</tr>
<tr>
<td>andəbaba</td>
<td>n. duck.</td>
</tr>
<tr>
<td>andora</td>
<td>n. peanut.</td>
</tr>
<tr>
<td>anga</td>
<td>adp. possessive.</td>
</tr>
<tr>
<td>ango</td>
<td>nclitic. 2s possessive.</td>
</tr>
<tr>
<td>angolay</td>
<td>v. take courage.</td>
</tr>
<tr>
<td>angwərzla</td>
<td>n. sparrow.</td>
</tr>
<tr>
<td>anjakar</td>
<td>n. chicken.</td>
</tr>
<tr>
<td>apazan</td>
<td>adv. yesterday.</td>
</tr>
<tr>
<td>asa</td>
<td>conj. if.</td>
</tr>
<tr>
<td>asabay</td>
<td>adv. never again.</td>
</tr>
<tr>
<td>asak</td>
<td>n. foot, leg.</td>
</tr>
<tr>
<td>asara</td>
<td>n. Westerner.</td>
</tr>
<tr>
<td>asəbo</td>
<td>adv. below.</td>
</tr>
<tr>
<td>aslar</td>
<td>n. tooth.</td>
</tr>
<tr>
<td>-ata</td>
<td>vclitic. 3p indirect object.</td>
</tr>
<tr>
<td>-ata</td>
<td>nclitic. 3p possessive.</td>
</tr>
<tr>
<td>atako</td>
<td>n. okra.</td>
</tr>
<tr>
<td>ava</td>
<td>n. arrow.</td>
</tr>
<tr>
<td>-ava</td>
<td>vclitic. in.</td>
</tr>
<tr>
<td>ava</td>
<td>adp. in.</td>
</tr>
<tr>
<td>ava</td>
<td>ext. there is (in a place).</td>
</tr>
<tr>
<td>avar</td>
<td>n. rain.</td>
</tr>
<tr>
<td>avolo</td>
<td>adv. above.</td>
</tr>
<tr>
<td>avoya</td>
<td>n. suffering.</td>
</tr>
<tr>
<td>-aw</td>
<td>vclitic. 1s indirect object.</td>
</tr>
<tr>
<td>awak</td>
<td>n. goat.</td>
</tr>
<tr>
<td>away</td>
<td>v. s/he said.</td>
</tr>
<tr>
<td>ayah</td>
<td>n. squirrel.</td>
</tr>
<tr>
<td>ayaw</td>
<td>adv. yes.</td>
</tr>
<tr>
<td>ayokon</td>
<td>adv. agreed.</td>
</tr>
<tr>
<td>ayva</td>
<td>n. inside house.</td>
</tr>
<tr>
<td>azana</td>
<td>adv. perhaps.</td>
</tr>
<tr>
<td>azan</td>
<td>n. temptation, trap.</td>
</tr>
<tr>
<td>azay</td>
<td>n. excrement, faeces.</td>
</tr>
<tr>
<td>azay andora</td>
<td>n. deep-fried pastry made from peanuts after the oil is removed.</td>
</tr>
<tr>
<td>azəbat</td>
<td>n. a dish made of bean leaves.</td>
</tr>
<tr>
<td>azlam</td>
<td>n. vulture.</td>
</tr>
<tr>
<td>azla</td>
<td>adv. now.</td>
</tr>
<tr>
<td>azləna</td>
<td>conj. but.</td>
</tr>
</tbody>
</table>

**B - b**

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>baba</td>
<td>n. father.</td>
</tr>
<tr>
<td>babək</td>
<td>id. idea of burying.</td>
</tr>
<tr>
<td>babəza</td>
<td>n. children.</td>
</tr>
<tr>
<td>baday</td>
<td>v. marry.</td>
</tr>
<tr>
<td>bah</td>
<td>v. pour.</td>
</tr>
<tr>
<td>bahay</td>
<td>n. chief.</td>
</tr>
<tr>
<td>bakaka</td>
<td>id. spicy hot taste.</td>
</tr>
<tr>
<td>bal</td>
<td>v. move.</td>
</tr>
<tr>
<td>balon</td>
<td>n. soccer ball/soccer.</td>
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<tr>
<td>balay</td>
<td>v. wash.</td>
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<tr>
<td>bamba</td>
<td>n. story.</td>
</tr>
<tr>
<td>barka</td>
<td>n. blessing.</td>
</tr>
<tr>
<td>baskwar</td>
<td>n. bicycle.</td>
</tr>
<tr>
<td>batay</td>
<td>v. evaporate.</td>
</tr>
<tr>
<td>bay</td>
<td>neg. not.</td>
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<tr>
<td>bay</td>
<td>v. light.</td>
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<tr>
<td>Word</td>
<td>Meaning</td>
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<tr>
<td>baya n.</td>
<td>one time, occasion.</td>
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<td>baybojo n.</td>
<td>lizard.</td>
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<tr>
<td>baz v.</td>
<td>harvest.</td>
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<tr>
<td>bazlay v.</td>
<td>breathe.</td>
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<tr>
<td>beke n.</td>
<td>slave.</td>
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<tr>
<td>bafa id.</td>
<td>idea of being close.</td>
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<tr>
<td>bəjakay v.</td>
<td>dig shallow.</td>
</tr>
<tr>
<td>bəlay n.</td>
<td>sea.</td>
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<tr>
<td>bəlen num.</td>
<td>one.</td>
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<tr>
<td>bərkaday v.</td>
<td>collect, squeeze.</td>
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<tr>
<td>bərwaday v.</td>
<td>drive.</td>
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<tr>
<td>bəway n.</td>
<td>baboon.</td>
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<tr>
<td>bəwce n.</td>
<td>mat.</td>
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<tr>
<td>bəwdere id.</td>
<td>idea of foolishness.</td>
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<tr>
<td>bəyaw n.</td>
<td>next year.</td>
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<tr>
<td>bəyna conj.</td>
<td>because.</td>
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<tr>
<td>bokay v.</td>
<td>cultivate a second time;</td>
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<tr>
<td>bolay v.</td>
<td>knead, soak.</td>
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<tr>
<td>botot id.</td>
<td>idea of flying away.</td>
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<tr>
<td>bozloŋ n.</td>
<td>cheek.</td>
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<td>bəlah v.</td>
<td>sew.</td>
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<tr>
<td>bəl v.</td>
<td>stir.</td>
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<tr>
<td>bəlay v.</td>
<td>build.</td>
</tr>
<tr>
<td>bər v.</td>
<td>shoot an arrow.</td>
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<tr>
<td>bəray v.</td>
<td>toss and turn while sick.</td>
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<tr>
<td>bəsay v.</td>
<td>tolerate.</td>
</tr>
<tr>
<td>bəvbaw id.</td>
<td>sound or idea of men</td>
</tr>
<tr>
<td>bətəl id.</td>
<td>some.</td>
</tr>
<tr>
<td>bəra n.</td>
<td>granary.</td>
</tr>
<tr>
<td>bərav n.</td>
<td>heart, self.</td>
</tr>
<tr>
<td>bərkem bərkem id.</td>
<td>idea/sound of race.</td>
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<tr>
<td>bərzəm n.</td>
<td>mountain.</td>
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<tr>
<td>bərzlay v.</td>
<td>throw a fit.</td>
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<tr>
<td>bəslay v.</td>
<td>cough.</td>
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<tr>
<td>bə oracle</td>
<td>climb.</td>
</tr>
<tr>
<td>bəorcay v.</td>
<td>first pounding, tear to pieces.</td>
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<td>cabaŋ v.</td>
<td>skewer.</td>
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<tr>
<td>caŋay v.</td>
<td>smooth.</td>
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<tr>
<td>cayay v.</td>
<td>clear.</td>
</tr>
<tr>
<td>cayay v.</td>
<td>castrate.</td>
</tr>
<tr>
<td>cafgal n.</td>
<td>bucket.</td>
</tr>
<tr>
<td>caŋay v.</td>
<td>get water.</td>
</tr>
<tr>
<td>caŋay v.</td>
<td>ask.</td>
</tr>
<tr>
<td>caŋay v.</td>
<td>scarify.</td>
</tr>
<tr>
<td>cacapa id.</td>
<td>idea of later on.</td>
</tr>
<tr>
<td>capay v.</td>
<td>drape, double.</td>
</tr>
</tbody>
</table>

407
C Moloko-English Lexicon

car v. climb.
car v. taste good.
caray v. tear up.
carzlay v. fold legs.
casley v. pierce.
caway v. cut off head.
caway v. grow.
cazlay v. pierce, cut.
cazlay v. have a headache.
ce v. lack, be insufficient.
ce n. all.
ce n. louse.
cecekem n. first.
ceceew n. friend.
cecewk n. flute.
cefe v. betray.
celelew n. chain.
cen v. hear, understand.
cew num. two.
cezlay v. forget.

cəangehe adv. now.
cədew n. smallness.
cədoy n. trick.
cəfokay v. crouch, squat.
cəfəday v. ask for.
cəje n. disease.
cəjen v. lose, get lost.
cəjen n. mortar.
cəkafay v. get up.
cəkalay v. assemble, unite.
cəke v. stand.
cəkele n. price.
cəkəzlay v. forget.
cəkolokoy v. peel.
cərr ID. idea of guinea fowl running.
cəved n. road.
cəzlahay v. cut, chop.
cəzlar ID. idea of shining upwards.
coco ID. sound/idea of cutting with axe.
cokoy v. undress.
cokor n. fish net.

daby v. follow.
dad v. fall.
dafay v. bump.
dal v. surpass.
dala n. money.
dalay n. girl.
damay v. succeed.
danday n. intestines.
danjaw 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.
dedalen n. blackness.
deftere n. book.
dergwecek ID. idea of lifting on head.
dewele n. obligation.
dey adv. emphasis.
dəbakay v. persuade, relieve.
dəbanay v. learn, teach.
dəbo num. 1000.
dəbasolək id. idea of collapsing, dying.
dəgolay n. thigh.
dəl id. idea of insulting.
dəlmete n. neighbour.
dəlov n. lake.
dəndara n. lamp.
dəngaday v. lean back.
dəngə n. neck, voice.
dəray n. head.
dareffefe ID. sound/idea of movement.
dəren adv. far.
dəres ID. idea of many.
dərlenge n. hyena.
dəwa n. debt.
dəwlay n. millet drink.
Dəwleken. Thursday market day in the
village of Doulek.
dəwənəya n. earth.
dəyday ID. approximately.
dəya v. take many.
dokay v. arrive.
dolokoy n. syphilis.
dozloy v. intersect, meet.

D - d

daf n. millet loaf, food.
dak v. plug.
dakay v. indicate.
das v. be heavy/honourable.
dasləlay v. multiply.
daw pn. question marker.
daz daz n. redness.
dazl v. spread for building.
də v. flourish, soak in order to soften.
dəden n. truth.
dədən n. pot.
dəlaywel n. paper.
dən ID. idea of putting.
dəgalay v. think.
dəgocoy v. stalk.
dəgəm n. nape.
dəma n. time.
dəw adv. also.
dəwa n. milk, breast.
dəwer n. sleep.
dəwəge adv. actually.
dəcəy v. squeeze, juice.
C Moloko-English Lexicon

E - e

edəyen n. bird.
edongwered n. type of tree.
egane adv. today.
ehə adp. here.
ehə adv. no.
ehəɗe n. nail, claw.
elé n. eye.
el n. thing.
elele n. leaf; sauce made from edible leaves.
eleməzləɓe n. termites.
elomene n. treasure.
emelek n. bracelet.
endeɓ n. brain; wisdom.
enen n. snake.
enen pn. another.
engeren n. insect.
epeləy pn. when.
epele epele ID. in the future, forever.
ercece n. compassion.
erkece n. ostrich.
esə adv. again.
esew n. laziness.
esəmey adv. not so?
eslesleɓ n. saliva.
eslesled n. egg.
ete adv. also.
eteme n. onion.
etew n. hawk.
etey adv. polite demand.
eyewed n. whip.
eyewk n. ground nut.
ezewd 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.
fad v. put, set down.
fadəy 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.
fətaday 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.

gədəgəzl ID. idea of setting down something heavy.

gəgamay n. cotton.

gəgoro n. ram.

gajah v. pull.

gəgəmay n. cotton.

gəgoro n. ram.

gajah v. pull.

gəjajakay 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.

gərap gərap 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.
C Moloko-English Lexicon

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.
gwədedek n. frog.
gwəla n. son.
gwaleza n. small axe.
gwəzoy v. tan, treat animal skin.

H - h

ha adp. until.
hab v. break.
habay v. dance.
hadak n. thorn.
hadə quant. enough, many.
ihar n. straw granary.
ihar n. bean.
hajan adv. tomorrow.
halay v. push.
halay v. gather.
hamay v. pay a debt.
hambar n. skin.
ar n. body.
ar v. construct.
ar v. collect.
hara n. iron, metal.
hara n. hour.
harac n. scorpion.
hasl v. swell.
hay n. millet.
hay n. house.
hay v. tell, greet someone.
haya v. grind.
hazak n. smoke.
hebek hebek ID. hardly breathing.
hehen n. owl.
hereɓ n. heat.
heyew n. grasshopper.
hədo n. wall.
həjəgalay v. limp.
həlan n. place behind.
hałafr n. hoe.
həfe n. seeds.
həmaɗ n. wind.
həmən v. run.
həmbo n. flour.
hənder n. nose.
hərəngəz n. joint.
hərəngəz n. knee.
harəsλ n. grave.
hərəngəz n. joint.
hərgov n. baboon.
hərəmkay v. beg.
Hərmbəlom n. creator, God, sky.
hərnek n. tongue.
hərne n. hate, quarrel.
hərov n. fig tree.
harva n. body.
hərzloy v. rot.
hod n. stomach.
hohom n. beetle.
holombo num. nine.
homboh n. pardon.
hor n. woman, wife.
hawər ahay n. women.
hwəda n. dregs.

hwəlen n. back.
hwəsese n. smallness.
hwəter n. tail.
hwəzlay v. destroy.

J - j

jajak adv. fast.
jajay n. dawn, light.
jakay v. lean.
kapay v. mix.
jav v. plant.
jarvar n. guinea fowl.
jay v. speak.
jegwer n. limtness.
jen n. luck.
jere n. truth.
jəbe n. tribe.
jəb jəb ID. completely wet.
jəɗokoy v. mash.

jəgəlen n. stable.
jəgor n. shepherd; stake.
jəgor v. shepherd.
jenay v. help.
jaway n. fly.
jawk jawk adv. suddenly.
jəyga quant. all.
jo ID. take.
jogo n. hat.
johey v. save, economize.
jokoy v. pack down.
jorboy v. wash clothes.

K - k

k- vpfx. 2s subject.
kə...aka adp. on.
ka adv. like.

ka nehe dem. like this.
ka ngəhe dem. like this here.
akəbəcay v. snap.
kəbəcay v. blink quickly.
kəcaway v. trap, seize.
kəɓəcay v. snap.
kəɓəcay v. blink quickly.
kəɓəcay v. snap.
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kəɓəcay v. snap.
kəɓəcay v. blink quickly.
kəɓəcay v. snap.
kəɗay v. prune.
kəd v. kill by clubbing.
kamay pn. why.
kapay v. be roughcast.
karay v. steal.

akar n. theft.
kasl v. wait; watch over.
kay interj. exclamation when surprised.
kekəɓkekeɓ ID. sharpness.
kəbəcay v. snap.
kəbəcay v. blink quickly.
kəcaway v. trap, seize.
kak  ID. idea of catching someone by the throat.
kakafo kəf  ID. idea of someone who hasn’t any weight (an insult).
kalastrap n. bone.
kabalawak n. bird.
kalef n. fish.
kalen n. seer.
kalen disc. then.
kala conj. Benefactive.
kalo adv. before.
kəmbohoj v. wrap.
kameje n. clothes.
kəndal  ID. sound/idea of pounding millet.
kəndew n. stringed instrument.
kara n. dog.
karamba n. crocodile.
karaay adv. everywhere.
kərcece n. giraffe.
karday v. chew.
kardaaway v. scrape.
kar e n. rafter.
karkadaaw n. monkey.
karkay v. kneel.
karkayah n. turtle.
karo num. ten.
kəroy v. mount.
karoppaasla n. wings.
karsoy n. cucumber.
karsoy v. sweep.
kartoy v. undress, peel.
karway v. cultivate second time.
karwad wəɗkarwad wəɗ  ID. sight/idea of an old person trying to run.
katay v. punish.
katofefer 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.
kokoło n. leprosy.
kokor n. gourd.
kolo v. dry.
kondon n. banana.
koroy v. put.
kosa w n. market.
kwede kwede n. shakers.
kwəcesl n. viper.
kwəledede n. smooth.
kwasoay 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.
lawaw n. large squash.
lekwel n. school.
labara n. news.
låhe n. bush, fields.
låho n. evening.
låkwaye pn. 2p.
låme pn. 1pEX.
låmes n. song.
lapare n. needle.
låvan 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.
mahay n. snake.
makala n. donut.
makar num. three.
makay v. leave, let go.
malan n. greatness.
malay n. door.
malamay pn. what?
mama n. mother.
mana n. so and so.
mangasl n. fiancé.
mangara n. termite.
mangaw n. donut made from ground nuts.
marsl n. hail.
margaba n. termite species.
Masay pr. name of first twin.
Cf.: Aləwa.
maslalam n. sword.
maslar n. front teeth.
mat v. die.
mataɓasl n. cloud.
mavad n. sickle.
mawar n. tamarind.
may n. hunger.
may pn. what? (emphatic).
mazlərpapan n. spider.
mazloko n. lion.
mba ID. a short time.
mbaf v. change.
mbaday 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.
mba v. argue, scold.
mbedem n. centre, middle.
mbesen v. rest, breathe.
mbeten v. extinguish.
mbezlen v. count.
məldøy v. skin, peel.
mbəlele n. elephant.
mbaraɓ ID. idea of penetration.
mbaramay v. blink slowly, break violently.
mbarcay v. untie.
mbarkala n. red millet.
mbarlom n. throat.
mbarway v. destroy violently.
mberway v. destroy violently.
mberzlay v. pass.
mberzlay v. pass.
mberway v. destroy violently.
mberzlay v. pass.
mberzlay v. pass.
mberway v. destroy violently.
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mberway v. destroy violently.
mberzlay v. pass.
mberzlay v. pass.
mberway v. destroy violently.
mberzlay v. pass.
mberzlay v. pass.
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- vpx. 1s subject.
na disc. presupposition marker.
na vclitic. 3s direct obj.
na conj. with.
nah v. ripen.
nata conj. and then; marks the climactic moment in a narrative.
nday v. be in process of.
ndafay v. wet, whip.
ndafay 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.
ndalkaday v. lick.
ndän nden n. traditional sword.
ndaray v. stay, leave.
ndərdoy v. stretch.
ndo Billy v. explode.
ne pn. 1s.
nehe dem. here.
nekwen quant. a small amount.
ndayye dem. there.
ñangehe dem. there.
gala v. come back.
gama adv. better.
gar v. prevent.
garay v. rip.
gay v. set, work with wood or grasses.
gaz v. flow, leak.
gazlay v. introduce.
gágacay v. butt with horns.
gágay v. burn.
góhe dem. this particular one here.
gomngam n. mouse trap.
golay v. defend.
golday v. grind (peanuts).
górdasay v. wrinkle the skin.
górkaka n. heron.
górway v. break, tear away.
gorzlay v. be in conflict.
góvaray n. tree.
gomna n. government.
gwórásay v. simmer.
jahay v. roast.
jakay v. find.
jaray v. comb, separate.
njavar n. young man over 18.

nje v. leave.

nje v. sit, suffice.

njeren v. groan.

njeda n. power.

njal njal id. sight/idea of youth running.

njedok njedok id. sight/idea of child running.

njewelek n. leaf for making a sauce.

njaw njaw njaw id. idea of grinding.

nok pn. 2s.

O - o

obor n. lust.

obolo n. yam.

ocom n. hyrax.

ogoro n. gold.

ok vclitic. 2s indirect object.

~ok vsfx. 1PIN, 2P subject.

aw vclitic. 1S indirect object.

okfom n. mouse.

oko n. fire.

okor n. rock.

okos n. fat.

oloko n. wood.

~om vsfx. 1PEX/2P subject.

ombodoc n. sugar cane.

ombolo n. sack; thousand francs.

omom n. honey.

war omom n. bee.

omsoko n. sorghum, dry season millet.

ongolo n. liar.

opongo n. mushroom.

oroh n. pus.

orov n. thorny tree.

otos n. hedgehog.

ovolom n. ladle.

ozongo n. donkey.

ozlargo n. axe.

P - p

paday v. crunch.

pahay v. speak badly of someone for one’s own interest.

pahav n. lungs.

palay v. choose.

pamay v. fan.

par v. pay.

pasay v. detach, spread out.

pasl v. break.

pat adv. all.

Patatah n. Wednesday market.

pataw n. cat.

patay v. wipe, rub.

pay v. open.
pazlay v. decimate, kill many.
peɗeɗe ID. fullness.
pedewk n. razor.
pembez n. blood.
pepenn 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.
pəɗe ID. sound/idea of bottle opening.
pəɗlay v. shell.
pəlslay v. split in half.
pəles n. horse.
pəra n. spirit, idol.
pərad n. large rock.
pəray v. spray.
pərgom n. trap.
pərtay v. remove forcibly.
pəsakay v. detach.
pəvbəw ID. start of a race.
pəvbəw pəvbəw ID. sight/idea of rabbit hopping.
pəyecece ID. coldness.
pəyted ID. idea of barely escaping.
pok ID. idea of opening door.
pocoy v. wear small leather article of clothing.
podococo 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

sabay v. exceed.
sahay v. slander.
sak v. multiply.
sakay v. sift.
sar v. know.
savah n. rainy season.
say v. cut, please.
sawan adv. without help.
C Moloko-English Lexicon

se v. drink.
seɓetəy v. repair.
sede n. witness.
sen 1d. idea of going.
serya n. judgement.
sese n. meat.
søber n. height.
søbetəy v. trick, tempt.
sødaryo v. misbehave.
søkar n. spirit being.
søkat n. hundred.
søkom v. buy/sell.
søkooy n. clan.
sølday v. cross ankles.
sølek n. jealousy.
sølewkw n. broom.
sølom n. good.
søloy n. money.
søloy v. cook on fire.
sømbetewkw n. hair.
sønewkw n. shadow, spirit.
sørkay v. do something habitually.
søsayak n. wart.
søsore num. seven.
søwat 1d. idea of dispersing.
søwse n. thanks.
søy conj. except.
søya v. cut.
søyfa n. life.
søysay 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.
slobatay v. repair.
solvay n. root.
sømøy n. ear, name.
sørah n. board.
søræle n. work.
slothoy v. leave in secret.
slothoy v. take leaves off stalk.
sloko n. earring.
søboy 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.
tad v. fall.
taf v. spit.
tah v. pile something.
tah v. reach out.
tahay v. boost.
talay v. walk.
tam v. save.
tapay v. stick.
tar v. enter.
taray v. call.
taslay v. curse.
tenjew n. mosquito.
tere n. another, a different one.
tertere ID. idea of something different.
tezeh n. boa.
tezl tezlezl ID. idea of hollowness.
tade n. good.
tado n. leopard.
tadoy v. roll, wind.
ťof ID. idea of going far.
təl vh ID. idea of putting on head.
təkam v. taste.
təkaray v. try, invite.
təkasay v. cross.
təkosoy v. fold, cross.
təkwərak n. partridge.
təlwaway v. be sticky.
təlokoy v. drip.
təmak n. sheep.
təmbaďay v. twist.
təmbalay v. shake out stones.
tərdday v. tie off.
təta pn. 3p.
təta adv. is able to.
tətərak n. shoes.
təvalay v. hunt.
təwəfaďay v. go across.
təway v. cry.
təwe n. cry.
tohoe 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.
vərday v. boil.
vəsay 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).
vbaɓvəvbə vbəvbə vbəvbə ID. rapidly.
ve v. spend time.
ver n. room.
ver n. grinding stone.
vəd vəd n. all night.
vəlalay v. oyster.
vəlay v. boil.
vənahay v. vomit.
vər v. give.
vəy n. rib.
voyme vəyme vəyme n. neighbour.
voya n. rainy season.
C Moloko-English Lexicon

W - w

wacay v. write.
waday v. spread out.
waɗay 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.
wəcaday v. shine.
wəɗakay v. divide, share.
wəɗay v. populate.
wəldoy v. devour.
wale n. potash.
wərkay v. pay.
warge 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.
yaday v. tire.
yam n. water.
yamay v. spin.
yed yed yed ID. sight/idea of ostrich running.
Yerəyma n. prince; Monday market.

Z - z

zad v. take, carry
zana n. clothes, cloth.
zar n. male; husband.
zawər ahay n. men.
zaray v. linger.
zay n. peace, wholeness.
<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
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</thead>
<tbody>
<tr>
<td>zayəh</td>
<td>n. care</td>
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<tr>
<td>zazay</td>
<td>n. peace, wholeness</td>
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<tr>
<td>ze</td>
<td>v. smell</td>
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<tr>
<td>zetene</td>
<td>n. salt</td>
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<tr>
<td>zəgogom</td>
<td>n. tree (sp.)</td>
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<tr>
<td>zəmbaday</td>
<td>v. glorify</td>
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<tr>
<td>zənof</td>
<td>n. naivety, kindness</td>
</tr>
<tr>
<td>zən zen</td>
<td>n. darkness</td>
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<tr>
<td>zən zon</td>
<td>n. gourd</td>
</tr>
<tr>
<td>zəraka</td>
<td>n. river</td>
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<tr>
<td>zərday</td>
<td>v. watch intently</td>
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<tr>
<td>zəroy</td>
<td>v. notice, inspect</td>
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<tr>
<td>zəva</td>
<td>n. net</td>
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<tr>
<td>Zlaba</td>
<td>n. Sunday market</td>
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<tr>
<td>zlaɓay</td>
<td>v. pound/crush</td>
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<tr>
<td>zlah</td>
<td>v. cry (dog or rooster)</td>
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<tr>
<td>zlakay</td>
<td>v. suffer pain</td>
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<tr>
<td>zlan</td>
<td>v. start</td>
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<tr>
<td>zlapay</td>
<td>v. talk with someone</td>
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<tr>
<td>zlar</td>
<td>v. pierce</td>
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<tr>
<td>zlar</td>
<td>v. kick</td>
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<tr>
<td>zlavay</td>
<td>v. swim</td>
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<tr>
<td>zlaway</td>
<td>v. fear</td>
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<tr>
<td>zlevek</td>
<td>n. rabbit</td>
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<tr>
<td>zlezle</td>
<td>ID. time long ago</td>
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<tr>
<td>zlak</td>
<td>n. termite</td>
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<tr>
<td>zlale</td>
<td>n. richness</td>
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<tr>
<td>zlərav</td>
<td>v. remove</td>
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<tr>
<td>zləray</td>
<td>v. go out, appear</td>
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<tr>
<td>zlərəgo</td>
<td>v. axe</td>
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<tr>
<td>zlokoys</td>
<td>v. gnaw</td>
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<tr>
<td>zlokoys</td>
<td>v. squeeze out</td>
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<tr>
<td>zlom</td>
<td>num. five</td>
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<tr>
<td>zokoy</td>
<td>v. try</td>
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<tr>
<td>zom</td>
<td>v. eat</td>
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<tr>
<td>zor</td>
<td>ID. sight/idea of something thrown up high</td>
</tr>
<tr>
<td>zləге</td>
<td>v. throw, plant</td>
</tr>
<tr>
<td>zlələ</td>
<td>n. richness</td>
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<tr>
<td>zlələv</td>
<td>v. remove</td>
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<tr>
<td>zlərəv</td>
<td>v. go out, appear</td>
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</tr>
</tbody>
</table>
Appendix D: English-Moloko Lexicon

A - a

able to $təta$.
above $avəlo$.
accept, catch gas. $dəwge$.
accompany $lagay$.
actually $dəwge$.
adultery $adama$.
again $ese$.
agreed $ayokon$.
all $cece, jəyga, pat$.
all night $vəɗ vad$.
already $fan$.
also $dəw$.
also, as well $ete$.
and $nata$.
anger $mogo$.

animal $gənaw$.
announce $wəzlay$.
another $enen$.
appear $zləray$.
argue $mbe$.
arrive $dokay$.
arrow $ava$.
ask $cahay$.
ask for $cəfəɗay$.
assemble $cəkalay$.
at the house of $afa$.
attach $wal$.
axe $ozlərgo, zlərgo$.
axe, small $gwəlek$.

B - b

baboon $bəway, hərgov$.
back $hwəlen$.
banana $kondon$.
bat $mebebek$.
be bald $bokay$.
be beautiful $rəbəy$.

be heavy/honourable $das$.
be in conflict $ngərzlay$.
be in process of $nday$.
be insufficient $ce$.
be roughcast $kapay$.
be sticky $təlbəway$.
bean $hahar$. 
beat lightly mbocoy.
because bəyna, waya.
because kəwaya.
become drunk kəway.
bee war omom.
before kəlo.
beetle hohom.
be hərkay.
behind həlan.
below asəbo.
bend over gəbokoy.
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 volay, vərɗay.
bone kəlakasl.

book deftere.
boost tahay.
bottom mətenen.
bracelet emelek.
bracelet alahar.
braid slapay.
brain endeɓ.
break hab, pasl.
break ngərway.
break violently mbəramay.
brcast dəwa.
breathe bazlay.
breathe mbesen.
bride price gembere.
bring pəcay.
broom səlewk.
brush gohoy.
bucket cafgal.
bud tosoy.
build balay.
build up to belen.
bull gəsan.
bump dafay.
burn dar, ngəɗay, vakay.
bush ləhe.
but azləna.
butt with horns ngəɗacay.
butter wərsla.
butterfly mepetəpete.
buy/sell səkom.
call *mbahay, taray.*
camel *ezlegweme.*
cancel *vasay.*
care *zayəh.*
carry *zaɗ.*
castrate *caday.*
castrate *daslay.*
cat *pataw.*
cat, wild *məngamak.*
catch *gas.*
celebration *məjəvoko.*
centre *mbedem.*
chain *celelew.*
chameleon *mozongo.*
change *mbad’.*
chase *galay.*
chase away *varay.*
cheek *bozlom.*
chest *tololon.*
chew *kərday.*
chicken *anjakar.*
chief *bahay.*
child *war.*
child, oldest *morkoyo.*
child, youngest *gwədar.*
children *babəza ahay.*
choose *palay.*
chop *pəɗakay.*
chop *cəzlahay.*
cicada *mətəde.*
clan *səkoy.*
claw *ehwəɗe.*
clear *caday.*
climb *bərəy.*
climb *car.*
close *tacay.*
clothes *kəmeje, zana.*
cloud *matabasl.*
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 *kabay.*
cord *ezewed.*
cotton *gəgəmay.*
cough *boslay.*
count *bezlen, mbezlen.*
cow *sla.*
crawl *bəjəgamay.*
creator *Hərmbəlom.*
crocodile *kəramba.*
cross *təkasay.*
cross *təkosoy.*
cross ankles *səlɗay.*
crouch *cəɗokay.*
crow *məngahak.*
crush *zlabay.*
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.

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 bərwaday.
drop dav.
dry koloy.
dry season almamar.
duck andəbaba.
E - e

ear sləmay.
earring sloko.
earth downəya.
eat zom.
economize johoy.
egg eslesled'.
egret dedewe.
eight slalakar.
elder ggor.
elephant mbəlele.
emphasis dey.
enjoy məlay.
enough pew, hada
enter tar.
evaporate batay.
even ko.
evening loho.
everywhere kəray.
exceed sabay.
except sọy.
exclamation kay.
excrement azay.
existential aba.
existential abay.
existential ava.
explode ndozlay.
extinguish mbeten.
eye élé.

F - f

faeces azay.
fake dar.
fall dad', tad'.
fan pamay.
far toho.
far away dəren.
fast jajak.
fat okos.
father baba.
fatten gədəgalay.
fear (noun) gəbar.
fear (verb) zlaway.
fiancé mangasl.
fields ləhe.
fig tree hərov.
fill rah.
find njakay.
finger war ahar.
fingers bəboza ahar ahay.
finish ndavay.
fire oko, mədara.
first (adv) əwde.
first cecekem.
first pounding bərcay.
fish kəlef.
fish net cokor.
fish species mombərkotok.
five zlom.
flour həmbo.
flourish de.
D English-Moloko Lexicon

flow, leak ngaz.
flu/cold mədegen.
flute cecewk.
fly jəway.
fly away vahay.
fold faday, təkosoy.
fold legs carzlay.
follow dabay, mbay.
food daf.
foot asak.
forbid wasl.
forget cəkəzlay.
forehead meher.
four əwəfəd, məfəd.
friend cecew.
frighten garay.
frog gwədedek.
fry solay.
Ftak village and clan of Moloko Fətak.

G - g

gather halay, məndacay, məndocay.
gather with a stick mbomoy.
germinate fət.
get away! məf.
get lost cəjen.
get up cəkafay.
get water cahay.
giraffe kərcece.
girl dalay.
give vər.
glorify zəmbəday.
gnaw zlokoy.
go lo.
go across təwəday.
go out zloray.
goat awak.
goat horn aɓalan.
God Hərməbəlom.
gold ogəro.
good lala, səlom, təde.
gourd kokor, zən zon.
government ngomna.
granary bəra.
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) ngəlday.
grinding stone ver.
groan njeren.
ground nut eyewk.
grow caway.
grow gar.
guinea fowl javar.
H - h

habits mənjaye.
habitually do something sərkay.
hail marasl.
hair səmbetewk.
hand ahar.
hang gojakay, 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) bərav.
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 bay.
hoe həlef, mədəger.
hole pəde.
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 pəyted.
idea of being close bəfa.
idea of being completely wet jəb jəb.
idea of burying babək.
idea of catching someone by the throat kək.
idea of coldness pəyecece.
idea of collapsing dəɓəsolək.
idea of cutting something through the middle gəraw.
idea of dispersing sawat.
idea of exactly kəl kəl.
idea of flying away botot.
idea of foolishness bəwdere.
idea of forever epele epele.
idea of full up to the roof mbaf.
idea of fullness pedede.
idea of going sen.
idea of going far təf.
idea of grasping kəwna.
idea of grinding njəw njəw njəw.
idea of guinea fowl running carr.
idea of hardly breathing hebek hebek.
idea of hiding rabok rabok.
idea of hollowness tezl tezlezl.
idea of insulting dal.
idea of later on cacapa.
idea of lifting on head dergwecek.
idea of long ago zlezle.
idea of looking kəy.
idea of making beer gədok.
idea of many dəres.
idea of opening door pok.
idea of penetration 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 daz daz.
idea of setting down something heavy gədəgəzl.
idea of sharpness kekəɓ kekeɓ.
idea of shining upwards cəzlar.
idea of a short time mba.
idea of some bəl.
idea of someone balancing something on head danjəw.
idea of someone who hasn’t any weight (an insult) kəkef kaf.
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 pəvbən.
idea of sweetness podococo.
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 yed yed yed.
idea/sight of rabbit hopping pəvbəw pəvbəw.
idea/sight of something heavy running (cows) gərap gərap.
idea/sight of something multiplying wəsekeke.
idea/sight of something thrown up high zor.
idea/sight of a toad hopping 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 bəvbəw.
idea/sound of movement dəreffefe.
idea/sound of pounding millet *kəndal*.
idea/sound of race *bərketem*
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 *dakay*.
insect *engeren*.
inside house *ayva*.
inspect *zəroy*.
insult *ndaway*.
intersect *dozloy*.
testines *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 *hərad*.

**K - k**

kick *zlar*.
killed by clubbing *kad*.
killed by piercing *ndaz*.
killed 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 dolov.
lamp dəndara.
land wəyen.
language ma.
larva mecekwed.
laziness esew.
leaf, edible
elele.
leaf species for making a sauce
njəwelek.
leak ngaz.
lean jakay.
lean back dəngaday.
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 ndəlkaday.
lie down nde.
life soyfa.
light jajay.
light bay.
like ka.
like that kəyga.
like this kəygehe, ka nehe, ka ngəhe.
limp həjəgaday.
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 ndaday.
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 hadəa.
market kosoko.
market day at home molom.
market day at the village of Doulek Dəwlek.
market day at the village of Mokəyo Mokəyo.
market day in the village of Meme Meme.
marry baɗay.
mash jəɗokoy.
mat bəwce.
mate with laway.
maybe ndawan.
Mbuko people/language Mboko.
meanwhile macəkəmbay.
meat sese.
medicine həraf.
meet dozloy.
melt pəɗak.
men zawər ahay.
metal hara.
middle mbedem.
milk dəwa.
millet háy.
millet, dry season omsoko.
millet, red mbərkala.
millet beer gəzom.
millet drink dəwlay.
millet leaf fefen.
millet loaf daf.
minimize rasay.
misbehave sədaray.
misfortune ezewk.
mix japay.
mix grain with ashes to prevent insects from eating seeds slahay.
Moloko people/language Moloko.
Monday market Yərəyəma.
money dala, səloy.
mongoose mekəlewez.
monkey kərkadaw.
moon kəya.
morning dedew.
mortar cəjen.
mosquito tenjew.
mother mama.
mount kəroy.
mountain ɓərzlan.
mouse okfom.
mouse species zən zan.
mouse trap lolokoy, ngəmngam.
mouth ma.
move bal.
much gam.
multiply dəsλay, sak.
mushroom opongo.

N - n

nail ehwəɗe.
naivety zənof.
name sləmay.
name of child following twins Aban.
name of first twin Masay.
name of second twin Aləwa.
nape dəgом.
neck dəngo.
needle ləpore.
neighbour dəlmete, vəymete.
**D English-Moloko Lexicon**

- net ẓəva.
- never again asabay.
- newborn baby kokofoy.
- news ṭəbara.
- 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, 1Pex possessive -aləme.
- noun clitic, 1Pin 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 cəbay.
- 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, mbəlɗoy.
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.
please say.
pluck rah.
plug dak.
polite demand etey.
populate wasay, wəɗoy.
possessed by anga.
pot dəɗew, məsek.
potash wəle.
pound zlabay.
pour bah.
power njəɗa.
prepare de.
protect presupposition marker na.
preserve ngar.
price cəkele.
pronoun, 2s nok.
pronoun, 3s ndahan.
pronoun, 1s ne.
pronoun, 1Pex lome.
pronoun, 1PIN loko.
pronoun, 2P ləkwəye.
pronoun, 3P təta.
prince Yerəyma.
prune kaɗay.
publish wəzlay.
pull gəjah.
pull out hərad'.
pumpkin məbasl.
punish kətay.
pus oroh.
push hakay.
put koroy.
put fad'.
put horizontally mərcay.
put on a roof var.

Q - q

quarrel hərnje.

question marker daw.
R - r

rabbit zlevek.
rafter køre.
rain avar.
rainy season savah, vəya.
ram gogoro.
razor pedewk.
reach out tah.
redness gogwez.
recoil dar.
relieve dabakay.
remove zlərav.
remove forcibly pərtay.
remove insides pəcahay.
repair seɓetəy, sləɓatay.
reprimand ndahay.
rest mbesen.
rib vəy.
richness zləle.
rip ngaray.
ripen nah.
river zəraka.
road cəved.
roast njahay.
rock okor.
rock, large pərad.
roll tədoy.
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 kərdəway.
scratch far.
sea bəlay.
see mənjar.
seeds həlfə.
seer kəlen.
seize kəcaway.
self bərav.
sell/buy səkom.
send slar.
separate njaray.
sesame seeds/plant agaban.
set ngay.
set down fad.
seven səsəre.
sew bah.
shadow sənewk.
shine wazlay.
shame məray.
share wədakay.
sharpen to a point fətaɗay.
shock təmak.
shell pəlday.
shaman jəgor.
shine wazlay.
shine wəcaday.
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 mbəldoy.
sky hərməlom.
slander sahay.
slave beke.
slay ɓay.
sleep dəwer.

slide slaray.
slide soroy.
slurp gorcoy.
small amount nekwen.
smallness cədew, hwəsese.
smell ze.
smile mbasay.
smoke hazak.
smooth caday.
smoothness kwəleɗeɗe.
snake species enen, gogolvon, mahaw.
snap kəɓəcay.
sniff gorcoy.
snore daray.
so and so mana.
soak bolay.
soak in order to soften de.
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.
D English-Moloko Lexicon

spray pəray.
spread for building dazl.
spread out pasay, waday.
squash, large layaw.
squat cəɗokay.
squeeze out zlokoy.
squeeze bərkaday, docay.
squirrel ayah.
stable jəgəlen.
stake jəgor.
stalk dəgocoy.
stand çike.
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 bal.

stomach hod'.
story bamba.
stranger merkwe.
strength gədan.
stretch ndərdoy.
strip leaves from stalk goroy.
succeed damay.
suck səbəy.
suddenly jəwk jəwk.
suffer pain zlakay.
suffering avəya.
suffice nje.
sugar cane ombodoc, reke.
sun fat.
Sunday market Zlaba.
surpass dal.
swallow ndáway.
swear mbaday.
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 zad'.
take courage angolay.
take leaves off stalk slohoy.
take many dəya.
take upon oneself waray.
talk with someone zlapay.
tamarind mawar.
tan (treat animal skin) gwəzoy.
tap tokoy.
taste təkam.
taste good car.
teach/learn dəbənay.
tear away ngərway.
tear to pieces borcay.
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.
thief akar.
then kolen.
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, zəge.
throw a fit bərəlay.
thumb baba ahar.
Thursday Dəwlek.
tie dazlay.
tie off tərday.
time dəma.
tire out yaday.
to a, ana.
toad moktonok.
today egəne.
tolerate basay.
tomorrow hajan.
tongue hərnek.
tooth aslar.
toss and turn while sick baray.
touch lamay.
trace tohoy.
trap pərgom.
trap kəcaway.
trap azan.
traveler merkwe.
treasure eləmene.
tree memele.
tree species agwazla, edongwered,
   ngəvəray, orov, zəgogom.
tribe jəbe.
trick (noun) cəɗoy.
trick (verb) səɓatay.
truck məwta.
trumpet məzlelem.
truth dəden, jere.
try təkaray, zokoy.
Tuesday market Tokombere.
turn off mbat.
turtle kərkayah.
twin molo.
twist təmbaday.
twist vaway.
two cew.
D English-Moloko Lexicon

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 -alom.
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 pədakay.
walk talay.

wall hədo.
want ndad'ay.
wart səsayak.
wash balay.
wash clothes jorboy.
waste wahay.
watch intently zɔrday.
watch over kasl.
water yam.
weapon alahar.
wear small leather article of clothing pocoy.
weave ndar.
weave gɔdɔgar.
Wednesday market Patatah.
Westerner asara.
wet ndabay.
what almay, malmay.
what (emphatic) may.
what’s his/her name andakay.
when epeley.
where amtamay.
which weley.
whip eyewẹd’.
whip ndabay.
whisper sokoy.
whistle fokoy.
who way.

wholeness zay, zazay.
why kamay.
wife hor.
wind (noun) hɔmad’.
wind (verb) tɔdoy.
wings kɔrpasla.
winnow vay.
wipe patay.
wipe out vasay.
wisdom endeɓ.
with na.
withdraw dar.
without mɔnjad’.
without help sawan.
witned sede.
woman hor.
women hɔwər ahay.
wood oloko.
word ma.
work slɔrele.
work with wood or grasses ngay.
worm mecekwed’.
wrap kɔmbohoy.
wrinkle the skin ngɔrdasay.
write wacay.

Y - y

yam obolo.
yard gala.
year mɔvɔye.
yes ayaw.
yesterday apazan.
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References


Name index

Blama, Tchari, 5
Boyd, Virginia, 5, 37, 57, 82, 177, 183, 224, 338, 391
Bradley, Karen M., 5
Bybee, Joan, 254
Chafe, Wallace L., 352, 353
Colombel, Véronique de, 5
Comrie, Bernard, 217, 219, 243, 254
DeLancey, Scott, 209, 274
Dieu, Michel, 3
Dixon, R. M. W., 87, 93, 98, 217, 219
Doke, Clement M., 110, 115
Fennig, Charles D., 3
Frajzyngier, Zygmunt, 75, 216
Givón, Talmy, 125
Gravina, R., 64
Gravina, Richard, 64, 129, 188
Hajek, John, 43
Heine, Bernd, 254
Holmaka, Marcel, 5
Hwang, Shin Ja, 356
Hyman, Larry M., 2
Kinnaird, William J., 64, 275
Kuteva, Tania, 254
Lambrecht, Knud, 338, 352, 355
Levinsohn, Stephen H., 338
Lewis, M. Paul, 3
Longacre, Robert E., 346, 356
Mamalis, Megan, 5, 37, 51, 57, 61, 62, 171, 177, 178, 180, 185, 190, 192, 193, 195, 197, 199–201, 204, 206, 209, 212, 217, 218, 221, 224, 231, 233, 235, 236, 239, 243, 249, 250, 257, 264, 269, 273, 293, 391
Mbuagbaw, Tanyi E., 129
Moloko Translation Committee, 5
Ndokobai, Dadak, 64, 275
Newman, Paul, 2, 115, 200, 241, 273
Olson, Kenneth S., 43
Oumar, Abraham, 5
Name index

Pagliuca, William, 254
Payne, Thomas, 70, 217, 263
Perkins, Revere, 254

Radford, Andrew, 258
Renaud, Patrick, 3
Roberts, James S., 37, 38
Rossing, Melvin Olaf, 5

Shay, E., 216
Simons, Gary F., 3
Smith, Tony, 37, 188
Starr, Alan, 3, 5, 391

Tong, Edward, 109

Viljoen, Melanie H., 275

Wolff, Ekkehard, 40

Yip, Moira, 58
Language index

Buwal, 275³
Cuvok, 64²⁷, 275³
Dugwor, 3
Fulfulde, 3, 3², 5, 109
Gemzek, 3, 64²⁷
Giziga, 3
Mbuko, 3, 64²⁷, 129, 188¹⁴
Muyang, 3, 37², 64²⁷, 188¹⁴
Vame, 64²⁷, 275³
Subject index

Adpositionals, 107, 108, 176, 199, 201, 236–238
Attrition
Comparative constructions, 173
Derived adjectives, 149–156
Expressed using verb, 277, 290
Ideophones, 118
Permanent attribution construction, 160–163

Clitics
Adpositionals, 236–243
Criteria for, 70–71
Directionals, 239–243
Perfect, 243–248
Plural, 134
Possessive pronoun, 77

Cohesion
Anaphoric referencing, 74, 89, 96
Na-marking, 350
Participant tracking, 205, 215, 352
Point of reference, 243
Tail-head linking, 346

Deixis
Definiteness, 355–356
Demonstrative function of ga, 153–156
Demonstratives and demonstrational, 86–99
Directionals, 239–243
Locational, 171, 174, 175, 236
Pronouns and pro-forms, 75
Proper Names, 138

Derivational processes
Noun to adjective, 149
Noun to adverb, 111
Verb to noun, 131, 249–254
Directionals, 69, 199, 201, 239–243

Focus and prominence
Definiteness, 153
Discourse peak, 75, 120–123, 252, 267, 269, 272, 305, 357, 380, 387
Ideophones, 122
Local adverbial demonstratives, 93–95
Na marker, 337–361
Stem plus ideophone auxiliary, 269
Topicalisation, 338
Verb focus construction, 253


Noun class
A-prefix, 132
Sub-classes of nouns, 132–136
Noun incorporation, 293–305

Plurality
Subject index

Noun plurals, 133–136
Numerals and quantifiers, 99–104
Pluralisation within the noun phrase, 134
Verb plurals, 204–208, 233–235, 241
Presupposition constructions, 337–361
Prosody (labialisation or palatalization), 40–43, 48, 54, 187–188

Tense, mood, and aspect
Aspect in complement clauses, 364
Aspect in intransitive clauses, 286
Habitual iterative aspect, 233–235
Intermittent iterative, 235
Irrealis mood, 187, 190, 199–201, 224–233, 332–333, 335, 368
Mood in adverbial clauses, 370
Mood in noun phrase, 162
Perfect, 59, 71, 199, 201, 243–248, 260, 286–288, 290
Perfective aspect, 58, 200, 208, 217–219, 247, 286, 290
Plurational, 241
Progressive, 109, 264–268, 276, 346
Transitivity, 273–305
Clauses with zero transitivity, 122–124, 227, 272–273, 305

Verb classification, 178–197
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Please help us in providing free access to linguistic research worldwide. Visit http://www.langsci-press.org/donate to provide financial support or register as a community proofreader or typesetter at http://www.langsci-press.org/register.
This grammar provides the first comprehensive grammatical description of Moloko, a Chadic language spoken by about 10,000 speakers in northern Cameroon. The grammar was developed from hours and years that the authors 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.

Intriguing phonological aspects of Moloko include the fact that words have a consonantal skeleton and only one underlying vowel (but with ten phonetic variants). The simplicity of the vowel system contrasts with the complexity of the verb word, which can include information (in addition to the verbal idea) about subject, direct object (semantic Theme), indirect object (recipient or beneficiary), direction, location, aspect (Imperfective and Perfective), mood (indicative, irrealis, iterative), and Perfect aspect. Some of the fascinating aspects about the grammar of Moloko include transitivity issues, question formation, presupposition, and the absence of simple adjectives as a grammatical class. Most 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. Morphologically, two types of verb pronominals indicate two kinds of direct object; both are found in ditransitive clauses. Noun incorporation of special ‘body-part’ nouns in some verbs adds another grammatical argument and changes the lexical characteristics of the verb. Clauses of zero transitivity can occur in main clauses due to the use of dependent verb forms and ideophones. Question formation is interesting in that the interrogative pronoun is clause-final for most constructions. The clause will sometimes be reconfigured so that the interrogative pronoun can be clause-final. Expectation is a foundational pillar for Moloko grammar. Three types of irrealis mood relate to speaker’s expectation concerning the accomplishment of an event. Clauses are organised around the concept of presupposition, through the use of the na-construction. Known or expected elements are marked with the na particle. There are no simple adjectives in Moloko; all adjectives are derived from nouns.