A Grammar of Jalkunan (Mande, Burkina Faso)

Jeffrey Heath (University of Michigan)

Language Description Heritage Library (online)
with backup copy at Deep Blue, University of Michigan (online)

2017

author’s email
schweinehaxen@hotmail.com

color coding:

black main text
blue regular phonological transcriptions for Jalkunan
green reconstructions, phonetic representations, underlying phonological
    representations, and regular transcriptions for other languages
Contents

1 Introduction..................................................................................................................1
  1.1 Mande languages .................................................................................................1
  1.2 Jalkunan language ...............................................................................................2
    1.2.1 Geography and ethnohistory ..........................................................................2
    1.2.2 Classification .................................................................................................3
  1.3 Previous and contemporary study of Jalkunan ....................................................4
    1.3.1 Prost (1968) ..................................................................................................4
    1.3.2 Our fieldwork ..................................................................................................4
    1.3.3 Acknowledgements .......................................................................................5

2 Sketch..........................................................................................................................6
  2.1 Phonology ..............................................................................................................6
    2.1.1 Segmental phonology ....................................................................................6
    2.1.2 Syllabic shapes and tone levels ......................................................................6
    2.1.3 Tonal effects of +3Sg versus -3Sg forms ......................................................6
    2.1.4 Segmental phonological rules .......................................................................7
  2.2 Nouns, NPs, and pronouns ...................................................................................7
    2.2.1 The nominal suffix .......................................................................................7
    2.2.2 Possession .......................................................................................................8
    2.2.3 Pronominal categories ....................................................................................8
  2.3 Postpositions ..........................................................................................................9
  2.4 Verb inflection .......................................................................................................10
  2.5 Main clauses and constituent order .....................................................................10
  2.6 Focalization ..........................................................................................................12
  2.7 Relative clauses .....................................................................................................13
  2.8 Adjoined clauses ...................................................................................................13

3 Phonology ....................................................................................................................14
  3.1 Internal phonological structure of stems and words ..........................................14
    3.1.1 Syllables .......................................................................................................14
    3.1.2 Metrical structure .........................................................................................14
  3.2 Consonants ............................................................................................................15
    3.2.1 Comments on specific consonants ...............................................................16
      3.2.1.1 $h$ ..........................................................................................................16
      3.2.1.2 $ʔ$ ..........................................................................................................16
      3.2.1.3 $r$ and $ʔr$ .............................................................................................16
      3.2.1.4 $ʔn$ .......................................................................................................17
      3.2.1.5 $z$ ..........................................................................................................17
      3.2.1.6 $v$ ..........................................................................................................17
3.2.1.7  \( p \) versus \( kp \) .................................................................................................................. 17
3.2.1.8  Variation in intervocalic stop voicing (\( k/g \) and \( t/d \)) ........................................... 18
3.2.1.9  \( k/g \) versus \( c/j \) before front vowel .......................................................................... 18
3.2.2  Consonant clusters ...................................................................................................... 19
3.2.2.1  Word- and morpheme-initial \( CC \) clusters ............................................................... 19
3.2.2.2  Medial geminated \( CC \) clusters ............................................................................ 19
3.2.2.3  Medial non-geminate \( CC \) clusters ........................................................................ 20
3.2.2.4  Word-final \( CC \) clusters ....................................................................................... 21
3.3  Vowels ............................................................................................................................. 21
3.3.1  Short and (oral) long vowels .................................................................................... 21
3.3.2  Nasalized vowels ....................................................................................................... 23
3.3.3  Initial vowels ................................................................................................................ 25
3.3.4  Stem-final vowels ....................................................................................................... 25
3.3.5  Vowel sequences ........................................................................................................ 25
3.3.5.1  \( ae \) and \( oe \) diphthongs ...................................................................................... 25
3.3.5.2  \( ie \) and \( ia \) ........................................................................................................... 27
3.4  ATR and related issues .................................................................................................. 28
3.4.1  ATR Harmony ........................................................................................................... 28
3.4.2  \( e/i \) alternation ........................................................................................................ 29
3.5  Verb-stem ablaut ............................................................................................................. 30
3.6  Segmental phonological rules ....................................................................................... 31
3.6.1  Processes affecting consonants .................................................................................. 31
3.6.1.1  \( r\)-Nasalization (\( nc/ \to nn, /Nv-r/ \to Nv-n \)) ............................................................ 31
3.6.1.2  \( r\)-Lateralization (\( lr/ \to ll \)) ................................................................................ 31
3.6.1.3  \( r\)-Deletion (\( lr/ \to l \)) ......................................................................................... 31
3.6.1.4  Deletion of intervocalic sonorants before diminutive -\( li \) .................................... 32
3.6.2  Processes affecting vowels ........................................................................................ 32
3.6.2.1  \( vv\)-Contraction .................................................................................................. 32
3.6.2.2  Syncope or epenthesis? ...................................................................................... 35
3.6.2.3  Apocope .............................................................................................................. 36
3.6.2.4  Monophthongization ........................................................................................... 40
3.6.2.5  Denasalization of final vowel in imperatives ...................................................... 41
3.6.3  Processes affecting vowels and consonants ................................................................ 42
3.6.3.1  Final Truncation in imperative verbs ................................................................. 42
3.6.3.2  \( n\)-Epenthesis .................................................................................................... 43
3.7  Clitics and linkers .......................................................................................................... 44
3.7.1  Proclisis and enclisis of pronominals ....................................................................... 44
3.7.2  Enclitics ..................................................................................................................... 45
3.7.3  Linkers ....................................................................................................................... 45
3.8  Tones ............................................................................................................................... 48
3.8.1  Lexical tone patterns .................................................................................................. 48
3.8.1.1  Lexical tone melodies for unsegmentable noun stems ....................................... 48
3.8.1.2  Lexical tone patterns for adjectives and numerals ............................................. 52
3.8.1.3  Lexical tones for verbs ...................................................................................... 52
3.8.2 Grammatical tone patterns ................................................................. 53
3.8.2.1 Grammatical tones for verb stems .................................................. 53
3.8.2.2 Grammatical tones for noun stems .................................................. 54
3.8.2.3 Grammatical tones for adjectives and numerals ............................... 55
3.8.3 Tone sandhi processes................................................................. 55
3.8.3.1 Final Tone-Raising (LL#L-to-LH#L, MM#L-to-MH#L) ...................... 55
3.8.3.2 H-Leveling.................................................................................. 56
3.8.3.3 M-Spreading, (suffixal) H-Spreading, and Tone-Polarization .......... 57
3.8.3.4 Floating-L Docking (certain nouns and adjectives) ............................ 59
3.8.3.5 Tonal effects of +3Sg versus -3Sg on following words ....................... 60
3.8.3.6 LH-to-L before nonlow tone.......................................................... 64
3.8.3.7 Leftward H-Shift......................................................................... 65
3.9 Continuity-marking clause-final M-toned prolongation ......................... 65

4 Nominal, pronominal, and adjectival morphology .................................... 67
4.1 Nouns ................................................................................................. 67
4.1.1 Simple nouns and suffixes................................................................. 67
4.1.1.1 Simple monotonous nouns .................................................................. 67
4.1.1.2 Simple bitonal and tritonal nouns .................................................. 68
4.1.1.3 Vocatives ....................................................................................... 69
4.1.1.4 ‘So-and-so’ (w3-r3) ......................................................................... 70
4.2 Derived nominals ................................................................................. 70
4.2.1 Diminutive nouns with suffix -li ~ -ni ................................................. 70
4.2.2 Verbal nouns ..................................................................................... 72
4.2.3 Deadjectival abstractive nouns............................................................ 73
4.2.4 Instrument nominals absent ............................................................... 74
4.2.5 Simple agentives (X mi?i-nà)............................................................... 74
4.2.6 Lexically reduplicated noun stems ..................................................... 74
4.3 Pronouns .............................................................................................. 76
4.3.1 Basic personal pronouns ..................................................................... 76
4.3.1.1 Subject pronouns ............................................................................. 76
4.3.1.2 Possessor pronouns ......................................................................... 77
4.3.1.3 Preverbal object pronouns ............................................................... 78
4.3.1.4 Independent, logophoric, and predicative pronouns .......................... 82
4.3.1.5 Pronouns with discourse-functional particles .................................. 84
4.3.1.6 Postverbal object pronouns .............................................................. 84
4.3.1.7 2Pl function of māā ......................................................................... 85
4.4 Determiners ......................................................................................... 86
4.4.1 Demonstratives .................................................................................. 87
4.4.1.1 ‘This/that’ (mî) .............................................................................. 87
4.4.1.2 ‘This/that’ (mî) plus near- and far-distal particles ........................... 87
4.4.2 Demonstrative adverbs ...................................................................... 88
4.4.2.1 Locative adverbs ............................................................................ 88
4.4.2.2 Emphatic and approximative demonstrative adverbs ....................... 89
4.4.3 Presentatives (‘here’s/there’s . . .’) ................................................................. 89
4.5 Adjectives .............................................................................................................. 90
  4.5.1 Simple adjectives ............................................................................................... 90
  4.5.2 Diminutive adjectives with -li ~ -ni ................................................................. 91
  4.5.3 Deverbal adjectives with t5 ~ t5° ........................................................................ 92
4.6 Numerals .............................................................................................................. 93
  4.6.1 Cardinal numerals ............................................................................................ 93
      4.6.1.1 ‘1’ (dáli) ...................................................................................................... 93
      4.6.1.2 ‘2’ to ‘10’ .............................................................................................. 94
      4.6.1.3 Decimal/vigesimal multiples (‘20’ to ’200’) and combinations ............. 96
      4.6.1.4 ‘Thousand’ ............................................................................................. 97
      4.6.1.5 Currency ................................................................................................. 98
      4.6.1.6 Reduplicated or iterated distributive numerals ..................................... 98
  4.6.2 Ordinal adjectives ............................................................................................ 99
      4.6.2.1 ‘First’ (dáliá) and ‘last’ (kúdárińá-ná) ...................................................... 99
      4.6.2.2 Other ordinals (suffix -ná-) ............................................................ 99
  4.6.3 Fractions and portions .................................................................................... 100

5 Nominal and adjectival compounds ....................................................................... 101
  5.1 Nominal compounds .......................................................................................... 101
      5.1.1 Noun-noun compounds with {HM}-toned finals ...................................... 101
      5.1.2 Possessive-type compounds with {L(H)}-toned finals ............................ 102
      5.1.3 Compounds with final verbal noun ......................................................... 104
      5.1.4 Agentive compounds with final {HM-toned mińi-ná ‘person’ .............. 105
      5.1.5 Compounds with di ‘child’ and bōō ‘fruit’ ................................................ 106
      5.1.6 ‘Owner of X’ compounds (máäná) ............................................................. 106
      5.1.7 Instrumental relative compounds (‘drinking/bathing water’) (-mi-) .... 106
      5.1.8 Compounds with PP initials ............................................................. 107
  5.2 Adjectival compounds ...................................................................................... 107
      5.2.1 Bahuvrihi compounds .............................................................................. 107
          5.2.1.1 With adjectival compound final ......................................................... 108
          5.2.1.2 With numeral compound final ......................................................... 108
      5.2.2 Exemplars as adjectives ............................................................................ 108

6 Noun Phrase structure ............................................................................................ 110
  6.1 Organization of NP constituents ...................................................................... 110
      6.1.1 Linear order of unpossessed NPs .............................................................. 110
      6.1.2 Distribution of singular nominal suffix (-ra etc.) .................................... 112
      6.1.3 Distribution of plural nominal suffix (-nū) ............................................... 113
      6.1.4 Nominal suffixes in subject function ..................................................... 114
      6.1.5 Nominal suffixes in other syntactic functions ..................................... 117
  6.2 Possession ......................................................................................................... 118
      6.2.1 Addition of a possessor to an NP ............................................................. 118
      6.2.2 Alienable and inalienable possession ....................................................... 119
6.2.2.1 Lexically /L/-melody nouns as possessums ................................. 119
6.2.2.2 Lexically /M/-melody nouns as possessums .............................. 121
6.2.2.3 Lexically /H/-melody nouns as possessums .............................. 122
6.2.2.4 Contour-toned nouns as possessums ........................................ 123
6.2.2.5 Tone of modifiers following inalienably possessed noun .............. 123
6.2.3 Recursive possession ...................................................................... 126
6.2.4 Default possessum (mì) .................................................................. 127
6.3 Core NP (noun plus adjective) .......................................................... 128
6.3.1 Noun plus regular adjective ............................................................ 128
6.3.1.1 Tones of noun-adjective combinations ...................................... 130
6.3.1.2 Inventory of basic adjectives by tonal type ............................... 134
6.3.1.3 Adjective sequences ................................................................. 134
6.3.2 Expansions of adjective ................................................................. 136
6.3.2.1 Adjectival intensifiers ............................................................... 136
6.3.2.2 ‘Good to eat’ ........................................................................... 136
6.4 NP with a numeral ............................................................................. 136
6.4.1 Nominal suffixation in the presence of a numeral ......................... 137
6.4.2 Tones of noun plus numeral ......................................................... 137
6.4.2.1 Noun plus unsegmentable numeral ......................................... 137
6.4.2.2 Noun plus bimorphemic numeral ‘6’ to ‘9’ ............................... 138
6.4.2.3 N-Adj-Num sequences ............................................................. 140
6.5 NP with determiner ............................................................................ 140
6.5.1 Noun plus demonstrative mí ......................................................... 140
6.5.2 Noun plus specific indefinite dò ‘one’ ............................................ 141
6.6 Universal and distributive quantifiers ................................................. 142
6.6.1 Universal ‘all’ (bù?ù ~ bù?ù) ......................................................... 142
6.6.2 Distributive ‘each’ ......................................................................... 143

7 Coordination ....................................................................................... 144
7.1 NP coordination .................................................................................. 144
7.1.1 NP conjunction (‘X and Y’) with bù?ù ~ bù?ù ................................ 144
7.1.2 tì ‘along with’ ................................................................................ 145
7.1.3 ‘X and Y’ with a modifier or postposition ...................................... 145
7.2 Disjunction (wàlima, wàá) ................................................................. 147

8 Postpositions and adverbials ................................................................. 149
8.1 Dative and benefactive ....................................................................... 149
8.1.1 No dative postposition with ‘give’ or ‘show’ .................................. 149
8.1.2 Dative mà ~ mà after ‘say’ ............................................................ 149
8.1.3 Benefactive kà~/ kà~ ................................................................. 150
8.2 Instrumental and comitative ............................................................... 150
8.2.1 Instrumental-comitative dè ~ dè .................................................... 150
8.2.2 Comitative dò ~ dò ................................................................. 151
8.3 Spatiotemporal postpositions .............................................................. 152
8.3.1 Locative, allative, and ablative functions .................................................. 152
8.3.2 Temporal adverbs and place names without a postposition ..................... 152
8.3.3 Basic monosyllabic locative postpositions ............................................. 153
8.3.3.1 Locative tɔ ~ tɔ ‘in’ ....................................................................... 153
8.3.3.2 Locative dù ~ dà ‘in, inside of’ .................................................... 154
8.3.3.3 Locative mà ~ mà ‘on’ .................................................................. 155
8.3.3.4 kë~ kë ~ ‘chez’ ...................................................................... 156
8.3.3.5 glà ~ glá ‘next to’ ...................................................................... 156
8.3.3.6 kímà ~ kímà ‘in front of’ .......................................................... 157
8.3.3.7 nà ‘in the presence of’ .................................................................. 158
8.3.3.8 ìùlù ‘between’ ........................................................................... 158
8.3.3.9 kpà in temporal expressions ....................................................... 159
8.3.4 Complex and multisyllabic spatial postpositions ....................................... 159
8.3.4.1 gbɔlɔkà ~ gbɔlɔksà ‘over/above’ or ‘on top of’ ............................. 159
8.3.4.2 kùtò ~ kùtò ‘under’ .................................................................... 160
8.3.4.3 kùtòrɔ mà ~ kùtòrɔ mà ‘behind’ ............................................... 160
8.3.4.4 cèŋɔ-rò ~ cèŋɔ-rò ‘in the middle of’ ......................................... 160
8.3.5 Temporal postpositions ........................................................................... 161
8.3.5.1 Temporal uses of ‘in front of’ and ‘behind’ ................................ 161
8.3.5.2 fɔ ~ fɔ ‘until/all the way to’ ....................................................... 161
8.3.5.3 ìùñù ‘until, within (time span)’ ................................................ 162
8.3.5.4 wòñà ~ wòñà ‘still on (a topic)’ ............................................... 162
8.4 Purposive and possessive postpositions ..................................................... 163
8.4.1 Purposive-causal ‘for, because of’ (kùdà ~ kùdà) ................................ 163
8.4.2 Custodial wù ~ wù ......................................................................... 163
8.4.3 Goal postposition kpà-mà ~ kpà-mà or kpà-pù ~ kpà-pù ............... 164
8.4.4 nà after plural ethnicity name ........................................................... 165
8.4.5 kòsò ‘because of’ ............................................................................. 165
8.5 Other adverbs (or equivalents) ................................................................. 165
8.5.1 ‘Like, similar to’ (gbɔ-nà) ................................................................ 165
8.5.2 Extent (‘a lot’, ‘a little’) .................................................................... 165
8.5.3 ‘Exactly’ (kpɛɛè-nà ~ kpɛɛè-nà) ....................................................... 166
8.5.4 Evaluation ......................................................................................... 167
8.5.4.1 ‘Well’ and ‘badly’ ..................................................................... 167
8.5.4.2 ‘Proper, right, (socially) normal’ (nàànèè ~ nàànèè) ................... 167
8.5.5 Manner adverbs (‘like this/that’) ........................................................ 168
8.5.6 Spatiotemporal adverbials ................................................................. 168
8.5.6.1 Temporal adverbs ...................................................................... 168
8.5.6.2 Spatial adverbs .......................................................................... 169
8.5.6.3 ‘(Go) straight’ (tèlènà) ............................................................... 169
8.5.6.4 ‘Apart, separate’ (dànà) .............................................................. 169
8.5.6.5 ‘Always’ and ‘never’ .................................................................... 170
8.5.6.6 ‘Still’, ‘since’, ‘(not) yet’ ............................................................. 170
8.5.6.7 ‘By, between now and’ (sànnì and yànnì ~ ìùnì) ..................... 170
9 Verbal derivation ................................................................. 172
 9.1 Reversive verb derivation absent ....................................... 172
 9.2 Morphological causative derivation absent .......................... 172
 9.3 Morphological passive derivation absent ............................ 172
 9.4 Ambi-valent (labile) verbs without suffixal derivation ............ 172
 9.5 Deadjectival inchoative and factitive verbs ......................... 173
 9.6 Incorporated object in compound verbs .............................. 174

10 Verbal inflection ................................................................ 177
 10.1 Inflection of regular indicative verbs .................................. 177
      10.1.1 Valency ..................................................................... 177
          10.1.1.1 Intransitive and transitive ................................ 177
          10.1.1.2 Pseudo-transitive verb ‘go’ (wàd) ....................... 177
          10.1.1.3 Pseudo-reflexive (middle) verbs ......................... 180
      10.1.2 Structure of verbal paradigms .................................. 183
          10.1.2.1 Stem alternations for intransitive verbs .............. 183
          10.1.2.2 Stem alternations for transitive verbs ............... 186
          10.1.2.3 Analysis of verb-stem alternations .................... 189
      10.1.3 Reduplicated verb stems .......................................... 190
 10.2 Negation ........................................................................ 191
      10.2.1 Clause-final negative enclitic =rÈʔ(=rÈʔ~ =rÈʔ) ............ 191
      10.2.2 Status of the glottal stop in negative =rÈʔ ................. 194
      10.2.3 Tonal reverberations of clause-final negation ............. 195
 10.3 Indicative tense-aspect categories .................................... 198
      10.3.1 Perfective ................................................................ 198
          10.3.1.1 Subjects of perfective verbs ............................... 198
          10.3.1.2 Form of perfective verb ..................................... 199
      10.3.2 Imperfective positive system .................................... 204
          10.3.2.1 Enclitic /H+ =Ø/ on subjects in the imperfective system 205
          10.3.2.2 Present ............................................................. 209
          10.3.2.3 Future (sà) ....................................................... 212
          10.3.2.4 Progressive (-yà~ -yà) ..................................... 215
 10.4 ciè~ cié ‘was/were’ and past morpheme ké .......................... 218
      10.4.1 Past-time form of copula construction with ciè~ cié .......... 219
      10.4.2 Past-time form of locational ‘be (somewhere)’ with ciè~ cié 219
      10.4.3 Past-time forms of ‘know’ (ké) and ‘want’ (ciè~ cié) ....... 220
      10.4.4 Past-time forms of possessive predicates with ciè~ cié ...... 220
      10.4.5 Past-time forms of comparatives with ké ........................ 221
      10.4.6 Past habitual (positive and negative) with ciè~ cié .......... 221
      10.4.7 Future-in-past with ciè~ cié ...................................... 222
      10.4.8 Past progressive (positive and negative) with ciè~ cié ...... 222
10.4.9 Past perfect (positive and negative) with ké…………………………………………………………223
10.4.10 Past experiential perfect with ciè ~ cié…………………………………………………………223
10.4.11 Past stative of stance verb (absent) .............................................................................. 224
10.5 Imperatives and Hortatives ................................................................................................. 224

10.5.1 Commands....................................................................................................................... 224
  10.5.1.1 Imperatives and prohibitives ......................................................................................... 224
  10.5.1.2 Imperative verb after future sà.................................................................................... 227
10.5.2 Hortatives ........................................................................................................................ 228
  10.5.2.1 Hortative (1Pl plus imperative or quoted imperative).................................................... 228
  10.5.2.2 Hortative negative (1Pl plus bì) .................................................................................... 228
10.5.3 Quoted deontics (imperative and hortative) ................................................................. 229
  10.5.3.1 Quoted imperative ...................................................................................................... 229
  10.5.3.2 Imprecautions and blessings ...................................................................................... 230
  10.5.3.3 Quoted prohibitive ...................................................................................................... 230
  10.5.3.4 Quoted hortative ........................................................................................................ 231

11 Clause and predicate structure............................................................................................ 232

11.1 Clausal constituents .......................................................................................................... 232
  11.1.1 Subjects ........................................................................................................................ 232
    11.1.1.1 Subjects in indicative main clauses .......................................................................... 232
    11.1.1.2 Subjects of imperative and hortative verbs ................................................................. 233
    11.1.1.3 Meteorological and temporal subject-verb collocations ........................................... 233
    11.1.1.4 Emotional and physiological subject-verb collocations ........................................... 234
    11.1.1.5 Physiological states (‘be hungry’ etc.) ...................................................................... 234
  11.1.2 Transitives and ditransitives .......................................................................................... 235
    11.1.2.1 Preverbal objects of OV verbs .................................................................................... 235
    11.1.2.2 Postverbal NPs without postpositions ....................................................................... 236
    11.1.2.3 Ditransitives .............................................................................................................. 237
    11.1.2.4 Verb-PP collocations ............................................................................................... 238
    11.1.2.5 Verbs used with onomatopoeias .............................................................................. 238
    11.1.2.6 Lexicalized object-verb combinations ..................................................................... 239
    11.1.2.7 Cognate nominals .................................................................................................... 240

11.2 ‘Be’, ‘become’, ‘have’, and other statives and inchoatives ............................................. 240
  11.2.1 ‘It is’ clitics ..................................................................................................................... 240
    11.2.1.1 Positive identificational ‘it is X’ ( = è, = ê, = è, = ê, = ë) ....................................... 240
    11.2.1.2 ‘It is not X’ ( = tè) .................................................................................................. 242
  11.2.2 Copula ............................................................................................................................. 243
    11.2.2.1 Positive ‘X is Y’ ( kùn ~ kùn) ..................................................................................... 243
    11.2.2.2 Negative ‘X is not Y’ ( kù = nè? , plural kù = nè?) .................................................. 244
  11.2.3 Existential and locative quasi-verbs and particles ....................................................... 245
    11.2.3.1 Positive ‘X is present (somewhere)’ ......................................................................... 245
    11.2.3.2 ‘X is here/there’ with linker = ñ ~ = ñ ..................................................................... 246
    11.2.3.3 ‘X is over there’ ( bá ) ............................................................................................. 247
    11.2.3.4 Negative ‘X is not present/X is absent (somewhere)’ ............................................. 247
11.2.4 Other stative locational and positional quasi-verbs ........................................ 249
11.2.4.1 Stative locational quasi-verbs (‘be in/on’) absent ........................................ 249
11.2.4.2 Stative stance/position verbs ................................................................. 249
11.2.5 ‘Stay’, ‘become’, and ‘happen’ predicates .................................................. 250
11.2.5.1 ‘Stay, remain’ (tóó) .................................................................................. 250
11.2.5.2 ‘Become, be transformed into’ (jámułó) ..................................................... 251
11.2.5.3 ‘Happen’ .................................................................................................... 251
11.2.6 Mental and emotional statives ..................................................................... 252
11.2.6.1 ‘Know’ (sá etc) ......................................................................................... 252
11.2.6.2 ‘Want, like’ (ká ~ ká) ................................................................................ 252
11.3 Quotative verb .................................................................................................. 253
11.3.1 ‘Say’ (tóó, ciè, dè ~ dè) .................................................................................. 253
11.4 Adjectival predicates .......................................................................................... 254
11.5 Possessive predicates ....................................................................................... 254
11.5.1 ‘Y be had by X’ (ká ~ ká) .............................................................................. 254
11.5.2 ‘X be with Y’ .................................................................................................. 257
11.5.2.1 Predicate is PP including postposition dè ‘with’ ....................................... 257
11.5.2.2 Predicate is comitative PP with dò ~ dò .................................................... 257
11.5.3 ‘Y belong to X’ predicates ............................................................................. 257
11.5.3.1 Y = ‘be’ [X mì] kúô ‘belongs to X’ ............................................................. 257
11.5.3.2 [X mì-né] = Æ = Æ ‘it is X’s’ ........................................................................ 259

12 Comparatives ..................................................................................................... 260
12.1 Asymmetrical comparatives ............................................................................ 260
12.1.1 Adjectival verb plus blé ‘(sur)pass’ .............................................................. 260
12.1.2 Nonadjectival verb plus blé ‘(sur)pass’ ......................................................... 260
12.1.3 ‘Be better’ (fó ~ fó) ....................................................................................... 261
12.1.4 ‘Best’ .............................................................................................................. 262
12.1.5 ‘A fortiori’ (càóló dòó) .................................................................................. 262
12.2 Symmetrical comparatives .............................................................................. 262
12.2.1 ‘Be equal, same’ (dúlí kúô) ......................................................................... 262

13 Focalization and interrogation ............................................................................ 264
13.1 Focalization ..................................................................................................... 264
13.1.1 Subject focalization (M-toned verb, third person pronouns) ...................... 264
13.1.2 Focalization of preverbal objects ............................................................... 267
13.1.3 Focalization of postverbal NPs .................................................................... 267
13.1.4 Defocalized (perfective) adjoined verb ....................................................... 268
13.1.5 Topic then focalized resumptive ................................................................. 269
13.2 Interrogatives ................................................................................................... 269
13.2.1 Polar and tag questions ............................................................................. 269
13.2.1.1 Polar (yes/no) interrogatives (yà ) ............................................................ 269
13.2.1.2 Negative polar interrogative .................................................................... 271
13.2.1.3 Negative imperfective interrogative =rè = èô as hortative ...................... 271
13.2.1.4 Approval tag question (kè) ................................................................. 272
13.2.2 ‘Who?’ (māřā, māřā-nī) ................................................................. 272
13.2.3 ‘What?’ (kpē), ‘with what?’, ‘why?’ ................................................................. 273
13.2.4 ‘Where?’ (mi, dōō) ......................................................................................... 274
13.2.5 ‘How?’ (mānā) ......................................................................................... 275
13.2.6 ‘How much/many?’ (sölō ~ sölō) ................................................................. 275
13.2.7 ‘Which?’ (nā) ......................................................................................... 276
13.2.8 ‘When?’ (wāžātī nā-nā) ......................................................................................... 276
13.2.9 Quoted interrogative ......................................................................................... 277
13.2.9.1 Quoted content interrogative ........................................................................ 277
13.2.9.2 Quoted polar interrogative (wā) ................................................................. 277

14 Relativization ........................................................................................................... 278
14.1 Basics of relative clauses ......................................................................................... 278
14.2 Relative marker mi ................................................................................................. 278
14.3 Head NP ................................................................................................................ 279
14.3.1 Restrictions on the head of a relative clause ..................................................... 280
14.3.2 Conjoined NP as head ......................................................................................... 280
14.3.3 Headless relatives ............................................................................................... 281
14.4 M-toned perfective verb in subject relatives ......................................................... 281
14.5 Grammatical relation of relativized-on NP ............................................................ 282
14.5.1 Subject relative clause ......................................................................................... 282
14.5.2 Preverbal object relative clause ........................................................................ 284
14.5.3 Possessor relative clause ..................................................................................... 285
14.5.4 Postverbal object or adverb relative clause ....................................................... 286
14.5.5 Relativization on the complement of a postposition ......................................... 286

15 Multi-verb constructions and adverbial clauses ................................................. 287
15.1 Auxiliary-like constructions with aspectual value ................................................. 287
15.1.1.1 Durative inceptive kū ‘begin, set about’ plus imperfective ................................. 287
15.1.1.2 tūs (tūū) ‘stay’ as continuative auxiliary (‘keep doing’) .................................... 288
15.1.1.3 Experiential perfect ‘have ever’ (dū) ................................................................. 290
15.1.1.4 tāā ~ tāā with ‘arrive’ ..................................................................................... 291
15.1.1.5 sī in interrogatives ........................................................................................... 292
15.2 Clause adjunction ................................................................................................. 292
15.2.1 Forms of verbs and subject pronouns in adjunctions ........................................... 293
15.2.1.1 Adjoined verb form in the second (adjoined) clause ........................................... 293
15.2.1.2 Form of the verb in the first (main) clause ....................................................... 294
15.2.1.3 Form of coindexed second subject pronoun in adjoined clause ....................... 295
15.2.1.4 Complementizer à ‘that’ in clause adjunctions .................................................. 297
15.2.2 Clause adjunction expressing a single complex event ...................................... 298
15.2.2.1 Adjoined co-event clauses ................................................................................. 298
15.2.2.2 būlō ‘return’ plus adjoined clause (‘do again’) ................................................ 299
15.2.2.3 ‘Help’ (s55) plus adjoined clause ................................................................. 300
15.2.2.4 Adjoined kàrà ~ kàrà ‘finally VP’ .................................................. 301
15.2.3 Clause adjunction expressing event sequences .................................. 301
15.2.3.1 Simple same-subject event sequences ........................................ 301
15.2.3.2 Adjoined kà ‘leave, abandon’ .................................................... 304
15.2.4 Negation of clause adjunction .......................................................... 305
15.3 Verb-verb compounds .......................................................................... 305
15.3.1 Verb combinations ........................................................................... 305
15.3.2 Frozen but possibly composite verb stems ....................................... 305
15.4 Temporal adverbial clauses ................................................................... 306
15.4.1 Temporal relative clause (‘[at] the time when …’) .............................. 306
15.4.2 Backgrounded imperfective or progressive clauses ......................... 307
15.4.3 ‘Since …’ clauses (kàbí) ................................................................. 307
15.4.4 Chronological reversal (‘before …’ clauses) ..................................... 308
15.4.4.1 With sér ‘do then’ ....................................................................... 308
15.4.4.2 With tó = nè ‘not yet’ .................................................................. 309
15.4.4.3 tó ‘first’ (adverb) ........................................................................ 309
15.4.5 tò ‘while’ ......................................................................................... 310
15.5 Spatial and manner adverbials ............................................................... 310
15.5.1 Spatial adverbial clause (‘where …’) .............................................. 310
15.5.2 Manner adverbial clause (kómi ‘as’) ............................................... 310

16 Conditional constructions .....................................................................312
16.1 Hypothetical conditional with ní ‘if’ ......................................................... 312
16.1.1 Regular antecedent clause ............................................................... 312
16.1.2 Form of verb in antecedent clause ................................................. 313
16.2 ‘Even if …’ (áli) .................................................................................. 314
16.3 Willy-nilly disjunctive antecedents with wò (‘whether X or Y …’) .......... 314
16.4 Counterfactual conditional ................................................................... 314

17 Complement and purposive clauses .......................................................316
17.1 Full-clause complements ..................................................................... 316
17.1.1 ‘Want’ (kà) with clausal complement ............................................... 316
17.1.1.1 Same-subject imperfective subordinated clause ............................. 316
17.1.1.2 Different-subject imperative subordinated clause ........................ 317
17.1.2 ‘Know that …’ plus factive complement clause ................................ 318
17.1.3 ‘See/find/hear (that) …’ .................................................................. 319
17.1.3.1 With factive (propositional) complement ................................... 319
17.1.3.2 Direct-perception type (durative complement) ............................ 320
17.1.4 Obligational (Fís ‘it must be’) with present or future clause ............. 320
17.2 Quotative complements ....................................................................... 320
17.2.1 à as quotative ‘that’ complementizer .............................................. 321
17.2.2 Combination of dè ~ dé ‘say’ with third person subject pronoun ....... 322
17.2.3 Pronominal category adjustments in quotations ............................... 325
17.2.4 Jussive complement (reported imperative or hortative) .................... 326
18.1 Reflexive........................................................................................................... 337
18.1.1 Reflexive possessor of nonsubject NP ......................................................... 337
  18.1.1.1 Reflexive possessor of postverbal NP ....................................................... 340
  18.1.1.2 Reflexive postpositional complements ................................................. 341
  18.1.1.3 Reflexive possessors in conjunctions .................................................... 341
  18.1.1.4 Reflexive possessor of preverbal object ................................................ 341
18.1.2 Reflexive object (yéïrë ~ yéïrë) ................................................................. 344
  18.1.2.1 Reflexive postverbal NP ......................................................................... 344
  18.1.2.2 Reflexive preverbal object ..................................................................... 345
  18.1.2.3 Emphatic nonreflexive use of yéïrë ~ yéïrë ........................................... 345
18.2 Reciprocal .......................................................................................................... 346
  18.2.1 Reciprocals (ńūŋyă ) .................................................................................. 346
    18.2.1.1 Reciprocal postverbal object ............................................................... 346
    18.2.1.2 Reciprocal preverbal object ................................................................ 346
18.3 Logophoric third person pronouns ................................................................... 347
  18.3.1 Third person singular logophoric ............................................................... 347
    18.3.2 Third person plural logophorics ............................................................... 349
  18.3.3 First and second persons ......................................................................... 350

19 Grammatical pragmatics ..................................................................................... 351
  19.1 NP-final discourse-functional elements ......................................................... 351
    19.1.1 kòñi ~ kòñi ‘as for’ (topic) ....................................................................... 351
    19.1.2 ‘Also’ and ‘again’ .................................................................................... 352

17.2.4.1 Quoted imperative .................................................................................... 326
17.2.4.2 Quoted prohibitive ................................................................................... 328
17.2.4.3 Quoted hortative .................................................................................... 328
17.3 VP complements .............................................................................................. 328
  17.3.1 ‘Be able to, can’ (cìë) ................................................................................. 328
    17.3.1.1 cìë with imperfective VP complement for nonpast time .................... 328
    17.3.1.2 cìë ~ cìë plus adjoined clause for past tense ‘could’ .................... 329
17.4 Nominal complements ..................................................................................... 330
  17.4.1 Durative time-of-day predicates plus nominal complement ....................... 331
  17.4.2 ‘Prevent’ (bàlă ) plus PP complement ...................................................... 331
  17.4.3 ‘Cease’ (bàlă ) plus preverbal verbal noun complement .......................... 332
  17.4.4 ‘Consent’ (bàlă or sìșă ) with postverbal verbal-noun complement ....... 332
  17.4.5 ‘Forget’ (nimáá ) with postverbal verbal-noun complement .................... 333
  17.4.6 ‘Be afraid to’ (jìşă ) with postverbal verbal-noun or future complement ... 333
  17.4.7 ‘Begin’ (dà-a-sìșă ) with preverbal verbal noun complement ................. 333
  17.4.8 ‘Finish’ (dà-káá ) with verbal-noun subject or complement ................... 334
17.5 Purposive and causal clauses .......................................................................... 335
  17.5.1 Same-subject purposive clause (tùŕt̄ ~ tìnu₃ ) ......................................... 335
  17.5.2 Causal (‘because’) clause (bùgááṣìè ) ....................................................... 335
Abbreviations and symbols

References cited

Texts

Appendix: Jalkunan versus Jeri (Jeli Kuo)

Index
1 Introduction

1.1 Mande languages

Languages of the Mande family are widely spoken in central and southern Mali, southwestern Burkina Faso, northern Côte d’Ivoire, and Guinea-Conakry. There are extensions into Ghana, Sierra Leone, Liberia, Guinea-Bissau, Gambia, and Senegal. Among the best-known languages in the family are the Manding group including Bambara, Jula, and Mandinka.

The spread of Mande beyond northern Guinea-Conakry and southern Mali into this broader region is attributable to the expansion of the medieval Mande empire (12th-14th C.), and more recently to extensive networks of Jula-speaking merchants. In Burkina, the area including Bobo Dioulasso (second-largest city in Burkina) and points north and west of that city is mostly populated by speakers of Mande languages. As its name (Bobo “Jula”-sso) suggests, the city is itself a hybrid of old-stock Bobo and newer Jula-speaking populations. There is also another important Mande block in west central Burkina including the Marka and Samo languages. These two main Mande blocks are separated by speakers of Bwamu, a Gur language. Especially in Mali, the Bwamu people and language are confusingly (for foreigners) called “Bobo.”

The medieval Mande expansion was less intensive in the plateau west of the Banfora to Bobo Dioulasso line in SW Burkina, and in the mountainous Mali-Burkina border to their west. This area remains mostly populated by several Senoufo groups and by speakers of various Gur languages like Toussian, Turka, Wara, and Natioro. Other than a few strictly Jula-speaking villages, the only Mande language spoken near Jalkunan is Dzuungo, which is not closely related genetically.

Using a more-or-less current model of the language family, the Mande languages of Burkina Faso have the genetic relationships in (1). A few languages of the immediately adjacent part of southeastern Mali are included, in italics. The first genetic split is east/west. The west then splits into central-southwest and northwest. Two central-SW divisions represented in Burkina are Manding, which includes Jula, and the very small Jogo-Jeri division, to which Jalkunan belongs. Many of the non-Jula Mande languages of western Burkina and the adjacent southeast of Mali belong to northwestern Mande.
(1) divisions languages

eastern Bisa, Samo

western Jalkunan

central-SW Jalo-Jeri

Manding Jula, Bolon, Marka, Sininkere

northwestern Samogo Dzuungo, Seenku, Bankagooma, Jowulu, Duungooma

Soninke-Bobo Bobo Madaré, Konabéré

1.2 Jalkunan language

1.2.1 Geography and ethnohistory

The language described here is spoken in Blédougou (or just Blé) and Kinkinkan in the Cascades province of far southwestern Burkina Faso. The ethnicity is called jàl (plural jàl-á-à-nū) in Jalkunan, and either Blé or Jali ~ Diali in local French.

Blédougou is a cluster of physically discontinuous settlements (quartiers) treated administratively as one village (with one chef de village). The village of Kinkinkan was formerly a fourth quartier of Blédougou, but since 1983 it has been a separate village with its own chef de village. The area comprised by Blédougou and Kinkinkan is a small part of the plateau west of Banfora in extreme southwest Burkina Faso, in the département of Loumana, in the province of Léraba, in the région of Cascades. Blédougou and Kinkinkan constitute a pocket surrounded by villages speaking other languages (Senoufo, Jula, Natioro, and the languages/dialects of blacksmiths, leatherworkers, and potters). Coordinates in (2) are in degrees, minutes, and decimal fractions (000 to 999) of minutes.

(2) villages names in Jalkunan N latitude W longitude

quartiers

a. Blédougou  jàlsà-dù

Soba gbë“sè-dù 10 33.164 05 16.409

Fanora fšnù 10 34.270 05 15.760

Kokora lò-fšnù 10 33.572 05 15.892

b. Kinkinkan  kò“-kèn-kàà

Fanora itself is a dispersed cluster of small settlements, but has a single chef de quartier.

The population of Kinkinkan is said to have been originally ethnic Senoufo who were linguistically Jalkunan-ized. Because it is somewhat more isolated and traditional than Blédougou, its children are said to be more proficient in Jalkunan than are the children in Blédougou.
The settlement history of Blédougou is described in the (ethno-)historical text 2016_01, which along with two other texts is presented in this volume, following chapter 19.

There are schools at Blédougou (primary and secondary) and Kinkinkan (primary). Both villages are on the piste that begins at Timba to the north, and runs south-south-east past Kinkinkan and then Blédougou and on to Kangoura and Tagbasoni. Timba (N 10 37.345 x W 05 14.241) is the oldest Natioro-speaking village but also includes Senoufo, blacksmiths, and a few Fulbe. Other Natioro-speaking villages are in the nearby département of Sindou to the north and north-east: Kawara, Sindoukorony, Dinaoro, and Fafasso. Kangoura, which is 1-2 km south of Blédougou (N 10 33.572 x W 05 15.892), is a cosmopolitan village with four quartiers within walking distance of each other, inhabited by Jula, Senoufo, blacksmiths, and leatherworkers-potters. An elder in Blédougou told me that the Jula of Kangoura came from near Sikasso in Mali in precolonial times. Blacksmiths (forgerons) and leatherworkers-potters (cordonniers) in the zone have their own languages, which have not been adequately investigated. The blacksmiths are thought to speak a variety related to Dzuungo (Mande language spoken around Orodara). The zone south of Kangoura (e.g. Tagbasoni) is Senoufo, and there are more Senoufo villages west of Timba.

There are small groups of Fulfulde-speaking cattle herders (Fulbe) in the region, as there are almost everywhere in interior West Africa. They live either on the edge of villages, or in camps in the bush. Fulbe women enter all the villages of the zone to sell milk, but are not a significant linguistic influence on Jalkunan or other languages.

1.2.2 Classification

Jalkunan has been classified as part of the Jogo-Jeri division of the Manding-Jogo branch of Mande. The Jogo-Jeri division consists entirely of the Jogo (aka Ligbi) language spoken by a small population on the Côte d’Ivoire-Ghana border, plus Jeri-Jalkunan.

As of this writing (12/2016) there is an unresolved issue whether Jalkunan is a distinct language, or one of two dialects of a single language. The positions at this date by the Glottolog and Ethnologue websites are as follows:

(3) a. Glottolog
   Jeri language, with two dialects:
   Jeli, code jeri1241
   Jalkunan, code jalk1242 or jeri1242

b. Ethnologue (SIL)
   two languages
   Jeri Kuo, ISO (639-3) code jek
   Jalkunan, ISO (639-3) code bxl

Until now the only published material on Jalkunan was Prost (1968), so the people doing these classifications were essentially shooting in the dark. It is now possible to state with
confidence that Jeli (Jeri Kuo) and Jalkunan are distinct languages, whose morphosyntactic differences (beginning with pronouns) would make mutual intelligibility impossible. See the appendix for data and discussion.

In Jalkunan, the noun \( jɛ̀l \) (suffixed forms \( jɛ̀l-\)á singular and \( jɛ̀l-\)á-\-nū plural), which may be cognate to “Jeli” and “Jeri,” denotes members of a pottery-making caste who are present at the nearby mostly Jula-speaking village of Kangoura (1 km from Blédougou), the village of Kawara (Natrio- and Jula-speaking) between Timba and Sindou, and at Sindou (the provincial capital). The \( jɛ̀l-\á-\-nū \) are said to speak a distinctive dialect of Jula, not Jalkunan. Oddly, there are no significant blacksmith, leatherworker, potter, or other artisan castes resident in Blédougou itself.

The Jalkunan-speaking people of Blédougou refer to themselves by a distinct but phonologically similar ethnonym \( jál \) (suffixed \( jál-\)á singular and \( jál-\)á-\-nū plural). Blédougou village is called \( jálsà-\-dù \), of which \( dù \) is probably a frozen locative marker, though the form now functions as a noun (not as a PP). The \( sà \) syllable is obscure, but it might be a compound final related to \( sàà \) ‘house; village’. The traditional local etymology of \( jálsà-\-dù \) is a contraction of \( [jál-\-á-\-àⁿ\ sàá]\ dù \) ‘in the house (=village) of tse-tse flies’, in honor of the biting flies (stem \( jálà \) ) who, the story goes, were there to “welcome” the first settlers; see text 2016_01 @ 01:04. The language itself is called \( jálikùⁿ \) (suffixed \( jálikù-\)ná), less often without nasalization \( jálikù \) (suffixed \( jálikù-\)r₃).

1.3 Previous and contemporary study of Jalkunan

1.1.1 Prost (1968)

R. P. André Prost, a giant of West African and especially Burkina linguistics, authored numerous works of his own and and collaborated with long-term missionaries and others to produce still-valuable grammars, dictionaries, and sketches of languages in multiple families. The 14-page sketch he made of Jalkunan (Prost 1998), based on a few days’ work with a young student he encountered in an undisclosed location, brought the language to the attention of West Africanists. As Prost stated in his paper, the material was preliminary, and he did not attempt tonal markings. Nevertheless, in a very short time and under less than ideal circumstances he was able, characteristically, to describe the essentials of this language. His short paper presents a basically correct analysis of NP morphosyntax, and provides some insights into the verbal system, as well as giving a basic lexicon (mostly without tones).

1.1.2 Our fieldwork

As an extension of an NSF-funded project directed by me and focused on Dogon and on the language isolate Bangime, Vu Truong (then a recent B.A. graduate of Brandeis) undertook fieldwork on Jalkunan out of the project’s Burkina base in Bobo Dioulasso during the period 2012-14. In fall 2014 he enrolled in the University of Chicago Ph.D. program in Linguistics.
I had some involvement with Jalkunan during that time period. Truong and I made initial contact with Blédougou in 2012, and a native speaker (Wamara Traoré) was recruited to work with Truong in our base in Bobo. I returned to Blédougou twice during that period for three-day visits to collect flora-fauna vocabulary and to collect flora specimens. Later, I directed a workshop on Jalkunan grammar, with Mr. Traoré, as part of the International Conference on Mande Languages, held in Bobo Dioulasso in 2014.

Truong was unable to return to Burkina during school year 2016-17, the project’s deadline for promised products. I took a leave of absence from University of Michigan in school year 2016-17 to complete fieldwork on Jalkunan and several other languages that were covered in the grant. I worked with Mr. Traoré during September-November 2016 to produce this grammar as well as a substantial lexical spreadsheet. In the body of the grammar he is referred to as “my assistant.”

1.1.3 Acknowledgements

The fieldwork by myself and the first year of fieldwork by Truong were funded by the National Science Foundation, Documenting Endangered Languages program, grant BCS-1263150 (2013-17).

I and my team thank the people of Blédougou for their warm hospitality and cooperation. I am especially indebted to my assistant, Wamara Traoré. He is a resident of Blédougou but was willing to relocate to our base in Bobo Dioulasso for several months to work first with Truong and later with me. He is a traditional hunter as well as farmer. With some hunter colleagues he led my team on the flora-collecting trips in the vicinity of Blédougou.
2 Sketch

This sketch describes basic features of the language, all of which are described more fully in later chapters.

2.1 Phonology

2.1.1 Segmental phonology

Basic consonants that can occur word-initially include voiceless obstruent like \( k \) and \( s \), voiced obstruents like \( g \) and (marginally) \( z \), nasals, lateral \( l \), and (marginally) \( h \). Other consonants that can occur intervocally are tap \( r \) and glottal stop \( ? \).

There are seven vowel qualities with two high vowels \{\( i \), \( u \)\}, four mid-height vowels including an ATR opposition \{\( e \), \( o \)\} versus \{\( e \), \( ə \)\}, and a low vowel \( a \). ATR harmony is evident in some combinations, for example negative enclitic \( =rēʔ \sim =rēʔ \), which follows the ATR value of the preceding syllable. However, overall ATR harmony is not strict. All qualities occur in nasalized and oral forms, and as short or long vowels, for a total of \( 7 \times 2 \times 2 = 28 \) vowel phonemes.

2.1.2 Syllabic shapes and tone levels

The canonical syllable is \( Cv \) or \( Cvv \) (\( vv \) = long vowel or vowel sequence). \( Cvv \) may be lexical or it may be due to contraction at a boundary.

There are three tone levels \( H \), \( M \), and \( L \). Most syllables are level-toned. However, contour tones \( HL \), \( HM \), \( LH \), \( MH \), and \( LHL \) can be expressed on single syllables.

2.1.3 Tonal effects of +3Sg versus -3Sg forms

3Sg pronouns and regular singular NPs (defined as those that are morphologically capable of ending in nominal suffix \(-ra\) ) differ from all other NPs and from non-3Sg pronouns in their tonal effects on immediately following words, including postpositions, possessums, perfective verbs, and preverbal objects of perfective verbs. I refer to the two classes repeatedly in this grammar as +3Sg and -3Sg. Personal names and other singular NPs that are not morphologically capable of ending in the nominal suffix are included in -3Sg. For example, postposition \( ðè \sim ðé \) ‘with’ is L-toned in 3Sg \( ñ \) ṅ \( ðè \) ‘with him/her’ and in \( ðí ðè \) ‘with a/the child’, but H-toned in 3Pl \( ñèn ðè \) ‘with them (nonhuman) and in \( ðí-ðá-ñè \) ðé \ ‘with (the) children’.
The four M-toned pronominals (1Sg mā, 2Sg wō, 2Pl ēēⁿ, and alternative 2Pl māā) are including in -3Sg. However, this is partially masked by M-Spreading from the pronoun into some following words (postpositions and some possessums).

Given the +3Sg versus -3Sg split, one analytical possibility is to attribute a floating L-tone (or an ablaut-controlling power that has similar effect) to the +3Sg elements. In this analysis, the unmarked form of postpositions etc. is the form that occurs following -3Sg elements. The issue is discussed in §3.8.3.5 and (for detail relevant for specific constructions) in many sections later in the grammar.

2.1.4 Segmental phonological rules

Because of the Cv(v) syllable norm there are few segmental phonological processes other than v-v-Contraction. However, consonants may come together secondarily due to deletion of vowels (Syncope).

Initial tap r in suffixes and enclitics is nasalized to n after nasal syllables. r-Nasalization is conspicuous since two of the most important morphemes in the language are the ubiquitous nominal suffix -ra~ra and the negative enclitic =rēʔ~rēʔ.

Voiceless stops k and t are subject to optional voicing intervocally, e.g. k→g. It is difficult in some cases to determine which voicing value is underlying. There are a few similar cases where medial nasal-stop clusters lose the oral stop, e.g. ηg→g.

2.2 Nouns, NPs, and pronouns

Basic linear order is Poss-N-Adj-Num. Plurality is marked by suffixes. There is no plural marking in NPs that contain a nonsingular numeral.

2.2.1 The nominal suffix

The most distinctive feature of Jalkunan nouns and NPs is what I call the “nominal” suffix, which occurs in some but not all syntactic contexts. It occurs word-finally on nouns, or on the adjective in an N-Adj sequence. It is not affected by the presence or absence of a preceding possessor. The abbreviation “Nom” in interliners may suggest “nominative” (case), but this is not altogether unfortunate, since the distribution of the suffix overlaps in part with that of nominative (subject) case in other languages.

Broadly speaking, the nominal suffix is present at the end of NPs that can be described as prosodically independent of following words. This is the case in isolation (citation forms), predicate nominals, and postverbal nouns used as adverbs (without a postposition). With one exception, the nominal suffix cannot be used in combinations where the NP is closely phrased with a following word, i.e. when the NP functions as object of a following verb, intransitive subject followed by the verb, possessor of a following noun, left conjunct in a conjoined NP, NP complement of a postposition, or NP followed by a discourse particle like ‘only’. The
syntactic function that sits on the fence is subject: the nominal suffix is absent when immediately followed by a nonpronominal object NP, but present before the imperfective subject enclitic and present in combinations with certain pronominal objects.

There is a plural suffix which, for regular nouns, is added to the nominal suffix. They co-occur on unmodified nouns, and they co-occur on the adjective in noun-adjective sequences. Plurals have their own word-final nominal suffix, so the full form of a plural noun is N-Nom-Pl-Nom with two distinct nominal suffixes. The medial -Nom- is obligatory before the plural suffix in all syntactic positions, but the word-final -Nom following the plural suffix is subject to syntactic restrictions, and in fact is more restricted than the word-final -Nom on singular nouns.

Example: noun mèʔèⁿ (variant mìʔìⁿ) ‘person’, with nominal suffix mèʔè-ná from /mèʔèⁿ-rú/. The bare form mèʔèⁿ (tonal variant mèʔèⁿ in some contexts by tone sandhi) is required when the noun functions as possessor, object, or postpositional complement. Suffixed mèʔè-ná the form used in isolation, in clause-final position (postverbal object or adverb), in subjects before the imperfective enclitic, and in subjects immediately followed by pronominal objects (perfective aspect). The plural is mèʔè-ná-àn ‘people’, becoming mèʔè-ná-àn-nù with a final nominal suffix in citations and clause-finally.

2.2.2 Possession

There is no segmental possessive (genitive) morpheme. Possessors, whether pronominal or nonpronominal, directly precede the possessed noun (possessum). The possessum undergoes tonal changes, the details depending on the possessum’s input (lexical) tones, on the category of the possessor, and on whether possession is alienable or inalienable (the latter includes body parts and kin terms).

For example, ní-ná ‘tooth’ is lexically H-toned. It has possessed forms like mā ní-ná ‘my tooth’, à ní-ná ‘his/her tooth’, and mùlùⁿ ní-ná ‘our tooth’. The {L(H)} tones of ‘his/her tooth’ are standard for nouns with 3Sg possessors, alienable or inalienable. However, the application of M-Spreading in ‘my tooth’ and the {H(H)} tones of ‘our tooth’ (not automatically carried over from lexical tones) are features of inalienable possession. See §6.2.2 for details.

2.2.3 Pronominal categories

Jalkunan is unusual among Mande languages in sharply distinguishing human from nonhuman pronominal categories in the third person. Even human-like protagonists of animal tales like hyena and hare in text 2016_02, are generally treated as nonhuman for this purpose, with occasional slippage into human.

The basic forms of the pronouns, along with reflexive possessor forms, are in (4). All of these are proclitics. A distinct set of independent pronouns occurs clause-finally and in isolation. When a 1st/2nd-person proclitic is repeated with the same reference within a tightly phrased construction (adjoined same-subject clause, reflexive object or possessor), the second
occurrence is subject to reduction. Of special interest are reflexive proclitics, which show a segmental convergence (except for nasalization in the 1Sg) between human third person and first person on the one hand, and between nonhuman third person and second person on the other. The segmentally convergent categories are distinguished by tones in the reflexive possessor paradigm (M for 1st/2nd, L for third). For discussion see §18.1.1.

(4) Pronominal proclitics

<table>
<thead>
<tr>
<th>category</th>
<th>basic</th>
<th>reflexive possessor (§18.1.1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Sg</td>
<td>mā</td>
<td>ā&quot; n</td>
</tr>
<tr>
<td>2Sg</td>
<td>wō</td>
<td>ē ~ ī</td>
</tr>
<tr>
<td>1Pl</td>
<td>mùître</td>
<td>āā&quot; n</td>
</tr>
<tr>
<td>2Pl</td>
<td>ēēn</td>
<td>ēēn ~ īō n</td>
</tr>
<tr>
<td>3SgHum</td>
<td>à</td>
<td>à (or à&quot; n)</td>
</tr>
<tr>
<td>3SgNonh</td>
<td>è</td>
<td>è ~ ī</td>
</tr>
<tr>
<td>3PlHum</td>
<td>ààn</td>
<td>àà&quot; n</td>
</tr>
<tr>
<td>3PlNonh</td>
<td>èèⁿ</td>
<td>èèn ~ īī n</td>
</tr>
</tbody>
</table>

The other well-documented Mande language with a roughly similar distinction in third person pronouns is Jowulu (or Jा) in the Mali-Burkina border area (I thank Valentin Vydrine for pointing me to this language). Jowulu distinguishes masculine, feminine, and neuter in the 3Sg. It distinguishes human versus nonhuman in the 3Pl (Carlson 1993: 23). The forms are 3MascSg ú, 3FemSg ní, 3HumPl kī, and 3NonhPl yîrî (for typographic reasons I modify Carlson’s tonal accents, so that acute = high and double acute = superhigh). The Jowulu forms do not appear to be cognate to the Jalkunan forms, with the possible exception of nonhuman plural (Jowulu yîrî, Jalkunan òē" n).

2.3 Postpositions

There are several basic monosyllabic or bisyllabic postpositions (simple locative and several more specific spatial categories, plus instrumental, comitative, and benefactive). They are subject to the tonal processes mentioned above, appearing L-toned after singular NPs or pronouns and H-toned (arguably their lexical tone) after -3Sg NPs or pronouns, except that M-toned pronouns (1Sg, 2Sg, 2Pl) spread their M-tone into the postposition. Thus kînā ~ kînā ~ kînā ‘in front of’ in sāā kînā (< /sāā kînā/) ‘in front of the house’, sàà-râ-à" kînā ‘in front of the houses’, and mā kînā ‘in front of me’.
2.4 Verb inflection

TAM categories are expressed by a combination of verbal suffixation, tonal ablaut, and grammatical particles and enclitics such as future sà and negative =rēʔ ~ =rēʔ. Disregarding the particles and enclitics, (5) illustrates word-level distinctions with one intransitive verb (‘come’) and one OV transitive verb (‘buy’). Tonal alternations like sèé ~ sèé reflect the effects of preceding +3Sg and -3Sg NPs (including pronouns). These alternations occur only in positions where the verb is immediately preceded by an NP (as opposed to an inflectional particle or subject enclitic). For intransitives this alternation is limited to the perfective, for transitives it occurs in all indicative and deontic inflections. The subject-focus perfective (with M-tones) is limited to intransitives.

(5) ‘come’ ‘buy’

a. indicative inflections
   perfective sèé ~ sèé sàní ~ sàní
   subject-focus perfective sèè (n. a.)
   imperfective sáá sànà ~ sáná
   progressive (positive) sè-yá sàní-yá ~ sàní-yá
   progressive (negative) sè-yá ~ sè-yá sàní-yá ~ sàní-yá

b. deontic inflection
   imperative sā sāⁿ ~ sāⁿ

c. subordinated forms
   adjoined sā sāⁿ
   adjoined (defocalized) sà sàⁿ
   in ‘if’ clause sā sāⁿ ~ sāⁿ
   quoted imperative sā sāⁿ ~ sāⁿ

d. nominalization
   verbal noun (suffixed) séé (séé-rā) sàní (sàn-nā)

2.5 Main clauses and constituent order

Simple main clauses are of the types in (6). Additional variations can be produced by adding spatiotemporal adverbs and adjoined (non-argument) PPs either before the subject (S) or after the verb.
a. S-inf-l-V  
intransitive
S-inf-l-V-O  
intransitive plus postverbal “object” (VO transitive)
S-inf-l-V-PP  
intransitive plus postpositional phrase

b. S-inf-l-O-V  
ordinary transitive (OV transitive)
S-inf-l-O-V-O  
ditransitive (‘give’ etc.)

c. S-inf-l-3SgNonh-V  
pseudo-transitive (‘go’)
S-inf-l-ReflO-V  
pseudo-reflexive (middle)

The sequences S-inf-l-V and S-inf-l-O-V are tightly bound and do not allow interruptions by adverbs or other elements, which may however occur before or after. The inflectional elements, “-inf-“ in (6), that can precede the VP (V… or OV…) are these: the imperfective subject enclitic /H+ = Æ/ (in present, future, and progressive clauses) which is realized if at all as final H-tone, future particle sà (following the imperfective enclitic), and prohibitive particle bì. There is no pre-VP inflectional marker in perfectives.

Negation, not shown in (6) above, is a clause-final enclitic =tÈt. Prohibitives (negative imperatives) have both a pre-VP inflectional particle bì and clause-final =tÈt. Addition of the negative enclitic causes subtle tonal changes earlier in the clause (§10.2.3), including omission of the imperfective subject enclitic.

Examples of the intransitive types in (6a) above are in (7).

(7)  

a. zàkû ñêë  
type
Z     come.Pfv
‘Zaki came.’                  perfective intransitive

b. zàkû ñë ñêë [yì dë]  
Z     come.Pfv [water with]
‘Zaki brought (the) water.’                  perfective intransitive + PP

c. zàkû bà?rë tãgà-rà  
Z     touch.Pfv sheep-Nom
‘Zaki touched a/the sheep-Sg.’                  perfective VO transitive

d. bûkàrî =Ø sà sàâ  
B=lpfv Fut     come.Ipfv
‘Bakari will come.’                  future intransitive

Examples of OV transitive and ditransitive verbs, cf. (6b) above, are in (8). A ditransitive like ‘give’ is essentially the combination of an OV transitive with an additional postverbal object. The preverbal object denotes the theme (the entity given), the postverbal object denotes the recipient.
(8)  a.  zàkū mā bāʔrī(ī)  type
      Z   1Sg   hit.Pfv
   ‘Zaki hit me.’  perfective OV transitive

   b.  zàkū yí bilí mā-n
      Z   water  give.Pfv  1Sg-Indep
   ‘Zaki gave water to me.’  perfective ditransitive

Examples of pseudo-transitive, true reflexive, and pseudo-transitive (middle) clauses, cf. (6c) above, are in (9). The only pseudo-transitive verb is ‘go’ (imperfective wǎá, one of two ‘go’ verbs). It has a nonreferential, pro-forma nonhuman 3Sg object, in part of its paradigm (§10.1.1.2). True reflexives are special cases of regular OV transitives where the object happens to be coindexed with the subject. Such true reflexive objects are expressed with a reflexively possessed noun yeʔré which functions like English -self (§18.1.2). Pseudo-reflexives have only reflexive pronominal proclitics in preverbal object position. Such clauses function as middles, similar to Romance (pseudo-)reflexives (§10.1.1.3).

(9)   a.  tàgà-ré = è wěē  type
       sheep-Nom  3SgNonh  go.Pfv
   ‘The sheep-Sg went (away).’  perfective pseudo-transitive

   b.  zàkū [ná yeʔré] bāʔrī
      Z   [3SgHumRefl self]  hit.Pfv
   ‘Zakii hit himself.’  perfective true reflexive

   c.  zàkū ná jòʔrí
      Z   3SgHumRefl  jump.Pfv
   ‘Zakii jumped.’  perfective pseudo-reflexive (middle)

2.6  Focalization

For third person pronouns, focalization (in subject, object, or other function) can be directly expressed by changing the form of the pronoun. For example, regular human 3Sg subject proclitic à is replaced by focalized pronoun à-wò. The same forms are used elsewhere as third-person logophorics.

For noun-headed NPs and 1st/2nd person pronouns, no such morphological marking of focalization occurs. There is also no fronting of focused constituents. The remaining possibility is indirect marking of constituent focalization by some modification of the verb. The only such modification is a special M-toned form of perfective intransitive verbs when the preceding subject is focalized.
Both the morphological marking of 3Sg and the M-toned perfective subject-focus verb are illustrated in (10a), compare unfocalized (10b). These examples also illustrate the wide clausal scope of negation in focalized (10a) versus its narrow VP scope in (10b).

10. a. ̀-wò sëë =rë?
   Hum-3SgFoc come.Pfv.SbjFoc=Neg
   ‘It wasn’t he-or-she [focus] who came.’

   b. à sèè =rë?
   3SgHum come.Pfv
   ‘He/She didn’t come.’

Focalization is covered in chapter 13 along with interrogation, which is closely related.

### 2.7 Relative clauses

Relative clauses, covered in chapter 14, are internally-headed. The head NP can be subject, object, possessor, or postpositional complement. It occurs in its normal position within its clause (in situ, not fronted or extracted), and is marked by addition of mì particle (distinct from demonstrative mì ‘this’). An example is (11).

11. [wó =Ø [sàá mì] jí-yá nè]
   [2Sg=Ipfv [house Rel] see-Prog there]
   ‘that house that you-Sg see there.’

### 2.8 Adjoined clauses

I use the term “adjoined clause” to denote the second of two clauses, including a reduced second subject pronoun and a special adjoined form of the second verb, that combine tightly without completely losing their biclausal nature. The first verb typically contracts with the second subject pronoun, partially masking the underlying form of the latter. Contraction of two input vowels are indicated by the enclitic boundary = after the first word. This construction class is described in §15.2. An example is (12).

12. [à bá =] [á jàʔà"] [yí dà]
   [3SgHum fall.Pfv] [3SgHum descend.Adjn] [water in]
   ‘He/She fell down into the water.’ (<\à bê à jàʔà")
3 Phonology

3.1 Internal phonological structure of stems and words

3.1.1 Syllables

Open syllables are the norm. Monosyllabic words and stems may be $Cv$ or $Cvv$ ($v =$ any vowel quality). Final $CvL$ with sonorant $L$ is possible, especially in nouns, but in some cases it is due to Apocope (final-vowel deletion). Syncope can also occur at stem-suffix boundaries in nouns. See §3.6.2.2.-3 for these vowel deletion processes. Medial clusters are either of the homorganic nasal plus voiced stop type (e.g. $mb$), which are arguably better analysed as nasalized vowel plus stop, or less often clusters like $ml$ whose first member has to be syllabified with the preceding vowel (§3.2.2).

3.1.2 Metrical structure

In the absence of overt stress, metrical (rhythmical) structure in African languages of this zone is most apparent in patterns of vocalic reduction (to schwa or zero). Certain positions in Jalkunan are especially relevant.

First, stem-initial $CvCv$ allows Syncope of $v_1 = i$ and sometimes of $v_1 = e$ when $C_2$ is $l$. The tone of the syncopated vowel is retained; I show it in (13) as rising tone on the following vowel, but phonetically the L-tone begins on the lateral.

(13) $bilí \sim bòlí \sim bòlí$ ‘gave’
$bèlé \sim bòlé \sim blè$ ‘passed’

Words like $flá$ ‘2’, $glâñà$ ‘nightjar’, $kláá$ ‘ring (on finger)’, and $sláá$ ‘daytime’ that now usually begin with a $Cl$ cluster likely originated in this way, and $i$ can still occur in artificially slow pronunciations.

Second, the medial syllable of word-final …$CvCvCv$ can syncopate. This is most apparent in nouns and adjectives when followed by the nominal suffix -ra. Stems ending in $nv$, $lv$, and $rv$ are the most favorable frames, resulting in $nn$, $ll$, and $rr$ after Syncope (and assimilation of suffixal $r$ to $n$ or $l$).

(14) noun suffixed gloss

a. $búlí$ $búl-lá$ ‘caterpillar, grub’
$bútûnî$ $bútûn-ná$ ‘fist’
b. bɔ̀nɔ bɔ̀n-ná ‘kite (hawk)’
   fɛ́nɛ́ fɛ́n-ná ‘mushroom’

c. kānā kān-nā ‘red’
   sàmàrà sàmàr-rá ‘shoes’

Word-final …CvCvCv can also occur within a stem, and when the medial vowel is \{i u\} and the flanking consonants are propitious, Syncope is an option: fúnúnà ~ fùnnà ‘become inflated or swollen’ (imperfective).

Some nouns and adjectives ending in \{i u\} like those in (14a) optionally apocopate word-finally in clause-medial position. There is much variation from one stem to another, and some free variation for individual stems, in my assistant’s speech.

### 3.2 Consonants

The consonantal phonemes are in (15).

(15) Consonants

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>labial</td>
<td>p</td>
<td>b</td>
<td>m</td>
<td>f</td>
<td>v</td>
<td>w</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>alveolar</td>
<td>t</td>
<td>d</td>
<td>n</td>
<td>s</td>
<td>z</td>
<td>l</td>
<td>r</td>
<td></td>
<td></td>
</tr>
<tr>
<td>glottalized</td>
<td>ʔ</td>
<td>ʔr</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>alveopalatal</td>
<td>c</td>
<td>j</td>
<td>ɲ</td>
<td>y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>velar</td>
<td>k</td>
<td>g</td>
<td>ɬ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>labial velar</td>
<td>kp</td>
<td>gb</td>
<td>ɲm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>laryngeal</td>
<td>ʔ</td>
<td>ʔh</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*key to columns: 1. aspirated voiceless stops and affricates; 2. voiced stops and affricates; 3. nasals; 4. voiceless fricatives (including sibilants); 5. voiced fricatives (including sibilants); 6. lateral; 7. other sonorants (taps, semivowels); 8. glottal stop; 9. laryngeal (aspiration)*

The orthography differs from IPA as indicated in (16).

(16) a. \(c\) is IPA [tʃ]
    b. \(j\) is [dʒ]
    c. \(r\) is a tap [ɾ]
    d. \(ʔr\) is a tap with simultaneous glottal stop [ɾ’]
    e. ligatures are omitted for labial velars (but they are unit phonemes)
3.2.1 Comments on specific consonants

3.2.1.1 $h$

This consonant is attested only initially in loanwords: hééré ‘well-being’, hín = in (669a).

3.2.1.2 ʔ

Glottal stop ʔ is common stem-medially between two short vowels: búʔú ‘liver’, dọʔọ ‘younger brother’. It does not occur word- or stem-initially, or word- or stem-finally. It does occur finally in negative enclitic =rēʔ when it is clause-final (§10.2.1), and in clause-final emphatic particle dēʔ (§19.3.2). See, however, the comments in §10.2.2.

Usually ʔ within a stem is flanked by short vowels of identical quality, but not necessarily with the same tone. Additional nominal examples are bàʔà ‘wild onion’, zëʔènè ‘wild date tree (Balanites)’, bọʔokàʔão ‘tall grass spp. (Hyperthelia, Diheteropogon)’, and núnàʔ¬tùʔùgù ‘praying mantis’. Aspectual alternations such as imperfective dàʔà and E-stem perfective dèʔè for the verb ‘let go, set free’ show that this vocalic harmonization is systematic at least for verbs. Exceptions are wòʔùl¬di¬ (and) ‘mid-sized honey bee sp.’ and jìʔènáá ‘get wet’.

Allophonic nasalization of the vowel preceding ʔ is carried over to the vowel that follows it. There are many words like 1Pl pronoun múʔù that have an initial Nv syllable (nasal consonant plus short vowel that is automatically nasalized), followed by a glottal initial syllable with a clearly nasalized vowel. Although the nasalization of both vowels is automatic, I transcribe it in this case to avoid confusing readers.

3.2.1.3 r and ʔr

Tap r and glottalized ʔr do not occur word-initially. The only exception in my data is ràábà ‘Wednesday’, a borrowing (ultimately Arabic). They do not occur word-finally, except in words like múʔà ‘mango’ when apocopated from múʔù.

r does occur occasionally as first member of medial CC clusters, followed by an obstruent: bàrkàr ‘herb sp. (Leucas)’, màrfá ‘rifle’.

Other than this, both r and ʔr are limited to medial intervocalic position. r also occurs in the negative enclitic =rēʔ, which usually follows a vowel. However, Syncope/Apocope can create Cr clusters, which can feed CC-adjustment rules like r-Lateralization and r-Deletion.

ʔr is phonetic [ɾ] with simultaneous glottal stop and (weak) tap. One could argue that it is a cluster of ʔ with r, but the simultaneity of the glottal and rhotic articulations argues for unit phoneme status. Its frequency is another argument for this. An alternative analysis is that it is the result of Syncope from ñvâv with some vowel v. This might be justified diachronically (I don’t know), but there is no good evidence for it synchronically. For example, nominal suffix -ra (or variant) allows Syncope of a preceding vowel under some conditions, but there are no cases of e.g. ñvâv-rà syncopating to ñvâ-rà [Çvâra]. Examples of non-syncopation are dèʔè-rà ‘cream of millet’ and jìʔò-rà ‘Jula person’.

16
Examples of ʔr [ɾ] are the nouns gúmāʔrà ‘palm-frond bed’, jɔsɔrɔ ‘loam’, wɔrɔ ‘thigh’, fārɔ ‘cave’, kɔrɔ ‘night’, yɛlɛrɛ ‘néré tree’ (Parkia), mɔlĩ ~ mɔlrɔ ‘mango’, and the verbs kãrɔ ‘break, snap’, bɛɛrɔ ‘yam (Dioscorea)’, jɔrɔ ‘jump’, bɔrɔ ‘hit’, tɔrɔ ‘sell’, nɔrɔ ‘affix’, sərɔ ‘sweep’, sɔnsɔ’rɔ ‘squat’, and kɔrìyáà ‘get old’. I have no examples involving preceding high vowel i or u, but a following i or u is allowed, as shown by examples above and by several I-stem perfectives of the verbs above (kãrɔ ‘broke’, etc.).

3.2.1.4 ʔn

Usually sonorants other than r are separated from a preceding glottal stop by at least an echo vowel. However, sɔʔñ ‘shrew (Crocidura)’, with suffix sɔʔñ-ná, was heard with more or less simultaneous glottal closure.

3.2.1.5 z

z is uncommon initially and seems to be limited to loanwords, and to cultural vocabulary that can be suspected of being loanwords: zálùmɛ ‘rice cooked with sauce in it’, zɛlɛnɛ ‘wild date tree (Balanites)’. There are several examples of z intervocally, but they too are flora-fauna or other cultural items: sìzó ‘scissors’ (< French), tãüsüɛp ‘Abdim’s stork’, sɛzɛ ‘waterbuck’ (also in Jula), kɔzɔ ‘fruit of tree sp. (Annona)’. Prost already noted that medial s is sometimes pronounced z. I have observed this in the semi-reduplicative verb sɔzɔrɔ ‘squat’, often pronounced sɔzɔrɔ.

3.2.1.6 v

v is uncommon initially and unattested medially. My examples of word-initial v are flora-fauna terms: vila ‘fat mouse (Steatomys)’, végɛ-kũ, one of two synonyms for ‘wild grape tree (Lannea)’, vóó ‘large arthropod sp. (wind spider?)’, vɔɔn ‘mud-dauber wasp’ (onomatopoeic).

In formulae like CvCv, the symbol v represents any vowel, and vv represents any vowel sequence or long vowel. It is necessary to use lowercase v for typographic reasons, i.e. to allow tone diacritics.

3.2.1.7 p versus kp

As already observed by Prost, p appears to be absent from native lexicon and occurs in borrowings and in cultural lexical items that are likely to have been borrowed. Stem-initial p is attested in pɛlɛ ‘chili pepper’, pãdãl ‘pants’, pɔsɔn ‘poison’ (< French), pînɔ ‘bulbul (bird)’, and pɔtɔ-pɔtɔ ‘jatropha (tree)’. Medial p occurs in ál–pɛrɛñ-kã ‘thunder’, tãpɛtǐ
‘plastic sandals’ (local French tapête), kápòn ‘daba (hoe) for light chopping’, and sipití ‘Saturday’ (< Arabic).

Labial velar kp (a unit phoneme) is common word-initially in native vocabulary: kpáá ‘die’, kpɔɔlɔ ‘time(s)’, kpɔ ‘foot’, etc.

3.2.1.8 Variation in intervocalic stop voicing (k/g and t/d)

Voiceless obstruents are common stem- and word-initially. When they occur intervocally within a stem, k varies with g and t varies with d. The voiceless stop is preferred in careful speech, especially at the intersection of a preceding L-tone and a following H-tone (hence often in perfectives). My assistant regularly corrected my pronunciation accordingly, but in ordinary speech style he generally pronounced g and d.

In dákɔ ‘catch (something thrown)’, the voiceless k is consistent. I suspect this is because it is treated as a compound dá-kɔ̣, so the k is initial within its stem. However, there are some similar verbs such as dá-‘káá ~ dá-‘gáá’ ‘finish’ that behave tonally like compounds but that do show k ~ g alternation.

In reduplicated nouns tôtó ‘giant pouch rat’ and tété ‘tick’, I have only heard t medially. However, apparently reduplicated kükù ~ kùgù ‘stone’ does show k ~ g variation medially.

Other verbs showing intervocalic k ~ g (cited here in the imperfective +3Sg) are mùkɔ ~ mʊgɔ ‘shape into a ball’, nàkà ~ nàgà ‘ask (question)’, cɔkɔ ~ cɔgɔ ‘peck’, sɔkɔ ~ sɔgɔ ‘pick up (on ground)’, wùkɔ ~ wʊgɔ ‘flip over’, yèkà ~ yègà ‘stone-grind’, and lèkè-lèkà ~ lègɔ-ːlègà ‘tickle’. bègà (or bègë) ‘cut, slice’ was almost always heard with g but a k variant was recorded once. Adjective: bákùnì ~ bágùnì ‘short’ (apparently a frozen compound, cf. synonym gùnì ‘short’). Nouns: dùkù ~ dùgù ‘the bush (outback)’, dikìnì ~ dìgìnì ‘man’.

Verbs with intervocalic t ~ d are dútɔlɔ ~ dùdɔlɔ ‘show’ and dútɔsɔnɔ ~ dòdɔsɔnɔ ‘shut (door, eyes)’. Adjectives: wùtɔ ~ wàdɔ ‘new’, kùtɔ ~ kùdɔ ‘old’, kítã ~ kídã ‘bad’.

These lists are not exhaustive, and it may be that numerous other stems with medial intervocalic g or d can be pronounced with the voiceless stop in careful speech. However, hypercorrection is also a lurking possibility.

I have no examples of p varying with b or of kp varying with gb.

3.2.1.9 k/g versus c/j before front vowel

There is very little difference in my assistant’s pronunciation between ke, ce, kie, and cie, or between ge, je, gie, and jie, and likewise with other front vowels i and e. In other words, k is partially palatalized before front vowels, and i in Cie is articulated only briefly. My assistant does, however, have clear intuitions about the correct pronunciation of each individual word, and I generally follow them.
3.2.2 Consonant clusters

3.2.2.1 Word- and morpheme-initial \( CC \) clusters

\( kp \) and \( gb \) are units, not clusters, so they are excluded here.

Initial \( CC \) clusters are of the form \( Cl \) or \( Cy \), rarely \( Cr \). Some if not all are probably due to historical Syncope of a short high vowel. If there is no synchronic evidence for an underlying vowel, I recognize an initial cluster.

(17) a. initial \( Cl \)

\[ \text{noun or numeral} \]

- \( flā \) ‘two’
- \( klāā \) ‘mouse’
- \( glāŋù \) ‘nightjar (bird)’

\[ \text{compound final} \]

- \( tāá-blāä-blāāä \) ‘firefly’

b. initial \( Cy \)

\[ \text{noun} \]

- \( fyēē \) ‘wind (n)’

c. initial \( Cr \)

\[ \text{noun} \]

- \( brā̄-kūⁿ \) ‘fromager tree’ (Ceiba)

In cases like \( bèlé \sim bə̀lé \sim blé \) (and tonal variants) ‘pass’, I take the full form (\( bèlé \)) as underlying.

3.2.2.2 Medial geminated \( CC \) clusters

\( nn \) is attested medially in a few items of cultural vocabulary: \( kōnnìgì \) ‘glue tree (Cordia)’, \( tōnnì̄l \) ‘tiger-beetle larva’, and \( nāmùnnà̄ \) ‘stirring-stick’.

\( nn, ll, \) and \( rr \) occur in nouns at the suffixal boundary.

(18) stem with suffix gloss

- \( sāfālì \) \( sāfāl-lā \) ‘donkey’
- \( sāmārə \) \( sāmār-rā \) ‘shoes’
- \( sānǔ \) \( sān-nā \) ‘gold’

In most cases geminates at the suffixal boundary result from Syncope of a stem-final short vowel. However, there are also some nouns that end in one of the relevant sonorants (at least, I have not heard them with final high vowels): \( sūkāř \) ‘sugar’, \( bēr(ē)fàn \) ‘blanket’, \( jēn \) ‘ax’, \( kāl \)
'cotton'. These too have geminated sonorants in the suffixed form: sùkā̄-rā, bèr(ē)fǖn-nā, jén-nā, kǔl-lā.

3.2.2.3 Medial non-geminate **CC** clusters

kp, gb, ŋm, and ʔr are analysed here as unit consonants, not clusters.

Homorganic nasal plus voiced stop clusters are well-attested: kāmbā̄rā ‘Abyssinian roller (bird)’, pândāl ‘pants’, bālānjārā ‘amaranth’, sāngē ‘mosquito net’, sèngbā ‘bamboo’. However, these could also be interpreted as nasalized vowel plus stop. For example, fóm-bēè ‘fun’ contains fā’ ‘fun’.

Other true nongeminate **CC** clusters are uncommon but a few have been recorded, chiefly or exclusively in noun stems. Those that do not occur only at obvious compound boundaries are in (19).

<table>
<thead>
<tr>
<th>(19)</th>
<th>cluster</th>
<th>example</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. CI</td>
<td>mì</td>
<td>kámléwōtōólū</td>
<td>‘galago (mammal)’</td>
</tr>
<tr>
<td></td>
<td>fì</td>
<td>màflāni-kīi</td>
<td>‘tree spp. (Parinari, Maranthes)’</td>
</tr>
<tr>
<td>b. Cy</td>
<td>fīy</td>
<td>tāfyēl</td>
<td>‘square fan’</td>
</tr>
<tr>
<td>c. IC</td>
<td>lìm</td>
<td>sàlmátàànkēé</td>
<td>‘thrush (bird)’</td>
</tr>
<tr>
<td></td>
<td>lìn</td>
<td>bāln-ā</td>
<td>‘hitching post for goat’ (suffixed form)</td>
</tr>
<tr>
<td></td>
<td>lìk</td>
<td>bālkùn</td>
<td>‘tree sp. (Khaya)’</td>
</tr>
<tr>
<td></td>
<td>lìw</td>
<td>dālwāālì</td>
<td>‘ground-dwelling termite’</td>
</tr>
<tr>
<td>d. rC and ʔrC</td>
<td>rf</td>
<td>màrfā</td>
<td>‘gun’</td>
</tr>
<tr>
<td></td>
<td>rt</td>
<td>kórīṭò gbōṭō</td>
<td>‘paper wasp sp.’</td>
</tr>
<tr>
<td></td>
<td>rn</td>
<td>cērnā</td>
<td>‘cricket’</td>
</tr>
<tr>
<td></td>
<td>rw</td>
<td>jērwōtō</td>
<td>‘snail’</td>
</tr>
<tr>
<td></td>
<td>ʔrс</td>
<td>bā̄rccē</td>
<td>‘fight (n)’</td>
</tr>
<tr>
<td>e. NC with voiceless stop or affricate</td>
<td>ŋkp</td>
<td>cíŋkpērī-kùn</td>
<td>‘tree sp. (Entada)’</td>
</tr>
<tr>
<td></td>
<td>ŋk</td>
<td>gbēŋkā-kūn</td>
<td>‘tree sp. (Bridelia)’</td>
</tr>
<tr>
<td></td>
<td>nc</td>
<td>bèlēncīn</td>
<td>‘uncle’ (synonym bè)</td>
</tr>
</tbody>
</table>
3.2.2.4 Word-final CC clusters

Word-final clusters are virtually nonexistent in Jalkunan, where even final single consonants are restricted. I have recorded bɔ̀ln ‘hitching post’ before modifiers or verbs: bɔ̀ln flā ‘two hitching posts’, mā bɔ̀ln jìē ‘I saw a hitching post’. The n is not noticeably syllabic. The suffixed form is bɔ̀ln-ā.

3.3 Vowels

The inventory is (20), omitting tones.

(20) oral nasal

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>u</td>
<td>uu</td>
<td>uⁿ</td>
<td>uuⁿ</td>
</tr>
<tr>
<td>o</td>
<td>oo</td>
<td>oⁿ</td>
<td>ooⁿ</td>
</tr>
<tr>
<td>ɔ</td>
<td>ɔɔ</td>
<td>ɔⁿ</td>
<td>ɔɔⁿ</td>
</tr>
<tr>
<td>a</td>
<td>aa</td>
<td>aⁿ</td>
<td>aaⁿ</td>
</tr>
<tr>
<td>e</td>
<td>ee</td>
<td>eⁿ</td>
<td>eeⁿ</td>
</tr>
<tr>
<td>i</td>
<td>ii</td>
<td>iⁿ</td>
<td>iiⁿ</td>
</tr>
</tbody>
</table>

3.3.1 Short and (oral) long vowels

Both short and long vowels occur frequently in monosyllabics. A few examples among many are in (21).

(21) a. Cᵥ monosyllabics

nouns

dí   ‘child’
kp₃   ‘foot’
bé   ‘uncle’ (synonym bèlènc’ā)

pronouns

mā   1Sg proclitic
wō   2Sg proclitic

adjectives

gb₃   ‘big’
jit   ‘good’

numerals

flā  ‘2’ (in some contexts flāā, see comments after (125))

verbs

sò ~ sō  ‘know’ (perfective)
sā   ‘come’ (imperative)
b. **Cvv** monosyllabics

*nouns*

- **kóó** ‘back (body)’
- **téké** ‘calabash’
- **lóó** ‘mask’
- **gbúú** ‘boil (on skin)’

*adjectives*

- **táá** ‘hot’
- **kpéé** ‘white’

*numerals*

- **táá** ‘ten’

*verbs*

- **bàà** ‘fall’ (imperfective)
- **sàà ~ sáá** ‘build’ (imperfective)

In nonmonosyllabic stems, long vowels are less common than short vowels in all positions. Nonmonosyllabic verbs especially tend to have only short vowels. The most common shape that does include a long vowel is \(CvvCv\), followed by \(CvCvv\) (22a-b). Medial long vowels in trisyllabics occur in a few loanwords (22c).

(22) *a. CvvCv(v)*

*nouns*

- **jààgbè** ‘courage’
- **bòòrò** ‘sack’
- **báárá** ‘work (n)’ (synonym \(wálí\))

*numerals*

- **sóóló** ‘5’
- **búúlí** ‘thousand’

*verbs*

- **míílí ~ míílí** ‘think’ (perfective; also variants with \(r\) for \(l\))
- **fènì ~ fènì** ‘untie’ (perfective)
- **màá-séé ~ máá-séé** ‘bow, bend over’ (perfective)

*b. CvCvv*

*nouns*

- **dálòò** ‘civet (mammal)’
- **jàngbáá** ‘cat’ (and other variants)

*verbs*

- **mùní ~ mùní** ‘crawl’ (perfective)
- **nènéé ~ nènéé** ‘taste’ (perfective)
3.3.2 Nasalized vowels

Short and long nasalized vowels have the same distribution as oral short and long vowels. Any vowel quality can be nasalized. Because a syllable-initial nasal consonant induces phonetic nasalization of the vowel, the examples given here involve syllables beginning with oral consonants.

<table>
<thead>
<tr>
<th>Monosyllabic Nouns</th>
<th>Monosyllabic Demonstratives</th>
<th>Monosyllabic Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>sèⁿ</td>
<td>mí</td>
<td>kpááⁿ</td>
</tr>
<tr>
<td>tóⁿ</td>
<td>‘thing’</td>
<td>‘draw (water)’ (imperative)</td>
</tr>
<tr>
<td>‘arrow’</td>
<td>‘this’</td>
<td>‘fly away; jump’ (imperative)</td>
</tr>
<tr>
<td>cííⁿ</td>
<td>gbááⁿ</td>
<td>dòòⁿ</td>
</tr>
<tr>
<td>kwééⁿ</td>
<td>‘breast’</td>
<td>‘dance (n)’ (variant dòò)</td>
</tr>
<tr>
<td>kwééⁿ</td>
<td>‘shoulder’</td>
<td></td>
</tr>
<tr>
<td>kwééⁿ</td>
<td>‘crops’</td>
<td></td>
</tr>
<tr>
<td>dòòⁿ</td>
<td>‘penis’</td>
<td></td>
</tr>
</tbody>
</table>

In nonmonosyllabic words, it is easiest to find phonemically nasalized vowels word-finally than initially or medially, where vocalic nasalization is more strongly associated with nasal consonants. Some long nasalized vowels are in (24). These include some CvCvv stems with nasalized medial C, on the grounds that phonemic nasalization is more readily heard in final long than short vowels.
(24) a. nonfinal long nasalized vowel

nouns

cííⁿ-yí  ‘milk’ (compound “breast-water”)

verbs

füàⁿ-vúnš  ‘sprinkle (grains)’ (imperfective)

b. final long nasalized vowel or diphthong

nouns

jàŋgbááⁿ  ‘cat’ (variants include jáŋmááⁿ)

verbs

d̀sⁿ ~ d̀sⁿ  ‘step on’ (imperfective)

kiáⁿ ~ kiáⁿ  ‘fly away’ or ‘jump’ (imperfective)

Some nonmonosyllabics with short nasalized vowels are in (25). Nonfinal phonemically nasalized vowels are rare, excluding automatically nasalized vowels following a nasal consonant. Final phonemic nasalized vowels are common. In glottal stems like búʔúⁿ ‘liver’, both vowels are fully nasalized.

(25) a. nonfinal short nasalized vowel

nouns

cíⁿ-wù  ‘termitary’

b. final short nasalized vowel

nouns

dúléⁿ  ‘fishing apparatus’

búʔúⁿ  ‘liver’

gbíríⁿ  ‘wilderness’

gbáajéⁿ  ‘tea’

fààndáⁿ  ‘pauper’

sàà-bíⁿ  ‘roof’

[for verbs see just below]

Several verb stems have morphologically regular alternations between $CVnv$ (e.g. imperative) and $CV^n$ (e.g. imperative).

(26) imperfective    imperative    gloss

+3Sg            +3Sg

d̀sⁿ            d̀sⁿ  ‘chew’

gbènà          gbèⁿ  ‘throw’

jàʔánà         jáʔánⁿ  ‘descend’

In some stems, however, an expected final short nasalized vowel in the imperative is denasalized, see §3.6.2.5 below.
The vowel of a \textit{Nv} or \textit{Nvv} syllable, where \textit{N} is a nasal consonant, is treated as nasalized in the phonology. This is especially relevant to \textit{n} \sim \textit{r} alternations in nominal suffix \textit{-ra} and in negative enclitic =\textit{r}\textit{ē}, see §3.6.1.1. I do not normally transcribe vocalic nasalization in such cases since it is redundant, but a good case could be made that I should. One might also extend this to vowels preceding nasal consonants. My assistant regularly corrected my pronunciation, especially when words were broken up artificially into syllables. For example, he insisted in syllabifying \textit{gb\text{"e}n\text{"a}} ‘throw’ as \textit{gb\text{"e}n} plus \textit{n\text{"a}}. Examples with fully nasalized final \textit{Nvv} syllable include \textit{k\text{"u}m\text{"e} [k\text{"u}m\text{"e}]} ‘food’ and \textit{m\text{"a}m\text{"e} [m\text{"a}m\text{"e}]} ‘carried on back’ (perfective +3Sg).

Stems ending in \textit{N\text{"a}v} are likewise treated as ending in a nasalized vowel, thereby triggering \textit{r}-Nasalization in a following nominal suffix or negative enclitic. To avoid confusion I add the nasalization diacritic at the end of transcriptions of such stems, but as with \textit{Nv} and \textit{Nvv} syllables the vocalic nasalization is automatic. Examples are the pronoun \textit{m\text{"u}n\text{"a}} ‘we’, noun \textit{bin\text{"a}n\text{"a}} ‘herb sp. (\textit{Ceratotheca})’ with suffixed form \textit{bin\text{"a}n\text{"a}}-\textit{n\text{"a}}, and verb \textit{k\text{"a}m\text{"a}n\text{"a}} ‘knead, stir’ with negation \textit{k\text{"a}m\text{"a}n\text{"a}} =\textit{n\text{"e}l}.  

3.3.3 Initial vowels

Initial vowels \textit{a} and \textit{e} occur in pronominals (2Pl \textit{\text{"e}\text{"e}n}, human 3Pl \textit{\text{"a}\text{"a}n}, human 3Sg \textit{\text{"a}}, nonhuman 3Pl \textit{\text{"e}\text{"e}n}, nonhuman 3Sg \textit{\text{"e}}). These pronominals occur clause-initially in subject or possessor function, and except when clause-initial they are typically contracted with preceding vowels.

In stems (nouns, adjectives, numerals, verbs, adverbs), initial vowels are rare. I can cite only a handful of nouns (27), the first of which (‘God’) also occurs as compound initial, see (141). The initial vowels in such stems do not normally undergo \textit{vv}-Contraction.

(27) \textit{\text{"a}l\text{"a}} ‘God’
\textit{\text{"a}l\text{"a}m\text{"a}n\text{"a}} ‘fine (n)’
\textit{\text{"i}k\text{"a}j\text{"e}n} ‘shrub sp. (\textit{Alchornea})’
\textit{\text{"o}d\text{"o}l\text{"u}} ‘women’s ululation’

3.3.4 Stem-final vowels

Almost all stems ends in vowels (exceptions are nouns). All vowel qualities are attested.

3.3.5 Vowel sequences

3.3.5.1 \textit{xe} and \textit{oe} diphthongs

The diphthong \textit{xe} occurs in verbs ending in \textit{\text{"o}\text{"o}} that add a mid-height front vowel \textit{e} in the perfective. However, in medial position this diphthong is trimmed back to \textit{\text{"e}}. For example, ‘enter’ is cited as imperfective \textit{s\text{"e}}. Its perfective form \textit{s\text{"e} \sim s\text{"e}} occurs clause-finally, but is
usually trimmed to sɔ̀ ~ sɔ́ clause-medially. More problematically, this perfective is heard with long but monophthongized vowel before the negative enclitic: sɔ̀ɔ̀ = rɛ̄ ʔ ~ sɔ́ɔ́ = rɛ̄ ʔ. It is optionally shifted to +ATR in this negative form, hence variants sɔ̀ɔ̀ = rɛ̄ ʔ ~ sɔ́ɔ́ = rɛ̄ ʔ. Ca verbs that have tones in the imperfective, and nonmonosyllabic CaCa verbs, do not show the shift to +ATR in my data. See (28a) below for data.

There are a few lexically +ATR bisyllabic verbs with diphthong oe in perfectives (28b). This diphthong is even less stable that ɔɛ́, and even clause-finally it monophthongizes sporadically as ee.

The other vowel quality, not already {e e}, in verbs with E-stem perfectives is the low vowel a. The expected diphthong #æ monophthongizes as ee (28c).

The verbs in (28a-b) have E-stem perfectives. Verbs that instead have I-stem perfectives are in (28c). In most of these verbs, here exemplified by ‘return’ and ‘point at’, the perfective ends in a Ci syllable. However, there are a number of stems such as ‘understand’ and ‘hammer’ that end in ùà or éà in the imperfective and therefore in ùî or ëî in the I-stem perfective.

(28) imperfective perfective PfvNeg gloss
+3Sg ~ -3Sg +3Sg ~ -3Sg +3Sg

a. perfective ends in æ diphthong

<table>
<thead>
<tr>
<th>imperfective</th>
<th>perfective</th>
<th>PfvNeg</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>sɔ̀ɔ̀</td>
<td>sɔ̀ ɛ̄</td>
<td></td>
<td>‘enter’</td>
</tr>
<tr>
<td>~ sɔ́ɔ́</td>
<td>sɔ́ ɛ̄</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bɔ̀ɔ̀</td>
<td>bɔ́ ɛ̄</td>
<td></td>
<td>‘exit’</td>
</tr>
<tr>
<td>~ bɔ́ɔ́</td>
<td>bɔ́ ɛ̄</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kɔ̀ɔ̀ ~ kɔ́ɔ́</td>
<td>kɔ́ ɛ̄</td>
<td></td>
<td>‘count’</td>
</tr>
<tr>
<td>~ kɔ́ ɛ̄</td>
<td>kɔ́ ɛ̄</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sɔ̀ɔ̀ ~ sɔ́ɔ́</td>
<td>sɔ́ ɛ̄</td>
<td></td>
<td>‘put (sth) in’</td>
</tr>
<tr>
<td>~ sɔ́ ɛ̄</td>
<td>sɔ́ ɛ̄</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b. perfective ends in oe diphthong

<table>
<thead>
<tr>
<th>imperfective</th>
<th>perfective</th>
<th>PfvNeg</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>mɔ̀ɔ̀ ~ mɔ́ɔ́</td>
<td>mɔ́ ɛ̄</td>
<td></td>
<td>‘rub, wipe’</td>
</tr>
<tr>
<td>jɔ̀ɔ̀ ~ jɔ́ɔ́</td>
<td>jɔ́ ɛ̄</td>
<td></td>
<td>‘steal’</td>
</tr>
<tr>
<td>dɔ̀ɔ̀ ~ dɔ́ɔ́</td>
<td>dɔ́ ɛ̄</td>
<td></td>
<td>‘step on’</td>
</tr>
<tr>
<td>mɔ́mɔ́ ~ mɔ́mɔ́</td>
<td>mɔ́mɔ́ ɛ̄</td>
<td></td>
<td>‘carry on back’</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tɔ̀lɔ̀ ~ tɔ́lɔ́</td>
<td>tɔ́lɔ́ ɛ̄</td>
<td></td>
<td>‘point at’</td>
</tr>
<tr>
<td>(+3Sg also tɔ́lɔ́)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bɔ́lɔ́ ~ bɔ́lɔ́</td>
<td>bɔ́lɔ́ ɛ̄</td>
<td></td>
<td>‘be born’</td>
</tr>
<tr>
<td>kɔ́rrɔ́ ~ kɔ́rrɔ́</td>
<td>kɔ́rrɔ́ ɛ̄</td>
<td></td>
<td>‘drag’</td>
</tr>
</tbody>
</table>
c. perfective ends in ee

\[ kpáa^n \quad kpêe^n \quad kpêe = nê? \]
\[ bàà \quad bêe \sim bêé \quad bêè = rê? \]
\[ tâ?á \quad tê?ê \sim tê?ê \quad tê?ê = rê? \]
\[ dô-\text{ísáá} \quad dô-sëé \sim dô-sëé \quad dô-sëé = rê? \]

\[ \sim dô-sëé = rê? \]

d. perfective ends in high vowel (always +ATR)

\[ bûlî \quad bûlî \sim bûlî \quad bûlî = rê? \quad \text{‘return, go back’} \]
\[ dûtîli \sim dûtîli \quad dûtîli \sim dûtîli \quad dûtîli = rê? \quad \text{‘point at’} \]
\[ fàâmûà \sim fàâmûà \quad fàâmûà \sim fàâmûà \quad fàâmûà = rê? \quad \text{‘understand’} \]
\[ gbèngbéà \sim gbèngbéà \quad gbèngbéà \sim gbèngbéà \quad gbèngbéà = rê? \quad \text{‘hammer (sth)’} \]

3.3.5.2 \( ie \) and \( ia \)

(28d) above also shows that diphthongs \( ea \) and \( ua \) can occur in imperfectives.

Some verbs have \( Cie \) segmental shape in the imperfective, in some cases varying with \( Cia \). If they have E-stem perfectives, the perfective and imperfective may be homophonous at the morphological level (29a). If they have I-stem perfectives, the two aspects are clearly distinguished. When the consonant is palatoalveolar (\( j \), \( c \), \( ɲ \)) the \( i \) in \( Cie \) or \( Cia \) is faint.

(29) imperfective perfective PfvNeg (+3Sg) gloss

a. \( ie \) in both imperfective and E-stem perfective

\[ jìè \sim jìé \quad jìè \sim jìé \quad jìè = rê? \quad \text{‘see’} \]
\[ \quad (\text{imperfective also } jìà \sim jìà) \]
\[ fìè \sim fìé \quad fìè \sim fìé \quad fìè = rê? \quad \text{‘blow’} \]
\[ cìè \sim cìé \quad cìè \sim cìé \quad cìè = rê? \quad \text{‘arrive’} \]

b. \( ie \) in imperfective, I-stem in perfective

\[ miè \sim mié \quad miì \sim miì \quad miì = nê? \quad \text{‘drink’} \]
\[ piè \sim pié \quad piî \sim piî \quad piî = nê? \quad \text{‘spend night’} \]
\[ nià \sim nià \quad nîi \sim nîi \quad nîi = nê? \quad \text{‘divide’} \]
3.4 ATR and related issues

3.4.1 ATR Harmony

The key ATR (advanced tongue root) opposition is -ATR \{ɛ ɔ\} versus +ATR \{e o\}, i.e. involving mid-height vowels. Within simple (noncomposite) stems, including aspect-marked verb stems, harmony is respected. For example, tọlọ́ẹ ‘rotted’ and bọ̀ẹ́ ‘exited’ are perfective forms of verbs, ending in the perfective stem-final e or e, the choice based on ATR value of the rest of the stem.

ATR Harmony is also central to the variation between =rēʔ and =rēʔ variants of the all-purpose clause-final negative enclitic (§10.2), and that between =ē and =ē variants of the ‘it is’ enclitic (§11.2.1.1). It has no effect on the nominal suffix -ra (and variants), progressive suffix -ya, or other suffixes that do not contain mid-height vowels.

The two ATR-harmonizing enclitics mentioned bring out the covert ATR value of high and low vowels. This allows us to classify all vowel qualities as either +ATR or -ATR (30).

(30) -ATR \{e ɔ a\}
+ATR \{e o i u\}

For example, the negative enclitic takes the form =rēʔ after a syllable containing the low vowel a (31a) as well as one containing overtly -ATR \{ɛ ɔ\}. The enclitic takes the form =rēʔ after a syllable containing a high vowel \{i u\} (31b) as well as one containing overtly +ATR \{e o\}. See §10.2 for more examples.

(31) a. è sá ‘sáá =rēʔ’ ‘It will not come.’
    b. é Ọ̀ kii=nēʔ ‘It did not fly.’
       bí=í gù=nēʔ ‘(Don’t shorten it!’

The ATR-harmonic class of a verb is not constant. For example, the progressive suffix -yá requires +ATR vocalism, so -ATR stems must shift Lexically -ATR Cvv verbs shift to +ATR, optionally before the negative clitic (if the verb has no contour tones), and obligatorily before the progressive suffix (§10.3.2.4).

(32)         imperative  perfective  imperfective  progressive  gloss
            +3Sg        +3Sg        +3Sg        +3Sg          
            +ATR in progressive only
            dè         dèè         dèè         dè-yá         ‘heat (sb)’
            mọ̀            mọ̀ɛ́         mọ̀            mọ̀-yá         ‘rub’

Cɛɛ and Cɔɔ verbs also optionally shift to +ATR in the perfective when the negative enclitic is added (§10.2.3).
In addition, several verbs shift from +ATR in the perfective and imperative to -ATR in the imperfective stem (§10.1.2.3). This is likely because imperfectives often end in -ATR a or e, and in some cases an original vowel of this type has spread its -ATR quality leftward.

(33)    imperative    perfective    imperfective    gloss
        +3Sg            +3Sg            +3Sg

    shift to -ATR in imperfective
    wè    wèè    wèè    ‘bathe (sb)’
    dàkó    dàkóì    dàkɔ̀ɔ    ‘catch (sth thrown)’

Given that i and e are +ATR, while a is -ATR, the recurrent opposition within third person pronouns between nonhuman e ~ i and human a takes on a kind of sound-symbolic character: +ATR = nonhuman and -ATR = human. In reflexive possessor pronouns, this is expanded by including second person pronouns in the +ATR group and first person pronouns in the -ATR group (§18.1.1).

3.4.2 e/i alternation

Alternations between e and i (both +ATR) occur primarily in pronouns. The e variant occurs in isolation and clause-initially, while the i variant is typical of contractions with the final vowel of the preceding word. The most important affected pronouns are these:

(34)    e-variant    i-variant
    è    i    nonhuman 3Sg
    èè    èì    2Sg (in some contexts, e.g. reflexive)
    ëèⁿ    èìⁿ    nonhuman 3Pl
    ëèⁿ    èìⁿ    2Pl

The most transparent instances of shift from e to i occur when the pronominal immediately follows future sà, either as object or as possessor of object. The 2Pl morpheme escapes contraction as regular object but not as pseudo-reflexive object.

(35)    Future plus preverbal object

a.    sì = i    nonhuman 3Sg
b.    sì = i    2Sg (pseudo-reflexive)
c.    sì = ìⁿ    nonhuman 3Pl
d.    sà èèⁿ    2Pl (object)
    sì = ìⁿ    pseudo-reflexive
Somewhat similar contractions occur in two-clause adjunction constructions, see §15.2.1.3 below.

The verb ‘go’ (perfective têː́ ~ têː̩́, imperfective táʔá) has a variant form tîʔí as first verb in a two-clause adjunction construction, i.e. a construction where the first verb usually contracts with the following pronominal second subject. It is likely that this originated in combinations where the verb was followed by an e-initial pronoun, most often nonhuman 3Sg è, which becomes i in contractions. The i-vowel idiosyncratically spread leftward to the first syllable of ‘go’. For a similar case involving high vowel a for expected +ATR o, see túá from tóá ‘stay’ in (426).

(36) a. [jèr-rá = Ø tîʔ = ] [f] bâl dâá ]
   [lion-Nom=Ipfv go.Pfv] [3SgNonh stand.Adjn mouth]
   ‘The lion went and stopped at the edge (of the hole).’ (2016_02 @ 02:40)

   b. [è tîʔ = ] [f] bà fô→ — ]
   [3SgNonh go.Pfv] [3SgNonh put.down.Ipfv until —]
   ‘It went and put it down all the way to—’ (2016_01 @ 03:31)

3.5 Verb-stem ablaut

Each regular verb occurs in a number of TAM inflections. These are distinguished from each other partly by inflectional morphemes that follow the subject NP, and partly by verb-stem modifications (tonal and suffixal).

As explained in §10.1.2, the imperfective stem has the most lexically specific information (vocalism, tone), and I generally use it as a citation form. However, it often ends in e or a that is absent in other TAM forms (perfective, imperative), and the -ATR quality of this vowel may spread leftward, as in (33) above. The perfective is characterized by a final front vowel {i e e}, which can be analysed either as a suffix or as a mutation of the final-vowel (also spreading to the preceding syllable over a medial glottal stop). Perfectives with final mid-height e or e (E-stem) form one subset of perfectives, the choice between e and e depending on ATR-harmonic class (37a). Perfectives with final i (I-stem) are a second subset (37b).

(37) imperfective perfective +3Sg gloss

a. jînáà jîné ‘forget’
   wâá wêē ‘go’
   dàʔà dêʔé(ê) ‘escape’

b. bûlô bûlí ‘return’
   dîbë dîbî ‘be extinguished’
3.6 Segmental phonological rules

3.6.1 Processes affecting consonants

3.6.1.1 \textit{r}-Nasalization (/\textit{nr}/ \rightarrow \textit{nn}, /\textit{Nv-r}/ \rightarrow \textit{Nv-n})

A suffix- or enclitic-initial tap \textit{r} is nasalized to \textit{n} following a nasal consonant or a nasal syllable. The latter is defined as \textit{Nv(v)} or \textit{Cv(v)}\textsuperscript{\textit{n}}, i.e. a syllable either beginning with a nasal consonant or containing a nasalized vowel.

\textit{r}-Nasalization applies to nominal suffix -\textit{ra} ~ -\textit{ra} (tone variable) and to negative enclitic =\textit{re} ~ =\textit{ra}.

(38) a. \textit{kàr-mūʔû} ‘holy man’, with nominal suffix \textit{kàr-mûʔû} = \textit{nà}

b. \textit{jàà-nà} = \textit{Ø} ‘it’s a woman’, negated as \textit{jàà-nà} = \textit{nē}.

Counterexamples are rare cases like the noun \textit{céngǎ} ~ \textit{céngə} ‘middle’, where \textit{ŋg} is in the process of simplifying to \textit{ŋ} via \textit{ŋŋ}. In principle, \textit{r}-Nasalization of the nominal suffix should apply after variant \textit{céngə}, whose oral stop \textit{g} should prevent nasalization from spreading rightward. However, the actual forms are \textit{céngǎ-ř} ~ \textit{céngə-ř} without nasalization of the suffix (§8.3.4.4).

Intervocalic \textit{m} in a few stems fails to nasalize the suffix or enclitic: \textit{bòmò-ř} ‘stomach’, \textit{làmò-ř} ‘tax’. In at least some cases this reflects an older form with *\textit{mb} or *\textit{mp} (cf. French \textit{l’impôt} ‘tax’).

3.6.1.2 \textit{r}-Lateralization (/\textit{lr}/ \rightarrow \textit{l})

Tap \textit{r} assimilates to an immediately preceding \textit{l}, resulting in a geminated \textit{l}l. As with \textit{r}-Nasalization (preceding section), this process affects nominal suffix -\textit{ra} ~ -\textit{ra} and negative enclitic =\textit{re} ~ =\textit{re}. Several examples are in (47a) below beginning with ‘grub’.

\textit{r}-Lateralization typically occurs after stem-final short-vowel deletion before a consonant. This is the case with the basic nominal suffix -\textit{ra} (and variants). When the preceding stem ends in a vowel, the suffixal consonant is always \textit{r} (or nasalized \textit{n}). When the stem-final vowel is apocopated, an /\textit{lr}/ cluster may be created, and this shifts to \textit{l}l, probably reflecting difficulty in articulating a tap following a lateral approximant. For example, \textit{sìⁿyélé} ‘charcoal’ has an apocopated suffixed form \textit{sìⁿyél-ř}, evidently from /\textit{sìⁿyél-ř}/ via apocopated /\textit{sìⁿyél-ř}/.

For a different way to avoid \textit{lr} clusters, the following section.

3.6.1.3 \textit{r}-Deletion (/\textit{lr}/ \rightarrow \textit{l})

There are also some nouns ending in \textit{l}v (\textit{v} = any short vowel) after which the nominal suffix has the form -\textit{a} ~ -\textit{a} (tone depends on noun stem) replacing the stem-final vowel. For
example, yálă ‘hole, pit’ has suffixed form yál-à for expected #yálá-rà. yálă and yál-à differ only in tone. A near-homonym yálá ‘bone’ with /H/ melody is homophonous to its own suffixed form yál-à, though my hyphen distinguishes them orthographically. kákálă ‘grass sp. (Loudetia)’ has suffixed form kákāl-à since nouns with /L/ melody have an H-toned suffix, but unsuffixed kákálă becomes kákálā by Final Tone-Raising before a word beginning in L-tone, so in this case there is partial (contextual) homophony. These homophony issues are not serious as the presence or absence of the nominal suffix is syntactically conditioned (for example, a clause-final noun is always suffixed). In any event the homophonies are limited to apocopating stems with final a or ϑ vowel, since the nominal suffix always has one of these vowels.

Further examples are (47a) below beginning with ‘medication’.

The simplest phonological analysis is that /lvr/ apocopates (or syncopates) to /lr/ and the r is then deleted. In this analysis, /lvr/ is avoided either by r-Lateralization (preceding section) to ll or by r-Deletion to ungeminated l, the choice being determined lexically by the stem. An alternative derivation is assimilation to /ll/ followed by degemination to l, but the only cases of this degemination would be those ultimately from /lr/, and no general distaste for ll clusters is observable.

3.6.1.4 Deletion of intervocalic sonorants before diminutive -lî

Though not a productive process, there are a number of cases where a final syllable from the set {lv nv rv}, i.e. an alveolar sonorant plus any short vowel, loses the sonorant before diminutive suffix -lî or variant. The resulting vowel cluster contracts. An example is kàʔrà ‘unmarried young woman (about 18-25)’, diminutive kàà-lî ‘girl (to adolescence)’. There are additional minor phonological idiosyncracies of these diminutives; see §4.2.1 for examples and discussion.

3.6.2 Processes affecting vowels

3.6.2.1 vv-Contraction

Two vowels come together, within a word or at a boundary, in several contexts. Word-internally, and frequently at boundaries, two adjacent vowels contract. Forms beginning with vowels are grammatical elements, especially pronominals. Almost all stems (nouns, verbs, adjectives, numerals, adverbs) begin with consonants, and the few exceptions beginning with vowels do not systematically contract. This limits opportunities for vv-Contraction at stem-stem or particle-stem boundaries.

Word-internally, the clearest case of vv-Contraction is plural suffix -àⁿ, which is added to the nominal suffix. The latter has variants -rà, -rā, -nà, and -ná, the choice determined by the tones and nasality of the stem. If the final stem-syllable has a back rounded vowel, there are additional free variants with ϑ instead of a. All of these variants combine with plural -àⁿ to result in -rà-àⁿ, -rā-àⁿ, -nà-àⁿ, -ná-àⁿ or, with rounded vowel, -râ-àⁿ, -rû-àⁿ, -nû-àⁿ, -nû-àⁿ.
Since the rounded variants are optional, one can’t be sure whether /ɔa/ always, or just optionally, becomes ɔɔ as opposed to aa.

The word-boundary (including enclitic-boundary) examples involve words ending in a vowel (i.e. essentially any word) followed by one of the vowel-initial pronouns, in almost any grammatical function that can be expressed by proclitics. The relevant pronouns are those in (39), omitting some tonal variants.

(39)  

a. reflexive possessor  
1Sg  āⁿ  
1PI  āāⁿ  
2Sg  ē  

b. multiple functions (nonreflexive)  
2PI  ēēⁿ  
3SgHum  ā (~ āⁿ)  except object nā  
3SgNonh  ē  except object ni  
3PIHum  āāⁿ  except object nāāⁿ  
3PINonh  ēēⁿ  except object niīⁿ  

Since there are only two vowel qualities in the second vowel of the contracting vv sequence, we cannot determine the outputs for all possible combinations.

vv-Contraction can make morphosyntactic parsing difficult. The distinction between clause adjunction (§15.2) of the type [… verb₁] [subject verb₂ …] and verb compounding (§15.3) of the type [… verb₁-verb₂ …] mainly involves the presence versus absence of a pronominal subject before verb₂. Since subjects of adjoined clauses are always pronominal and in most cases vocalic (ā, ē, etc.) they normally contract with the final vowel of verb₁. In theory, the quality features and length of the surface vowel should allow identification of an underlying vocalic proclitic, but in practice there are indeterminate cases. Furthermore, some subordinated clause types begin with an optional complementizer ā (§15.2.1.4) preceding a pronominal subject, and the possibility of vv-Contraction can make it difficult to know when the complementizer is present underlyingly.

In general, the vowel quality of the second contracting vowel, i.e. the vowel of the pronominal proclitic, survives or leaves a trace (such as ATR switch) in the resulting long contracted vowel. In these contractions, e in a proclitic is raised to i, so the usual contracted vowels are aa and ii.

The tones of the inputs are sometimes preserved, as in the nominal plurals illustrated above. However, in some combinations involving pronominal proclitics either there is an unexpected initial H-tone (e.g. Čv̩ from /Čv̩ v̩/), or an expected H-tone shifts to the left (e.g. Čv̩ from /Čv̩ v̩/). I incline to treat the first pattern as an extension of Final Tone-Raising, which elsewhere (among other things) converts LL#L to LH#L, e.g. /Čv̩ Čv̩ Čv̩/ → Čv̩ Čv̩ Čv̩ (§3.8.3.1). In the aberrant /Čv̩ v̩/ → Čv̩ cases, the tone of the preceding element is irrelevant. I attribute the second pattern to Leftward H-Shift (§3.8.3.7). However, this process is closely associated with vv-Contraction, and disentangling the two is difficult.
One of the most common first elements in contractions is future particle sà, which can precede object pronouns. It combines with the proclitics in (39b) above as shown in (40). Combinations with third person object pronouns exemplify the extended form of Final Tone-Raising mentioned above, e.g. /sà à/ → sá = à. The only other vowel-initial object pronoun, 2Pl ēēⁿ, does not consistently contract with the future morpheme in my data, and (like other 1st/2nd person object proclitics in this position) it is raised to H-toned (40a).

(40) a. 2Pl
\[ sà + ēēⁿ \rightarrow sà (é)ēⁿ \]

b. 3SgHum
\[ sà + à \rightarrow sá = à \]
3SgNonh
\[ sà + è \rightarrow sì = ì \]
3PLHum
\[ sà + ààⁿ \rightarrow sá = à(à)ⁿ \]
3PLNonh
\[ sà + èèⁿ \rightarrow sì = ì(ì)ⁿ \]

A wider range of first vowels can be garnered from combinations of verbs with postverbal objects or postpositional complements. Vowel qualities attested in Cv verbs are \{ɔ e a\} (including nasalized āⁿ). All seven vowel qualities are attested as final short vowels in nonmonosyllabic verbs. There is some variation in contractions depending on speech style, but representative results are in (41).

(41) verb +3SgHum à +3SgNonh è gloss

a. monosyllabic verb
\[ kpāⁿ \rightarrow kpāⁿ = àⁿ \rightarrow kpēⁿ = èⁿ \] ‘die’ (imperative)
\[ sô \rightarrow sō = ò \] ‘enter’ (imperative)
\[ bēè \rightarrow bē = è \] ‘fall’ (perfective +3Sg)
\[ sēè \rightarrow sē = è \] ‘come/bring’ (perfective +3Sg)
\[ wēè \rightarrow wē = è \] ‘bathe’ (imperative)

b. nonmonosyllabic verb
\[ tigê \rightarrow tig = èè \rightarrow tig = ì \] ‘pound’ (imperfective +3Sg)
\[ pînê \rightarrow pîn = èì \rightarrow pîn = ìì \] ‘forget’ (perfective +3Sg)
\[ bêlê \rightarrow bêl = èè \rightarrow bêl = èè \] ‘pass’ (imperative)
\[ tigî \rightarrow tig = èè \rightarrow tig = ìì \] ‘pound’ (imperative +3Sg)
\[ bûgû \rightarrow bûg = òò \rightarrow bûg = òò \] ‘butcher’ (imperative +3Sg)
\[ bûlô \rightarrow bûl = òò \rightarrow bûl = òò \] ‘return’ (imperfective)
\[ dàkô \rightarrow dàk = òò \rightarrow dàk = òò \] ‘catch’ (imperative +3Sg)

The distinction between a (as in human 3Sg à) and e/i (as in nonhuman 3Sg ¿/i) as second vowel is expressed in the contracted vowel as -ATR {e o a} versus +ATR {e o i u}. For the nonmonosyllabic stems in (41b), the contracted vowel may surface as a short vowel.

Some of the forms in (41) above also illustrate Leftward H-Shift. The LH-toned inputs in the left-hand column, bêè, sêè, and wê in (41a) plus pînê in (41b) shift the H-tone to the
leftmost mora in the contracted combinations. However, the bisyllabic imperatives in (41b) do not shift.

For Cʔa and Ceʔe verb stems, as with imperfective/perfective forms of tǎʔá ‘go’ and dâʔà ‘receive’, the quality features of the contracted vowel extend leftward to the first syllable (a kind of imbrication), suggesting that such stems are treated (in this context) as having a single vowel quality. The human/nonhuman distinction is then expressed by Cʔa or Ceʔe versus Ceʔ or Ciʔi (42).

\[
\begin{array}{ccc}
\text{(42)} & \text{verb} & +3\text{SgHum} \dot{\text{à}} & +3\text{SgNonh} \dot{\text{è}} \\
tǎʔá & tǎʔ\dot{=}\text{à} & têʔ\dot{=}\text{è} & \text{‘go’ (imperfective)} \\
têʔê & têʔ\dot{=}\text{è} & têʔ\dot{=}\text{è} \sim \text{tìʔ=}\text{ì} & \text{‘go’ (perfective +3Sg)}
\end{array}
\]

In verbs whose full stem shape is trisyllabic CvCvnv, the truncated imperative is CvCv or for some stems denasalized CvCv (§3.6.2.5). In either case, the \( n \) reappears when a vowel-initial form is encliticized (§3.6.3.1). This happens when a vowel-initial third-person pronominal PP follows the imperative verb. The reappearance of \( n \) blocks vv-Contraction. This is the case with imperatives of jáʔá ‘descend’ and sidá ‘ascend’ (43).

\[
\begin{array}{ccc}
\text{(43)} & \text{verb} & +3\text{SgHum} \dot{\text{à}} & +3\text{SgNonh} \dot{\text{è}} \\
jáʔá" & jâʔá\dot{=}\text{á} & jâʔá\dot{=}\text{í} & \text{‘descend’ (imperative)} \\
sidá" & sidá\dot{=}\text{á} & sidá\dot{=}\text{í} & \text{‘ascend’ (imperative)}
\end{array}
\]

The encliticized vowel in jâʔá\dot{=}\text{á} and other forms in (43) is H-toned in all examples. This can be attributed either to word-internal tone sandhi, or to Final Tone-Raising, since the 3Sg proclitic is always immediately followed by a postposition or possessed noun which has the initial L-tone required by a preceding +3Sg word (44).

\[
\begin{array}{c}
\text{(44) jâʔá\dot{=})} \\
\text{descend.Imprt} \\
\text{[}\text{Vá} \quad \text{dè}] \\
\text{[3SgNonh/3SgHum with]} \\
\text{‘Go down with it/with him-or-her!’}
\end{array}
\]

3.6.2.2 Syncope or epenthesis?

Short high vowel \( i \) appears in extra-short (clipped) and centralized form in the contexts \( C\_rv \) and \( C\_lv \) (\( v = \) any vowel). For example, \( dî \) ‘child’ combines with the nominal suffix as \( dî\dot{ rá} \), which is often heard as [dśr̥á] with a clipped schwa-like vowel.

Where the \( C\_rv \) or \( C\_lv \) sequence is internal to a stem, reanalysis as Crv or Clv may be in progress. This seems to be the case with the numeral \( fłá \) ‘2’ and the second word in fôʔó glán ‘flour from roasted millet grains’, among other examples. A brief schwa is sometimes heard, as in [fślā]. One could argue that it is epenthetic, but in syllable-by-syllable pronunciation my assistant sometimes syllabifies as fîlā.
A similar example is *filí* ~ *filí* ‘threw’ (perfective). In the first tonal variant, which follows a +3Sg object, the first vowel is reduced to a clipped schwa but nonetheless bears the initial L-tone, so one hears [fə̀lí]. In the monotonal variant *fílí*, which follows a -3Sg object, there is no clear schwa: [fílí].

3.6.2.3 Apocope

Final short vowels in nonmonosyllabic stems and words, especially but not exclusively {i u}, are deleted under some conditions. In general, Apocope occurs when the relevant word is phrased with a following word, rather than prepausally (or in isolation). In cases where a word that can occur prepausally with the final vowel preserved loses this vowel at least optionally before any following element beginning with Cv (suffix, enclitic, or word), I refer to the final-vowel deletion as Apocope. I prefer to reserve Syncope for vowel-deletion not involving stem- or word-final position (preceding section). However, there is little practical difference between Apocope and Syncope in this language.

Singular nouns and adjectives occur in two basic forms, one with word-final nominal suffix -ra or variant (obligatory prepausally, before the imperfective enclitic, and in perfectives before some object pronouns), the other without (in positions where it is phrased with a following word). My three elicitation frames for singular nouns, designed to bring out lexical tones and segments, involve a) the suffixed form (prepausal) showing the nominal suffix, b) the form before numeral *flā* ‘two’, and c) the form as direct object before a verb beginning with L-tone (*jìɛ́* ‘saw’ with a -3Sg subject such as 1Sg). The second environment flattens an HM noun to HH ($\S$3.8.3.2). The third environment is favorable to Final Tone-Raising (which may be disregarded for present purposes). In general, the best choice for lexical representation of segments and tones is the third environment after undoing Final Tone-Raising.

(45a-c) and other data not presented here show that the stem-final vowel is not apocopated after an obstruent, glottal stop, or cluster. Unit phoneme ʔr is not a cluster and does allow Apocope (45d), most obviously with ‘mango’ but also in the suffixed form of ‘soil’ (< /bɔ́rɔ́rɔ́/ by Apocope and r-Deletion).

(45) suffixed ‘two __s’ ‘(I) saw __’ gloss

\[\begin{align*}
\text{a. medial obstruent} & \quad fūgū-rā & fūgū & fūgū & \text{‘blind person’} \\
& \quad sibī-rā & sibī & sibī & \text{‘meat’} \\
\text{b. medial glottal} & \quad mîʔ-nā & mîʔⁿ & mîʔⁿ & \text{‘person’ (~ mɛ̀ʔⁿ)} \\
\text{c. medial cluster} & \quad fūrnō-rā & fūrnō & fūrnō & \text{‘burner’}
\end{align*}\]
Some CvLv stems with medial sonorant L do not apocopate in any position (46a-c) in my current data. It is difficult to determine whether Apocope has applied with Cvvi and Cvwu stems, with homorganic semivowel and short vowel (46d). (46) has all relevant CvCv stems in my working lexicon (excluding flora-fauna) from the first month of fieldwork.

(46) suffixed ‘two __s’ ‘(I) saw __’ gloss

a. medial nasal

\(n\)

\(\text{dínē-nà} \quad \text{díné} \quad \text{dínē} \quad \text{‘religion, Islam’}\\
\text{dônò-nà} \quad \text{dônò} \quad \text{dônò} \quad \text{‘termitary’}\\
\text{dùnù-nà} \quad \text{dùnù} \quad \text{dùnù} \quad \text{‘cylindrical tomtom’}\\
\text{jēnē-nà} \quad \text{jēnē} \quad \text{jēnē} \quad \text{‘shed, stall’}\\
\text{jīnā-nà} \quad \text{jīnā} \quad \text{‘devil, djinn’}\\
\text{kùnš-nà} \quad \text{kùnš} \quad \text{kùnš} \quad \text{‘wooden bowl’}\\
\text{nín-f-nà} \quad \text{nínī} \quad \text{nínī} \quad \text{‘tongue’}\\
\text{nùnš-nà} \quad \text{nùnš} \quad \text{nùnš} \quad \text{‘milk’}\\
\text{sùnš-nà} \quad \text{sùnš} \quad \text{sùnš} \quad \text{‘maize’}\\
\sim \text{sùn-nà}

\(ŋ\)

\(\text{bīŋf-nà} \quad \text{bīŋf} \quad \text{bīŋf} \quad \text{‘granary’}\\
\text{cēŋs-r} \quad \text{cēŋ} \quad \text{cēŋ} \quad \text{‘middle’}\\
\text{kàŋn-nà} \quad \text{kàŋn} \quad \text{kàŋn} \quad \text{‘froth, foam’}\\
\text{kpàŋn-nà} \quad \text{kpàŋn} \quad \text{kpàŋn} \quad \text{‘soap’}\\
\text{kpēŋi-n} \quad \text{kpēŋ} \quad \text{kpēŋ} \quad \text{‘dike’}\\
\text{lōŋn-nà} \quad \text{lōŋn} \quad \text{lōŋn} \quad \text{‘hourglass tomtom’}\\
\text{nōŋn-nà} \quad \text{nōŋn} \quad \text{nōŋn} \quad \text{‘friend’ or ‘side’}\\
\text{tōŋn-nà} \quad \text{tōŋn} \quad \text{tōŋn} \quad \text{‘cauldron’}

\(m\)

\(\text{bōm-nà} \quad \text{bōm} \quad \text{bōm} \quad \text{‘stomach’}\\
\text{jāmū-nà} \quad \text{jāmū} \quad \text{jāmū} \quad \text{‘surname’}\\
\text{jēmē-nà} \quad \text{jēmē} \quad \text{jēmē} \quad \text{‘tall basket’}\\
\text{jōmē-nà} \quad \text{jōmē} \quad \text{jōmē} \quad \text{‘bag’}\\
\text{lāmò-nà} \quad \text{lāmò} \quad \text{lāmò} \quad \text{‘tax’ (< Fr. l’impôt)}\\
\text{sōmē-nà} \quad \text{sōmē} \quad \text{sōmē} \quad \text{‘marrow’}\\
\text{tām-nà} \quad \text{tām} \quad \text{tām} \quad \text{‘spear’}

b. medial semivowel

\(\text{sīyā-rà} \quad \text{sīyā} \quad \text{sīyā} \quad \text{‘type, sort’}\\
c. medial liquid

<table>
<thead>
<tr>
<th>l</th>
<th>fílã-rã</th>
<th>fílã</th>
<th>fílã</th>
<th>‘Pullo, Fulbe person’</th>
</tr>
</thead>
<tbody>
<tr>
<td>mẽlɔ̃-nã</td>
<td>mẽlɔ̃</td>
<td>mẽlɔ̃</td>
<td>‘watermelon’</td>
<td></td>
</tr>
<tr>
<td>yǔlɔ̃-nã</td>
<td>yǔlɔ̃</td>
<td>yǔlɔ̃</td>
<td>‘couscous steamer’</td>
<td></td>
</tr>
<tr>
<td>r</td>
<td>gbĩrĩ-nã</td>
<td>gbĩrĩ</td>
<td>gbĩrĩ</td>
<td>‘wilderness’</td>
</tr>
</tbody>
</table>

In bɔmɔ-rã ‘stomach’ and lãmɔ-rã ‘tax’ in (46a), the failure of suffixal r to nasalize suggests recently departed pronunciations with medial nasal-stop cluster, which in the case of ‘tax’ is consistent with the foreign source.

Apocope does, however, often occur in one or more forms of many other CvLv stems. In those cases where the stem takes the form CvL(v) in unsuffixed contexts but bisyllabic CvL-a/ɔ or CvL-La/ɔ in the suffixed form, rather than trisyllabic CvLv-ra/ɔ, Apocope has evidently applied in the suffixed form, i.e. /CvLv-ra/ → /CvL-ra/ followed by adjustments to /Lr/ (e.g. /lr/ → ll by r-Lateralization or → l by r-Deletion). In this analysis, the difference between ungeminated CvL-a/ɔ and geminated CvL-La/ɔ is a choice between two CC-cluster processes, both of them fed by Apocope. In ‘medication’, ‘road’, and ‘ear’ in (47a) there is at least an optional shift from -ATR to +ATR in the CvC form; compare bɔl as compound initial from bɔlɔ ‘hand’ in (137) in §5.1.1.

(47)    suffixed  ‘two __s’  ‘(I) saw __’  gloss

a. medial l

Apocope before ‘two’, /l-r/ cluster realized as l

| bêl-á | bêl~ bêl | bêlê | ‘medication’ |
| bɔlɔ̃-á | bɔl | bɔlɔ̃ | ‘hand’ |
| cãl-á | cãl | câlã | ‘road’ |
| jũl-ɔ̃ | jũl | jũlɔ̃ | ‘leaf’ |
| kɔl-ɔ̃ | kɔl | kɔlɔ̃ | ‘hill, mountain’ |
| kɔpɔl-ɔ̃ | kɔpɔl | kɔpɔlɔ̃ | ‘skin’ |
| sɔl-ɔ̃ | sɔl | sɔlɔ̃ | ‘gear’ |
| tɔl-á | tɔl | tɔlã | ‘sun’ |
| tɔlɔ̃-á | tɔl | tɔlɔ̃ | ‘ear’ |
| wãl-á | wãlã | wãlã | ‘urine’ |
| wãl-ã | wãl~ wãl | wãlã | ‘noise’ or ‘shout’ |
wùl-á  wùl  wùlá  ‘dog’
yál-á  yál  yálá  ‘egg’ or ‘bone’
yál-à  yál  yálá  ‘hole’

Apocope before ‘two’, /l-/ cluster realized as ll
búl-lá  búl  búlá  ‘grub’
dál-lá  dál  dálí  ‘jar’
jél-lá  jél  jélé  ‘cowry’
kél-lá  kél  kélé  ‘courtyard’
pél-lá  pél  pélé  ‘chili pepper’
súl-lá  súl  súlá  ‘hole’
túl-lá  túl  túlá  ‘metal’
wál-lá  wál  wálí  ‘work (n)’ (synonym báárá)

no Apocope before ‘two’, /l-/ realized as l
bál-áⁿ  báláⁿ  ‘balafon (xylophone)’
kál-áⁿ  káláⁿ  ‘neighborhood, home’

no Apocope before ‘two’, /n-/ cluster realized as nn
bál-láⁿ  báláⁿ  ‘Senoufo person’
~ bál-ná  ‘shin’
tél-lá  télé  télé  ‘oil’
wèl-lá  wèlé  wèlé  ‘scales; bark’
yél-lá  yélé  yélé  ‘thorn’

b. medial n
Apocope before ‘two’, /n-/ cluster realized as nn
sán-ná  sán  sánú  ‘gold’
tàn-ná  tàn  tàná  ‘totem’

no Apocope before ‘two’, /n-/ cluster realized as nn
kpén-ná  kpéné  kpéné  ‘shin’
kúñ-ná  kúnú  kúnú  ‘village’
mùn-ná  múnú  múnú  ‘rice (crop)’

c. medial m
no Apocope before ‘two’

no Apocope before ‘two’
nóm-ná  nóm  nómí  ‘skullcap’

d. medial r
Apocope before ‘two’
sèř-rá  sér  sérí ~ sér  ‘prayer’
wàř-rá  wár  wáří  ‘money’

no Apocope before ‘two’
màr-rá  màrà  màrá  ‘chronic malaria’
sář-rá  sárá  sárā  ‘tobacco’
wór-rá  wórö  wóřö  ‘kola nut’
Apocope before ‘two’ and sometimes ‘see’, /ʔr-v/ realized as ʔrr

- fàʔr-à fàʔř fàʔrą ‘cave’
- kàʔr-á kàʔř kàʔrą ‘unmarried woman’
- mǎʔr-rá mǎʔř mǎʔrą ‘mango’ (variant)
- sěʔr-á sěʔř sěʔrè ‘porridge woman’

no Apocope before ‘two’, /ʔr-x/ realized as ʔr

- wòʔr-ś wòʔrò wòʔrś ‘thigh’
- bèʔr-ā bèʔrē bèʔrè ‘yam’ (Dioscorea)
- kòʔr-nà kòʔró kòʔrō ‘night’ (suffixed form implies /kòʔrō/)
- bàʔr-ā bàʔrą bàʔrą ‘calabash tomtom’

A small number of CvL stems appear not to have a lexical final vowel, even in object function. Unless further study brings out a vowel-final object form, these nouns do not require synchronic Apocope.

(48) suffixed ‘two ___s’ ‘(I) saw ___’ gloss

- jén-ná jén jén ‘ax’
- būl-là būl būl ‘inheritance’
- sōl-là sōl sōl ‘weeding daba’
- kōl-là kōl kōl ‘cotton (crop)’
- tòn-ś tòn tòn ‘heap’

3.6.2.4 Monophthongization

Monophthongization as a synchronic process applies most clearly in verbs of the monosyllabic diphthongal shape Cœ. These are perfective verb stems like bōɛ ~ bōɛ ‘exited’, when they are followed by a negative enclitic. The result in this case is bōœ = řē? ~ bōœ = řē? ‘did not exit’, or variants bōö = řē? ~ bōō = řē? with optional shift to +ATR vocalism.

Exactly how to formulate Monophthongization is not transparent. One obvious possibility is to take the bivocalic form bōɛ as input and simply spread the features +back and +rounded from the first mora into the second, in specified morphological positions. An alternative is to argue that the final e is clipped, and the resulting /bōɛ/ is then lengthened. A possible argument in favor of the clipping analysis is that the H-tone on ě in bōɛ is also absent from the negative form. One might then compare ‘exit’ (49a) with other verbs (49b-c).
One could argue that the final moras of ‘exit’ (49a) and ‘fly’ (49b), along with their tones, are clipped before the negative clitic, leaving /bɔ̀/ and /kǐ/, and that these are lengthened to /bɔ̀ɔ̀/ and /kì/. Since /kì=n̥/ demonstrates that a Cv̀ form is possible on the surface before the negative clitic, it is not obvious why /bɔ́ɛ́/ would have to drop its final H-tone, unless this were part of a clipping process. On the other hand, (49c) shows that a monomoraic Cv form is allowable before the negative morpheme, so the motivation for a lengthening process in (49a-b) is unclear.

It is difficult to ascribe alternations like /bɔ́ɛ́/ ~ /bɔ̀ɛ́/ ‘exited’ versus negative /bɔ̀ɔ̀=r̥̄ʔ/ ~ /bɔ́ɔ́=r̥̄ʔ/ to regular vv-Contraction, since there is no reason why this process should apply only when the negative enclitic is present. There are similar cases that could be handled by vv-Contraction. For example, perfective /sèé/ ~ /sèé/ ‘came’ is related to imperfective /sáá/ in the same way as perfective /bɔ́ɛ́/ ~ /bɔ̀ɛ́/ ‘exited’ is related to imperfective /bɔ́ɔ́/, so an underlying /sæ̠/ is plausible. Realization of /æ̠/ as e fits into the stem-plus-proclitic contractions in (41) above.

### 3.6.2.5 Denasalization of final vowel in imperatives

Alternations of the type imperfective /dɔ̀nə/, imperative /dɔ̃/ ‘chew’ were included in (26) in §3.3.2 above and are analysed in §3.6.3.1 below. In some (Cv)CvNv stems, the expected nasalization of the final vowel in the imperative is absent or optional. The likely diachronic sequence was imperative *(Cv)Cvn → (Cv)Cv* (loss of final *n with subphonemic vocalic nasalization then becoming phonemic) → (Cv)Cv (loss of vocalic nasalization). All relevant stems underwent the first shift (loss of *n) but only some have (so far) undergone the second shift.

<table>
<thead>
<tr>
<th>(50)</th>
<th>Pfv +3Sg</th>
<th>Ipfv +3Sg</th>
<th>Imprt +3Sg</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>kòní</td>
<td>kònò</td>
<td>kò</td>
<td>‘enlarge’</td>
<td></td>
</tr>
<tr>
<td>sèbé</td>
<td>sèbènà</td>
<td>sèbé</td>
<td>‘write’ (&lt; Jula)</td>
<td></td>
</tr>
<tr>
<td>làʔànì</td>
<td>làʔànà</td>
<td>làʔà</td>
<td>‘lift with effort’</td>
<td></td>
</tr>
<tr>
<td>sidànì</td>
<td>sidànà</td>
<td>sidá</td>
<td>‘burn’</td>
<td></td>
</tr>
<tr>
<td>kùlšnì</td>
<td>kùlšnà</td>
<td>kùlš</td>
<td>‘tie’</td>
<td></td>
</tr>
<tr>
<td>gilènì</td>
<td>gilènà</td>
<td>gilè</td>
<td>‘hang up’</td>
<td></td>
</tr>
</tbody>
</table>
There is apparently some inter-informant variation in which stems are affected. I cannot identify a clear predictor (phonological or morphological) for which stems denasalize and which don’t.

As shown in the following section, the word-final *n that was lost in these imperatives reappears when a vowel-initial pronominal is encliticized. This prevents vV-Contraction from applying.

3.6.3 Processes affecting vowels and consonants

3.6.3.1 Final Truncation in imperative verbs

Imperative and imperfective forms of verbs are generally closely related, but the ending of the imperative stem is shorter than that of the imperfective. A vowel or an entire syllable at the end of the imperfective is absent from the imperative.

There are two analytical options: a) the imperfective adds a suffix to the basic stem, which is identical or similar to the imperative; b) the imperative undergoes final truncation. Some examples are in (51). Further data are in chapter 10.

(51) Ipfv +3Sg     Imprt +3Sg     gloss

a. long versus short vowel

<table>
<thead>
<tr>
<th>Ipfv</th>
<th>Imprt</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>dë̀</td>
<td>dë̀</td>
<td>‘heat (sth)’</td>
</tr>
<tr>
<td>bà̀</td>
<td>bỳ̃</td>
<td>‘take out’</td>
</tr>
<tr>
<td>bà̀</td>
<td>bǎ</td>
<td>‘put down’</td>
</tr>
<tr>
<td>kpà̀n</td>
<td>kpà̀n</td>
<td>‘kill’</td>
</tr>
<tr>
<td>nènë̀</td>
<td>nènë</td>
<td>‘taste (sth)’</td>
</tr>
<tr>
<td>dò̀ryáà</td>
<td>dò̀ryá</td>
<td>‘shrink (sth)’</td>
</tr>
</tbody>
</table>

b. final Nv versus zero

<table>
<thead>
<tr>
<th>Ipfv</th>
<th>Imprt</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>kònò</td>
<td>kò</td>
<td>‘expand (sth)’</td>
</tr>
<tr>
<td>bènà</td>
<td>bènà</td>
<td>‘draw water’</td>
</tr>
<tr>
<td>kànà</td>
<td>kànà</td>
<td>‘ruin (sth)’</td>
</tr>
<tr>
<td>gbà?àlànà</td>
<td>gbà?àlá</td>
<td>‘become thin; dry off’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ipfv</th>
<th>Imprt</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>jiè</td>
<td>ji</td>
<td>‘see; get’</td>
</tr>
<tr>
<td>bàlà</td>
<td>bàlí</td>
<td>‘stop’ or ‘consent’</td>
</tr>
<tr>
<td>tùwàn</td>
<td>tùn</td>
<td>‘apply hide covering’</td>
</tr>
<tr>
<td>bilè</td>
<td>bilí</td>
<td>‘give’</td>
</tr>
</tbody>
</table>

The examples in (51a) have a final long vowel in the imperfetive corresponding to a short vowel in the imperative. One could derive either from the other, by a lengthening or a shortening rule.
In (51b), at first sight it looks impossible to derive the imperfective from the imperative, since there is no correlation of final nasalized vowel in the imperative with the final *nv* syllable in the imperfective; note also ‘kill’ in (51a) and ‘apply hide covering’ in (51c). However, the truncated imperatives in (51b), including those like ‘expand (sth)’ that otherwise end in an oral vowel such as *kpô* ‘expand’, “grow” a final *n* when phrased with a following encliticized vowel-initial pronominal (52a). This does not happen with the lexically nasalized vowels in ‘kill’ or ‘apply hide covering’ (52b-c).

(52) a.  

\[
\text{sàá kòn = [á kè“]}
\]

house expand.Imprt [3SgHum Benef]  
‘Expand-2Sg the house for him/her!’ (sàá ; /kôn à/ ?)

b.  

\[
\text{klāá kpà“ = [á kè“]}
\]

mouse kill.Imprt [3SgHum Benef]  
‘Kill-2Sg the mouse for him/her!’

c.  

\[
\text{è tû“ = [á kè“]}
\]

3SgNonh apply.hide.Imprt [3SgHum Benef]  
‘Cover-2Sg it with hide for him/her!’

One option is to argue that the *n* is the final underlying segment of the imperative, which is probably etymologically correct, see §3.6.2.5 above. In this case, one could simply add a final vowel to the imperative to produce the imperfective. However, it is not clear how the final vowel quality of the imperfective could be predicted from the vocalism of the imperative, either in (51b) or (51c) above. Furthermore, an alternative analysis of *kôn á* in (52a) above is to transcribe *kò=ná*, treating the *n* as added to the encliticized 3Sg pronoun by *n*-Epenthesis §3.6.3.2.

I therefore opt for a subtractive derivation of the imperative from the imperfective. The key is to delete the final vocalic mora (short vowel, or prolongation of a long vowel); this can be followed by Final *n*-Deletion and any other indicated processes affecting consonants that have become word-final.

3.6.3.2 *n*-Epenthesis

Third-person object pronouns begin with *n* when directly preceded by a subject pronoun. The *n* is not found in other forms of the same pronouns (subject, possessor), and does not occur in object pronouns following nonpronominal subjects, or in clause-initial position (imperatives). Typical forms (omitting some tonal variants) are in (53).
The addition of \( n \) is accompanied by a shift in vowel quality from \( e \) to \( i \) in the nonhuman forms. The same shift occurs after future \( sà \) (§10.3.2.3), resulting in 3SgNonh \( sí=ì \) and 3PlNonh \( sí=ìì \).

Since the additional \( n \) occurs chiefly in pronoun-pronoun combinations, it could be thought of as a linker between pronominal subjects and objects (§3.7.3). For example, 2Sg→3SgHumObj could be transcribed \( wō=n=ì \) rather than as \( wō\ ní \). The latter is the transcription I generally use.

For the possibility that \( n\)-Epenthesis is at work in imperatives followed by vowel-initial pronominal PPs, see the preceding section.

### 3.7 Clitics and linkers

#### 3.7.1 Proclisis and enclisis of pronominals

I refer loosely to the most common pronominal forms, for example 1Sg \( mā \), human 3Sg \( ã \), and nonhuman 3Pl \( ëëⁿ \), as “proclitics.” However, there is a mismatch between syntax and phonology in this respect. Consider a construction of the type (54), typical of clause-adjunctions.

(54) \([\text{Pron}_1 \ Vb_1] \ [\text{Pron}_2 \ Vb_2]\)

Syntactically and semantically, each pronoun functions as subject of its clause and it is bracketed with the following verb as shown. This bracketing is also reflected tonally, in that the category of the pronoun (+3Sg versus -3Sg) has a tonal effect on at least the onset of the verb (and sometimes the entire verb).

However, the segmental phonology favors enclisis (in the form of \( \text{vv}\)-contraction) of \( \text{Pron}_2 \) to \( \text{Vb}_1 \), across the syntactic brackets. Disregarding the syntactic brackets, the result is (55), where \( = \) indicates enclisis (contraction).

(55) \( \text{Pron}_1, \ Vb_1=\text{Pron}_2, \ Vb_2 \)

This segmental enclisis occurs in all combinations of the type \( …X \ [\text{Pron} \ Y] \), where \( X \) is any word within the same prosodic phrase, and \( Y \) is more or less anything (verb, postposition, possessum, discourse particle).

If we include a floating tone \( T \) associated with the pronoun and allow \( T \) to dock on the following word, we can formalize the input-output relationship as (56).
An example is (57). The floating LH-tones associated with human 3Sg ā as possessor are realized on the possessum to its right. However, /ā/ itself contracts with /wēē/, a clause-medial variant of perfective wēē ‘go’.

(57) mā nī wēē = [[Œ̄  sàá]  mà] wēē [[ā + LH  sàà] 1Sg 3SgNonh go.Pfv  [[3SgHum house]  on] ‘I went to his/her house.

Such phonological enclisis is noticeable only when the pronominal in question begins with a vowel, permitting vv-Contraction with the final vowel of the preceding word. Third person pronominals are vowel-initial in most syntactic contexts: human 3Sg ā, human 3Pl āāⁿ, nonhuman 3Sg è, nonhuman 3Pl èēⁿ. However, in some positions (chiefly preverbal objects after nonzero subject) these pronominals “grow” an initial n that blocks vv-Contraction, see n-Epenthesis (§3.6.3.2). Among 1st/2nd person categories, 2Pl èēⁿ is vocalic, while other categories have consonant-initial forms in nonreflexive contexts (1Sg mā, 2Sg wē, 1Pl mūʔēⁿ). However, as reflexives within a clause and as as subjects of adjoined clauses, all pronominals have vocalic form (e.g. 1Sg mā is replaced by reflexive possessor āⁿ).

3.7.2 Enclitics

In contrast to the segmental phonological enclisis just described, there are a few independent morphemes that are always encliticized. There is no clitic movement; these are not second-position (Wackernagel’s) enclitics (58).

(58) Syntactic enclitics

a. =rÊʔ (i.e. =rēʔ ～ =rēʔ) negative (clause-final)
b. =Ê (i.e. =ē ～ =ē) ‘it is’ (identificational)
c. [H+= Ø] (i.e. floating H-tone) imperfective or ‘be’ (hosted by subject)

(58a-b) have vowels that acquires their ATR value by harmonizing with the final vowel of the host word. The third is a floating tone that docks on the host.

3.7.3 Linkers

Linkers are morphemes (or phonological modifications) that occur only in specific combinations of the type X Y → X-Link-Y. In the relevant Jalkunan cases, the linker is structurally associated with the Y element.
n-Epenthesis (§3.6.3.2) is a possible instance. It inserts initial n primarily in third person object pronouns, e.g. human 3Sg ná (versus the usual proclitic à). There is no general epenthesis rule of the type /v₁v₂/ → v₁-n-v₂, so taking the nasal to be a morphosyntactically determined linker is reasonable.

Also relevant are processes that occur in words preceding nàà ‘here’ and dè ‘there (definite)’, but not other spatiotemporal adverbs such as bà ‘over there’. In predicate function (‘be here/there’), a linking enclitic =ń ~ ǹ appears on the subject, following the regular ‘be’ enclitic /H+ =/ which consists of an H-tone. The spatial adverb is usually clause-final, followed if at all only by sentence enclitics like negative =nĒʔ. If the subject is a singular noun or other NP ending in the nominal suffix (which is required by the ‘be’ enclitic), the suffix changes its vowel from a (or assimilated ɔ) to e (59b). Other subjects, including pronouns like 3Sg à, show no vocalic change. See §11.2.3.2 for more examples and details.

(59) a. zàkì = Ø = ŋ nàà / dè
  Zaki=be=Link here / there.Def
  ‘Zaki is present here/there-Definite.’

b. tàgà-ré = Ø = ŋ nàà
  sheep-Nom=be=Link here
  ‘The sheep-Sg is here.’ (< tàgà-rá)

In adverbial as opposed to predicative function, nàà ‘here’ and dè ‘there (definite)’ are again clause-final, followed only by sentence enclitics like negative =nĒʔ. Preceding verbs and most other elements undergo a terminal modification. The final e in perfective Cv is trimmed off, and vowels shift from -ATR to +ATR. In some cases a short vowel is lengthened, and the tone may be raised to H (erasing the distinction between +3Sg and -3Sg tones). Where the modification is phonologically additive, one can transcribe as e.g. sé=é nàà, with the long vowel broken up by the enclitic boundary marker =.

(60)    | input | with adverb | gloss

a.  sā    | sé=é nàà    | ‘Come here!’
    à sēé   | à sé=é nàà  | ‘He/she came here.’
    mā séé  | mā sé=é nàà  | ‘I came here.’
    mā = Ø sà sáá | mā = Ø sé=é nàà | ‘I will come here.’
    mā = Ø sè-yá   | mā = Ø sé-yé=é nàà | ‘I am coming here.’

b.  bō̄    | bó̄=ó nàà    | ‘Exit (=leave) here!’
    à bō̄é   | à bó̄=ó nàà  | ‘He/She exited here.’
    mā bō̄é  | mā bó̄=ó nàà  | ‘I exited here.’
    mā = Ø sà bō̄̄ | mā = Ø bó̄=ó nàà | ‘I will exit here.’
In the first item in (60c), *sidá nàà*, I do not take the final nasal on the verb as a linker =n. Rather, imperative truncation from /sidana/ to *aida* is blocked by nàà ‘here’.

If there are postverbal constituents, such as NPs, PPs, or some adverbs, they too are affected by such modifications. Especially noteworthy is linker =n on postverbal singular nouns like ‘a/the sheep-Sg’.  

<table>
<thead>
<tr>
<th>(61)</th>
<th>final element</th>
<th>with adverb</th>
<th>gloss of final element</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>… tàgà-rá</td>
<td>… tàgà-ré = n nàà</td>
<td>‘a/the sheep-Sg’</td>
</tr>
<tr>
<td></td>
<td>… tàgà-rá-à-ř</td>
<td>… tàgà-rá-à-ř nàà</td>
<td>‘(the) sheep-Pl’</td>
</tr>
<tr>
<td></td>
<td>… jná-ně</td>
<td>… jná-ně = ē nàà</td>
<td>‘(a/the) woman’</td>
</tr>
<tr>
<td></td>
<td>… jná-nà-à-ř</td>
<td>… jná-nà-à-ř nàà</td>
<td>‘(the) women’</td>
</tr>
<tr>
<td></td>
<td>… mà-ř</td>
<td>… mà-ř nàà</td>
<td>‘me’ (postverbal)</td>
</tr>
<tr>
<td></td>
<td>… à-yà</td>
<td>… à-yé = ē nàà</td>
<td>‘him/her’ (postverbal)</td>
</tr>
<tr>
<td>b.</td>
<td>… [à dè]</td>
<td>… [à dé = ē] nàà</td>
<td>‘with him/her’</td>
</tr>
<tr>
<td></td>
<td>… [àa” dè]</td>
<td>… [àa” dé = ē] nàà</td>
<td>‘with them’</td>
</tr>
<tr>
<td></td>
<td>… [à mà]</td>
<td>… [à mé = ē] nàà</td>
<td>‘on him/her’</td>
</tr>
<tr>
<td></td>
<td>… [àa” mà]</td>
<td>… [àa” mé = ē] nàà</td>
<td>‘on them’</td>
</tr>
<tr>
<td></td>
<td>… [è tò]</td>
<td>… [è tó = ō] nàà</td>
<td>‘in it’</td>
</tr>
<tr>
<td></td>
<td>… [èe” tò]</td>
<td>… [èe” tó = ō] nàà</td>
<td>‘in them’</td>
</tr>
<tr>
<td></td>
<td>… [è dã]</td>
<td>… [è dú = ū] nàà</td>
<td>‘in it’</td>
</tr>
<tr>
<td></td>
<td>… [èe” dã]</td>
<td>… [èe” dú = ū] nàà</td>
<td>‘in them’</td>
</tr>
</tbody>
</table>

However, temporal adverbs like *fli* ‘today’ follow the ‘here’ or ‘there’ adverb and so are unaffected.

Clause-final past marker *ké* (§10.4), the negative enclitic =rEʔ, and experiential perfect *dú* (§15.1.1.3) trigger vocalic changes on preceding words partially similar to those induced by nàà and dè in (61b). The final *e* in Cv*e* is trimmed, and the remaining vowel shifts to
+ATR and is lengthened. However, these morphemes do not raise tones of the preceding word, and they do not occur with a nasal linker = n.

3.8 Tones

There are three tone levels, H[igh], M[ed], and L[ow]. Contour tones on single syllables are HL, HM, LH, and MH. Contour tones occur chiefly on word-final syllables, including monosyllabic words, and may reflect Apocope, e.g. /CvCv/ → CvC. Tone patterns like CvCv rather than #CvCv show that monomoraic final Cv syllables do not allow contour tones in words where tones can be aligned with moras or syllables.

Using x for any vowel, the tone diacritics used here are those in (62).

\[
\begin{align*}
x & \quad \text{H} \\
\breve{x} & \quad \text{L} \\
\check{x} & \quad \text{M} \\
\check{x} & \quad \text{HL} \\
\breve{x} & \quad \text{LM} \\
\breve{x} & \quad \text{MH}
\end{align*}
\]

There are no ML- or LM-toned syllables.

My use of \( \check{x} \) (HM, i.e. high falling to mid) is distinct from “correct” IPA usage of this diacritic, where it is “mid falling.” This does not create ambiguities in Jalkunan, which lacks ML (“mid falling”) syllables.

Where a syllable contains a long vowel, I add a tonal diacritic to each symbol. For example, long aa can appear as level-toned \( \ddot{a}a \) (H), \( \ddot{a}a \) (L), or \( \ddot{a}\ddot{a} \) (M); as bitonal \( \ddot{a}\ddot{a} \) (HL), \( \ddot{a}\ddot{a} \) (HM), \( \ddot{a}\ddot{a} \) (MH), and as tritonal \( \ddot{a}\ddot{a}\ddot{a} \) or equivalently \( \ddot{a}\ddot{a} \) (LHL).

Where a syllable contains a short vowel and a coda sonorant, I put a tonal diacritic on the sonorant only if its tone differs from that of the vowel. Thus level-toned \( \acute{a}n \), \( \check{a}n \), and \( \hat{a}n \), but contour-toned \( \acute{a}\check{n} \), \( \hat{a}\check{n} \), and so forth. The letter l does not lend itself to accents typographically, so a contour tone must be indicated on the vowel: \( \acute{a}l \), \( \hat{a}l \), \( \hat{a}\hat{l} \), \( \acute{l} \).

3.8.1 Lexical tone patterns

3.8.1.1 Lexical tone melodies for unsegmentable noun stems

Representations of lexical melodies for nouns can refer to the stem only, or can include the tone of the nominal suffix (-ra or variant), which is present in some syntactic positions. I prefer to show suffixal tone in parentheses, especially where it is lexically determined.

When the stem-melody ends in an L- or M-tone, the suffixal tone is predictable. I indicate this by the double-headed arrow in (63), as in /L/ \( \Rightarrow /L(H)/ \). Since the suffixal tone is predictable, in most contexts I use the simpler label such as /L/ for the melody. In some
melodies ending in H-tone, there is a lexically specified (i.e. otherwise unpredictable) choice between (H) and (L) as suffixal tone. In these cases, the suffixal tone is always included in the melodic formula, e.g. /H(L)/ versus /H(H)/.

Stems ending in L-tone are classified in (63). The suffix is H-toned in all cases, so the suffixal tone can be omitted in formulae for the lexical melodies.

(63) melody stem with suffix gloss
stem ends in L-tone
/L/ ⇒ /L(H)/

bù bù-ɾɔ́ ‘excrement’
sàà sàà-ɾá ‘house’
bòʔɔ́ bòʔ-ɾá ‘ashes’
ʤɔ́kɔ́ ʤɔ́k-ɾá  ‘chain’

/H/ ⇒ /HL(H)/
kápɔ́n kápɔ́n-ɾá ‘daba (type)’
pɔ̇kɔ́ʔɔ́ pɔ̇k-ɾá ‘face’
kpásɔ̃ụ́n kpásɔ̃-ɾá ‘week’
kókɔ́bàʔɔ́ kókɔ́b-ɾá ‘leper’

/LH/ ⇒ /LHL(H)/

misirì misirì-ɾá ‘mosque’
tɔ̃lɔ́ tɔ̃l-ɾá ‘okra’

Stems ending in M-tone are in (64). If the entire stem is M-toned, M-Spreading extends the M-tone to the suffix (64a). However, if the stem ends in a falling HM tone sequence, the suffix is always L-toned (64b). This tone-dropping also applies to following modifiers.

(64) melody stem with suffix gloss

a. stem with level M-tone
/M/ ⇒ /M(M)/

jù jù-ɾá  ‘millet’
Gbàá Gbàá-ɾá  ‘stick’
bàʔɔ́ bàʔ-ɾá  ‘porridge’
kɔ́lɔ́kɔ́ kɔ́lɔ́-ɾá  ‘talk (n)’
tùlùkànà tùlùkàn-ɾá  ‘gold’
dùnìpà dùnìpà-ɾá  ‘world’

b. stem ending in falling …HM-tone (stem must be at least bimoraic)
/HM/ ⇒ /HM(L)/

fèè fèè-ɾá ‘calabash’
bùl bùl-à ‘inheritance’
bùʔɔ́bù bùʔ-ɾá  ‘liver’
bèʔrè bèʔ-à ‘yam’
mùùlì müù-łá ‘ridge in field’
nìnáʔè nìnáʔ-à ‘scorpion’
/LHM(L)/ ⇒ /MHM(L)/, in two subgroups:

- **CvvCv**
  - bènì bènì-nà ‘sesame’
  - tɔ̀ɔ́l ɔ̀ ɔ̄l-ɔ̀ ‘okra’

- **longer**
  - jàbάlā jàbάlá-rà ‘white cowpea’
  - sùkάr sùkά-rà ‘sugar’
  - bànéʔé bànéʔé-rà ‘fatigue’
  - nάʔǎlì nάʔǎl-là ‘grain of sand’

- **jάngbάlā jάngbάl-à ‘tail’**

‘Sesame’ and ‘okra’, the bisyllabic CvvCv stems in the /LHM(L)/ category above that are subject to optional Syncope before the nominal suffix, would be expected to have unsyncopated CvvCv and syncopated CvvCv, the latter showing that the fall from H to M is audible in the coda to the long first syllable. Unsyncopated CvvCv is correct (bènì-nà, tɔ̀ɔ́l-ɔ̀). However, my assistant preferred syncopated CvvCv for these relatively short stems, thus bèn-nà for expected #bèn-nà and tɔ̀ɔl-là, with the unlinked M-tone shifted to the right rather than to the left, for expected #tɔ̀ɔl-ɔ̀ with the M-tone on the onset of the geminated ll.

Stems ending in H-tone are in (65). Those in (65a) have H-toned suffix, i.e., the final H-tone of the stem spreads into the suffix. They are either level H-toned throughout, or end with two H-toned moras. A terminal CvL syllable with final sonorant is treated as two syllables on the assumption that it is syncopated from /CvL/. The stems in (65b) have L-toned suffix. Some of them have level H-toned stem proper, indicating that the distinction between /H(H)/ and /H(L)/ is unpredictable from the tones of the stem itself and must be lexically marked. The other stems in (65b) are contoured, with a single terminal H-toned syllable on the stem, and all such stems appear to require suffixal L-tone.

<table>
<thead>
<tr>
<th>(65)</th>
<th>melody</th>
<th>stem</th>
<th>with suffix</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td></td>
<td>stem</td>
<td>with suffix</td>
<td>gloss</td>
</tr>
<tr>
<td></td>
<td>/H(H)/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>dí</td>
<td>dí-rá</td>
<td>‘child’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>náá</td>
<td>náá-ná</td>
<td>‘sauce’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>kɔ́l</td>
<td>kɔ́l-ɔ́</td>
<td>‘agama lizard’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>jόʔó</td>
<td>jόʔó-rá</td>
<td>‘Jula (person)’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>/LH(H)/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(stems are CVcCV or syncopated CVcCV with final sonorant)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sìnáʔá</td>
<td>sìnáʔá-ná</td>
<td>‘roselle’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>mákár</td>
<td>mákár-rá</td>
<td>‘pity (n)’</td>
<td></td>
</tr>
</tbody>
</table>
b. stem with final H-tone, plus L-toned suffix

\[
\begin{array}{lll}
\text{/H(L)/} & jîⁿ & jî-nà \quad \text{‘market’} \\
& bê & bê-rà \quad \text{‘uncle’} \\
& kpészé & kpészé-rà \quad \text{‘chewstick’} \\
& wáátí & wáátí-rà \quad \text{‘time’} \\
& hééré & hééré-rà \quad \text{‘well-being’} \\
& fâsôbô & fâsôbô-rà \quad \text{‘ox’}
\end{array}
\]

\[
\begin{array}{lll}
\text{/LH(L)/} & (\text{these stems end in a single H-toned } Cv \text{ syllable}) \\
pòsón & pòsón-nà \quad \text{‘poison (n)’} \\
djìdró & djìdró-rà \quad \text{‘heat’} \\
pjì?mè & pjì?mè-nà \quad \text{‘camel’}
\end{array}
\]

\[
\begin{array}{lll}
\text{/MH/} & \Rightarrow & /\text{MH(L)/} \\
júfá & júfá-rà \quad \text{‘scissors’}
\end{array}
\]

\[
\begin{array}{lll}
\text{/LMH/} & \Rightarrow & /\text{LMH(L)/} \\
kòlóá & kòlóá-rà \quad \text{‘guava’}
\end{array}
\]

\[
\begin{array}{lll}
\text{/HLH/} & \Rightarrow & /\text{HLH(L)/} \\
dàŋkútì & dàŋkútì-rà \quad \text{‘napé’}
\end{array}
\]

\[
\begin{array}{lll}
\text{/L(H)/} & \Rightarrow & /\text{L(H)/} \\
sàà & sàà-rà \quad \text{‘tea’}
\end{array}
\]

\[
\begin{array}{lll}
\text{/M/} & \Rightarrow & /\text{M(M)/} \\
ñàngó & ñàngó-rà \quad \text{‘garden’}
\end{array}
\]

(66) illustrates the three-way tonal distinction for monosyllabic nouns with a single tone.

\[
(66) \quad \begin{array}{lll}
\text{type} & \text{gloss} & \text{isolation} & \text{‘two _’s’} & \text{‘I saw _’} \\
\text{/H(H)/} & \text{‘breast’} & cíi-nà & cíiⁿ flá & mā cíiⁿ jìé \\
\text{/M/} & \Rightarrow & /\text{M(M)/} & \text{‘hair’} & cíiⁿ-nà & cíiⁿ flá & mā cíiⁿ jìé \\
\text{/L/} & \Rightarrow & /\text{L(H)/} & \text{‘village’} & sàà-rà & sàà flá & mā sàà jìé
\end{array}
\]

For the fieldworker, /L/ melody is most easily distinguished from both /H(H)/ and /M/ by its rising as opposed to level pitch in the isolation form (i.e. by its H-toned suffix). /M/ melody is most easily distinguished from /H/ by its rising pitch before words beginning in L-tone, represented here by ‘I saw _’.

(67) repeats /H/ ‘breast’ from the preceding array and adds two new stems.

\[
(67) \quad \begin{array}{lll}
\text{type} & \text{gloss} & \text{isolation} & \text{‘two _’s’} & \text{‘I saw _’} \\
\text{/H(H)/} & \text{‘breast’} & cíi-nà & cíiⁿ flá & mā cíiⁿ jìé \\
\text{/H(L)/} & \text{‘wall’} & kógó-rà & kógó flá & mā kógó jìé \\
\text{/HM/} & \Rightarrow & /\text{HM(L)/} & \text{‘calabash’} & fée-rà & fée flá & mā fée jìé
\end{array}
\]

/H(H)/ is most easily distinguished from /H(L)/ by the tone of the suffix in the isolation form.

The two melodies also have similar effects on following modifiers. /HM/ is distinguished

51
from /H(L)/ by its stepwise descending pitch in the isolation form. This distinction cannot be made when the stem is monomoraic C\textsuperscript{\-}v, hence suffixed C\textsuperscript{\-}v-C\textsuperscript{\-}v\textsuperscript{\-}. The stem is too short to allow stepwise descending pitch to be audible; there are no #C\textsuperscript{\-}vC\textsuperscript{\-}v\textsuperscript{\-} words in Jalkunan. An example is ji\textsuperscript{\-}n\textsuperscript{\-} ‘market’, suffixed form ji-nå. This stem could theoretically either be /H(L)/ or /HM/ \\Rightarrow /HM(L)/, in the latter case with the M unrealized. For bureaucratic purposes I classify such stems as /H(L)/.

3.8.1.2 Lexical tone patterns for adjectives and numerals

Adjectives normally do not occur in isolation. Predicate adjectives are really inchoative verbs. Within NP, adjectives follow nouns. In N-Adj combinations, the tones of the adjective are subject to tonal ablaut, making it tricky to determine their lexical tones. The analysis of adjectives and N-Adj combinations in §6.3.1 suggests that adjectives have lexical tone melodies /L/, /M/, /H(L)/, /HM(L)/ (in two varieties), and /H/. The falling melodies H(L)/ and /HM(L)/ are the most common. In §6.3.1 itself I use lowercase, e.g. /l/ and /h/, for adjectival melodies to more clearly distinguish them from the melodies of the nouns they modify.

Numerals may occur either with or without a modified noun. When they occur alone, their lexical tones are easily heard. Simple (monomorphemic) numerals from ‘2’ to ‘10’ have either /M/ or /H/ melody, while dúlì ‘1’ is /HL/. wàʔà ‘thousand’ is /L/-toned. In N-Num combinations, numerals are subject to tonal ablaut similar to that affecting adjectives in N-Adj combinations.

3.8.1.3 Lexical tones for verbs

For many OV transitive verbs, tones are entirely determined by the grammatical context. Whenever a verb is immediately preceded by an NP (including pronouns), at least its initial tones are determined grammatically. For example, the imperfective of ‘hit’ is bàʔrà after a +3Sg NP and bàʔrá after a -3Sg NP (for definitions see §3.8.3.5).

However, intransitive verbs (including ambi-valent verbs when used intransitively) are protected from the +3Sg/-3Sg effect by a post-subject imperfective enclitic or future particle. In this context, the lexical melody appears, either /H/ or /L/. For example, sáá ‘come’ and búhl ‘return’ have /H/ melodies, while bàà ‘fall’ and sènà ‘sprout’ have /L/ melody.

Some stems have a contoured tone, typically /LHL/, as with sidánà ‘ascend’ (imperfective). In this case, the tonal effect of the +3Sg/-3Sg opposition applies to the portion of the stem to the left of the lexical H-tone. For example, the perfective forms of ‘ascend’ are +3Sg sidání and -3Sg sidání. In -3Sg sidání, the first two syllables form a H-toned terrace, but the final M-toned syllable is unaffected. Transitives can also have contoured tones with a lexical medial H-tone, which again protects final nonhigh-toned syllables from the +3Sg/-3Sg effect. For example, ‘dunk, submerge’ has imperfectives +3Sg tânúnà and -3Sg tânúnà, with consistently L-toned final syllable.
3.8.2 Grammatical tone patterns

3.8.2.1 Grammatical tones for verb stems

Verbs occur in several tonal forms depending on the inflectional (TAM) category. In general, the imperfective stem is the most useful indicator of lexical tones. In positive utterances, intransitive imperfectives immediately follow either the imperfective subject enclitic (floating H-tone) or future sà, and so have only a single tonal form, which is lexically specified and unaffected by the usual +3Sg versus -3Sg opposition. Angled brackets as in <HL> indicate contour tones in a single syllable.

(68) Imperfective tones (noncomposite intransitive verbs, positive clauses)

<table>
<thead>
<tr>
<th>melody</th>
<th>syllable sequence</th>
<th>example (Ipfv)</th>
</tr>
</thead>
</table>
| a. monosyllabics<br/>
/L/     | L                 | bàà ‘fall’     |
/H/     | H                 | sáá ‘enter’    |
| b. bisyllabics<br/>
/L/     | L.L               | kànà ‘be ruined’|
/LHL/   | L.<HL>            | f dúé ‘run’    |
/HL/    | H.L               | gbogò ‘(dog) bark’ |
/H/     | H.H               | dibé ‘be extinguished’ |
| c. trisyllabics<br/>
/L/     | L.L.L             | [absent]       |
/LHL/   | L.H.L             | jàʔánà ‘descend’|
/HL/    | H.H.L             | télénà ‘go straight’ |
/H/     | H.H.H             | láʔánàá ‘wake up’ |
| d. quadrisyllabics (uncommon)<br/>
/L/     | L.L.L.L           | [absent]       |
/LHL/   | L.L.H.L           | gbàʔàlànà ‘dry off; become thin’ |
/HL/    | H.H.H.L           | náʔámìá ‘err’ |
/H/     | H.H.H.H           | [absent]       |

Each OV transitive (verb with preverbal objects) has two imperfective tonal forms depending on whether the preceding object is treated as +3Sg or -3Sg as defined in §3.8.3.5. It is not entirely obvious that one or the other of these forms is lexically basic, though I incline to take the more widely distributed -3Sg form. Both are shown in (69) along with a suggested melody in partially formulaic notation with @ as a variable. If the -3Sg form is taken as lexically primary, the melodies can be rewritten with H replacing @ when not already followed by H.
(69) Imperfective tones (noncomposite transitives)

<table>
<thead>
<tr>
<th>melody</th>
<th>syllable sequence</th>
<th>example (Ipfv)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+3Sg</td>
<td>-3Sg</td>
<td></td>
</tr>
</tbody>
</table>

a. monosyllabics

/@/    L      H      bàà ~ bàá ‘put down’
//@HL/  <LHL>  <HL>  kɔ̀ɔ́ ~ kɔ́ɔ́ ‘count’

b. bisyllabics

//@/    L.L    H.H    bàà rà ~ bàá rà ‘hit’
//@HL/  L.<HL> H.<HL> dérèè ~ dèrèè ‘squeeze’

b. bisyllabics

//@/    L.L.L  H.H.H  dútɔ̀ɔ́ ~ dútɔ́ɔ́ ‘point at’
//@HL/  L.H.L  H.H.L  gílénà ~ gílénà ‘hang up’
//@H/   L.L.H  H.H.H  wòló-báá ~ wòló-báá ‘pick out’

c. trisyllabics

//@/    L.L.L.L H.H.H.H [absent]
//@HL/ L.H.L.H H.H.L.L  fíríkíè ~ fíríkíè ‘hobble (animal)’
//@H/  L.L.L.H H.H.H.H  dútɔ́ʔɔ́nɔ̀ ~ dútɔ́ʔɔ́nɔ̀ ‘cover with blanket’

//@/    L.L.L.L H.H.H.H [absent]

Ambi-valent (labile) verbs whose intransitive versions are level-toned /L/ or /H/ (lexical choice) have transitive counterparts with /@/. In other words, the +3Sg versus -3Sg opposition completely determines tones of the transitive versions. Monosyllabic examples: bàà ‘fall’ and transitive bàà ~ bàá ‘put down’, versus sɔ́sɔ́ ‘enter’ and transitive sɔ̀sɔ̀ ~ sɔ́sɔ́ ‘put in’. Bisylabic examples: kànà ‘be ruined’ and transitive kànà ~ kànà ‘ruin’, dibé ‘be extinguished’ and transitive dibè ~ dibè ‘extinguish’. A trisylabic example is làʔànàá ‘get up’ and transitive làʔànàá ~ làʔànàá ‘life, raise’. In all these cases, the lexical melody is observable only in positive intransitives.

3.8.2.2 Grammatical tones for noun stems

The lexical tone melodies of nouns are described in §3.8.1.1 above. The tones of the noun may be modified by tone sandhi processes, principally Final Tone-Raising (L#L becomes LH#L, MM#L becomes MH#L).

More interestingly, nouns undergo tonal ablaut processes when preceded by a possessor. This takes the form of word-level tone overlays {L(H)}, {L(L)}, or {H(H)} on the noun, in some cases even including its nominal suffix when present. The choice between overlays depends on the lexical tone melody and alienable/inalienable status of the possessum and on
the grammatical category of the possessor (+3Sg versus -3Sg), with M-toned possessors triggering M-Spreading on inalienables only. Details in §6.2.2.

3.8.2.3 Grammatical tones for adjectives and numerals

N-Adj and N-Num combinations subject both the noun and the modifier to construction-specific tonal ablaut patterns. In the modifier, /M/ and /H/ melody may drop to L under some conditions. These patterns are discussed in detail in §6.3.1.1 and §6.4.2.

3.8.3 Tone sandhi processes

3.8.3.1 Final Tone-Raising (LL#L-to-LH#L, MM#L-to-MH#L)

This rule dissimilates a final L- or M-tone to H-tone at a word boundary before an L-tone. It is most systematic when the word on the left has at least two moras with identical non-high tones. Examples are the proclitic pronouns múʔùⁿ (1Pl), éēⁿ (2Pl), ààⁿ (human 3Pl) and èèⁿ (nonhuman 3Pl), which become múʔúⁿ, éēⁿ, àáⁿ, and èéⁿ, respectively, before an L-tone.

*Cv* pronouns 1Sg mā, 2Sg wō, human 3Sg à, and nonhuman 3Sg è, do not undergo Final Tone-Raising. Focalized or logophoric 3Sg wā-wō (human) and è-wō (nonhuman) do undergo it, though not consistently. Monomoraic nouns like wū ‘head’ do undergo it: mā wū jītē ‘I saw a/the head’. It does not apply at compound boundaries, see (142a-b), (144b), (146a-b), (150a).

Final Tone-Raising of the LL#L-to-LH#L type at noun-adjective boundaries is exemplified by nùʔùⁿ gbòʔò-ra ‘black wrap (garment)’ from L-toned nùʔùⁿ ‘wrap (n)’, see (188) in §6.3.1.1. The only L-initial numerals are forms with wāʔà ‘thousand’ (§4.6.1.4), so there are few opportunities for N-Num sequences to undergo Final Tone-Raising.

In certain morphological combinations, an expanded version of Final Tone-Raising of the type L#L-to-H#L and M#L-to-H#L seems to be needed. In this version, a monomoraic (C)v morpheme is raised to (C)v before an L-tone regardless of the tones of preceding words. See the discussion of human 3Sg à and 1Sg mà for expected à and mà in negative present-tense examples in (326b,d) and (327a), and (complicated by vv-Contraction) that of sā=à and sì=ì (future plus third-person object) in (352c-d).

The expanded version of Final Tone-Raising operates, for example, when future sā contracts with an immediately following third person pronominal (functioning either as preverbal object, or as possessor of a preverbal object), as in /sā à/ → sā=à (human 3Sg object) and /sā è/ → sì=ì (nonhuman 3Sg object). See (352) in §10.3.2.3 for the full set of relevant forms. The same process likely occurred historically in now-fused n-initial third person object forms like human 3Pl náù and 3Sg ná in perfective clauses (§3.6.3.2, §4.3.1.3). 3Pl object náù has its own final L-tone, and 3Sg object ná is always followed by an L-initial verb. Another relevant case, not involving contraction, is the unexpected tone-raising of 3Sg à and è to à and é as subjects of some negative clauses (§10.2.3), as with human 3Sg à in (516a) in §15.1.1.3.

55
Warning: subject NPs and pronouns of LL or MM type can also have their final mora raised by the floating H-tone of the imperfective and ‘be’ enclitics. These combinations are homophonous to forms that have undergone Final Tone-Raising. Orthographically, I distinguish the floating H cases by transcribing mùʔúⁿ=Æ, etc., showing a segmentally null (but tonally overt) enclitic. This potential ambiguity arises only in subject function.

3.8.3.2 H-Leveling

This process accounts for the spreading of H-tone rightward up to a word-boundary. The typical effects are those in (70).

(70)  
HM#L  →  HH#L  
HM#M  →  HH#M  

This process is not fully productive. It does not apply to HM-toned nouns before the nominal suffix (tān → tān-nà ‘deep basket’, wārī → wār-rà ‘money’, būgū → būgū-rà ‘Fulbe hut’).

HM#L  →  HH#L is probably operative in noun-adjective combinations, e.g. kúrúⁿ ‘boat’ in kúrúⁿ gbɔ́rɔ̀-rà ‘black boat’, kúrúⁿ kàn-nà ‘red boat’, and kúrúⁿ gbɔ̀-rà ‘big boat’, see §6.3.1.1. It is also probably operative in similar noun-numeral combinations, e.g. kúrúⁿ flà ‘two boats’ and kúrúⁿ sòólò ‘five boats’ §6.4.2.1). /HM/ melody of nouns is automatically /HM(L)/, where the L-tone appears on a nominal suffix or, as in these cases, on a postnominal modifier. Elsewhere the modifiers (other than gbɔ́rɔ̀-rà ‘black’) in the examples just given have non-low tones: kàn-nà, gbɔ̀-rà, flà, and sòólò.

Also HM-toned are -3Sg intransitive perfective CvCv verbs like intransitive fídī ‘ran’ in e.g. mā fídī ‘I ran’. The CvCv shape readily allows H-tones in non-perfective forms (imperative, imperfective), so the HM tones of fídī are distinctive. When another word follows, I hear fídī (HM) before H-tone (71a), but fídī (HH) before M- and L-tone (71b-c), as suggested in (70) above.

(71)  

a. mā fídī sísàⁿ  
1Sg run.Pfv now  
‘I ran now.’

b. mā fídī [kälā láʔá-rà]  
1Sg run.Pfv [neighborhood place-Nom]  
‘I ran to the neighborhood.’

c. mā fídī nàà  
1Sg run.Pfv here  
‘I ran here.’

Singular nouns of /HM(L)/ melody appear as H-toned before L-initial perfective verbs. This is why nouns of this melody are H-toned in the ‘I saw _’ context, which I use as part of the
tonal profile of noun stems in my lexical spreadsheet, see (66-67), (86-87), and (91). For singular nouns this frame is $mā̃̄_jì̄$.

3.8.3.3 M-Spreading, (suffixal) H-Spreading, and Tone-Polarization

Consider the unsuffixed noun and adjective stems, and the corresponding forms with nominal suffix, in (72). The nominal suffix is required in certain morphosyntactic positions (§6.1.2).

(72) stem suffixed gloss

a. M-toned noun or adjective

<table>
<thead>
<tr>
<th>stem</th>
<th>suffixed</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>$dāā$</td>
<td>$dāā-rā$</td>
<td>‘mouth’</td>
</tr>
<tr>
<td>$fil$</td>
<td>$fil-lā$</td>
<td>‘dust’</td>
</tr>
<tr>
<td>$kññl$</td>
<td>$kññl-lā$</td>
<td>‘bohor reedbuck’</td>
</tr>
<tr>
<td>$kānā$</td>
<td>$kān-nā$</td>
<td>‘red’</td>
</tr>
</tbody>
</table>

b. H-toned noun or adjective

suffix is H-toned, /H/ melody

<table>
<thead>
<tr>
<th>stem</th>
<th>suffixed</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>$nīgī$</td>
<td>$nīgī-rā$</td>
<td>‘leech’</td>
</tr>
<tr>
<td>$súmāā$</td>
<td>$súmāā-nā$</td>
<td>‘long’</td>
</tr>
</tbody>
</table>

suffix is L-toned, /H(L)/ melody

<table>
<thead>
<tr>
<th>stem</th>
<th>suffixed</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>$kpēsē$ (+L)</td>
<td>$kpēsē-rā$</td>
<td>‘chewstick’</td>
</tr>
<tr>
<td>$gbē$ (+L)</td>
<td>$gbē-rā$</td>
<td>‘fresh’</td>
</tr>
</tbody>
</table>

c. L-toned noun or adjective

<table>
<thead>
<tr>
<th>stem</th>
<th>suffixed</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>$kpi&quot;$</td>
<td>$kpi&quot;-rā$</td>
<td>‘baobab leaves’</td>
</tr>
<tr>
<td>$gbōlō$</td>
<td>$gbōlō-rā$</td>
<td>‘black’</td>
</tr>
</tbody>
</table>

d. contour-toned noun or adjective

<table>
<thead>
<tr>
<th>stem</th>
<th>suffixed</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>$misi&quot;rī$</td>
<td>$misi&quot;rī-rā$</td>
<td>‘mosque’</td>
</tr>
<tr>
<td>$nśśśi$ (+L)</td>
<td>$nśśśi-rā$</td>
<td>‘chameleon’</td>
</tr>
<tr>
<td>$kūmā$ (+L)</td>
<td>$kūmā-nā$</td>
<td>‘cold’ (adjective)</td>
</tr>
</tbody>
</table>

It is clear that M-Spreading occurs in (72a), since the M-toned form of the suffix occurs exclusively after M-toned stems. There are no lexical exceptions (i.e. no M-toned stems that do not have an M-toned suffix). The basic formula is /x y/ $\rightarrow$ /x ū/, where the macron indicates M-tone.

The possible H-Spreading in (72b) is more doubtful. Leaving aside the M-Spreading cases in (72), the nominal suffix appears in H-toned form (-rā etc.) after some H-toned stems and all stems whose final syllable is L-toned. It appears in L-toned form (-rā etc.) after the remaining H-toned stems, and after contour-tones stems ending in H- or M-tone. This ragged distribution makes it difficult to determine the underlying tone of the suffix.
If we opt for underlying L-toned /-r̥/, we might argue for an H-Spreading rule to account for nígí-rá and súmáá-ná in (72b), and for a morphologically restricted Tone Polarization rule to account for the H-toned suffix in kpíl-rá and gbọ́r̥-r̥á in (72c) and mísír-rá in (72d). The formulae would be /#x y/ → #x y’ (H-Spreading) with # here indicating stem onset to exclude contour-toned stems, and /…x y/ → …x y’ (Tone Polarization), respectively. To account for the remaining cases of L-toned suffix, we could posit a floating L associated lexically with the second subset of H-toned nouns, accounting for kpíl-rá and gbọ́r̥-r̥á in (72b), and supplied automatically to stems with final …LH and final …HM contours. On this aspect, see Floating L-Docking (§3.8.3.4 below).

That M-Spreading is a fairly productive process is confirmed by the fact that it also applies to several combinations beginning with M-toned pronominal proclitics (1Sg mā, 2Sg wô, and 2Pl ēē’). Some of these are listed and exemplified in (73).

(73) M-Spreading involving M-toned pronominal

<table>
<thead>
<tr>
<th>gloss</th>
<th>comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. PPs (§8.1.3)</td>
<td></td>
</tr>
<tr>
<td>mā kē’</td>
<td>‘for me’</td>
</tr>
<tr>
<td>mālù’ kē’</td>
<td>‘for us’</td>
</tr>
<tr>
<td>à kē’</td>
<td>‘for him/her’</td>
</tr>
<tr>
<td>b. inalienable possession (§6.2.2)</td>
<td></td>
</tr>
<tr>
<td>mā kɔ́ýi-r̥á</td>
<td>‘my belly’</td>
</tr>
<tr>
<td>mūlù’ kɔ́ýi-r̥á</td>
<td>‘our belly’</td>
</tr>
<tr>
<td>à kɔ́ýi-r̥á</td>
<td>‘his/her belly’</td>
</tr>
<tr>
<td>mā kɔ́’-n ꙳</td>
<td>‘my honey’ (alienable)</td>
</tr>
<tr>
<td>c. negative perfective verbs (§10.3.1.1)</td>
<td></td>
</tr>
<tr>
<td>mā bēē = r̥?</td>
<td>‘I didn’t fall’</td>
</tr>
<tr>
<td>mā bēē</td>
<td>‘I fell’</td>
</tr>
<tr>
<td>mūlù’ bēē = r̥?</td>
<td>‘we didn’t fall’</td>
</tr>
<tr>
<td>à bēē = r̥?</td>
<td>‘he/she didn’t fall’</td>
</tr>
<tr>
<td>d. negative future verbs (§10.3.2.3)</td>
<td></td>
</tr>
<tr>
<td>mā sā sāá = r̥?</td>
<td>‘I won’t come’</td>
</tr>
<tr>
<td>mūlù’ sā sāá = r̥?</td>
<td>‘we won’t come’</td>
</tr>
<tr>
<td>mā = ꙳ sā sāá</td>
<td>‘I will come’</td>
</tr>
<tr>
<td>e. positive plural imperative (§10.5.1.1)</td>
<td></td>
</tr>
<tr>
<td>ēē’ fiddí</td>
<td>‘run!-2Pl’</td>
</tr>
<tr>
<td>fiddí</td>
<td>‘run!-2Sg’</td>
</tr>
<tr>
<td>ēē’ bì fiddí = r̥?</td>
<td>‘don’t-2Pl run!’</td>
</tr>
<tr>
<td>f. ku auxiliary (§15.1.1.1)</td>
<td></td>
</tr>
<tr>
<td>mā kù júmjáà</td>
<td>‘I begin to weep’</td>
</tr>
<tr>
<td>mūlù’ kù júmjáà</td>
<td>‘we begin to weep’</td>
</tr>
<tr>
<td>à kù júmjáà</td>
<td>‘he/she begins to weep’</td>
</tr>
</tbody>
</table>
g. perfective pseudo-reflexive (middle) (§10.1.1.3)

mā nāāⁿ sēlē  ‘I sat’  mūlūⁿ nāāⁿ sēlē  ‘we sat’
ā ná sēlē  ‘he/she sat’
mā nā bārí  ‘I hit Past him/her’

Among the combinations where an M-toned pronominal fails to spread the M-tone to a following word are positive perfective S-V intransitives (subject-verb) and S-O-V transitives (subject-object or object-verb), and alienable possessives (possessor-possessum). Some of these are illustrated in the right column of (73) above. The upshot is that M-Spreading, while quite common, is morphosyntactically restricted.

While the syntax of M-Spreading is idiosyncratic, the fact that it occurs with inalienable but not alienable possession may be revealing. Inalienable possession is (cross-linguistically) a tighter morphosyntactic relationship than alienable possession. This suggests that M-Spreading applies to a narrowly circumscribed domain, unlike productive tone-sandhi processes that can apply across a wide range of word and phrase boundaries.

In the same vein, it is interesting that adjectives with lexical /M/ melody form tonal terraces with a following nominal suffix, and that when the adjective drops to L-tone under the influence of a preceding noun, it brings the tone of the suffix down with it. Thus kānā ‘red’ (including brown), suffixed kān-nā (after M-Spreading), and noun-adjective combination kpèsé kān-nā ‘red chewstick’. Compare this with a lexically H-toned adjective sūmāá ‘long’: suffixed sūmāá-nā, noun-adjective kpèsé sūmāá-nā ‘long chewstick’. kān-nā drops as a whole to kān-nā, and therefore remains tonally flat. When sūmāá-nā drops, only the stem is affected (sūmāá), and the tone of the nominal suffix is determined only then, so it is H-toned after the now L-toned adjective, just as it is H-toned after an L-toned noun.

3.8.3.4 Floating-L Docking (certain nouns and adjectives)

Some nouns and adjectives have lexical tone melodies that include a final floating L-tone that is realized, if at all, on a suffix or on a following modifier. This is distinct from the tonal effect of +3Sg versus -3Sg NPs on following verbs, postpositions, and NPs.

(74) which presents several nouns in their bare form, along with their suffixed forms and their combinations with the M-toned adjective ‘red’ and the H-toned adjective ‘long’.

(74) noun gloss suffixed ‘red’ ‘long’
a. yiʔé ‘fish’ yиʔé-rā yиʔé kān-nā yиʔé ‘sūmāá-nā
gbāā ‘stick’ gbāā-rā gbāā kān-nā gbāā sūmāá-nā
nъʔ⁰ ‘wrap (n)’ nъʔ⁰-nā nъʔ⁰ kān-nā nъʔ⁰ sūmāá-nā
b. kpésé ‘chewstick’ kpésé-rà kpésé kàn-nà kpésé sùmàà-nà
kúrú° ‘boat’ kúrú-nà kúrú° kàn-nà kúrú° sùmàà-nà
tòfá ‘boat’ tòfá-rà tòfá kàn-nà tòfá sùmàà-nà
mótó ‘motorcycle’ mótó-rà mótó kàn-nà mótó sùmàà-nà

The stems in (74a) are followed by H-toned suffixes and by modifiers that preserve their non-low lexical tone melodies, though in the case of ‘fish’ the adjective is downstepped. The stems in (74b) are followed by L-toned suffixes and modifiers. This suggests that all of the stems in (74) have a following L-toned element that is realized either on the nominal suffix or on the entire following modifier. This is the case for nouns of melodies like /H(L)/ and /HM(L)/, where the parenthesized L represents the floating L-tone.

For an interesting case of floating M that docks on the following word, see 2Sg subject /é+M/ and 2Pl subject /ééⁿ+M/ in adjoined clauses (§15.2.1.3). These pronominals are elsewhere M-toned (ē, ēēⁿ).

For a floating H-tone as the subject enclitic for imperfective-system verbs and for locational ‘be’, see §10.3.2.1.

3.8.3.5 Tonal effects of +3Sg versus -3Sg on following words

A superficially similar, but not lexically specified, process takes the form of a pervasive split between two classes of NPs (including pronouns) that have different tonal effects on a following possessum, verb, postposition, or NP. The two groups are shown in (75). By “regular singular NPs” is meant any NP that would, in isolation, end in the nominal suffix (-ra or variant). This excludes personal names, see (79) below, and some other singular NPs as well as all nonreflexive plural NPs.

(75) nonpronominal NPs pronominals

<table>
<thead>
<tr>
<th>(a) -3Sg, followed by H-tone (or lexical tone)</th>
</tr>
</thead>
<tbody>
<tr>
<td>plural NPs</td>
</tr>
<tr>
<td>personal names</td>
</tr>
<tr>
<td>NPs ending in do ‘one’</td>
</tr>
<tr>
<td>NPs ending in relative mì</td>
</tr>
<tr>
<td>some WH-interrogative words</td>
</tr>
<tr>
<td>reciprocal jùrü°</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(b) +3Sg, followed by L-tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>regular singular NPs</td>
</tr>
<tr>
<td>reflexive yéʔré</td>
</tr>
</tbody>
</table>

Omitted from this inventory are 1Sg, 2Sg, and 2Pl pronominals. This is because, in their primary forms, they are M-toned. They trigger M-Spreading onto many following elements (postpositions, inalienable possessums, imperative verbs, etc.). M-Spreading masks their
assignment to one or the other of the two groups in (75). See, for example, the postposition paradigms in chapter 8, the inalienable part of the possessed noun paradigms in §6.2.2.1-3, and the 1Sg object of imperative in (101a) in §4.3.1.3. However, there are some following elements that do not undergo M-Spreading after 1Sg, 2Sg, and 2Pl pronominals. These elements are alienable possessums and most nonimperative verbs, and they allow us to allocate 1Sg, 2Sg, and 2Pl to the -3Sg group.

Alienable possessums are only partially germane to the issue at hand, since they undergo tonal ablaut for all possessor categories. The relevant point here is that there is a split between +3Sg possessors and all other possessors. +3Sg possessors (nonpronominal and pronominal) control \{L(H)\} overlay on the possessum. For lexically /L/-melody alienable possessums, this is indistinguishable from the \{L(H)\} controlled by other possessors (§6.2.2.1). However, lexically M-toned and H-toned alienable possessums appear with the same \{L(H)\} overlay after 3Sg possessors, but these possessums have \{L(L)\} overlay after other possessors (all plurals, plus 1Sg and 2Sg); see §6.2.2.2-3 below. This shows that another part of the tonal morphosyntax makes the division in (76), with some NP-types omitted.

(76) \begin{align*}
& \text{nonpronominal NPs} & \text{pronominals} \\
&a. \text{-3Sg, followed by \{L(H)\} alienable possessum (all lexical tonal types)} & \\
& & \text{all plural NPs} \\
& & \text{1Pl, 2Pl, 3Pl (human and nonhuman)} \\
& & \text{personal names} \\
& & \text{1Sg, 2Sg} \\
& b. \text{+3Sg, followed by \{L(L)\} alienable possessum (unless lexically L-toned)} & \\
& & \text{regular singular NPs} \\
& & \text{3Sg (human and nonhuman)} \\
\end{align*}

In other words, here it’s basically 3Sg against everything else (-3Sg), rather than all singulars against all plurals.

Stronger evidence that the split is +3Sg versus -3Sg (everything else) comes from combinations of pronominal subjects with perfective intransitive verbs, and from combinations of pronominal objects with transitive verbs. M-Spreading does not apply in these contexts.

The only nonimperative verbs that can directly follow the subject, without an intervening aspectual particle or enclitic, are perfective intransitives. These verbs have a tone pattern beginning LH after a 3Sg pronoun or regular singular NP, and a tone pattern beginning H after all other pronouns (including 1Sg and 2Sg) and after plural pronouns and NPs, personal names, and singular NPs that cannot end in the nominal suffix. For example, the paradigm of perfective ‘fell’ in (331) in §10.3.1.2 distinguishes only two tonal forms of the verb, +3Sg béé and -3Sg béé. A subset of that paradigm, showing the behavior of 1Sg and 2Sg, is reproduced here as (77).
The split falls along the same lines in combinations of pronominal objects with transitive verbs. For example, in perfective paradigms of transitives like ‘hit’, 1Sg and 2Sg objects have either M- or L-toned form, depending on the subject category. In either case, the following verb begins with H-tone (báʔrí ‘hit’), as it does when it follows any plural object (pronominal or nonpronominal) or a personal name. By contrast, 3Sg objects (pronouns and regular singular NPs) require a following verb beginning with L-tone (e.g. báʔrí ‘hit’). Subject category does not affect verbal tones in these transitives since the subject is not adjacent to the verb. In (78a), 1Sg object mā or mà and 2Sg object wō or wò is followed by H-initial báʔrí, the same tonal form used after plural objects in (78b). 3Sg human object ná and regular singular NPs are followed by L-initial báʔrí (78c). For fuller data and analysis see especially §4.3.1.3.

(78)  a.  wō mà báʔrí  ‘You-Sg hit-Past me.’
     à mā báʔrí  ‘He/She hit-Past me.’
     mā wō báʔrí  ‘I hit-Past you-Sg.’
     à wō báʔrí  ‘He/She hit-Past you-Sg.’

     b.  ēn múʔũ báʔrí  ‘You-Pl hit-Past us.’
     à dí-rá-ân báʔrí  ‘He/She hit-Past the children.’

     c.  mā ná báʔrí  ‘I hit-Past him/her.’
     à ná báʔrí  ‘He/She hit-Past him/her.’
     múʔũ dí báʔrí  ‘We hit-Past the child.’

The evidence shows that there is a pervasive distinction between +3Sg and -3Sg (the latter including 1Sg and 2Sg) with respect to tonal effects on following elements. In those contexts where 1Sg, 2Sg, and 2Pl (the three M-toned pronominals) trigger M-Spreading, this masks the assignment of these three categories to the +3Sg and -3Sg division, which in this case approximates a simple singular versus plural opposition.

The category “+3Sg” in the +3Sg versus -3Sg split is limited to NPs based on ordinary nouns (those that can end in the nominal suffix, even when the suffix is absent). It does not include personal names. For example, the personal name bákàrì is followed by the H-toned form of a postposition, as in (79a), and by the H-initial form of an immediately following verb, as in (79b-c). As alienable possessor, bákàrì also imposes {L(L)} rather than {L(H)}
tone on a following possessum. In all these respects, bákàrì and other personal names pattern with the -3Sg side of the split.

(79) a. mā sé [bákàr dé]  
1Sg come.Pfv [B with]  
‘I have brought Bakari.’

b. bákàr bé  
B fall.Pfv  
‘Bakari fell.’

c. mā bákàr báʔrí  
1Sg B hit.Pfv  
‘I hit Bakari.’

d. bákàr wùl-à  
B dog-Nom  
‘Bakari’s dog’

The +3Sg category also does not include NPs ending in specific indefinite dò ‘one’ (§6.5.2), NPs ending in relative mì (§14.2), or WH-interrogative words (§13.2.2-8). All of these NP types have the same tonal effect on following words as plural NPs and non-3Sg pronouns do.

The tonal effects of +3Sg but not -3Sg NPs also affect immediately following NP constituents. This is observed in perfective transitives, where no inflectional morphemes intervene between subject and preverbal object. /H/-melody yîlɛ ‘fish’ drops its first syllable after a +3Sg word, becoming yîlɛ (80a). /L/-melody wùlá ‘dog’ is unaffected by a preceding -3Sg word (80b). The second syllable of wùlá in (80a-b) has undergone Final Tone-Raising before the L-initial verb, which is not relevant to the current discussion.

(80) a. dí yîlɛ / wùlá dɔ̀ní  
child fish / dog eat.meat.Pfv  
‘A/The child ate a/the fish-Sg/dog.’

b. dí-rá-àº yîlɛ / wùlá dɔ̀ní  
child-Nom-Pl fish / dog eat.meat.Pfv  
‘(The) children ate a/the fish-Sg/dog.’

There are four possible ways to describe these tonal effects.

(81) a. +3Sg NPs have a floating L-tone that docks on the following word;  
b. -3Sg NPs have a floating H-tone that docks on the following word;  
c. both (a) and (b);  
d. +3Sg and -3Sg are abstract syntactic categories that induce ablaut effects on following words.
Analyses (81a-c) are conventional phonological solutions. Underlying phonological segments and tones are posited. Tone sandhi, in the form of a second floating-tone docking rule, takes care of the surface outputs. Of these three analyses, I favor (81a), since +3Sg NPs require following L-tone on NPs as well as verbs and postpositions, while -3Sg NPs do not affect following NPs. (81a) also captures the insight that the +3Sg category is very restricted (3Sg pronouns plus singular NPs that can elsewhere appear with a final nominal suffix), while the -3Sg category is a collection of disparate NP types.

(81d) is a morphotonological analysis involving categorically controlled ablaut effects. One way to implement it would be to argue that a final suffix that occurs in isolation has been deleted in “+3Sg” words in the relevant contexts, viz., the (singular) nominal suffix for nouns and the independent suffix for pronouns. The L-tone on the onset of the following word is a vestige of the deleted suffix. This analysis deserves consideration, but it would work better for nouns than for adjectives. One can plausibly argue that the underlying form of the singular nominal suffix is L-toned -rà, so if the L-tone survives the segmental deletion of the suffix we have our floating L. Extending this subtractive analysis to pronouns is trickier, see (108) in §4.3.1.4.

3.8.3.6 LH-to-L before nonlow tone

Word-final rising-toned <LH> syllables flatten to L-toned before a nonlow (H or M) tone. This affects monosyllabic +3Sg perfective verb forms like mèè ‘did’ (82a). It arguably affects +3Sg dèè ‘said’ (82b) if we derive it from /dèè/.

(82) a. ēēⁿ [kú nè] mè [mā kēⁿ]
    2Pl [thing good] do.Pfv [1Sg Benef]
    ‘You-Pl have done a good thing for me.’ (2016_02 @ 02:08)

b. à dèè é!
    3SgHum say.Pfv hey!
    ‘He said, “hey!”’ (2016_02 @ 01:15)

This process occurs frequently to monosyllabic stems before negative enclitic =rĒʔ, sometimes along with the shift to +ATR. For example, à sèè ‘he/she came’ is negated as à sèè =rēʔ (+ATR variant à sèè =rēʔ) ‘he/she didn’t come’.

Bisyllabic L-H-toned stems are not systematically flattened before a nonlow tone. For example, à bùlí ‘he/she returned’ is negated as à bùlú =rēʔ ‘he/she didn’t return’, preserving the L.H syllable sequence.

There is likewise no systematic flattening of falling tones before an L-tone. For example, ā =∅ fidēè ‘he/she runs’ is negated as ā =∅ fidēè =rēʔ ‘he/she doesn’t run’. Similarly, mā nā̀n nā̀gī ‘I asked them’ is negated as mā nā̀n nā̀gī =rēʔ ‘I didn’t ask them.’
3.8.3.7  Leftward H-Shift

This process converts word-initial LHL to HL in prosodically light Cv(v) and CvCv words. It often occurs in conjunction with contraction involving a following element.

Clear examples of this involve CvCv verbs (preceded by +3Sg NPs) when they contract with a following vowel. For example, à bàlí ‘he/she accepted’ combines with nonhuman 3Sg postverbal object pronoun iyà as shown in (83a). The leftward shift of the H-tone results in word-level homophony with the corresponding -3Sg (here, human 3Pl) form of the verb, which already begins in an H-tone (83b).

(83)  a.  à  bál =  i-yà
     /bàlí/
     3SgHum accept.Pfv  Nonh-3Sg
     ‘He/She agreed to/accepted it (proposal or invitation).’

     b.  ààⁿ  bál =  i-yà
     /bálī/
     3PlHum accept.Pfv  Nonh-3Sg
     ‘They agreed to/accepted it.’

Leftward H-Shift also applies to the first of two verbs in tightly-knit clause adjunctions, where it has the effect of suppressing the usual distinction between {LH} overlay on +3Sg perfective verbs and the H-initial tones of -3Sg perfective verbs (§15.2.1.2). For example, the simple main clause è fidí ‘it ran’ shows the usual {LH} tones for a +3Sg perfective verb, but the H-tone shifts leftward in the adjunction construction (84a).

(84)  [è  fidí = ]  [i  sá]
     [3SgNonh  run.Pfv]  [3SgNonh  enter.Adjn]
     ‘It (=animal) ran in.’ (< /è fidí/ plus /è sá/)

Again this results in surface neutralization of the tonal distinction between +3Sg and -3Sg tonal forms of verbs (è fidí ‘it ran’ versus èè³n fidí ‘they-Nonhuman ran’). As explained in §15.2.1.2, this is not a categorial merger, just an accidental by-product of Leftward H-Shift. The neutralization does not apply to trisyllabics, which are unaffected by Leftward H-Shift; see (523a-b) in §15.2.1.2.

3.9  Continuity-marking clause-final M-toned prolongation

The final vowel in the word that ends an intonation group (typically a clause or two closely adjoined clauses, occasionally a smaller phrasal constituent) is prolonged slightly with terminal M-tone to indicate continuity with a following intonation group. The latter usually follows in short order, but hesitation pauses are possible. I indicate this using phonological rather than special intonational notation.
Two examples occur in (85). Postposition ‘under’ shifts from kűdɔ́ (-3Sg tonal form) to kűdɔ́ɔ (at the end of the first intonation group). Postposition dū (+3Sg tonal form) shifts to dūū (i.e. phonetic [dūū]) at the end of the second group. Examples like dūū suggest that a final L-toned syllable can sometimes “overshoot” on the high side before finishing at M-tone level.

B: bon, èèⁿ tāʔá cié [ciì dò] kūdɔ́, 
B: well, 3PlNonh go.Adjn arrive.Pfv [[thicket one] under],
èèⁿ sāš [ciì ‘mí] dūū],
3PlNonh go.Adjn enter.Adjn [[thicket Dem] in],
èèⁿ [jèré dī-rā-ā’] sēé ‘jī,
3plNonh [lion child-Nom-Pl] lie.down.VblN see.Adjn,
B: “Well, they went and arrived under (=at) a thicket (dense forest). They went into that thicket. They saw the lion cubs lying down.’ (2016_02 @ 01:10)

Continuity intonation is common with clause-final perfectives. Like other verbs, perfectives are frequently final in clauses and therefore in intonation groups. Even in elicitation of simple perfective positive verb forms, my assistant very often produced forms with this feature. This was especially the case for perfectives in final í like jāmúl(ī) ~ jāmúl(ī) ‘change’, where the M-toned prolongation is shown in parentheses. The prolongation is absent when negative enclitic =rēʔ is added: +3Sg jāmúlī =rēʔ and -3Sg jāmúlī =rēʔ ‘didn’t change’.
4 Nominal, pronominal, and adjectival morphology

4.1 Nouns

4.1.1 Simple nouns and suffixes

Most nouns are morphologically capable of occurring with or without a nominal suffix (“-Nom” in interliners). The primary form of the suffix is -ra (tones depend on those of the stem). Both the consonant and the vowel are subject to modification. The tap r becomes n after a nasal syllable (e.g. na or baⁿ) or after a nasal consonant (due to Syncop of a final vowel); see r-Nasalization (§3.6.1.1). After l, either the tap r either disappears as in wùl-á ‘dog’, by r-Deletion (§3.6.1.3), or it assimilates and becomes l, as in dāl-á ‘mat’, by r-Lateralization (§3.6.1.2). The vowel a of the suffix optionally assimilates to ɔ after a syllable that has a back rounded vowel {u o ɔ}, as in kùd-ɔ̀-rá ~ kùd-ɔ̀-rɔ́ ‘monitor lizard’. Warning: I do not constantly give both -ra and -rɔ variants, either here or in the lexical spreadsheet, since the two are always interchangeable after back rounded vowels.

As explained more fully in chapter 6 on NP structure, the presence or absence of the nominal suffix, and if present its location, depends on what modifiers occur in the NP, and on the syntactic function (subject, object, possessor, complement of postposition, etc.) of the NP as a whole. For present purposes one can think of the suffixed form as the independent (or absolute) form of the noun, obligatory in citation and other independent forms and occurring under some conditions as clausal subject. The bare (unsuffixed) form is used when the noun is followed by certain modifiers (which in some cases themselves bear the nominal suffix), when the unmodified noun is directly governed by a transitive verb or by a postposition, and under some conditions optionally for subjects.

Nouns with no following modifier may be pluralized by adding plural suffix -àn after the nominal suffix (which in this case is obligatory). A further plural nominal suffix -nü is added to -àn, but only in specific syntactic positions. Thus dì-rá ‘child’, plural dì-rá-àn or dì-rá-à-nü ‘children’ depending on syntactic position. dì-rá-à-nü may be apocopated to dì-rá-à-ñ, resulting in a final heavy HLM-toned syllable.

4.1.1.1 Simple monotonal nouns

Information about lexical tone melodies of nouns is also provided, in a different arrangement, in §3.8.1.1.

Array (86) below presents suffixed, pre-modifier, direct object (before an L-initial verb such as jì ɛ́ ‘saw’), and independent plural forms of simple (uncompounded) nouns of monotonal (noncontoured) melody, i.e. /H(H)/, /M/, and /L/. For the first two, the suffix adopts the tone of the stem, resulting in H-H and M-M at word level (86a-b). I specify the first type as /H(H)/ since, as shown in the following section, there are also some H-toned
stems that take L-toned suffix, hence /H(L)/ melody. The hyphens in H-H etc. represent the morpheme boundary in the suffixed forms. An /L/-toned stem, by contrast, has an H-toned suffix (86c). This suggests a tone-polarization process (§3.8.3.3). *jié* ‘saw’ triggers Final Tone-Raising on nouns of /L/ and /M/ melodies (§3.8.3.1).

(86)  
gloss | suffixed | modified | ‘I saw _’ | plural
--- | --- | --- | --- | ---
a. H-H < /H(H)/
  ‘child’ dí-rá | dí | dí | dí-rá-à-nű
  ‘water’ yí-rá | yí | yí | yí-rá-à-nű
  ‘father’ jèⁿ-ná | jèⁿ | jèⁿ | jèⁿ-ná-à-nű

b. M-M < /M/
  ‘stick’ gbāa-rā | gbāa | gbāa | gbāa-rā-à-nű
  ‘belly’ kāyī-rā | kāyī | kāyī | kāyī-rā-à-nű
  ‘foot’ kpā-rā | kpā | kpā | kpā-rā-à-nű
  ‘millet’ jū-rā | jū | jū | jū-rā-à-nű
  ‘hand’ bāl-ã | bāl | bāl | bāl-ã-à-nű

c. L-H < /L/
  ‘head’ wū-ró | wū | wū | wū-ró-à-nű
  ‘sheep’ tāgā-rā | tāgā | tāgā | tāgā-rā-à-nű
  ‘bull’ yigī-rā | yigī | yigī | yigī-rā-à-nű
  ‘goat’ bā-rā | bā | bā | bā-rā-à-nű
  ‘stone’ kūgū-rā | kūgū | kūgū | kūgū-rā-à-nű
  ‘house’ sā-à-rā | sā | sā | sā-à-rā-à-nű
  ‘dog’ wūl-á | wūl | wūl | wūl-á-à-nű
  ‘mat’ dàl-lā | dàl(i) | dàl | dàl-lā-à-nű

4.1.1.2 Simple bitonal and tritonal nouns

A fair number of simple (uncompounded) nouns have a contoured melody. Those that take an L-toned nominal suffix are in (87a-f). They include all stems ending in a falling HM contour, but also many stems ending in H-tone. Those that take an H-toned nominal suffix are in (87g-i). They include all stems ending in an L-toned syllable. The biggest problems for analysis are a) the fact that most LH-toned stems have an L-toned suffix but a few have an H-toned suffix (87f,i), and b) the fact that some H-toned stems have an L-toned suffix (87b), in contrast to the H-toned stems in the preceding section which have an H-toned suffix (86a).
A few nouns denoting close relationships have a vocative form distinct from the regular referential form. A 1Sg possessor is understood but not overt in the vocative. Some of the vocatives also occur in Jula.
(88) referential vocative gloss of vocative

\[
\begin{align*}
n\dot{\text{o}}\dot{\text{n}} & \quad \text{nàà} & \quad \text{‘(my) friend!’} \\
\dot{j} \text{ɛ́} & \quad \text{bàá} & \quad \text{‘Dad!’} \\
\dot{n} \text{ìí} \sim \dot{n} \text{éé} & \quad \text{nàà} & \quad \text{‘Mom!’} \\
\dot{g} \text{ùù} & \quad \text{kùr-cié} & \quad \text{‘elder brother!’} \\
\text{dò?ò} & \quad \text{dù?ù-cié} & \quad \text{‘younger brother!’}
\end{align*}
\]

Plurals do not seem to be in use, but my assistant did accept nàà-\text{nù} ‘friends!’ as vocative.

4.1.1.4 ‘So-and-so’ (w\text{-r\text{\textordmasculine}}}\text{5})

‘So-and-so’ forms (French \textit{un tel}, etc.) are functions over personal names, in vocative and referential function. Example: ‘if someone bumps into you, tell him “Hey So-and-So, …”.’

The Jalkunan form is suffixed w\text{-r\text{\textordmasculine}}}\text{5} or unsuffixed w\text{5} ‘So-and-so’, plural w\text{-r\text{\textordmasculine}}}\text{5-}n\text{ù} \sim w\text{-r\text{\textordmasculine}}}\text{5-}n. This form is also used by hunters to avoid uttering the name of an animal they are hunting or have just killed. An example occurs in text 2016_02 @ 01:33.

4.2 Derived nominals

4.2.1 Diminutive nouns with suffix \text{-lì} \sim \text{-nì}

A number of nouns have a diminutive derivation with suffix \text{-lì} \sim \text{-lì}, nasalizing to \text{-nì} \sim \text{-nì} after a nasal syllable (\textit{Nv}, \textit{Cv\textordmasculine}}). If the input noun has a final sonorant-vowel syllable, the sonorant is deleted and the vowels contract into a long vowel (§3.6.1.4). The vocalism of \text{kpúú-lì} ‘toe’ is probably analogical to that of \text{búú-lì} ‘finger’, but a sound-sym-\text{bolic preference for long high vowels in diminutives may also be at work, as more clearly in \text{wìí-lì} ‘pup-\text{py’}. Except for ‘rope’, the typical tone patterns are either (L)H-toned stem plus M-toned diminutive suffix (from non-L-toned input), or all L-toned (from L-toned input).

Diminutives can denote a small instance of a normally larger entity (89a), a digit as opposed to a hand or foot (89b), or a juvenile human (89c) or animal (89d). A special application to ethnicities is in (89e).

(89) noun gloss diminutive gloss

\[
\begin{align*}
a. \quad \text{gbāā} & \quad \text{‘stick, wood’} & \quad \text{gbáá-lì} & \quad \text{‘twig’} \\
\text{mò} & \quad \text{‘rope’} & \quad \text{mùò-nì} & \quad \text{‘rope’} \\
\text{jènè} & \quad \text{‘shed, booth’} & \quad \text{jènè-nì} & \quad \text{‘small shed/booth’} \\
b. \quad \text{bùlù} & \quad \text{‘hand’} & \quad \text{bùú-lì} & \quad \text{‘finger’} \\
\text{kpùú} & \quad \text{‘foot’} & \quad \text{kpùú-lì} & \quad \text{‘toe’}
\end{align*}
\]
The Natioro and Wara are two relatively small-population ethnic groups living north and northwest of Blédougou. Their languages, distantly related to the core Gur language family, seem to be closely related. The Natioro are immediately neighbors of Jali people (§1.2.1), while Wara are farther away. Loanwords based on French “Natioro” and “Wara” are also nowadays in use (text 2016_01 @ 04:31).

Diminutives, like other regular nouns, take the nominal suffix in the syntactic positions that require it. For example, gbáá ‘twig’ plus nominal suffix is gbá-là, plural gbá-là-àⁿ and with final nominal suffix gbá-là-àⁿū.

For similar diminutives of adjectives, see §4.5.2 below.

A number of nouns that have a diminutive-like ending such as li, and that have senses compatible with diminutivity or that are often expressed by diminutives in other languages of the zone, but that do not correspond to an unsuffixed Jalkunan noun known to me, are in (90). The cases in (90a) are the best candidates to be original diminutives. For example, dikááli ‘young girl’ resembles dikíí ‘young boy’ in (89c) above. The possible cases in (90b) are more speculative.

\[(90)\]

<table>
<thead>
<tr>
<th>noun</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>dikááli</td>
<td>‘young girl’</td>
</tr>
<tr>
<td>jímííl</td>
<td>‘ant’</td>
</tr>
<tr>
<td>kɔ́ɔ́l</td>
<td>‘kidney’</td>
</tr>
<tr>
<td>dūūnī</td>
<td>‘wide-mouthed gourd’</td>
</tr>
<tr>
<td>cèŋal</td>
<td>‘star’</td>
</tr>
<tr>
<td>jiágálì</td>
<td>‘grain of sand’</td>
</tr>
<tr>
<td>bèénl</td>
<td>‘fonio (grain)’</td>
</tr>
<tr>
<td>tàfyélí</td>
<td>‘square palm-leaf fan’</td>
</tr>
<tr>
<td>wàʔálì</td>
<td>‘stool’</td>
</tr>
<tr>
<td>dàʔálì</td>
<td>‘mat’</td>
</tr>
<tr>
<td>màʔálì</td>
<td>‘knife’</td>
</tr>
</tbody>
</table>

b. fìlànlí | ‘twin’ |
| múnílì | ‘ridge in plowed field’ |
| sàfálì | ‘donkey’ |
| tùmùlù | ‘shea-tree caterpillar’ (also tùmùlù) |
The \( i \sim i \) of the diminutive suffix is often deleted by Apocope/Syncope. Representative forms of one diminutive noun are in (91).

(91) diminutive suffixed ‘I saw X’ ‘two X’s’ gloss  
\[
\begin{array}{llll}
\text{bùú-} & \text{bùú-} & \text{má bùú-} & \text{bùú fà} \\
\text{Ì} & \text{Ì} & \text{Ì} & \text{Ì}
\end{array}
\]
\~ má bùú-li jìé ‘finger’

4.2.2 Verbal nouns

The most clearly nominal derivative of a verb stem has no overt derivational suffix but does allow the nominal suffix (-ra or variant) to be added in those syntactic positions that require the suffixed form. This verbal noun occurs as a complement in certain constructions, either as an independent NP or as part of a PP (92).

(92) a. PP complement of bàlà ‘prevent (from)’ with postposition mà ‘on’ (§17.4.2);  
b. preverbal NP object of bàlà ‘cease (doing)’ (§17.4.3);  
c. postverbal NP complement of bàlà or së³ ‘consent (to)’ (§17.4.4);  
d. postverbal NP complement of jìnà ‘forget (to do)’ (§17.4.5);  
e. postverbal NP complement of jìsë³ ‘be afraid (to do)’ (§17.4.6);  
f. preverbal NP complement of dàà-së³ ‘begin’ (§17.4.7);  
g. preverbal or postverbal NP complement of dàà-kà³ ‘finish’ (§14.4.8).

The form of this verbal noun depends on the syllable count of the verb. Verbal nouns of nonmonosyllabic verbs are in the lefthand columns of (93), followed by their main indicative forms for comparison. For the intransitives, disregard ‘ +3Sg’ in column headings except perfective.

(93) Nonmonosyllabic verbal nouns

<table>
<thead>
<tr>
<th>VblN</th>
<th>Pfv</th>
<th>Ipfv</th>
<th>Imprt</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>bare</td>
<td>suffixed</td>
<td>+3Sg</td>
<td>+3Sg</td>
<td>+3Sg</td>
</tr>
</tbody>
</table>

a. intransitive  
\[
\begin{array}{llll}
\text{fìdì} & \text{fìdì-rá} & \text{fìdì} & \text{fìdì} \\
\text{sënë} & \text{sënë-nà} & \text{sënî} & \text{sënà} & \text{së³} & \text{‘sprout’} \\
\text{wàlì} & \text{wàl-} & \text{wàlì} & \text{wàlà} & \text{wàlì} & \text{‘shout’} \\
\text{sidànî} & \text{sidàn-} & \text{sidànì} & \text{sidànà} & \text{sidà³} & \text{‘ascend’} \\
\text{jàʔànì} & \text{jàʔàn-} & \text{jàʔànì} & \text{jàʔànà} & \text{jàʔà³} & \text{‘descend’} \\
\text{bànëʔè³} & \text{bànëʔè-} & \text{bànëʔè³} & \text{bànëʔà³} & \text{bànëʔè³} & \text{‘get tired’}
\end{array}
\]
b. transitive (including pseudo-reflexive ‘sit’)

- sèlè  sèlè-rá  sèlé  sàlà  (ē) sàlā ‘sit’
- tìgì  tìgi-rá  tìgi  tìgè  tìgí ‘pound in mortar’
- tôrì  tôrì-rá  tôrì  tôrò  tôrí ‘sell’
- külsñì  külsñ-nà  külsñì  külsñò  külsñ ‘tie’

For most of the nonmonosyllabic verbs in (93), the verbal noun consists segmentally of the I-stem, as in the perfectives. ‘Get tired’ and ‘sit’ do not have I-stems, but their verbal nouns are similar vocalically to their perfectives. Note, however, the shift to +ATR e from e in the verbal noun of ‘sit’.

Verbal nouns of monosyllabics are illustrated in (94). Here the shift to +ATR is unmistakable. For the intransitives, the lexical tone is clear in the imperfective, but suppressed by the +3Sg versus -3Sg tone opposition in the perfective. ‘Come’ and ‘exit’ are H-toned, while ‘fall’ is L-toned. This lexical tone is reflected also in the verbal noun. For transitive, the verbal noun is L-toned.

(94) Monosyllabic verbal nouns

<table>
<thead>
<tr>
<th>VblN</th>
<th>Pfv</th>
<th>Ipfv</th>
<th>Imprt</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>bare</td>
<td>suffixed +3Sg</td>
<td>+3Sg</td>
<td>+3Sg</td>
<td></td>
</tr>
<tr>
<td>sèè</td>
<td>sèè-rá</td>
<td>sèè</td>
<td>sàá</td>
<td>sàá  ‘come’</td>
</tr>
<tr>
<td>bòó</td>
<td>bòó-rá</td>
<td>bòó</td>
<td>bòò</td>
<td>bòò  ‘exit (v)’</td>
</tr>
<tr>
<td>bèè</td>
<td>bèè-rá</td>
<td>bèè</td>
<td>bàà</td>
<td>bàà  ‘fall’</td>
</tr>
<tr>
<td>mèè</td>
<td>mèè-rá</td>
<td>mèè</td>
<td>màà</td>
<td>màà  ‘do’</td>
</tr>
<tr>
<td>sòò</td>
<td>sòò-rá</td>
<td>sòò</td>
<td>sòò</td>
<td>sòò  ‘wait for’</td>
</tr>
</tbody>
</table>

For compound verbal nouns including an incorporated object noun, see §5.1.3.

4.2.3 Deadjectival abstractive nouns

Examples (95a-b) gives some examples of nouns denoting abstract adjectival qualities. They appear to be verbal nouns derived from related inchoative verbs (‘become ADJ’), rather than from the adjective itself. This is clear in ‘length’, and ‘size’, where the adjective and inchoative are suppletive or otherwise sharply distinct in form, and where the verbal noun follows the inchoative. As modifier, ‘deep’ is a construction based on the inchoative. However, the verbal noun ‘redness’ does respect the lexical /M/ melody of the adjective, which is disguised in the inchoative (since intransitive verbs cannot have M-toned imperfectives).
4.2.4 Instrument nominals absent

No derivational mechanism for deriving uncompounded instrument nominals (e.g. ‘blower’, ‘scraper’) is known. For compounds specifying the function of an entity, see §5.1.7 below.

4.2.5 Simple agentives (X míʔ-ńà)

Agentives are occasionally expressed by an uncompounded verbal noun, or other noun denoting an activity type, plus míʔ-ńà ‘person’. For the latter’s {HM(L)} tone overlay, see §5.1.1.

(96) a. kléni ‘hunt (n), hunting (n)’
   b. klénl míʔ-ńà ‘hunter’

However, in practice occupational agentives are normally based on compound verbal nouns, and have senses like ‘iron-hitting person’ = ‘blacksmith’. See §5.1.4 for discussion and examples.

4.2.6 Lexically reduplicated noun stems

A large number of noun stems have two or more identical adjacent syllables or two-syllable sequences, and therefore have a reduplicative appearance. In general the unreduplicated base does not occur separately. The CvCv(…) examples are arguably too short to be clearly analysed by native speakers as reduplicative, so I do not hyphenate them (97a-b). kúkú ~ kúgú ‘stone’ is especially shaky because of the voicing variation in the medial stop, whereas all three tT examples in (97a) have consistent unvoiced t medially (§3.2.1.8). The stems with bimoraic repetition (97c-d) are more obviously reduplicative and I indicate this by hyphenation. These are mostly flora-fauna terms. Some of the bird and insect names are onomatopoeic.
(97) a.  kùkù – kùgù  ‘stone’
  nònò  ‘milk’
  tòtò  ‘giant pouched rat’ (*Cricetomys*)
  tùtù  ‘puff adder’ (*Bitis*)
  tète  ‘tick’
  sù"sù  ‘spur-winged goose’
  bìbì  ‘winged termite’
  bù"bù  ‘red kapok tree’
  gi"gi  ‘eagle-owl’

b.  sèsèlè  ‘tree sp.’ (*Cassia*)
  lèlèbè  ‘pot-scraper’
  kàkàlà  ‘awned grass sp.’ (*Loudetia simplex*)
  sèsègélè  ‘awned grass sp.’ (*Loudetia togoensis*)

c.  kàá-kàá  ‘pied crow’
  pòtò-pòtò  ‘jatropha tree’
  kílí-kílí  ‘piapiac (bird)’
  ñmèè-ñmèè  ‘spur-winged lapwing’
  mèn-mèn  ‘weaver ant’ (*Oecophylla*)
  vòò-vòò  ‘mud-dauber wasp’

d.  màjà-màjà  ‘bug in maize flowers’

A different reduplicative pattern is seen in the village name **kɛ̀ⁿ-kɛ́ⁿ-káá** ‘Kinkinkan’.

There are also several compounds in which either the initial or the final has a repetitive segment, either *Cv* (98a) or bisyllabic (98b).

(98) a.  dòsõ-pòpòrò  ‘thorny tree (*Flacourtia*)’

b.  mènè-mènè-jè  ‘bush sp. (*Cochlospermum*)’
  tàá-ßà-ßà  ‘firefly’ (cf. tàà  ‘fire’)

A possible case of reduplication with a vocalic change is the initial in **nìnà-tù-ògù** ‘praying mantis’. This type of reduplication, with *a* in the repetition replacing *i* or another vowel in the preceding segment, is fairly common in languages of the zone. However, ‘praying mantis’ and the village name mentioned above, **kɛ̀ⁿ-kɛ́ⁿ-káá**, are the only Jalkunan examples in my current data.
4.3 Pronouns

4.3.1 Basic personal pronouns

The categories are first, second, human third, and nonhuman third, intersecting with a binary singular/plural distinction. The sections below describe pronominal forms as subjects, objects, possessors, and postpositional complements in nonreflexive contexts. Most such pronominals are proclitic to a following word or phrase.

1st/2nd persons have distinct forms in constructions involving coindexation with an antecedent. These are covered later in the grammar. For reflexive possessor, which segmentally merges first person with third human, and second person with third nonhuman, see §18.1.1. For the second subject in a same-subject two-clause adjunction, see §15.2.1.3.

4.3.1.1 Subject pronominals

Subject pronominal proclitics occur in the same clause-initial position as subject NPs. Nonpronominal NPs are not doubled by (resumptive) 3Sg or 3Pl subject pronouns.

Since Jalkunan clause structure is S-infl-O-V-X-Neg, subject pronouns (like other subjects) are immediately followed by the inflectional (aspectual) particles if there is one. If not, as in perfectives and in some negative imperfectives, subject proclitics are immediately followed by the first word of the VP, either an object NP or an intransitive verb. There are some tonal interactions between subject pronouns and following words or inflectional particles. The forms in (99) are basic.

(99) Subject pronouns

regular

a. singular

1st/2nd

1Sg mā
2Sg wō

3rd

3SgHum à
3SgNonh è

b. plural

1Pl mùʔùⁿ
2Pl ēēⁿ
3PlHum âàⁿ
3PlNonh ēèⁿ

76
The plurals in (99b) are bimoraic. They are either M- or L-toned, and in either case they are subject to Final Tone-Raising when followed by an L-tone, resulting in \( m\~\hat{u}\~\hat{u}^a \), \( \~\hat{e}\~^a \), \( \~d\~^a \), and \( \~e\~^a \).

There is one puzzling textual example of human 3Sg \( \~d\~m\~\hat{a} \) instead of the usual \( \~d\~ \), in subject function; see text 2016_04 @ 00:23. Nonhuman 3Sg \( \~e\~\hat{y}\~\hat{a} \), normally a postverbal-object form, is attested once in subject function in text 2016_02 @ 04:22.

Further detail on these pronominals in combinations where they precede verbs or inflectional particles are given in chapter 10. Forms of repeated subjects in clause adjunctions are presented in §15.2.1.3. The 1st/2nd person forms are quite different from those given in the present section.

4.3.1.2 Possessor pronouns

The possessor pronouns are identical to the subject pronominal proclitics. They precede the possessum, without a genitive morpheme. The paradigm, and examples with alienable ‘sickle’ and inalienable ‘father’ are in (100).

(100) Possessor pronouns

<table>
<thead>
<tr>
<th></th>
<th>possessed</th>
<th>‘sickle’</th>
<th>‘father’</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. singular</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st/2nd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1Sg</td>
<td>( m~\hat{a} )</td>
<td>( m~\hat{a} w~r~d~\hat{t}~\hat{d}-\hat{r}~\hat{s} )</td>
<td>( m~\hat{a} j~\hat{e}-\hat{n}~\hat{a} )</td>
</tr>
<tr>
<td>2Sg</td>
<td>( w~\hat{o} )</td>
<td>( w~\hat{o} w~r~d~\hat{t}~\hat{d}-\hat{r}~\hat{s} )</td>
<td>( w~\hat{o} j~\hat{e}-\hat{n}~\hat{a} )</td>
</tr>
<tr>
<td>3rd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3SgHum</td>
<td>( ~d~ )</td>
<td>( ~d~ w~r~d~\hat{t}~\hat{d}-\hat{r}~\hat{s} )</td>
<td>( ~d~ j~\hat{e}-\hat{n}~\hat{a} )</td>
</tr>
<tr>
<td>3SgNonh</td>
<td>( ~e~ )</td>
<td>( ~e~ w~r~d~\hat{t}~\hat{d}-\hat{r}~\hat{s} )</td>
<td>( ~e~ j~\hat{e}-\hat{n}~\hat{a} )</td>
</tr>
<tr>
<td>b. plural</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1Pl</td>
<td>( m~\hat{u}~\hat{u}^a )</td>
<td>( m~\hat{u}~\hat{u}^a w~r~d~\hat{t}~\hat{d}-\hat{r}~\hat{s} )</td>
<td>( m~\hat{u}~\hat{u}^a j~\hat{e}-\hat{n}~\hat{a} )</td>
</tr>
<tr>
<td>2Pl</td>
<td>( ~e~~\hat{e}~^a )</td>
<td>( ~e~~\hat{e}~^a w~r~d~\hat{t}~\hat{d}-\hat{r}~\hat{s} )</td>
<td>( ~e~~\hat{e}~^a j~\hat{e}-\hat{n}~\hat{a} )</td>
</tr>
<tr>
<td>3PlHum</td>
<td>( ~d~~\hat{a}~^a )</td>
<td>( ~d~~\hat{a}~^a w~r~d~\hat{t}~\hat{d}-\hat{r}~\hat{s} )</td>
<td>( ~d~~\hat{a}~^a j~\hat{e}-\hat{n}~\hat{a} )</td>
</tr>
<tr>
<td>3PlNonh</td>
<td>( ~e~~\hat{e}~^a )</td>
<td>( ~e~~\hat{e}~^a w~r~d~\hat{t}~\hat{d}-\hat{r}~\hat{s} )</td>
<td>( ~e~~\hat{e}~^a j~\hat{e}-\hat{n}~\hat{a} )</td>
</tr>
</tbody>
</table>

The tones of the possessed noun depend on alienability and on the type (+3Sg, -3Sg, M-toned) of the possessor. See §6.2 for details.

If the possessor of a non-subject NP in a clause is coindexed with the clausemate subject, as in ‘I saw my father’, the possessor takes reflexive form. See §18.1.1.1 for details and paradigms.
4.3.1.3 Preverbal object pronouns

This section describes regular (nonreflexive) objects. When the preverbal object is coindexed with the clausemate subject, the object takes full or reduced reflexive form. For full reflexive objects, including noun yełrê ~ yełrê, see §18.1.2. Reduced reflexive objects, not including yełrê ~ yełrê, occur in pseudo-reflexive clauses (§10.1.1.3), which resemble middle (mediopassive) reflexives in Romance languages.

Regular object pronouns resemble subject and possessor pronouns, but show more variation in form, mainly because of morphophonological interaction with preceding subjects or with intervening inflectional particles. This section covers preverbal objects. Postverbal objects (without a postposition) have distinct forms (§4.3.1.6 below).

Nonreflexive object pronouns occur clause-initially only in singular-addressee positive imperative verbs, which have no overt subject and no overt inflectional morpheme. All pronominal categories except 2Sg and 2Pl may occur clause-initially in this context. Examples with singular imperative 'hit!' and clause-initial object pronoun are in (101).

(101) Preverbal object pronouns

a. singular

<table>
<thead>
<tr>
<th>1st/2nd</th>
<th>3rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Sg</td>
<td>mā bā?ři</td>
</tr>
<tr>
<td>2Sg</td>
<td>—</td>
</tr>
<tr>
<td>3SgHum</td>
<td>à bā?ři</td>
</tr>
<tr>
<td>3SgNonh</td>
<td>è bā?ři</td>
</tr>
</tbody>
</table>

b. plural

| 1Pl       | mů ř a bā?ři | ‘Hit-2Sg us!’ |
| 2Pl       | —            |
| 3PlHum    | àâ” bā?ří  | ‘Hit-2Sg them (human)!’ |
| 3PlNonh   | èè” bā?řį   | ‘Hit-2Sg them (nonhuman)!’ |

The object pronouns in (101) are identical to the corresponding subject and possessor pronouns presented in (99) and (100) above. One supposes that 2Sg wō and 2Pl ēg”, with M-tones, would also occur as such clause-initially if they were allowed syntactically. Second-person objects of imperatives take reflexive form, either abbreviated (§10.1.1.3) for pseudo-reflexives or full for ordinary transitives (§18.1.2.2).

Except in singular-addressee positive imperatives, objects are immediately preceded either by the subject (perfective), by the subject plus imperfective /H+ = Ø/ enclitic (present, progressive), by future particle sà, or by prohibitive particle bî. This section focuses on the forms used in perfective-aspect clauses, where no inflectional morpheme intervenes between subject and object. The forms of object pronouns that follow the imperfective enclitic and the particles just mentioned are presented in relevant sections of §10.3.
In (102a), what are elsewhere M-toned 1Sg and 2Sg pronouns appear in either M-toned form (after an L-toned pronominal subject) or in L-toned form (after an H- or M-toned pronominal subject). Singular nonpronominal subjects occur either with or without their nominal suffix when followed by a 1st/2nd person object (102b). All 1st/2nd person object pronouns function as -3Sg, requiring a tonal form of the verb that at least begins with H-tone. There is no M-Spreading from object pronominal to verb.

(102) 1Sg/2Sg object pronouns after various subjects (perfective)

<table>
<thead>
<tr>
<th>Subject</th>
<th>1Sg</th>
<th>2Sg</th>
<th>2Pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>pronominal</td>
<td>mā wò bāʔri</td>
<td>wō mā bāʔri</td>
<td>ēʔo mā bāʔri</td>
</tr>
<tr>
<td>object L-toned</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>object M-toned</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A historically interesting alternative 2Sg preverbal object pronominal ē occurs instead of wō in formulaic imprecations, as in ālē= ē jē sō ‘May God have you enter (there) in good health!’ (§10.5.3.2). This is likely an archaism, showing that ē was not always restricted to reflexive contexts, as it generally is now. If 2Sg ē originally occurred in at least some nonanaphoric contexts, this implies that the currently dominant 2Sg form wō may be an innovation, at least in preverbal object function. See also the discussion at the end of §4.3.1.7.

In (103) below, 3Sg pronouns are the objects. The verb therefore has L-initial tonal form. After a pronominal subject (103a), these object pronouns begin with a semi-epenthetic linking consonant n not found in the subject pronouns. One could also analyse the nasal as a subject-object linking morpheme n-, but since it only occurs with third person object pronouns it
belongs to the morphology or morphophonology; see n-Epenthesis (§3.6.3.2 and §3.7.3). The overt vowel in the nonhuman 3Sg object is i rather than e, hence ní when combined with the linker. This vowel shift is elsewhere associated with vocalic contractions. The H-tones of the 3Sg object pronouns ná (human) and ní (nonhuman), versus the usual L-toned forms of these pronouns (à, è ~ i), has no transparent explanation, but since the following verb always begins with L-tone one might ascribe it to an expanded and morphologically restricted variant of Final Tone-Raising, of the form L#L to H#L (§3.8.3.2). L-toned ná and ní do occur in object function when immediately preceded by the imperfective subject enclitic, see (347b) in §10.3.2.2.

3Sg subject acting on 3Sg object (human or nonhuman) has variant forms without the linker n. For human 3Sg subject, á ð optionally substitutes for either à ná (human object) or à ní (nonhuman object). Similarly, for nonhuman 3Sg subject, é ð optionally replaces either è ná (human object) or è ní (nonhuman object). One could attempt to account for á ð phonologically, by vv-Contraction from /à à/ and from /à è/, and to account for é ð by vv-Contraction from /è è/ and from /è è/. However, we would have expected long-vowel outputs from contraction of two short vowels. Even the vowel quality is problematic in á ð rather than expected é ð or perhaps í ð as output of /à è/; compare /sà è/ → sí = ì (future plus nonhuman 3Sg). The H-tones in á ð and é ð are also a problem, but (recalling that a verb following a 3Sg object must begin with L-tone) we could imagine derivations like /à à Cv`…/ → /à á Cv`…/ (Final Tone-Raising) → /á Cv`…/ (vv-Contraction combined with Leftward H-Shift), among other possibilities.

Nonpronominal subjects require the nominal suffix (-ra or variant) before 3Sg pronominal objects (103b), which here occur in n-less form /à/ and /è/. There are no variants without the nominal suffix as there are before 1st/2nd person objects. The final a/ɔ of the nominal suffix contracts with nonhuman 3Sg è ~ i to form long ee, not #ii (103b, right-hand column). The clitic boundary symbol = indexes vv-Contraction between subject and object.

(103) 3Sg object pronouns after various subjects

<table>
<thead>
<tr>
<th></th>
<th>‘hit him/her’</th>
<th>‘hit it’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
<td>mā ná bà?rí</td>
<td>mā ní bà?rí</td>
</tr>
<tr>
<td>2Sg</td>
<td>wō ná bà?rí</td>
<td>wō ní bà?rí</td>
</tr>
<tr>
<td>3SgHum</td>
<td>à ná bà?rí</td>
<td>à ní bà?rí</td>
</tr>
<tr>
<td></td>
<td>~ à ð bà?rí</td>
<td>~ à ð bà?rí</td>
</tr>
<tr>
<td>3SgNonh</td>
<td>è ná bà?rí</td>
<td>è ní bà?rí</td>
</tr>
<tr>
<td></td>
<td>~ è ð bà?rí</td>
<td>~ è ð bà?rí</td>
</tr>
<tr>
<td>1pl</td>
<td>mù?ùⁿ ná bà?rí</td>
<td>mù?ùⁿ ní bà?rí</td>
</tr>
<tr>
<td>2pl</td>
<td>èèⁿ ná bà?rí</td>
<td>èèⁿ ní bà?rí</td>
</tr>
<tr>
<td>3plHum</td>
<td>ààⁿ ná bà?rí</td>
<td>ààⁿ ní bà?rí</td>
</tr>
<tr>
<td>3plNonh</td>
<td>èèⁿ ná bà?rí</td>
<td>èèⁿ ní bà?rí</td>
</tr>
</tbody>
</table>
b. nonpronominal subjects

‘person’  mèlèⁿ-ná = à bàří  mèlèⁿ-né = è bàří
‘blind one’  fügü-rá = à bàří  fügü-ré = è bàří
‘Jula person’  jóó-rá = à bàří  jóó-ré = è bàří

3Sg preverbal object forms à and è have optional nasalized variants àⁿ and èⁿ ~ íⁿ in contractions. See, for example, èⁿ in (301a-b) in §10.1.1.2.

Examples (104a-c) below illustrate the choice between contracted and uncontracted 3Sg-on-3Sg subject-object combinations. The contracted variant (104a) does not specify humanness of object. The fully spelled-out variants (104b-c) do specify it.

(104)  

a. á  Ø  bàří
   3SgHum  3SgObj  hit.Pfv
   ‘He-or-she hit-Past him-or-her/it.’

b. à  ná  bàří
   3SgHum  3SgHumObj  hit.Pfv
   ‘He-or-she hit-Past him-or-her.’

c. à  ní  bàří
   3SgHum  3SgNonhObj  hit.Pfv
   ‘He-or-she hit-Past it.’

There are occasional examples in the recorded texts of what appears to be nonhuman 3Sg i-yà and 3Pl i-yà-áⁿ in preverbal object position. Singular i-yà is regular only in postverbal object position, where it contracts with the final vowel of the verb, as in (83a-b) above. It never occurred in preverbal object position in elicitation. Plural 3Pl i-yà-áⁿ is not otherwise attested. Given how the e ~ i alternation works in pronominal forms, it is likely that the isolation and underlying forms are è-yà and è-yà-áⁿ. However, the initial vowel is lost by contraction in the textual examples. Initial-vowel loss is also fairly common with focal or logophoric 3Sg à-wò (human) and è-wò (nonhuman). The relevant textual examples of preverbal (è-)yà and (è-)yà-áⁿ are in (105). Perhaps the closest comparison is to uncommon pseudo-reflexive variants, nonhuman 3Sg è-yàá and nonhuman 3Pl èèⁿ-yàá níⁿ, see discussion following (307) in §10.1.1.3.

(105)  

a. èèⁿ  (è-)yàá  bègè  sísááⁿ
   3PlNonh  (Nonh-)3SgObj  cut.Pfv  now
   ‘They cut-Past it now.’ (2016_02 @ 04:39)

b. á  Ø-yà-áⁿ  bó  dóó
   3SgHum  Nonh-3Obj-Pl  take.out.Adjn  also
   ‘She took them (inanimate) out.’ (2016_04 @ 00:52)

The alternatives are èèⁿ ní in (105a) and à níⁿ in (105b).
Array (106) below presents plural pronominals objects. Epenthetic or linking \( n \) occurs in the 3Pl object forms after pronominal subjects, except that 3Sg subject on 3Pl object is optionally expressed as just \( \ddot{a}^{a} < / \ddot{a}^{a} / \). The \( n \) does not occur with 3Pl object \( \ddot{e}^{n} \sim \ddot{e}^{a} \), making it easier to distinguish 2Pl from nonhuman 3Pl.

(106) Plural object pronouns after various subjects

<table>
<thead>
<tr>
<th>Subject Type</th>
<th>‘hit us’</th>
<th>‘hit you-PL’</th>
<th>‘hit them’</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. pronominal subjects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1Sg</td>
<td>—</td>
<td>mā ( \ddot{e}^{a} ) bārǐ</td>
<td>mā nā(\ddot{a}^{a}/\ddot{u}^{a} ) bārǐ</td>
</tr>
<tr>
<td>2Sg</td>
<td>wō mū(\ddot{u}^{a} ) bārǐ</td>
<td>—</td>
<td>wō nā(\ddot{a}^{a}/\ddot{u}^{a} ) bārǐ</td>
</tr>
<tr>
<td>3SgHum</td>
<td>à mū(\ddot{u}^{a} ) bārǐ</td>
<td>à (\ddot{e}^{a} ) bārǐ</td>
<td>à nā(\ddot{a}^{a}/\ddot{u}^{a} ) bārǐ</td>
</tr>
<tr>
<td>3SgNonh</td>
<td>è mū(\ddot{u}^{a} ) bārǐ</td>
<td>è (\ddot{e}^{a} ) bārǐ</td>
<td>è nā(\ddot{a}^{a}/\ddot{u}^{a} ) bārǐ</td>
</tr>
<tr>
<td>1Pl</td>
<td>—</td>
<td>mū(\ddot{u}^{a} ) (\ddot{e}^{a} ) bārǐ</td>
<td>mū(\ddot{u}^{a} ) nā(\ddot{a}^{a}/\ddot{u}^{a} ) bārǐ</td>
</tr>
<tr>
<td>2Pl</td>
<td>(\ddot{e}^{a} ) mū(\ddot{u}^{a} ) bārǐ</td>
<td>—</td>
<td>(\ddot{e}^{a} ) nā(\ddot{a}^{a}/\ddot{u}^{a} ) bārǐ</td>
</tr>
<tr>
<td>3PlHum</td>
<td>àà mū(\ddot{u}^{a} ) bārǐ</td>
<td>à(\ddot{e}^{a} ) bārǐ</td>
<td>à nā(\ddot{a}^{a}/\ddot{u}^{a} ) bārǐ</td>
</tr>
<tr>
<td>3PlNonh</td>
<td>(\ddot{e}^{a} ) mū(\ddot{u}^{a} ) bārǐ</td>
<td>(\ddot{e}^{a} ) (\ddot{e}^{a} ) bārǐ</td>
<td>(\ddot{e}^{a} ) nā(\ddot{a}^{a}/\ddot{u}^{a} ) bārǐ</td>
</tr>
</tbody>
</table>

b. nonpronominal subjects

<table>
<thead>
<tr>
<th>Subject Type</th>
<th>‘person’</th>
<th>‘blind one’</th>
<th>‘Jula person’</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘person’</td>
<td>mē(\ddot{e}^{a} )-nā</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td></td>
<td>mū(\ddot{u}^{a} ) bārǐ</td>
<td>… (\ddot{e}^{a} ) bārǐ</td>
<td>… à(\ddot{e}^{a}/\ddot{e}^{a} ) bārǐ</td>
</tr>
<tr>
<td>‘blind one’</td>
<td>fūgū-(\ddot{a}^{a} )</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td></td>
<td>mū(\ddot{u}^{a} ) bārǐ</td>
<td>… (\ddot{e}^{a} ) bārǐ</td>
<td>… à(\ddot{e}^{a}/\ddot{e}^{a} ) bārǐ</td>
</tr>
<tr>
<td>‘Jula person’</td>
<td>jō(\ddot{a}^{a} )-rā</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td></td>
<td>mū(\ddot{u}^{a} ) bārǐ</td>
<td>… (\ddot{e}^{a} ) bārǐ</td>
<td>… à(\ddot{e}^{a}/\ddot{e}^{a} ) bārǐ</td>
</tr>
</tbody>
</table>

With nonpronominal subjects (106b), the nominal suffix on the subject is obligatory before 3Pl object, optional before 1Pl and 2Pl.

In one greeting formula it appears that 2Pl object \( \ddot{e}^{a} \) is expanded as \( n\ddot{i}^{a} \), with the same initial \( n \) and the same vowel raising as in nonhuman 3Pl object \( n\ddot{i}^{a} \).

(107) kpé \( n\ddot{i}^{a} \) kēē dè
what? 2PIObj affect.Pfv there.Def

‘What (trouble) has (afflicted) you-PL there? (< kā modified before dè )’

4.3.1.4 Independent, logophoric, and predicative pronouns

The independent forms in (108) can be used in isolation, i.e. not as arguments of a verb. Except for 3Sg, which has special postverbal object forms, the independent forms also occur as postverbal objects; see §4.3.1.6 below. In 1Sg mā-\(\ddot{u} \) and 2Sg wō-\(\ddot{u} \), the nasal suffix is
usually not extendible word-finally, but it keeps the M-tone of the pronominal and it is optionally pronounced syllabically as -nū.

In the 3Sg and 3Pl forms, a distinction is made between independent pronouns, which can have the same functions as e.g. 1Sg mā-نى, and logophoric pronouns, which are coindexed to a quoted author (§18.3). For human 3Sg, the only difference between independent à-wò-n(ù) and logophoric à-wò is the presence of the final -n(ù) in the independent form. Likewise for nonhuman 3Sg è-wò-n(ù) and logophoric è-wò. For human 3Pl, the independent-pronoun and logophoric are expressed by unrelated forms. Independent àà-نى is just the regular human 3Pl proclitic àà-nuede plus the independent pronominal suffix -nú. By contrast, the human 3Pl logophoric is à-māā, which has its own independent form à-māā-نى. Likewise nonhuman 3Pl independent èè-نى èè-nú, logophoric è-māā, and independent logophoric è-māā-نى.

(108) Independent and logophoric pronouns

<table>
<thead>
<tr>
<th>isolation</th>
<th>‘it’s ___’</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. 1st/2nd</td>
<td></td>
</tr>
<tr>
<td>1Sg</td>
<td>mā-نى ~ mā-nū</td>
</tr>
<tr>
<td>2Sg</td>
<td>wō-نى ~ wō-nū</td>
</tr>
<tr>
<td>1Pl</td>
<td>mù-ù-نى ~ mù-ù-nú</td>
</tr>
<tr>
<td>2Pl</td>
<td>èè-نى ~ èè-nū</td>
</tr>
<tr>
<td>2Pl</td>
<td>māā-نى ~ māā-nū</td>
</tr>
</tbody>
</table>

b. 3Sg

3SgHum
- Logo  à-wò
- Indep à-wò-نى à-wò-nù | à-wò-ní = Ø = i
- Logo Indep [= Indep]

3SgNonh
- Logo è-wò
- Indep è-wò-نى è-wò-nù | è-wò-ní = Ø = i
- Logo Indep [= Indep]

c. 3Pl

3PlHum
- Logo  à-māā
- Indep àà-نى àà-nú | àà-ní = Ø = i
- Logo Indep àà-māā-نى àà-māā-nù | àà-māā-ní = Ø = i

3PlNonh
- Logo è-māā
- Indep èè-نى èè-nú | èè-ní = Ø = i
- Logo Indep èè-māā-نى èè-māā-nú | èè-māā-ní = Ø = i
4.3.1.5 Pronouns with discourse-functional particles

Examples with ‘too’ (§19.1.2.1) and topical ‘as for’ (§19.1.1) are in (109) below. For 1st/2nd persons, independent pronouns are not usual in these combinations, so simple proclitic pronouns are used (109a). For third person, there is a choice between pronominal clitics (109b) and emphatic-logophoric pronouns (109c). M-Spreading into the particle occurs after pronouns ending in M-tone.

(109) Pronouns with discourse-functional particles

| ‘__ too’ | ‘as for __’ |
|----------------------------------|
| a. 1st/2nd persons |
| M-toned pronoun |
| 1Sg | mā dōʔō | mā kānī |
| 2Sg | wō dōʔō | wō kānī |
| 2Pl | čēⁿ dōʔō | čēⁿ kānī |
| M-final pronoun |
| 2Pl | māā dōʔō | māā kānī |
| other |
| 1Pl | mùʔūⁿ dōʔō | mùʔūⁿ kānī |
| b. simple third person |
| {LH} on particle |
| 3SgHum | à dōʔō | à kānī |
| 3SgNonh | ḍi dōʔō | ḍi kānī |
| {H} on particle |
| 3PlHum | ààⁿ dōʔō | ààⁿ kānī |
| 3PlNonh | čēⁿ dōʔō | čēⁿ kānī |
| c. independent/logophoric third person |
| {H} on particle |
| 3SgHum | à-wō dōʔō | à-wō kānī |
| 3SgNonh | č-wō dōʔō | č-wō kānī |
| M-Spreading into particle |
| 3PlHum | à-māā dōʔō | à-māā kānī |
| 3PlNonh | č-māā dōʔō | č-māā kānī |

4.3.1.6 Postverbal object pronouns

Postverbal NPs in bare form (without postpositions) can function as indirect objects of ‘give’ or ‘show’ (§8.1.1) or as postverbal objects of a few verbs like bāʔrá or māʔá ‘touch’ that do not have preverbal objects (§11.1.2.2). These are the only syntactic functions that allow a
pronoun to occur clause-finally. This is illustrated by a nonpronominal NP in (110a) and a pronoun in (110b).

(110) a. à bàʔyá dí-rá
   3SgHum  touch.Pfv  child-Nom
   ‘He/She touched the child.’ (< bàʔrí)

   b. à bàʔyá mà-ní
   3SgHum  touch.Pfv  1Sg-Indep
   ‘He/She touched me.’

The forms of pronouns used in this context are in (111). The 3Sg forms (111c) are unique to this syntactic function. All other pronominal categories use their independent forms. The final -n in (111a-b) is usually not syllabic (-nū etc.) clause-finally.

(111)   Postverbal object pronouns

a. M-toned pronominal
   1Sg  mà-ní
   2Sg  wà-ní
   2Pl  ëë-ní

b. other plural pronominal
   1Pl  mùʔ”û-ní
   3PlHum àà-ní ~ àà-nû
   3PlNonh ëë-ní ~ ëë-nû

c. special 3Sg forms
   3SgHum à-yà
   3SgNonh ì-yà (< ì-ùà/)

Although these forms are often clause-final, they are not changed when they happen to be followed by another element such as the negative enclitic, as with 1Sg mà-n = nèʔ in (367c).

4.3.1.7 2Pl function of màá

The 3Pl logophoric forms à-máá (human) and è-máá (nonhuman) in (108c) above are suppletive, or at least have an m not present in the usual 3Pl pronominals (human àà”, nonhuman èë”).

The presumably etymologically related form màá, without a vocalic prefix, can optionally replace 2Pl ëë” in any function (e.g. subject, object, possessor, postpositional complement). This replacement is moderately common in my assistant’s speech in elicited utterances as
The relationship between unprefixed variant 2Pl.māa and prefixed logophoric or focalized 3Pl à-māa (human) and è-māa (nonhuman) raises the issue whether 2Sg wō (invariant for subject position and nearly so in other nonreflexive contexts) might be related to the -wō morpheme in prefixed 3Sg logophoric or focalized à-wō (human) and è-wō (nonhuman). This historical issue is worth pursuing. The alternative 2Sg form è, which is regular in reflexives and (with H-tone) in subjects of adjoined clauses, and which is still used in nonreflexive object function in imprecations, has a better Mandé pedigree than wō does. The semantic-pragmatic basis for a connection between second person on the one hand and third person logophoric-focalized is unknown.

4.4 Determiners

There is no definite determiner ‘the’ distinct from demonstratives. NPs without determiners can be translated as indefinite or definite depending on context. However, significant new (hence indefinite) referents can be introduced into narrative discourse with dò ‘one’ (§6.5.2).
4.4.1 Demonstratives

4.4.1.1 ‘This/that’ (mí)

The all-purpose demonstrative is mí, with nominal suffix mí-nà. The plural is mí-nà-àⁿ, or mí-nà-à-nū with nominal suffix. The use of the nominal suffix is determined by the morphosyntactic environment.

The demonstrative may be used absolutely, i.e. as a one-word NP. It may also follow a noun (and any adjective or numeral). Examples in (113) are with sàà ‘house’, gbāā ‘stick’, and yīřē ‘fish’.

(113) a. sàà mí-nà ‘this house’
   gbāā mí-nà ‘this stick’
   yīřē mí-nà ‘this fish’

b. sàà mí-nà-à-nū ‘these houses’
   gbāā mí-nà-à-nū ‘these sticks’
   yīřē mí-nà-à-nū ‘these fish’

4.4.1.2 ‘This/that’ (mīí) plus near- and far-distal particles

An alternative demonstrative form mīí occurs in independent (citation) forms and predicates, but not in NPs that have subject, object, or other functions within clauses and phrases. It is followed by nè or downstepped ‘bá. The difference is spatial, with nè unmarked, and ‘bá a marked form denoting a second location farther away; compare demonstrative adverbs nàà ‘here’ and bá ‘over there’. The plural of mīí is mīí-īⁿ, with a nasalized plural ending similar to plural suffix -àⁿ and variants for nouns. (Compare plural relative mī-iⁿ, §14.2).

Examples are in (114). sàà ‘house’ and gbāā ‘stick’ undergo Final Tone-Raising before the initial L-tone of mī-iⁿ.

(114) unmarked distant

    a. sàà mī-nè sàà mī ‘bá ‘that house’
       gbāā mī-nè gbāā mī ‘bá ‘that stick’
       yīřē mī-nè yīřē mī ‘bá ‘that fish’

    b. sàà mī-iⁿ nè sàà mī-iⁿ ‘bá ‘those houses’
       gbāā mī-iⁿ nè gbāā mī-iⁿ ‘bá ‘these sticks’
       yīřē mī-iⁿ nè yīřē mī-iⁿ ‘bá ‘these fish’
4.4.2 Demonstrative adverbs

4.4.2.1 Locative adverbs

Some basic spatial adverbs are in (115). Some contain demonstrative mí.

<table>
<thead>
<tr>
<th>(115)</th>
<th>form</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>nàà</td>
<td>‘here’</td>
</tr>
<tr>
<td></td>
<td>nà mí nè</td>
<td>‘here’ (mí ‘this’)</td>
</tr>
<tr>
<td>b.</td>
<td>bá</td>
<td>‘over there’</td>
</tr>
<tr>
<td>c.</td>
<td>dè</td>
<td>‘there’ (discourse-definite)</td>
</tr>
<tr>
<td>d.</td>
<td>nè</td>
<td>‘here/there’ (weak demonstrative, phrase-final)</td>
</tr>
</tbody>
</table>

nè (115d) is default demonstrative adverb, and may be a phonetically attritted offshoot from nàà ‘here’. nè occurs in contexts where the proximate/distant opposition is unnecessary, such as in presentatives (§4.4.3). It occurs in relative head NPs whose relative marker mí is incompatible with demonstrative mí ‘this/that’ as in (487). Further examples are (471b) and (473c).

nàà ‘here’ and dè ‘there (definite)’, but not nè or bá, combine in phonologically irregular ways with some preceding words. As predicates (‘be here’, ‘be there’), nàà and dè require a linking enclitic = ní, as in zàkī = ní dè ‘Zaki is present there’. As nonpredicative adverbs, preceding verbs and some other elements have their final vowel lengthened, raised to H-tone, and/or shifted to +ATR. The tonal and ATR shifts may extend leftward to a nonfinal syllable. These modifications can be analysed as linking enclitics and transcribed with = indexing vv-Contraction. Some examples are in (116).

<table>
<thead>
<tr>
<th>(116)</th>
<th>regular</th>
<th>with dè or nàà</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>sā</td>
<td>sé = é nàà</td>
<td>‘Come here!’</td>
<td></td>
</tr>
<tr>
<td>ē wā</td>
<td>ē wè = é dè</td>
<td>‘Go there!’</td>
<td></td>
</tr>
<tr>
<td>à bûtí</td>
<td>à bût = ú dè</td>
<td>‘He/She went back there’</td>
<td></td>
</tr>
<tr>
<td>ààⁿ bûtí</td>
<td>ààⁿ bût = ú dè</td>
<td>‘They went back there.’</td>
<td></td>
</tr>
</tbody>
</table>

The linking enclitics in (116) are difficult to segment since they are modifications of input vowels, but the enclitic notation does warn readers that an extension due to the spatial adverb has occurred.

On linkers see §3.7.3.
4.4.2.2 Emphatic and approximative demonstrative adverbs

My assistant indicated that emphatic ‘right here’ and approximative ‘around here’ are best expressed using làʔà ‘place’ with a demonstrative. In (117a), “in this place” (perhaps accompanied by a gesture) is more emphatic than the simple adverb nàà ‘here’. The assistant phrased '(somewhere) around here' as “here near this place” (117b) or “(somewhere) around this place” (117c).

(117) a. à bè [[làʔà mí] tò]  
   3SgHum fall.Pfv [[place Dem] in]  
   ‘He/She fell right here.’

b. à bè [[làʔà mí] gilé nàà]  
   3SgHum fall.Pfv [[place Dem] near here]  
   ‘He/She fell (somewhere) around here.’

c. [[làʔà mí fàⁿ] tò]  
   [[place Dem around] in]  
   ‘somewhere around this place (=here)’

Version (117c) is also the basis for a textual example with a relative clause ‘the place around which …’ (2016_04 @ 03:45).

4.4.3 Presentatives (‘here’s/there’s …!’)

The basic presentative construction is \(X = \emptyset \text{nè} \) ‘here’s X!’ or ‘there’s X!’ Here \( /H+ = \emptyset / \) is the locational ‘be’ enclitic and \( \text{nè} \) is a semantically weak ‘there’ (default spatial adverb).

(118) a. zàkūi = \(\emptyset \) nè  
   Z=be there  
   ‘Here’s/There’s Zaki.’

b. [dí kpèr-tà-àⁿ]=\(\emptyset \) nè  
   [child small-Nom-Pl]=be there  
   ‘Here’s the young child!’

Pronominal forms include \(mā=\emptyset \text{nè} \) ‘here I am’, \(ā=\emptyset \text{nè} \) ‘here/there he/she is!’, and \(áāⁿ=\emptyset \text{nè} \) ‘here/there they are!’

The final \( \text{nè} \) may combine with a progressive verb, such as ‘be coming’ and ‘be sleeping’. In this case I gloss \( /H+ = \emptyset / \) as imperfective (=lpfv), as usual before present, future, and progressive verbs, but there is no real difference between locational ‘be’ and the imperfective enclitic.
(119) a. \(\text{zàkìì} = \emptyset \quad \text{sé-yá} \quad \text{nè}\)  
\(Z=\text{lpfv} \quad \text{come-Prog} \quad \text{there}\)  
‘Here comes Zaki!’

b. \(\text{mù?ú^n} = \emptyset \quad \text{sé-yá} \quad \text{nè}\)  
\(Z=\text{lpfv} \quad \text{come-Prog} \quad \text{there}\)  
‘Here we come!’

c. \(\text{á} = \emptyset \quad \text{jiú} \quad \text{bè-yá} \quad \text{nè}\)  
\(3\text{SgHum}=\text{lpfv} \quad \text{sleep(n)} \quad \text{fall-Prog} \quad \text{there}\)  
‘There he is, sleeping!’ (French \textit{le voilà qui dort!})

French counterparts \textit{voici} \(X\) and \textit{voilà} \(X\) are derived from the imperative of the verb ‘see’, and another option in Jalkunan is based on the imperative of ‘look (at)’, with the focal entity as object.

(120) a. \(\text{zàkìi} \quad \text{lé}\)  
\(Z \quad \text{look.Imprt}\)  
‘Look-2Sg at Zaki (over there)!’

b. \(\text{dí} \quad \text{lē}\)  
\(\text{child} \quad \text{look.Imprt}\)  
‘Look-2Sg at the child (over there)!’

c. \(\text{dí-rá-à^n} \quad \text{lē}\)  
\(\text{child-Nom-pl} \quad \text{look.Imprt}\)  
‘Look-2Sg at the children (over there)!’

4.5 Adjectives

For NP exemplars used as modifiers, e.g. ‘fresh grass’ in the sense ‘green’, see §5.2.2.

4.5.1 Simple adjectives

Adjectives follow nouns. In an N-Adj combination with no following modifiers, the nominal suffix \(-rà, -nà, \) etc. is added once, to the adjective. The plural suffix \(-à^n\) and variants, and in favorable syntactic contexts its own nominal suffix \(-nû, \) are added to the “singular” nominal suffix on the adjective.

In N-Adj combinations, tonal changes apply to the noun and/or the adjective. Some of these are predictable tone-sandhi processes. Others are morphosyntactically conditioned ablaut processes. A full discussion of N-Adj combinations and relevant tonal processes is in §6.3.1 below. There I argue that the lexical tones of the adjective are best identified when
they follow L-toned nouns. I assume that analysis here. However, the focus at the moment is on the semantic classes of primary adjectives. This excludes deverbal adjectives, which are presented in §4.5.3 below.

(121)  

<table>
<thead>
<tr>
<th>(121)</th>
<th>semantic type</th>
<th>adjective suffixed</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>color</td>
<td>gbóò-র</td>
<td>‘black’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>kānā--nā</td>
<td>‘red’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>kpēē-র</td>
<td>‘white’</td>
</tr>
<tr>
<td>b.</td>
<td>dimension</td>
<td>gbṣ-র</td>
<td>‘big’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>kpē-র</td>
<td>‘small’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>gbā?alā--lā-র</td>
<td>‘thin’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>sūmā́-nā</td>
<td>‘long’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>gūnī--nā</td>
<td>‘short’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>~ gūn-nā</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>bákùnì--nà</td>
<td>‘short’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>~ bákùn-nā</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>temperature</td>
<td>tāā-র</td>
<td>‘hot’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>kūmā--nā</td>
<td>‘cold’</td>
</tr>
<tr>
<td>d.</td>
<td>evaluation</td>
<td>pē-र</td>
<td>‘good’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>kītā--r</td>
<td>‘bad’ (t ~ d )</td>
</tr>
<tr>
<td>e.</td>
<td>state</td>
<td>gbē-র</td>
<td>‘fresh’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>kūtš-र</td>
<td>‘old’ (t ~ d )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wūtš-र</td>
<td>‘new’ (t ~ d )</td>
</tr>
<tr>
<td>f.</td>
<td>miscellaneous</td>
<td>wéé-র</td>
<td>‘other’</td>
</tr>
</tbody>
</table>

4.5.2 Diminutive adjectives with -লī ~ -নī

The -লī suffix (nasalized variant -নī ) that forms nominal diminutives (§4.2.1) is also productive with basic adjectives. The adjective kpī-ল ‘small’ is only attested in diminutive form.

The construction N Adj-Dim, where an otherwise ordinary adjective is morphologically diminutivized, occurs chiefly with flora-fauna species terms that end in a color adjective ‘red’ (including brown), ‘white’, or ‘black’. The same N-Adj combinations do not usually occur minus the diminutive marking, and in some cases the noun itself is not attested elsewhere. Examples, excluding obvious bahuvrihis (§5.2.1.1), are in (122). Duikers are goat-like wild mammals.
(122) N Adj-Dimin noun gloss

a. káň-ní ‘red-Diminutive’ < káň ‘red’
diminutive adjective M-toned
máňá-máňá káň-ní (unattested) ‘red bishop (bird)’
wáňrá káň-ní wáňrá ‘hawk’ ‘buzzard’
tóňló káň-ní tóňló ‘bat’ ‘fruit bat sp. (Micropteropus)’
jáá káň-ní jáá ‘duiker’ ‘red-flanked duiker’
diminutive adjective L-toned
tóňr káň-nú tóňr ‘frog’ ‘reed frog’
diminutive adjective H-toned
jímílí káá-ní jímílí ‘ant’ ‘small brown ant sp.’

b. kpě-li ‘white-Diminutive’ < kpě ‘white’
diminutive adjective M-toned
jáá kpě-li jáá ‘duiker’ ‘bush duiker’

c. gbőlő-lů ‘black-Diminutive’ < gbőlő ‘black’
diminutive adjective M-toned
jáá gbőlő-lů jáá ‘duiker’ ‘yellow-backed duiker’

It is also possible for a lexicalized diminutive noun to take a nondiminutive adjective, as in gbáá-li káň ‘tree spp. (Monotes, Hymenocardia)’, literally “stick-Dim red.” See also ‘small brown ant sp.’ at the end of (122a) above.

4.5.3 Deverbal adjectives with t5 ~ t5n

Many adjectival senses have no dedicated primary adjective. Instead, the “adjective” is constructed by adding t5 ~ t5n (apparently in free variation), or with the nominal suffix t5-r5 ~ t5-n5, to a form of the corresponding intransitive (inchoative) verb. The known cases are in (123). The modifying form shown is the surface form after sé ‘thing’, representing nouns that have a final floating L (cf. suffixed sé-n ‘thing’).

(123) verb (Ipfv) after sé (+L) ‘thing’ gloss

a. modifying form of verb ends in i (or zero after Syncope)
báňláná báňlán ‘t5-r5’ ‘skinny’
dí jáá di t5-r5 ‘sweet’
fěéńa fěéni t5-r5 ‘full’
kóňo kón t5-r5 ‘fat; wide’
n5?3n nû?ú t5-r5 ‘smooth; soft’
ğńo ńńi t5-r5 ‘sour’
The vocalism of the forms of the verb before tɔ́-rɔ́ has a mix of I-stem and shift to +ATR, similar to verbal nouns (§4.2.2). ‘Coarse’ (123c) does not shift to +ATR, perhaps because the verb is prosodically heavy (CaCaa).

In N-Adj sequences, nouns of /H/ and /L/ melodies require adjectival forms beginning with H-tone, replacing the L-tone in the forms shown: *(yíʔé/yìgì) kùdɔ̀-bèé tɔ́-rɔ́ ‘(fish/cow) heavy’*, etc. Nouns of /M/ melody spread the M-tone into the modifying form: kláá kùdɔ̀-bèé tɔ́-rɔ́ ‘heavy mouse’.

### 4.6 Numerals

#### 4.6.1 Cardinal numerals

##### 4.6.1.1 ‘1’ (*dúli*)

Numeral ‘1’ is *dúli*. A preceding noun omits its final suffix.

(124) with ‘1’

<table>
<thead>
<tr>
<th>Numeral</th>
<th>gloss</th>
<th>suffixed singular</th>
</tr>
</thead>
<tbody>
<tr>
<td>wúl dúli</td>
<td>‘one dog’</td>
<td>wúl-á</td>
</tr>
<tr>
<td>kúkù dúli</td>
<td>‘one stone’</td>
<td>kúkù-rá</td>
</tr>
<tr>
<td>gbáá dúli</td>
<td>‘one stick’</td>
<td>gbáá-rá</td>
</tr>
<tr>
<td>dí dúli</td>
<td>‘one child’</td>
<td>dí-rá</td>
</tr>
</tbody>
</table>

In counting (‘1, 2, 3, …’) ‘1’ is *dúáli* with long vowel.
For *dúlí kù*¹⁰ ‘be equal/same’, i.e. numeral *dúlí* plus copula *kù*¹⁰, see §12.2.1.

4.6.1.2 ‘2’ to ‘10’

The numerals from ‘2’ to ‘10’ are shown in (125). There is no plural marking, and no nominal suffix. The “counting” forms are used in recited numerals without modified nouns (‘1, 2, 3, …’). They are the most reliable indicator of lexical tone. Numerals ‘6’ to ‘9’ appear to contain a frozen formative *ma-* plus a version, often irregular, of ‘1’ to ‘4’, respectively. This points to an original base of ‘5’. This morphology is most transparent for ‘8’ vis-à-vis ‘3’.

(125) gloss counting lexical tone

| 2' | ñflá | /M/ (for ñfláá see comments below) |
| 3' | ñsígbô | /M/ |
| 4' | ñnáñí | /M/ |
| 5' | ñsóóló | /H/ |
| 6' | ñmí-ñlô | /M-MM/ |
| 7' | ñmá-ñlâá | /L-HL/ |
| 8' | ñmá-sígbô | /L-H/ |
| 9' | ñmá-náñí | /H-ML/ |
| 10' | ñtáá | /H/ |

A long-voweled variant ñfláá ‘2’ occurs in NP-internal position. This occurs a) before the nominal suffix as in the bahuvrīhi compound (149) and as in ‘the two of them’ in text 2016.02 @ 02:40, b) before a postposition as in (224b), and c) before a relative marker as in (486a). ñtáá ‘10’ may have recently had a nasalized vowel, to judge by its distributive reduplication ñtáá-náá, see (134) below.

When these numerals are added to a noun (or adjective), the *má-* formative in ‘7’ and ‘8’ is raised to H-tone (the same formative in ‘9’ is already H).

Examples with /L/-melody *kùkù* ~ *kùgù* ‘stone’ (suffixed singular *kùgù-rá*) are in (126).

(126) gloss ‘stone’ tone change

| 2' | kùgù ñflá | |
| 3' | kùgù ñsígbô | |
| 4' | kùgù ñnáñí | |
| 5' | kùgù ñsóóló | |
| 6' | kùgù ñmí-ñlô | |
| 7' | kùgù ñmá-ñlâá | yes |
| 8' | kùgù ñmá-sígbô | yes |
| 9' | kùgù ñmá-náñí | |
| 10' | kùgù ñtáá | |

94
Combinations with /M/-melody noun gbāa ‘stick, wood’ (suffixed gbāa-rā ) are in (127).

(127) gloss ‘stick’ tone change

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>'2'</td>
<td>gbāa flā</td>
<td></td>
</tr>
<tr>
<td>'3'</td>
<td>gbāa sigbō</td>
<td></td>
</tr>
<tr>
<td>'4'</td>
<td>gbāa nāānī</td>
<td></td>
</tr>
<tr>
<td>'5'</td>
<td>gbāa sóōlō</td>
<td></td>
</tr>
<tr>
<td>'6'</td>
<td>gbāa mī-īlō</td>
<td></td>
</tr>
<tr>
<td>'7'</td>
<td>gbāa má-ālā</td>
<td>yes</td>
</tr>
<tr>
<td>'8'</td>
<td>gbāa má-sigbō</td>
<td>yes</td>
</tr>
<tr>
<td>'9'</td>
<td>gbāa má-nānī</td>
<td></td>
</tr>
<tr>
<td>'10'</td>
<td>gbāa tāā</td>
<td></td>
</tr>
</tbody>
</table>

Combinations with /H/-melody noun yīlē ‘fish’ (suffixed yīlē-rā ) are in (128).

(128) gloss ‘fish’ tone change

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>'2'</td>
<td>yīlē flā</td>
<td></td>
</tr>
<tr>
<td>'3'</td>
<td>yīlē sigbō</td>
<td></td>
</tr>
<tr>
<td>'4'</td>
<td>yīlē nāānī</td>
<td></td>
</tr>
<tr>
<td>'5'</td>
<td>yīlē sóōlō</td>
<td></td>
</tr>
<tr>
<td>'6'</td>
<td>yīlē mī-īlō</td>
<td></td>
</tr>
<tr>
<td>'7'</td>
<td>yīlē má-ālā</td>
<td>yes</td>
</tr>
<tr>
<td>'8'</td>
<td>yīlē má-sigbō</td>
<td>yes</td>
</tr>
<tr>
<td>'9'</td>
<td>yīlē má-nānī</td>
<td></td>
</tr>
<tr>
<td>'10'</td>
<td>yīlē tāā</td>
<td></td>
</tr>
</tbody>
</table>

When a noun with final floating L-tone is followed by a numeral, the L-tone is realized on the numeral. The exception is ‘9’, the only numeral ‘2’ to ‘10’ that consistently has a falling tone pattern. Floating L-Docking with these numerals involves more extensive spreading than that seen in N-Adj combinations, since here it wipes out underlying nonlow tones rather than merely pushing them rightward. (129) illustrates with jnāa ‘woman’ (suffixed jnāa-nā ), whose lexical melody is /HM/. jnāa itself becomes jnā before L-tone, see H-Leveling (§3.8.3.2).

(129) gloss ‘woman’ tone change

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>'2'</td>
<td>jnāa flā</td>
<td>yes</td>
</tr>
<tr>
<td>'3'</td>
<td>jnāa sigbō</td>
<td>yes</td>
</tr>
<tr>
<td>'4'</td>
<td>jnāa nāānī</td>
<td>yes</td>
</tr>
<tr>
<td>'5'</td>
<td>jnāa sóōlō</td>
<td>yes</td>
</tr>
<tr>
<td>'6'</td>
<td>jnāa mī-īlō</td>
<td>yes</td>
</tr>
<tr>
<td>'7'</td>
<td>jnāa má-ālā</td>
<td>yes</td>
</tr>
<tr>
<td>'8'</td>
<td>jnāa má-sigbō</td>
<td>yes</td>
</tr>
</tbody>
</table>

95
In careful speech, the underlying nonlow tones of the numerals in may reappear in the examples in (129).

4.6.1.3 Decimal/vigesimal multiples (‘20’ to ‘200’) and combinations

The multiples of ‘10’ are in (130) below. The system is vigesimal, with jálámá ‘20’ taking the compound initial forms jén- (in ‘30’) and jááⁿ- (elsewhere) before single-digit numerals. Odd-numbered decimals above ‘20’ add -ř-tåå (after flä ‘2’ and sīgbō ‘3’) or -tåå (after higher decimals), cf. tåå ‘10’. -tåå also occurs in irregular ‘30’, where it has similar additive sense (‘plus 10’), and in ‘200’, where it has direct scope over ‘20’ (20x10 = 200). The use of different allomorphs for ‘20’ avoids homophony between ‘30’ (‘20 plus 10’) and ‘200’ (‘ten 20s’). Final -tåå in the decimal terms is L-toned and therefore triggers Final Tone-Raising of preceding L- and M-toned stems (‘130’, ‘170’), likely also -ř in -ř-tåå (‘50’, ‘70’). H tones following jááⁿ are phonetically downstepped, but in jááⁿ-sōóló-tåå ‘110’ the middle stem -sōóló- is still higher-pitched than -tåå, and in jááⁿ-má-álà ‘140’ má-á is higher-pitched than là, so I do not attribute the lowered pitch of e.g. -sōóló- to Floating-L Shift triggered by jááⁿ.

<table>
<thead>
<tr>
<th>(130) gloss</th>
<th>form</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘10’</td>
<td>táå</td>
</tr>
<tr>
<td>‘20’</td>
<td>jálámà</td>
</tr>
<tr>
<td>‘30’</td>
<td>jén-tåå</td>
</tr>
<tr>
<td>‘40’</td>
<td>jááⁿ-flä</td>
</tr>
<tr>
<td>‘50’</td>
<td>jááⁿ-flä-ř-tåå</td>
</tr>
<tr>
<td>‘60’</td>
<td>jááⁿ-sīgbō</td>
</tr>
<tr>
<td>‘70’</td>
<td>jááⁿ-sīgbō-ř-tåå</td>
</tr>
<tr>
<td>‘80’</td>
<td>jááⁿ-nānì</td>
</tr>
<tr>
<td>‘90’</td>
<td>jááⁿ-nānì-tåå</td>
</tr>
<tr>
<td>‘100’</td>
<td>jááⁿ-sōóló</td>
</tr>
<tr>
<td>‘110’</td>
<td>jááⁿ-sōóló-tåå</td>
</tr>
<tr>
<td>‘120’</td>
<td>jááⁿ-mī-ilö</td>
</tr>
<tr>
<td>‘130’</td>
<td>jááⁿ-mī-ilö-tåå</td>
</tr>
<tr>
<td>‘140’</td>
<td>jááⁿ-má-álà</td>
</tr>
<tr>
<td>‘150’</td>
<td>jááⁿ-má-álà-tåå</td>
</tr>
<tr>
<td>‘160’</td>
<td>jááⁿ-má-sīgbō</td>
</tr>
<tr>
<td>‘170’</td>
<td>jááⁿ-má-sīgbō-ř-tåå</td>
</tr>
<tr>
<td>‘180’</td>
<td>jááⁿ-má-nānì</td>
</tr>
<tr>
<td>‘190’</td>
<td>jááⁿ-má-nānì-tåå</td>
</tr>
<tr>
<td>‘200’</td>
<td>jááⁿ-tåå</td>
</tr>
</tbody>
</table>
Single-digit numerals may follow the decimal and vigesimal terms to form composite numerals like ‘11’ and ‘56’. ‘10’ adds what looks like the nominal suffix -rä (i.e. as in /tāā-rā/), raised to -rä before the single-digit term (131), which is dropped to {L}.

(131) gloss  ‘10 plus …’  digit

  ‘11’  tāā-rā dúli  dúli
  ‘12’  tāā-rā flā  flā
  ‘13’  tāā-rā sīgbō  sīgbō
  ‘14’  tāā-rā nāānī  nāānī
  ‘15’  tāā-rā sóölō  sóölō
  ‘16’  tāā-rā mī-ilō  mī-ilō
  ‘17’  tāā-rā mā-ālā  mā-ālā
  ‘18’  tāā-rā mā-sīgbō  mā-sīgbō
  ‘19’  tāā-rā mā-nānī  mā-nānī

All decimal terms from ‘20’ up add a linking morpheme tú (§7.1.2) before the tone-dropped single-digit term.

(132) gloss  ‘20 plus …’  ‘30 plus …’  digit

  ‘21/31’  jālāmā tú dúli  jáāⁿ-sīgbō-r-tāā tú dúli  dúli
  ‘22/32’  jālāmā tú flā  jáāⁿ-sīgbō-r-tāā tú flā  flā
  ‘23/33’  jālāmā tú sīgbō  jáāⁿ-sīgbō-r-tāā tú sīgbō  sīgbō
  ‘24/34’  jālāmā tú nāānī  jáāⁿ-sīgbō-r-tāā tú nāānī  nāānī
  ‘25/35’  jālāmā tú sóölō  jáāⁿ-sīgbō-r-tāā tú sóölō  sóölō
  ‘26/36’  jālāmā tú mī-ilō  jáāⁿ-sīgbō-r-tāā tú mī-ilō  mī-ilō
  ‘27/37’  jālāmā tú mā-ālā  jáāⁿ-sīgbō-r-tāā tú mā-ālā  mā-ālā
  ‘28/38’  jālāmā tú mā-sīgbō  jáāⁿ-sīgbō-r-tāā tú mā-sīgbō  mā-sīgbō
  ‘29/39’  jālāmā tú mā-nānī  jáāⁿ-sīgbō-r-tāā tú mā-nānī  mā-nānī

4.6.1.4 ‘Thousand’

‘Thousand’ is either wāʔā or búūlī, the latter also meaning ‘finger’. For ‘1000’, the numeral ‘1’ is added to the ‘thousand’ term. After wāʔā, single-digit terms from ‘2’ to ‘5’ are tone-dropped. These tone-dropped digit terms, along with ‘6’ to ‘8’ which already begin in an L-tone, induce Final Tone-Raising to wāʔā (left data column). After búūlī, ‘2’ and ‘3’ are tone-dropped but others are not.

(133) gloss  with wāʔā  with búūlī ‘finger’

  ‘1000’  wāʔā dúli  búūlī dúli
  ‘2000’  wāʔā flā  búūlī flā
  ‘3000’  wāʔā sīgbō  búūlī sīgbō
4.6.1.5  Currency

In languages of the zone except French, currency is calculated based on a unit equal to 5 francs CFA (the smallest coin in use). The unit term is wář (suffixed wář-rá). 100 FCFA is expressed as wář jàlà. There is also a special term kùm ɔ́l for the unit equivalent to 2000 FCFA. To specify exactly ‘2000 francs’, the phrasing is kùm ɔ́l dúlì with dúlì ‘1’. kùm ɔ́l flā is ‘4000 francs CFA’, and so forth.

4.6.1.6  Reduplicated or iterated distributive numerals

As in many other languages of the zone, numerals are initially reduplicated (Cv-) or completely iterated to express distributivity ('two each', 'two by two', 'two at a time', etc.). Reduplication occurs with ‘1’ and with ‘4’ through ‘7’. ‘4’ and ‘5’ have the same unusual tone pattern in their reduplicated forms, in spite of having different tones in their base forms. Iteration occurs with ‘3’, ‘8’, and ‘9’. Since ‘2’ and ‘10’ are usually monosyllabic, the distinction between reduplication and iteration is moot for them. The form for ‘10’ is irregular segmentally, but has the same tones as those for ‘4’ and ‘5’. For each numeral, (134) shows the distributive form used in isolation (as an adverb), and that used after the noun mìʔìⁿ ‘person’, as in mìʔìⁿ flā-flā ‘two people at a time’. Forms that begin with L-tone in isolation begin with H-tone after mìʔìⁿ.

<table>
<thead>
<tr>
<th>numeral</th>
<th>gloss</th>
<th>distribution: isolation</th>
<th>distribution: after mìʔìⁿ ‘person’</th>
</tr>
</thead>
<tbody>
<tr>
<td>dūlì</td>
<td>‘1’</td>
<td>dū-dūlì</td>
<td>dū-dūlì</td>
</tr>
<tr>
<td>flā</td>
<td>‘2’</td>
<td>flā-flā</td>
<td>flā-flā</td>
</tr>
<tr>
<td>sigbō</td>
<td>‘3’</td>
<td>sigbō-sigbō</td>
<td>sigbō-sigbō</td>
</tr>
<tr>
<td>nāānĩ</td>
<td>‘4’</td>
<td>nā-nāānĩ</td>
<td>nā-nāānĩ</td>
</tr>
<tr>
<td>sōōlō</td>
<td>‘5’</td>
<td>sō-sōōlō</td>
<td>sō-sōōlō</td>
</tr>
<tr>
<td>mì-ilō</td>
<td>‘6’</td>
<td>mì-mì-ilō</td>
<td>mì-mì-ilō</td>
</tr>
<tr>
<td>mà-ālā</td>
<td>‘7’</td>
<td>mà-mà-ālā</td>
<td>mà-mà-ālā</td>
</tr>
<tr>
<td>mà-sigbō</td>
<td>‘8’</td>
<td>mà-sigbō-mà-sigbō</td>
<td>mà-sigbō-mà-sigbō</td>
</tr>
<tr>
<td>mà-nānĩ</td>
<td>‘9’</td>
<td>mà-nānĩ-mà-nānĩ</td>
<td>mà-nānĩ-mà-nānĩ</td>
</tr>
<tr>
<td>tāá</td>
<td>‘10’</td>
<td>tāá = nāā</td>
<td>tāá-nāā</td>
</tr>
</tbody>
</table>
The irregular consonantism in táá- ‘ten each’ may be a historical vestige of a variant (not used by my assistant) for simple táá ‘10’ that had a nasalized vowel and may still have it dialectally (Truong’s lexicon renders ‘10’ as tāⁿ).

(135) illustrates one context that distributive numerals can be used in. Here the distributive is attached to miʔⁿ ‘person’ even though this is redundant.

(135) miʔⁿ-áⁿ sé [miʔⁿ flá-flá]

person-Nom-Pl come.Pfv [person two-two]

‘The people came two by two (two at a time).’

dú-dúli ‘one by one’ can also mean ‘scattered, here and there, isolated, infrequent’.

4.6.2 Ordinal adjectives

4.6.2.1 ‘First’ (dáálá) and ‘last’ (kùdšrö̱mà-nà)

‘First’ as modifying adjective (not adverb) is dáálá, with nominal suffix dáálá-rá, obscurely related to dáli ‘1’. Examples are séⁿ dáálá-rá ‘the first thing’ (the noun has a floating L) and dí dáálá-rá ‘the first child’ (< dí-rá).

4.6.2.2 Other ordinals (suffix -ɲà-)

The forms in (136) show the nominal suffix, which as usual is absent in syntactic positions that disallow it. The ordinal suffix is usually M-toned and requires an M-toned nominal suffix. In ‘sixth’, however, the whole stem including -ɲà- is L-toned, so the suffix is H-toned -ná. Interlinear gloss is “-Ord”.

(136) form gloss

a. single-digit numeral
flá-ɲà-ná ‘second’
sígbo-ɲà-ná ‘third’
náání-ɲà-ná ‘fourth’
sóóló-ɲà-ná ‘fifth’
mi-łów-ɲà-ná ‘sixth’
má-álá-ɲà-ná ‘seventh’
má-sígbo-ɲà-ná ‘eighth’
má-nàní-ɲà-ná ‘ninth’
táá-ɲà-ná ‘tenth’

b. decimal
jálámà-ɲà-ná ‘twentieth’
c. decimal plus single-digit numeral
   \textit{tāā-rā dūli-pā-nā}  ‘eleventh’

d. hundred
   \textit{jāă-sóóló-pā-nā}  ‘hundredth’

4.6.3 Fractions and portions

The noun \textit{gū} (with nominal suffix \textit{gū-nā}) has a range of translations including ‘piece’ or ‘half’. It is a homonym of ‘mortar (for pounding)’. 
5 Nominal and adjectival compounds

Nominal compounds are right-headed. The compound initial is a noun (without the nominal suffix), or in some cases a locative PP (§5.1.8). Tonal changes apply mainly to the final (the head of the compound).

5.1 Nominal compounds

A considerable number of nouns are transparently composite, in the sense that one or both elements can be identified. In other cases just one element is attested elsewhere, and in still others no element can be identified, but the noun sounds like a compound due to multisyllabicity or tonal pattern.

In the two most productive patterns for transparent compounds, the final has either \{HM\} overlay with the automatically associated L surfacing on the nominal suffix or on a following word (§5.1.1 just below), or the final has \{L(H)\} overlay (§5.1.2). Compounds that do not fit into a productive type are best left to the lexicon.

5.1.1 Noun-noun compounds with \{HM\}-toned finals

This construction is typical of transparent right-headed noun-noun compounds. The final denotes a class of entities, and the initial denotes something associated with the relevant subclass.

Compounds with \böl\ ‘hand’ as initial are in (137). The regular compound initial is \böl\ with +ATR vowel. The finals have …\{HM\} overlay. The isolated form in (137d) shows a different initial (originally diminutive), and it has an LH-toned final of the sort covered in the following section.

(137) Initial is from \böl-\d ‘hand’

<table>
<thead>
<tr>
<th>compound</th>
<th>gloss</th>
<th>final</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. noun-noun with recognizable final</td>
<td></td>
<td></td>
</tr>
<tr>
<td>final already /HM/ toned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>\böl-klää-rä</td>
<td>‘ring (on finger)’</td>
<td>klää-rä ‘ring’</td>
</tr>
<tr>
<td>\böl-köö-rä</td>
<td>‘back of hand’</td>
<td>köö-rä ‘back’</td>
</tr>
<tr>
<td>final becomes HM toned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>\böl-cii-nä</td>
<td>‘hair on hand’</td>
<td>cii-nä ‘hair’</td>
</tr>
<tr>
<td>\böl-bii-nä</td>
<td>‘elbow’</td>
<td>biii-nä ‘rump (in butchery)’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>cf. kp5-bii-nä ‘ankle’</td>
</tr>
</tbody>
</table>
b. noun plus verbal noun
   \(bōl-dēgē-rā\) ‘menstruation’ \(dēgā\) ‘not fit, be unable to enter’

c. noun plus final not attested as simple noun
   \(bōl-sābārā-rā\) ‘palm (with fingers)’ cf. \(kpā-sābārā-rā\) ‘sole’

d. archaic initial, cf. diminutive \(būl-l\) (\(būl-l̪\)), final LH-toned
   \(būlú-njīn-nā\) ‘fingernail’ cf. \(kpūlī-njīn-nā\) ‘toenail’
   (variant \(būlī-njīn-nā\))

Some other compounds with HM final are in (138). This pattern is popular with compounds ending in life-form terms such as ‘snake’ and ‘fish’.

(138) a. \(kāa-yītē-rā\) ‘spiny eel \(Mastacembelus\)’ \(kāa-rā\) ‘snake’ \(yītē-rā\) ‘fish’
   b. \(cī-kāa-rā\) ‘snake sp. \(Psammophis\)’ (? \(cī-rā\) ‘borassus palm’) \(kāa-rā\) ‘snake’
   c. \(kūgū-sāa-rā\) ‘stone house’ \(kūgū-rā\) ‘stone, rock’ (medial \(k\sim g\)) \(sāa-rā\) ‘house’

For compounds of this type with spatial PP as initial, see §5.1.8.

5.1.2 Possessive-type compounds with \{L(H)\}-toned finals

In this type, the initial is a noun (without nominal suffix) and keeps its lexical tones. The final is also a noun but has \{L(H)\} overlay, erasing its lexical tones. \{L(H)\} is elsewhere the overlay on possessed nouns following a +3Sg possessor. For example, \(sāa-rā\) ‘house’ combines with \(dāā-rā\) ‘mouth’ to form \(sāa-dāā-rā\) ‘doorway’. As this suggests, this compound type is popular with whole-part relationships. (139) gives a range of compounds denoting parts of a staple crop plant and an insect found inside it.

(139) Initial is \(jū\) ‘millet’

<table>
<thead>
<tr>
<th>compound</th>
<th>gloss</th>
<th>final</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. noun-noun with recognizable final</td>
<td></td>
<td></td>
</tr>
<tr>
<td>final already /LH/-toned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(jū-fī-nā)</td>
<td>‘millet flowers’</td>
<td>(fī-nā) ‘flower’</td>
</tr>
<tr>
<td>(jū-jūl-ɔ́)</td>
<td>‘millet leaf’</td>
<td>(jūl-ɔ́) ‘leaf’</td>
</tr>
<tr>
<td>(jū-ɲāmā-nā)</td>
<td>‘millet root’</td>
<td>(ɲāmā-nā) ‘root’</td>
</tr>
</tbody>
</table>
**final becomes LH**

- **jú-dí-rá** ‘grain of millet’
  - (variant: jú-dí-rà)
- **jú-gbāâ-rá** ‘millet stem or head’
- **jú-yi-rá** ‘millet sap (juice)’
- **jú-bùl-lá** ‘millet grub’

**b. noun plus compound final unattested as simple noun**

- **jú-kū-ná** ‘millet plant’

Most of the compounds of ‘millet’ have LH-toned final (139a), respecting the \{L(H)\} overlay associated with preceding +3Sg words. The exception is **jú-kū-ná** (variant **jú-kū-nā**) in (139b), where the M-tone of **jú** spreads into the final. This final combines with many flora-species terms to denote the entire plant. It is not attested as an independent noun in this sense, though **kū-ná** is the name of one tree species (**Diospyros**).

Similar compounds for ‘peanut’ are in (140). The initial keeps its L.L.H tone sequence. ‘Peanut plant’ (140b) is tonally compatible with the compounds in (140a).

(140) **Initial** is **càʔâcí-rá** ‘peanut’

<table>
<thead>
<tr>
<th>compound</th>
<th>gloss</th>
<th>final</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. noun-noun with recognizable final</td>
<td>final already /LH/-toned</td>
<td></td>
</tr>
<tr>
<td><strong>càʔâcí-bà-ná</strong> ‘peanut greens’</td>
<td>cf. bà-ná ‘palm frond’</td>
<td></td>
</tr>
<tr>
<td><strong>càʔâcí-tò-rɔ́</strong> ‘peanut shell (pod)’</td>
<td>tò-rɔ́ ‘shell’</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>final becomes LH</strong></td>
<td></td>
</tr>
<tr>
<td><strong>càʔâcí-nā-ná</strong> ‘peanut sauce’</td>
<td>nāā-ná ‘sauce’</td>
<td></td>
</tr>
</tbody>
</table>

**b. noun plus compound final unattested as simple noun**

- **càʔâcí-kū-ná** ‘peanut plant’
  - (cpd. final only)

The next set (141) has **ālā** ‘sky; God’ (suffixed **āl-lā**) as initial. The initial flattens to H-tone before the L-initial final by H-Leveling (§3.8.3.2). The examples in (141b) have a verb (or verbal noun) medially and can be bracketed [God [verb-noun]].
(141) Initial is ál-là ‘sky; God’

<table>
<thead>
<tr>
<th>compound</th>
<th>gloss</th>
<th>final</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. noun-noun with recognizable final</td>
<td></td>
<td></td>
</tr>
<tr>
<td>final already LH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>álá-jjà-rà</td>
<td>‘vine (Cassytha)’</td>
<td>jjà-rà ‘fishnet’</td>
</tr>
<tr>
<td>álá-kpɔ̀l-ɔ̀</td>
<td>‘sky’</td>
<td>kpɔ̀l-ɔ̀ ‘skin’</td>
</tr>
<tr>
<td>álá-yìgì-rà</td>
<td>‘cloud’</td>
<td>yìgì-rà ‘cow’</td>
</tr>
<tr>
<td>álá-mà?àl-là</td>
<td>‘rainbow’</td>
<td>mà?àl-là ‘knife’</td>
</tr>
<tr>
<td>b. noun-verb-noun</td>
<td></td>
<td></td>
</tr>
<tr>
<td>álá-pèrèn-kà-nà</td>
<td>‘thunder (n)’</td>
<td>pèrènà ‘make noise’, kà” ‘voice’</td>
</tr>
<tr>
<td>álá-mà?à-kà-nà</td>
<td>‘thunder (n)’</td>
<td>mà?à-kà” ‘speak-voice’</td>
</tr>
<tr>
<td>c. final obscure or unattested separately</td>
<td></td>
<td></td>
</tr>
<tr>
<td>álá-mìi?-mìi?-ìl-á</td>
<td>‘velvet mite’</td>
<td>(? mìi? “person”)</td>
</tr>
<tr>
<td>álá-tìi?-ìl-là</td>
<td>‘helmet-shrike (bird)’</td>
<td>(unattested)</td>
</tr>
</tbody>
</table>

5.1.3 Compounds with final verbal noun

For simple verbal nouns, see §4.2.2. Transitive verbal nouns may incorporate an unmodified object noun as a compound initial. The final méé- ~ mèè- from the verb màà ‘do’ occurs both in compounds (‘farm work’, ‘dancing’) based on independently existing noun-verb collocations, and in compounds (‘pounding, ‘drawing (water)’) whose initial it itself a verbal noun (142a). Other compound verbal nouns have the regular transitive verb as final, while the initial denotes a representative object type (142b). The tone of the verb stem, e.g. méé- ~ mèè-, is spread from the initial, but in the case of H-H combinations the second element may be lightly downstepped (not indicated in transcription).

(142) a. mùù-mèè  mùù-mèè-nà    ‘farm work’ (“field-doing”)  
    dòò-mèè  dòò-mèè-ná    ‘dancing’ (“dance-doing”)  
    tìgi-mëè  tìgi-mëè-rà    ‘pounding (grain in mortar)” (“pounding-doing”)  
    bèn-mèè  bèn-mèè-rà    ‘drawing water (at well)” (“drawing-doing”)  

b. sìgi-sèè  sìgi-sèè-rà    ‘singing’ (“song-singing”)  
    fòò-tèè  fòò-tèè-rà    ‘rifle-shooting’ (includes ‘hunting’)  
    sàà-sèè  sàà-sèè-rà    ‘construction’ (“house-building”)  
    yìlè-sòòò  yìlè-sòòò-rà    ‘fishing’ (“fish-catching”)  

Final Tone-Raising does not apply at the boundary between initial and final in these compounds; see ‘farm work’ and ‘dancing’ in (142a). This is also the case in compounds with PP initials (§5.1.8).
5.1.4 Agentive compounds with final {HM-toned mǐʔi-nà ‘person’}

Compounds denoting classes of persons defined by an occupation or other distinctive behavior are generally three-part compounds consisting of a characteristic object, a transitive verb with vowel shifted to +ATR (as in verbal nouns), and the noun ‘person’. The latter undergoes an {HM} overlay (§5.1.1): mǐʔi<sup>a</sup>, suffixed mǐʔi-nà (143a). Uncompounded ‘person’ is mǐʔi<sup>a</sup> ~ mɛ̀ʔɛ̀<sup>a</sup> with /L/ melody. (143b-c) bring out the importance of the incorporated noun, since some high-frequency verb stems occur in collocations that have very different senses. As in verbal-noun compounds (preceding section), ‘do’ occurs not only when the agentive is based on a regular noun-verb collocation as in ‘dancer’ and ‘farmer’, but also as a device to create agentives from transitive verbs without an overt object, as in ‘seller’ and ‘buyer’. Thus a seller is a “selling-do person” (143d).

(143) agentive gloss verb (Ipfv +3Sg)

a. fọ̀̀-tēē mǐʔi-nà ‘rifle-shooter’ tēē ‘shoot’
tùlù-bàrì mǐʔi-nà ‘iron-beater, blacksmith’ bàrùrà ‘hit’
gbàà-bègè mǐʔi-nà ‘woodworker’ bègè ‘cut’
sṑ̀-tù̀rì mǐʔi-nà ‘woodseller’ tò̀rò ‘sell’
gùn-tigì mǐʔi-nà ‘mortar-pounder’ tìgì ‘pound’
yì-bèn mǐʔi-nà ‘water draw-er’ bènà ‘draw water’
sìbì-kpèè<sup>a</sup> mǐʔi-nà ‘meat-killer (hunter)’ kpàà<sup>a</sup> ‘kill’
kpɔ̀l-tùù<sup>a</sup> mǐʔi-nà ‘leatherworker’ tùwɔ̀<sup>a</sup> ‘apply hide’

b. sìgí-séé mǐʔi-nà ‘song-singer’ sàà ‘sing; build’
sàà-sèè-mìʔi-nà ‘house-builder’ sàà ‘sing; build’

c. pùùì<sup>a</sup>-sɔ̀lì mǐʔi-nà ‘clothes-sewer/-weaver’ sɔ̀lɔ̀ ‘weave; sew’
wù-sɔ̀lì mǐʔi-nà ‘hair-braider’ sɔ̀lɔ̀ ‘weave; sew’

d. dòò-ììè mǐʔi-nà ‘dancer’ màà ‘do’
mùù-ììè mǐʔi-nà ‘farmer’ màà ‘do’ (= ‘cultivate’)
tò̀rì-mìè mìʔi-nà ‘seller’ màà ‘do’
sànì-mìè mìʔi-nà ‘buyer’ màà ‘do’

These descriptive agentives, e.g. ‘iron-beater’ = ‘blacksmith’, are distinct from caste names like tɔ̀<sup>a</sup> ‘member of blacksmith caste’, jɛ̀lè ‘member of potter caste’, and fɔ̀nɔ̀ ‘member of leatherworker caste’. These terms denote inherited social categories that are traditionally associated with the relevant trade.
5.1.5 Compounds with *dí* ‘child’ and *bōō* ‘fruit’

For animal species, diminutives are often used to denote juveniles (‘chick’, ‘puppy’); see §4.2.1. An alternative is a compound with *dí* ‘child’, such as *wūl dí-rá* ‘puppy’.

For trees, (large) fruit is *bōō*, and this is often compounded: *māřī bōō-ró* ‘mango fruit’, *bōyākí bōō-ró* ‘guava fruit’.

5.1.6 ‘Owner of X’ compounds (*māā-nā*)

*māā-nā* ‘owner’ (including the nominal suffix) can create a range of compounds denoting either a proprietor of an entity (such as a selling stand or rifle), or a nominal characteristic such as a beard or a hunched back. Usually *māā-nā* is M-toned, which does not fit into either of the productive compound types (§5.1.1-2). In (144b) it is L-toned after a bimoraic /L/-melody initial.

(144) a.  *dāā-kīī* ‘beard’  *dāā-kīī māā-nā* ‘bearded one’
   *tābāl* ‘table, stand’  *tābāl māā-nā* ‘stand seller’
   *mārfá* ‘rifle’  *mārfá māā-nā* ‘riflemen’
   *k̄yī* ‘belly’  *k̄yī māā-nā* ‘potbellied or pregnant one’

b.  *jègī* ‘hump’  *jègī māā-nā* ‘hunchback’
   *ḡyī* ‘money’  *ḡyī māā-nā* ‘rich person’

5.1.7 Instrumental relative compounds (‘drinking/bathing water’) (*-mī-*)

If an entity has two or more subtypes with distinct functions, the subtypes can be distinguished by adding a compound final based on a verb. Functional subtypes of *yī* ‘water’ and *télē* ‘oil’ are in (145). The final consists of a +ATR form of the verb plus *-mī-* (with nominal suffix *-mī-nà*). The final has {HM} overlay, so the larger compound is of the tonal type covered in §5.1.1, but unlike other such compounds it is semantically left-headed.

(145) compound  gloss  < verb (Ipfv +3Sg)

a.  *yī mī-mī-nā* ‘drinking water’  *mīè* ‘drink’ (Pfv *mīī*)
   *yī wēé-mī-nā* ‘water for bathing’  *wēè* ‘bathe’

b.  *télē kūnī-mī-nā* ‘eating (cooking) oil’  *kūnɔ̀* ‘eat (meal)’
   *télē móō-mī-nā* ‘body oil’  *mɔ̃ɔ̀* ‘rub’

It is not clear which (if any) other grammatical element in the language *-mī-* is related to, historically or synchronically. Leading candidates include verbal noun *-mèè ~ -mèè* ‘doing’ (imperfective *māā* ‘do’) and relative marker *mī*.
5.1.8 Compounds with PP initials

Many flora-fauna species are defined by habitat, and some diseases are defined by bodily location. These concepts lend themselves to expression by compounds of the type [X-Postp]-Y, for example “[water-in]-bird” = ‘aquatic bird (sp.)’. The postposition is dù ‘in’ for unbounded habitats or tò ‘in, into’ for bounded zones that can be entered and exited from. See §8.3.3.1-2 on these postpositions. Some examples of compounds are in (146).

(146) compound gloss literal

a. [gɔl-tɔ]-klāa ‘shaggy swamp rat’ “[river-in]-mouse”
   [sàà-tɔ]-tòólū ‘insectivorous bat’ “[house-in]-bat”
   [kɔ̄yī-tɔ]-tēn ‘stomach ulcer’ “[belly-in]-wound”

b. [mùù-dù]-kāa ‘grass sp. (Microchloa)’ “[field-in]-grass”
   [fīdī-dù]-kpá ‘false zaban’ “[thicket-in]-zaban”
   [cùi-dù]-cùmīlī ‘brown babbler’ “[dense.foliage-in]-sparrow”
   [dùgū-dù]-tôlôkā ‘wild fig’ “[the.bush-in]-fig.tree”
   [dùgū-dù]-dândālī ‘wild yam’ “[the.bush-in]-yam”
   [yī-dù]-nínāʔā ‘water scorpion (insect)’ “[water-in]-scorpion”

Final Tone-Raising fails to apply within the PP. Independently, ‘in the bush’ is dùgū dù and ‘in the field’ is mùù tɔ, while ‘in/at the house’ is sàà tɔ and ‘in/at the river’ is gɔl tɔ. The final syllable/mora of the noun in these PPs has undergone Final Tone-Raising. This does not happen in the compounds., where the noun functioning as postpositional complement has its lexical melody.

Instead, if the final does not already begin with an H-tone, its initial tone is raised. In (146b), this has happened in [cùi-dù]-cùmīlī ‘brown babbler’ < cùmīlī ‘sparrow’ and in [dùgū-dù]-tôlôkā ‘wild fig’ < tôlôkā ‘fig tree’. Another example: L-toned wùl ‘dog’ becomes HM-toned in [dùgū-dù]-wùlā ‘jackal’, i.e. “[the.bush-in]-dog”. These tone patterns show that the final has the {HM} overlay (§5.1.1).

5.2 Adjectival compounds

In addition to the adjectives covered in the sections below, see §4.5.3 for deverbal adjective modifiers with tɔ ~ tɔn.

5.2.1 Bahuvrihi compounds

In bahuvrihi compounds, the initial is a noun denoting a feature of the referent, such as a body part, and the final is an adjective or numeral modifying the feature. The entire bahuvrihi may modify the referent noun or may occur absolutely, with implied but covert head noun.
5.2.1.1 With adjectival compound final

In (147), the bahuvrihi ‘black-headed’ modifies the noun ‘sheep’. Both ‘head’ and ‘tail’ shift their onsets to H-toned. After ‘head’, ‘black’ shifts from LL to HM, whose associated final L is realized on the nominal suffix. In ‘black-tailed’, the falling HM tones of jāngbālā ‘tail’ requires a following L-toned ‘black’.

(147) tāgà wú-gbōʔō-rà / jāngbālā-gbōʔō-rà
sheep head-black-Nom / tail-black-Nom
‘black-headed/black-tailed sheep’ (< wù, gbōʔō, jāngbālā )

Adjectival bahuvrihis that turned up in lexical elicitation are in (148). ‘Tail’ is jāngbālā as simple noun, and the elicited ‘black-tailed’ above preserves this trisyllabic form, but in lexicalized bahuvrihis it shortens to jéⁿ- as compound initial (148a-b).

(148) form gloss literal
a. noun-adjective(-diminutive) bahuvrihi as modifying adjective
wáʔrá kpōⁿ-káā-ní ‘gabar goshawk’ “hawk foot-red-Dim”
yiʔé jéⁿ-káná ‘characin (fish)’ “fish tail-red”
jíbi jéⁿ-sùmàà ‘parakeet’ “parrot tail-long”
b. noun-adjective(-diminutive) bahuvrihi as independent noun
jéⁿ-kpē-li ‘white-tailed mongoose’ “tail-white-Dim”
  jéⁿ-sùmàà ‘whydah (bird)’ “tail-long”

5.2.1.2 With numeral compound final

A numeral may fill the final spot in a bahuvrihi, often after a body-part noun (149). In this construction the numeral can be immediately followed by the nominal suffix if the morphosyntactic position requires it. ‘2’ and ‘3’ have their final vowels lengthened.

(149) yigi wú-flāă-rà / wú-sīgbōŏ-rà / wú-tāă-rà
cow head-two-Nom / head-three-Nom / head-ten-Nom
‘two-/three-/ten-headed cow’

5.2.2 Exemplars as adjectives

Two color terms not included in the core white-black-red trio contain a morpheme -má-, or with nominal suffix -má-nà. In one example the preceding stem is already composite (150a). There is also a third compound adjective (150c).
‘Green’ is expressed in the zone as ‘fresh grass’, i.e. a noun-adjective NP that semantically modifies another noun. ‘Fresh grass’ in non-color contexts is expressed in Jalkunan as $kááⁿ gbé-rà (káaⁿ ‘grass’, gbé ‘fresh’). There is another noun $bíⁿ ‘grass, straw’, which is evidently the initial in $bíⁿ-këñè-në-má(-nà), but the second element is not otherwise attested.

‘Blue’ terms in the zone are said to go back to the brand name (based on French bleu) of a former detergent product.

‘Yellow’ is ‘néré tree’ plus ‘powder, flour’, as in many West African languages. It refers to the bright yellow meal (flour) covering the seeds in pods of this tree ($Parkia biglobosa$). This meal is edible, with a sweet taste, and is sold in markets throughout West Africa.

All of these terms are of the exemplar type, taking an object from the lived environment (vegetation, detergent) as the prototype for the color.
6  Noun Phrase structure

6.1  Organization of NP constituents

6.1.1  Linear order of unpossessed NPs

This section focuses on linear order of key elements within unpossessed NPs. The examples also happen to bring out the distribution of the nominal suffix (-Nom) and of the plural suffix within the NP itself. The nominal suffix is allowed in some but not other higher-level morphosyntactic environments (§6.1.2-3).

The unpossessed NPs in (151) are headed by sàà ‘house’, which is followed in most examples by an adjective and/or a numeral.

(151) example type

a.  sàà-rá [n]
    house-Nom
    ‘(a) house’

b.  sàà-rá-à-nū (~ sàà-rá-à-ñī) [n]
    house-Nom-Pl-Nom
    ‘houses’

c.  sàà  nē-nà [n-a]
    house  good-Nom
    ‘(a) good house’

d.  sàà  nē-nà-à-nū (~ nē-nà-à-ñī) [n-a]
    house  good-Nom-Pl-Nom
    ‘good houses’

e.  sàà  dülí [n-num]
    house  one
    ‘one house’

f.  sàà  sigbō [n-num]
    house  three
    ‘three houses’
g. sàà pé dúlì [n-a-num]
   house good one
   ‘one good house’

h. sàà pé sigbô [n-a-num]
   house good three
   ‘three good houses’

The linear order illustrated so far is maximally N-Adj-Num. A demonstrative (‘this/that’) may follow this sequence (152).

(152) a. sàà mí-nà [n-dem]
   house Dem-Nom
   ‘this house’

b. sàà mí-nà-à-ń (~ mí-nà-à-nū) [n-dem]
   house Dem-Nom-Pl-Nom
   ‘these houses’

c. sàà pé mí-nà [n-a-dem]
   house good Dem-Nom
   ‘this good house’

d. sàà pé mí-nà-à-ń [n-a-dem]
   house good Dem-Nom-Pl-Nom
   ‘these good houses’

e. sàà sigbô mí-nà-à-ń [n-num-dem]
   house three Dem-Nom-Pl-Nom
   ‘these three houses’

The examples in (153) below add the universal quantifier (‘all’) to the various NPs types already given. Addition of ‘all’ has no effect on the form of the preceding elements. The type (153e) with numeral plus ‘all’ was difficult to elicit, except with a following verb.

(153) a. sàà-rá-ān būʔú-nū [n-quant]
   house-Nom-Pl all-Pl
   ‘all (of) the houses’

b. sàà pé-nā-ān būʔú-nū [n-a-quant]
   house good-Nom-Pl all-Pl
   ‘all (of the) good houses’
6.1.2 Distribution of singular nominal suffix (-ra etc.)

Forms of singular nouns with and without a nominal suffix are presented in §4.1 above. It remains to specify the morphosyntactic contexts in which the suffix occurs.

The first issue is where the nominal suffix occurs within the NP, when the NP occurs in a position requiring it. The suffix can be added to an unmodified noun (154a), or to an NP-final adjective or demonstrative (154b-c). In general it is not present when the NP ends in a numeral (154d).

(154) a. \textit{sàà-rá}  
  house-Nom  
  ‘(a/the) house’

b. \textit{sàà} \textit{ɲɛ́-ná}  
  house big-Nom  
  ‘(a/the) big house’

c. \textit{sàà} \textit{mí-ná}  
  house Dem-Nom  
  ‘this house’

d. \textit{sàà} \textit{sìgbō}  
  house three  
  ‘three houses’

The higher-level morphosyntactic functions that require, allow, or disallow the nominal suffix for singular NPs are summarized in (155).

(155) a. require the suffix  
  \textit{prepausal}  
  independent function (citation form, preclausal topic)  
  postverbal object or adverb  
  ‘trapped’ \textit{by a following encliticized element}  
  subject of clause immediately before third-person object or possessor pronoun  
  subject of clause immediately before an inflectional enclitic
filling a gap left to its right
subject of clause immediately before a nonverbal predicate

b. allow but do not require the suffix
“trapped” by a following encliticized element
subject of clause immediately before 1st/2nd person object or possessor pronoun
filling a gap left to its right
subject of clause immediately before a numeral as object NP

c. disallow the suffix
object preceding its verb
subject of clause immediately preceding its verb
subject of clause immediately preceding an object NP beginning with a noun
complement preceding its postposition
left (first) conjunct in ‘X and Y’ conjunction
possessor preceding its possessum
preceding a discourse-functional morpheme (‘too’, ‘as for’)

All of the positions that disallow the suffix (155c) are those where the NP is immediately followed by another word or phrase of a specific grammatical type. Labelling this following element X, one can imagine an earlier stage where the suffix *-ra in *[NP-ra X] was caught in a weak metrical position, where it was attritted and eventually deleted.

The positions that require or allow the suffix are heterogenous. They include a) all contexts where the suffix is prepausal, i.e. where there is no following X; b) contexts where the suffix fuses phonologically with a following encliticized element, including third-person clitics (which are always vowel-initial in this context) and less systematically 1st/2nd person clitics (whose mostly begin with consonants); and c) contexts where the following predicate is defective (verbless predicate, or object NP with its noun slot empty).

For examples of these syntactic positions and further discussion (especially of subject function), see §6.1.4-5 below. The “singular” nominal suffix is also part of the plural suffix complex, see the following section. In this combination, the “singular” nominal suffix is protected by virtue of being nonfinal in the word, and it its presence here is not subject to syntactic restrictions.

6.1.3 Distribution of plural nominal suffix (-nū)

The plural suffix -āⁿ is added to the noun plus the singular nominal suffix, forming suffix combinations like -nā-āⁿ, -rā-āⁿ, and -rā-āⁿ depending on the phonological form of the singular nominal suffix. The plural has its own nominal suffix -nū (~ -ū), hence -ā-nū in combinations like -nā-ā-nū.
The syntactic contexts requiring the plural nominal suffix are a subset of those that apply to the singular nominal suffix, which are summarized in (155a) above. As in the singular, the plural nominal suffix is obligatory in prepausal position (citation form, postverbal object or adverb). However, the plural nominal suffix does not occur in the “trapped” positions in (155a).

Relevant data are in the following two sections.

6.1.4 Nominal suffixes in subject function

In subject function, a singular NP that is capable of ending in a nominal suffix (e.g. N, N-Adj, N-Dem) takes the nominal suffix when immediately followed by some but not other elements.

The nominal suffix is disallowed in subject NPs that are immediately followed by object NPs that begin with nouns (157a-b), or subject NPs that are followed directly by (intransitive) verbs (158a-b). Here # means ungrammatical.

(157) a. ɲáá (#ɲáá-ná) tágá jié
woman (#woman-Nom) sheep see.Pfv
‘(A/The) woman saw a/the sheep.’

b. ɲáá-ná-a (#ɲáá-ná-à-nú) tágá jié
woman-Nom-Pl (#woman-Nom-Pl-Nom) sheep see.Pfv
‘(The) women saw a/the sheep.’

(158) a. ɲáá (#ɲáá-ná) sée
woman (#woman-Nom) come.Pfv
‘(A/The) woman came.’

b. ɲáá-ná-a (#ɲáá-ná-à-nú) sée
woman-Nom-Pl (#woman-Nom-Pl-Nom) come.Pfv
‘(The) women came.’

In transitives with a pronominal object directly following the subject, the phonological encliticization of the object pronoun onto the noun favors presence of the nominal suffix, but only in singular subject NPs.

(159a-b) have human 3Sg object â in cliticized form. For singular ‘sheep’ as subject, the clitic requires the (singular) nominal suffix on the subject (159a). However, plural ‘sheep’ as subject occurs in the form tágá-rá-àn without its final nominal suffix, contracting with the
cliticized object pronoun = à as tàgà-rá-àⁿ=àⁿ (159b). In this and following examples the ungrammatical forms of the subject NP are omitted; the points to note are the presence/absence of “-Nom” immediately preceding the object pronoun (cliticized or not).

(159) a. tàgà-rá= à jié
sheep-Nom= 3SgHum see.Pfv
‘The sheep-Sg saw him/her.’

b. tàgà-rá-àⁿ= àⁿ jié
sheep-Nom-Pl= 3SgHum see.Pfv
‘The sheep-Pl saw him/her.’

The pattern is similar with human 3Pl object ààⁿ (160a-b). However, the pile-up of a-vowels in the plural-subject combination (160b) leads to further vocalic contractions, so that (160a) and (160b) can become indistinguishable in allegro speech. The two are also only slightly distinct from (159b) above, but the tonal difference in the verb (+3Sg versus -3Sg) helps to distinguish (159b) from (160a-b).

(160) a. tàgà-rá= ààⁿ jié
sheep-Nom= 3PlHum see.Pfv
The sheep-Pl saw them.’

b. tàgà-rá(-àⁿ)= ààⁿ jié
sheep-Nom(-Pl)= 3PlHum see.Pfv
‘The sheep-Pl saw them.’

1Sg, 2Sg, and 2Pl object pronouns favor the presence of the word-final nominal suffix on singular subjects (161a-b), though variants without the singular nominal suffix are allowed, see (102b) in §4.3.1.3. 1Sg and 2Sg pronominals begin with consonants, so they do not contract with preceding sufficed nouns. 1Pl èēⁿ is vowel-initial but it too usually does not contract. The final nominal suffix on plural subjects is again absent (161c).

(161) a. tàgà(-rá) mā / wō jié
sheep-Nom 1Sg / 2Sg see.Pfv
‘The sheep-Sg saw me/you-Sg.’

b. tàgà(-rá) èēⁿ jié
sheep-Nom 2Pl see.Pfv
‘The sheep-Sg saw you-Pl.’

c. tàgà-rá-àⁿ mā / wō jié
sheep-Nom-Pl 1Sg / 2Sg see.Pfv
‘The sheep-Pl saw me/you-Sg.'
1Pl object *mùʔùⁿ*, the most noun-like of the pronouns prosodically, can be preceded by either suffixed or unsuffixed singular subjects (162a), and (like other pronouns) it requires the unsuffixed form of a plural subject (162b).

(162) a. *tàgá / tàgà-rá mùʔùⁿ jié*
    sheep / sheep-Nom 1Pl see.Pfv
    ‘The sheep-Sg saw us.’

    b. *tàgà-rá-àⁿ mùʔùⁿ jié*
    sheep-Nom-Pl 1Pl see.Pfv
    ‘The sheep-Pl saw us.’

In perfective transitives (S-O-V… order), if the object consists of or begins with a numeral (i.e. when the implied noun heading the object NP is omitted), the subject optionally has the nominal suffix. This makes little sense syntactically, but it has the advantage of pre-empting a mis-parsing in which the numeral is taken to be part of the subject. See (655) in §19.2.1.4 (“hare took one”) for a textual example.

When the subject is followed by imperfective enclitic /H+ = Ø/, which consists solely of H-tone (not always overt), the nominal suffix is required on singular subjects but disallowed with plural subjects. This applies to positive present, future, and progressive clauses. Examples with future *sà* are (163a-b). The situation is the same for subjects with the same /H+ = Ø/ enclitic, followed only by a locational expression in the ‘be (somewhere)’ construction (163c-d).

(163) a. *tàgà-rá = Ø sà sā*
    sheep-Nom=Ipfv Fut come.Ipfv
    ‘The sheep-Sg will come.’

    b. *tàgà-rá-àⁿ = Ø sà sā*
    sheep-Nom=Ipfv Fut come.Ipfv
    ‘The sheep-Sg will come.’

    c. *tàgà-rá = Ø [mùù dù]*
    sheep-Nom=be [field in]
    ‘The sheep-Sg is in the field.’

    d. *tàgà-rá-àⁿ = Ø [mùù dù]*
    sheep-Nom=be [field in]
    ‘The sheep-Pl are in the field.’

Subjects are immediately followed by nonverbal predicates (without intervening enclitics) only in negative copula and locational predicates. See §11.2.3.4 for discussion and examples.
6.1.5 Nominal suffixes in other syntactic functions

For a summary of syntactic functions disallowing the nominal suffix on the final word of a singular NP, see (155c) in §6.1.3 above. Examples illustrating these contexts, and one that does require the suffix (postverbal NP), will now be given. Here as elsewhere # means ungrammatical.

Preverbal object NPs may not end in a nominal suffix (164a-b). However, postverbal NPs (indirect objects of ‘give’ and ‘show’, objects of the few VO transitive verbs, and nouns functioning as adverbs without a postposition) occur in clause-final position and therefore require the nominal suffix, for plural as well as singular NPs (164c-d).

(164) a. mā ɲāā ( #ɲāā-nā) jìé
   1Sg woman (#woman-Nom) see.Pfv
   ‘I saw a/the woman.’

b. mā ɲāā-nā-āⁿ ( #ɲāā-nā-ā-nū) jìé
   1Sg woman-Nom-Pl (#woman-Nom-Pl-Nom) see.Pfv
   ‘I saw (the) women.’

c. mā wār bilí di-rá ( #dître)
   1Sg money give.Pfv child-Nom
   ‘I gave the money to the child.’

d. mā wār bilí di-rá-ā-nū ( #dître-āⁿ)
   1Sg money give.Pfv child-Nom-Pl-Nom
   ‘I gave the money to the children.’

NPs functioning as complements of postpositions may not end in a nominal suffix (165a-b).

(165) a. mā sé [ɲāā ( #ɲāā-nā)] dè
   1Sg come.Pfv [woman (#woman-Nom) with]
   ‘I came with (=brought) a/the woman.’

b. mā sé [ɲāā-nā-āⁿ ( #ɲāā-ā-nū)] dé
   1Sg come.Pfv [woman-Nom-Pl (#woman-Nom-Pl-Nom) with]
   ‘I came with (=brought) saw (the) women.’

The left conjunct of an ‘X and Y’ conjunction may not end in a nominal suffix (166a-b). The right conjunct, not at issue here, may or may not end in a nominal suffix, depending on the syntactic position of the entire conjoined NP.

(166) a. ɲāā ( #ɲāā-nā) bù?ù mā-n
   woman (#woman-Nom) and 1Sg-Indep
   ‘(a/the) woman and me’
A possessor NP may not end in a nominal suffix. The possessum that follows it, not at issue here, may or may not end in a nominal suffix, depending on the syntactic function of the entire possessed NP.

The discourse particle dòʔò ‘also, too’ likewise disallows nominal suffixes (168a-b).

6.2 Possession

6.2.1 Addition of a possessor to an NP

The possessor precedes the noun and its modifiers. Addition of a possessor affects the tones, but generally not the order or suffixation of the following words (169a-b,e). An exception to this is that adding a possessor to an NP ending in a nonsingular numeral allows optional addition of nominal and plural suffixes to the numeral (169c-d).

118
c. \( wó \ sàà \ sígbó \) [poss-n-num]
\[ \text{poss-n-possessor-possessum} \]
\( \text{2Sg} \) house three-Nom-Pl
‘your-Sg three houses’

d. \( wó \ sàà \ njé \ sígbó \) [poss-n-a-num]
\[ \text{poss-n-possessor-possessum} \]
\( \text{2Sg} \) house good three(-Nom-Pl)
‘your-Sg three good houses’

e. \( wó \ sàà-rá-á⁰ \ bù?ú-nú \) [poss-n-quant]
\[ \text{poss-n-possessor-possessum} \]
\( \text{2Sg} \) house-Nom-Pl all
‘all your-Sg houses’

6.2.2 Alienable and inalienable possession

The alienable/inalienable distinction is made in some but not all possessor-possessum combinations. Where the distinction is overt, it is expressed by tones on the possessum. Inalienables are kin terms and body parts.

The data in the following sections can be summarized in (170). Parentheses indicate tones of the nominal suffix of the possessum.

(170) possessum alienable possessor inalienable possessor
\[ +3\text{Sg} \ -3\text{Sg} \ M \ +3\text{Sg} \ -3\text{Sg} \ M \]

\begin{array}{c|c|c|c|c|c}
\hline
& L(H) & L(L) & L(H) & H(H) & M(M) \\
\hline
/L/ & & & & & \\
/M/ & & & L(H) & & \\
/H/ & & L(L) & & & \\
\hline
\end{array}

The generalizations are those in (171).

(171) a. +3Sg possessor always requires \{L(H)\};
b. M-Spreading occurs in inalienable but not alienable possession;
c. inalienable -3Sg possessors control \{H(H)\} on the possessum;
d. alienable -3Sg (including M) possessors control \{L(H)\} on /L/, and control \{L(L)\} on /M/ or /H/;

6.2.2.1 Lexically /L/-melody nouns as possessums

Noun stems that consist of L-toned syllables always have an H-toned nominal suffix, e.g. \( wù-\text{rụ} \) ‘head’, \( pù?ú-nú \) ‘wrap (n)’.
(172) shows the tonal behavior of these nouns when they follow an M-toned possessor
pronoun (1Sg, 2Sg, or 2Pl). Inalienables (all examples known to me with this lexical tone
melody are body parts) become M-toned. This is attributable to M-Spreading, with the
M-tone originating in the possessor (172a). Inalienables have the same tones as when
unpossessed (172b), though comparison with data in the following sections will suggest that
this is the accidental effect of an \{L(H)\} overlay.

(172) /L/-melody noun as possessum after M-toned possessor pronoun

<table>
<thead>
<tr>
<th>noun</th>
<th>gloss</th>
<th>‘my __’</th>
<th>‘your-Sg __’</th>
<th>‘your-Pl ___’</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. inalienables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>wù-r³</td>
<td>‘head’</td>
<td>M-Spreading</td>
<td>M-Spreading</td>
<td>M-Spreading</td>
</tr>
<tr>
<td>ji-ná</td>
<td>‘blood’</td>
<td>mā ji-ná</td>
<td>wō ji-ná</td>
<td>ēē° ji-ná</td>
</tr>
<tr>
<td>sô-nô</td>
<td>‘heart’</td>
<td>mā sô-nô</td>
<td>wō sô-nô</td>
<td>ēē° sô-nô</td>
</tr>
<tr>
<td>nùtù-nô</td>
<td>‘intestine’</td>
<td>mā nùtù-nô</td>
<td>wō nùtù-nô</td>
<td>ēē° nùtù-nô</td>
</tr>
<tr>
<td></td>
<td></td>
<td>{L(H)}</td>
<td>{L(H)}</td>
<td>{L(H)}</td>
</tr>
<tr>
<td>b. alienables</td>
<td>{L(H)}</td>
<td>{L(H)}</td>
<td>{L(H)}</td>
<td></td>
</tr>
<tr>
<td>kô-nô</td>
<td>‘bird’</td>
<td>mā kô-nô</td>
<td>wō kô-nô</td>
<td>ēē° kô-nô</td>
</tr>
<tr>
<td>gu-nô</td>
<td>‘mortar’</td>
<td>mā gu-nô</td>
<td>wō gu-nô</td>
<td>ēē° gu-nô</td>
</tr>
<tr>
<td>mô-nô</td>
<td>‘rope’</td>
<td>mā mô-nô</td>
<td>wō mô-nô</td>
<td>ēē° mô-nô</td>
</tr>
<tr>
<td>tù-rô</td>
<td>‘millet cake’</td>
<td>mā tù-rô</td>
<td>wō tù-rô</td>
<td>ēē° tù-rô</td>
</tr>
<tr>
<td>tô-tô-rá</td>
<td>‘pot, jar’</td>
<td>mā tô-tô-rá</td>
<td>wō tô-tô-rá</td>
<td>ēē° tô-tô-rá</td>
</tr>
<tr>
<td>trò-tô-nô</td>
<td>‘wrap (n)’</td>
<td>mā trò-tô-nô</td>
<td>wō trò-tô-nô</td>
<td>ēē° trò-tô-nô</td>
</tr>
</tbody>
</table>

Array (173) below shows combinations of these /L/-melody nouns with 1Pl and 3Pl (human
and nonhuman) possessor pronouns. In their basic (underlying) form, these pronouns are
L-toned and bimoraic. Inalienable nouns, including the nominal suffix, are subject to an
\{H(H)\} overlay after these possessors (173a). Alienables have the same tones as when
unpossessed; again, we will see that this is accidental, due to an \{L(H)\} overlay. Since the
alienable possessums begins with L-tones, a preceding bimoraic L-toned possessor undergoes
Final Tone-Raising in (173b), e.g. mùtù → mùtù°.

(173) /L/-melody noun as possessum after other plural possessor pronouns

<table>
<thead>
<tr>
<th>noun</th>
<th>gloss</th>
<th>‘our __’</th>
<th>‘their __’</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. inalienables</td>
<td>{H(H)}</td>
<td>{H(H)}</td>
<td>{H(H)}</td>
</tr>
<tr>
<td>wù-rô</td>
<td>‘head’</td>
<td>mùtù° wù-rô</td>
<td>åå° wù-rô</td>
</tr>
<tr>
<td>ji-ná</td>
<td>‘blood’</td>
<td>mùtù° ji-ná</td>
<td>åå° ji-ná</td>
</tr>
<tr>
<td>sô-nô</td>
<td>‘heart’</td>
<td>mùtù° sô-nô</td>
<td>åå° sô-nô</td>
</tr>
<tr>
<td>nùtù-nô</td>
<td>‘intestine’</td>
<td>mùtù° nùtù-nô</td>
<td>åå° nùtù-nô</td>
</tr>
<tr>
<td></td>
<td></td>
<td>{H(H)}</td>
<td>{H(H)}</td>
</tr>
</tbody>
</table>

120
After 3Sg possessor pronouns, /L/-melody nouns have the same tonal form that they have when unpossessed. As noted above, this is accidental, since the possessed forms have an \{L(H)\} overlay that mimics the unpossessed tones. After a 3Sg possessor, there is no tonal distinction between alienable and inalienable.

(174) /L/-melody noun as possessum after 3Sg possessor pronoun

<table>
<thead>
<tr>
<th>noun</th>
<th>gloss</th>
<th>‘his/her ___’</th>
<th>‘its ___’</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. inalienables</td>
<td>{L(H)}</td>
<td>{L(H)}</td>
<td></td>
</tr>
<tr>
<td>wù-ró</td>
<td>‘head’</td>
<td>à wù-ró</td>
<td>è wù-ró</td>
</tr>
<tr>
<td>jì-ná</td>
<td>‘blood’</td>
<td>à jì-ná</td>
<td>è jì-ná</td>
</tr>
<tr>
<td>sì-nó</td>
<td>‘heart’</td>
<td>à sì-nó</td>
<td>è sì-nó</td>
</tr>
<tr>
<td>b. alienables</td>
<td>{L(H)}</td>
<td>{L(H)}</td>
<td></td>
</tr>
<tr>
<td>kì-nó</td>
<td>‘bird’</td>
<td>à kì-nó</td>
<td>è kì-nó</td>
</tr>
<tr>
<td>gù-nó</td>
<td>‘mortar’</td>
<td>à gù-nó</td>
<td>è gù-nó</td>
</tr>
<tr>
<td>mì-nó</td>
<td>‘rope’</td>
<td>à mì-nó</td>
<td>è mì-nó</td>
</tr>
<tr>
<td>tì-ró</td>
<td>‘millet cake’</td>
<td>à tì-ró</td>
<td>è tì-ró</td>
</tr>
<tr>
<td>tò?ò-ró</td>
<td>‘pot, jar’</td>
<td>à tò?ò-ró</td>
<td>è tò?ò-ró</td>
</tr>
<tr>
<td>nù?ù-nó</td>
<td>‘wrap (n)’</td>
<td>à nù?ù-nó</td>
<td>è nù?ù-nó</td>
</tr>
</tbody>
</table>

It is indeterminate whether the \{L(H)\} overlay also applies to the possessum in those contexts where the nominal suffix is absent for syntactic reasons. A form like à wù-ró ‘his head’ appears as à wù without the suffix. However, because singular possessed NPs like ‘his head’ are syntactically +3Sg, and so require that the following word begin with an L-tone, the rising tone of à wù can always be accounted for by Final Tone-Raising, i.e. by tone sandhi.

6.2.2.2 Lexically /M/-melody nouns as possessums

In (175) below, ‘my’ is the representative for all M-toned pronouns (including 2Sg and 2Pl), ‘his/her’ represents both L-toned 3Sg pronouns (human and nonhuman), and ‘our’ represents all L-toned plural pronouns (1Pl, 3PlHum, 3PlNonh). Again, inalienable is distinct from alienable, except in the 3Sg forms.
The 3Sg possessors control a rising \{L(H)\} overlay on the possessum, whether alienable or inalienable. Unlike the case with \(L/-\)melody noun stems (preceding section), this overlay is audible for the M-toned nouns.

The inalienables have the same tone patterns with these \(M/-\)melody nouns as with the \(L/-\)melody nouns described above. M-toned possessors like ‘my’ spread the M-tone into the noun, including the nominal suffix. L-toned plural possessors control \{H(H)\} on the possessum.

For alienables, both ‘my’ and ‘our’ possessor types control \{L(L)\} on the possessum. The domain of the overlay includes the nominal suffix of the possessum, if present. In the ‘our’ type, the L-toned possessor must therefore undergo Final Tone-Raising before the L-initial possessum.

(175) \(M/-\)melody noun as possessum after possessor pronouns

<table>
<thead>
<tr>
<th>noun</th>
<th>gloss</th>
<th>‘my’</th>
<th>‘his/her’</th>
<th>‘our’</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. inalienables</td>
<td>M-Spreading</td>
<td>{L(H)}</td>
<td>{H(H)}</td>
<td></td>
</tr>
<tr>
<td>kp5-r5</td>
<td>‘leg’</td>
<td>mā kp5-r5</td>
<td>ʔkp5-r5</td>
<td>mūʔù^n kp5-r5</td>
</tr>
<tr>
<td>kāyi-rā</td>
<td>‘belly’</td>
<td>mā kāyi-rā</td>
<td>ʔkāyi-rā</td>
<td>mūʔù^n kāyi-rā</td>
</tr>
<tr>
<td>gōg5-r5</td>
<td>‘chest’</td>
<td>mā gōg5-r5</td>
<td>ʔgōg5-r5</td>
<td>mūʔù^n gōg5-r5</td>
</tr>
<tr>
<td>b. alienables</td>
<td>{L(L)}</td>
<td>{L(H)}</td>
<td>{L(L)}</td>
<td></td>
</tr>
<tr>
<td>kā-n5</td>
<td>‘honey’</td>
<td>mā kā-n5</td>
<td>ʔkā-n5</td>
<td>mūʔù^n kā-n5</td>
</tr>
<tr>
<td>jū-r5</td>
<td>‘millet’</td>
<td>mā jū-r5</td>
<td>ʔjū-r5</td>
<td>mūʔù^n jū-r5</td>
</tr>
<tr>
<td>bāʔā-rā</td>
<td>‘porridge’</td>
<td>mā bāʔā-rā</td>
<td>ʔbāʔā-rā</td>
<td>mūʔù^n bāʔā-rā</td>
</tr>
<tr>
<td>kōl5k3-r5</td>
<td>‘talk (n)’</td>
<td>mā kōl5k3-r5</td>
<td>ʔkōl5k3-r5</td>
<td>mūʔù^n kōl5k3-r5</td>
</tr>
</tbody>
</table>

6.2.2.3 Lexically \(H/-\)melody nouns as possessums

The nouns in (176) have \(H(H)/\) melody, including the nominal suffix. The possessed forms of these nouns have the same tone patterns as the \(M/-\)melody nouns discussed in the preceding section. 3Sg possessors control \{L(H)\} overlay on both alienable and inalienable nouns. Inalienables undergo M-Spreading after M-toned possessor pronouns like ‘my’. They have an \{H(H)\} overlay after other plural possessor pronouns like ‘our’, as they do after all possessors. Alienables drop to \{L(L)\} after both the ‘my’ and ‘our’ types, and the nominal suffix is included in its domain.
(176) /H/-melody noun as possessum after possessor pronouns

<table>
<thead>
<tr>
<th>noun</th>
<th>gloss</th>
<th>'my __'</th>
<th>'his/her__'</th>
<th>'our __'</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. inalienables</td>
<td>M-Spreading</td>
<td>{L(H)}</td>
<td>{H(H)}</td>
<td></td>
</tr>
<tr>
<td>pi-ná</td>
<td>'tooth'</td>
<td>mä pi-ná</td>
<td>à pi-ná</td>
<td>müʔi&quot; pi-ná</td>
</tr>
<tr>
<td>sú-ná</td>
<td>'nose'</td>
<td>mä sú-ná</td>
<td>à sú-ná</td>
<td>müʔi&quot; sú-ná</td>
</tr>
<tr>
<td>jé-ná</td>
<td>'father'</td>
<td>mä jé-ná</td>
<td>à jé-ná</td>
<td>müʔi&quot; jé-ná</td>
</tr>
<tr>
<td>dí-rá</td>
<td>'child'</td>
<td>mä dí-rá</td>
<td>à dí-rá</td>
<td>müʔi&quot; dí-rá</td>
</tr>
<tr>
<td>toʔó-rá</td>
<td>'name'</td>
<td>mä toʔó-rá</td>
<td>à toʔó-rá</td>
<td>müʔi&quot; toʔó-rá</td>
</tr>
<tr>
<td>b. alienables</td>
<td></td>
<td>{L(L)}</td>
<td>{L(H)}</td>
<td>{L(L)}</td>
</tr>
<tr>
<td>yi-rá</td>
<td>'water'</td>
<td>mä yi-rá</td>
<td>à yi-rá</td>
<td>müʔi&quot; yi-rá</td>
</tr>
<tr>
<td>bi-ná</td>
<td>'grass'</td>
<td>mä bi-ná</td>
<td>à bi-ná</td>
<td>müʔi&quot; bi-ná</td>
</tr>
<tr>
<td>yiʔé-rá</td>
<td>'fish'</td>
<td>mä yiʔé-rá</td>
<td>à yiʔé-rá</td>
<td>müʔi&quot; yiʔé-rá</td>
</tr>
</tbody>
</table>

6.2.2.4  Contour-toned nouns as possessums


6.2.2.5  Tone of modifiers following inalienably possessed noun

In this section the issue is the tonal treatment of Poss-N-Adj and Poss-N-Num combinations. In simple possessor-possessum combinations, the possessor undergoes no tonal changes other than simple tone sandhi (Final Tone-Raising before L-toned possessum). The possessum that follows it does undergo tonal ablaut, after which the possessum (with or without its final nominal suffix) has one of the following tone patterns, using bisyllabics as examples: MM, HH, LL, LH. Of these, MM and HH are limited to inalienable possession, LL is limited to alienable possession, and LH occurs in both types of possession.
(177)  a. MM (inalienable only, M-toned pronominal possessor)

‘my head’ \( mā wū-rō \)
‘my tooth’ \( mā jiē-nǎ \)

b. HH (inalienable only, -3Sg possessor)

‘our head’ \( mù?ùo wū-rō \)
‘our tooth’ \( mù?ùo piē-ná \)

c. LL (alienable only, -3Sg possessor)

‘my millet’ \( mā jù-rō \)
‘my fish’ \( mā yì?è-rā \)
‘our millet’ \( mù?ùo jù-rō \)
‘our fish’ \( mù?ùo yì?è-rā \)

d. LH

-3Sg, alienable only

‘my rope’ \( mā mò-nò \)
‘our rope’ \( mù?ùo mò-nò \)

+3Sg, alienable or inalienable

‘his/her head’ \( à wū-rō \)
‘his/her tooth’ \( à jiē-ná \)
‘his/her rope’ \( à mò-nò \)
‘his/her millet’ \( à jù-rō \)
‘his/her fish’ \( à yì?è-rā \)

When an adjective is added to a possessor-possessum combination, we need to determine whether the domain of the ablaut overlay that applies to the possessum includes the adjective.

(178) below presents Poss-N-Adj combinations. In (178a), M-Spreading may go all the way to the adjective, although pronunciation is somewhat variable.

In (178b-c), the possessum has a level-toned ablaut overlay \{H(H)\} or \{L(L)\}. This level tone extends to the end of the adjective, erasing the adjective’s lexical tones (178a-c). In the case of \{H(H)\}, the adjective is downstepped (178b).

The \{L(H)\} overlay extends its L-tone only to the final syllable of the noun, while the adjective surfaces with its lexical tones. Since the noun cannot have an overt nominal suffix before a modifier, the final H of \{L(H)\} which was destined for the suffix is unexpressed. Furthermore, the L-toned noun does not undergo Final Tone-Raising before an L-toned adjective (‘our black rope’, ‘his/her black fish’). This is the case for \{L(H)\} whether controlled by +3Sg possessors (178e) or by -3Sg possessors (178d).
Poss-N-Adj combinations

a. possessum M-toned by M-Spreading (mā pī- nạn ‘my tooth’)
   mā pī gbōʔō-rā ‘my black tooth’
   mā pī kān-nā ‘my red tooth’
   mā pī sūmāā-nā ‘my long tooth’

b. possessum with \(\{H(H)\}\) overlay (mùʔù n̄ pī- nạn ‘our tooth’)
   mùʔù n̄ gbōʔō-rā ‘our black tooth’
   mùʔù n̄ kān-nā ‘our red tooth’
   mùʔù n̄ sūmāā-nā ‘our long tooth’

c. possessum with \(\{L(L)\}\) overlay (mùʔù yīlē rā ‘our fish’)
   mùʔù yīlē gbōʔō-rā ‘our black fish’
   mùʔù yīlē kān-nā ‘our red fish’
   mùʔù yīlē sūmāā-nā ‘our long fish’

d. possessum with \(\{L(H)\}\) overlay, -3Sg possessor (mùʔù n̄ mō- nā ‘our rope’)
   mùʔù n̄ mō gbōʔō-rā ‘our black rope’
   mùʔù n̄ mō kān-nā ‘our red rope’
   mùʔù n̄ mō sūmāā-nā ‘our long rope’

e. possessum with \(\{L(H)\}\) overlay, +3Sg possessor (ā yīlē rā ‘his/her fish’)
   ā yīlē gbōʔō-rā ‘his/her black fish’
   ā yīlē kān-nā ‘his/her red fish’
   ā yīlē sūmāā-nā ‘his/her long fish’

In simple N-Num combinations without a possessor, regular tone sandhi applies (including Floating L-Docking), but there is no tonal ablaut as such. When a possessor is added, the obvious issue (as with Poss-N-Adj sequences above) is whether the tone overlay that the possessor controls on the possessed noun stops with that noun or also extends to the numeral. It turns out, however, that there is also a morphological issue. In Poss-N-Num combinations, unlike simple N-Num, the numeral is often (though not always) provided with a plural suffix, which then also requires a preceding nominal suffix. The plural suffix -n̄ may itself be followed by a final nominal suffix -n̄ ~ -nū, in syntactic positions that allow it (i.e. prepausally).

(179) illustrates Poss-N-Num combinations. (179a) and (179d-e) are tonally parallel to (178a) and (178d-e) above. (179b-c) show that the domain of overlays \(\{H(H)\}\) and \(\{L(L)\}\) do not extend to the numeral, so here there is a divergence between Poss-N-Num in (179b-c) below and Poss-N-Adj in (178b-c) above.
(179) Poss-N-Num combinations

a. possessum M-toned (mā njí-ná 'my tooth')
   mā njí sīgbō-rā-ānī 'my three teeth' sīgbō '3'
   mā njí sóōl-lā-ānī 'my five teeth' sóōlō '5'
   mā njí mà-sīgbō-rā-ānī 'my eight teeth' mà-sīgbō '8'

b. possessum H-toned (mù?ù" njí-ná 'our tooth')
   mù?ù" njí sīgbō-rā-ānī 'our three teeth' sīgbō '3'
   mù?ù" njí sóōl-lā-ānī 'our five teeth' sóōlō '5'
   mù?ù" njí mà-sīgbō-rā-ānī 'our eight teeth' mà-sīgbō '8'

c. possessum L-toned (mù?ù" yílē-rā 'our fish')
   mù?ù" yílē sīgbō-rā-ānī 'our three fish' sīgbō '3'
   mù?ù" yílē sóōl-lā-ānī 'our five fish' sóōlō '5'
   mù?ù" yílē mà-sīgbō-rā-ānī 'our eight fish' mà-sīgbō '8'

d. possessum LH-toned, -3Sg possessor (mù?ù" má-ná 'our rope')
   mù?ù" má sīgbō-rā-ānī 'our three ropes' sīgbō '3'
   mù?ù" má sóōl-lā-ānī 'our five ropes' sóōlō '5'
   mù?ù" má mà-sīgbō-rā-ānī 'our eight ropes' mà-sīgbō '8'

e. possessum LH-toned, +3Sg possessor (á yílē-rá 'his/her fish')
   á yílē sīgbō-rā-ānī 'his/her three fish' sīgbō '3'
   á yílē sóōl-lā-ānī 'his/her five fish' sóōlō '5'
   á yílē mà-sīgbō-rā-ānī 'his/her eight fish' mà-sīgbō '8'

For sóōlō, alongside the apocopated sóōl-lā-ānī there is an unreduced variant sóōlō-rā-ānī.

6.2.3 Recursive possession

In combinations of the type [X’s Y]’s Z, possession is recursive. The nominal suffix may occur only on the final possessum Z in favorable syntactic positions. Therefore the nominal suffix in ‘my cat’ or ‘my uncle’ in (180b) is absent in (180c). Both possessums have the tones we expect from rules given above.

(180) a. jángbáá wù-rá
   cat head-Nom
   ‘the head of the cat’

b. mā jángbáá-rá / bá-rá
   1Sg cat-Nom / uncle-Nom
   ‘my cat/uncle’

126
6.2.4 Default possessum (mì)

The morpheme mì is used when no specific possessum is overt, compare English mine, French le mien, etc. In syntactic positions requiring the nominal suffix, the form is singular mì-nà, plural mì-ná-à-nū. For the singular, one would have expected #mì-ná with H-toned suffix instead of mì-nà, on the model of monomoraic /L/-melody nouns like jì-ná ‘blood’. However, (181) shows mì-nà with the exception of the 3Sg possessor forms. However, the expected H-tone does materialize consistently in the plural form mì-ná-à-nū, for all pronominal possessors.

(181) Pronouns with default possessum mì (+3Sg mǐ)

<table>
<thead>
<tr>
<th>Case</th>
<th>with suffix</th>
<th>without suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Sg</td>
<td>mā mì-nà</td>
<td>mā mì</td>
</tr>
<tr>
<td>1Pl</td>
<td>mùʔú mì-nà</td>
<td>mùʔú mì</td>
</tr>
<tr>
<td>2Sg</td>
<td>wō mì-nà</td>
<td>wō mì</td>
</tr>
<tr>
<td>2Pl</td>
<td>ěé mì-nà</td>
<td>ěé mì</td>
</tr>
<tr>
<td>3SgHum</td>
<td>à mì-ná</td>
<td>à mǐ</td>
</tr>
<tr>
<td>3SgNonh</td>
<td>ě mì-ná</td>
<td>ě mí</td>
</tr>
<tr>
<td>3PlHum</td>
<td>àá mì-nà</td>
<td>àá mì</td>
</tr>
<tr>
<td>3PlNonh</td>
<td>ěé mì-nà</td>
<td>ěé mǐ</td>
</tr>
</tbody>
</table>

Nonpronominal NP possessors take mì ~ mǐ based on the usual +3Sg versus -3Sg distinction. The suffixed singulars are then mì-ná (now with the expected H-toned suffix) and mǐ-nà, respectively. Thus dì mì-ná ‘the child’s’, dì-rá-à nù mì-ná ‘the children’s’, zákì mì-ná ‘Zaki’s’.

Examples with default possessums as subjects of their clauses are in (182). The nominal suffix is absent in this function when directly followed by a verb (182a) or by a noun-initial NP. The suffix does appear in perfectives when directly followed by a pronominal clitic, especially third person (182b). L-toned mì is subject to Final Tone-Raising (to mǐ) before an L-tone (182a), but the rise is not always audible and mǐ is sometimes realized as something like [mǐ].

(182) a. [mā mì] sée
     [1Sg Poss] come.Pfv
     ‘Mine has come.’
b. \([mā \ mi-n = ] \ ē \ wēē\)
   \([1\text{Sg Poss-Nom}] \ 3\text{SgNonhObj} \ \text{go.Pfv}\)
   ‘Mine has gone (away).’ (variant \(mī = i \ wēē\))

In non-subject functions (e.g. object or nonsubject possessor), the possessor takes reflexive form if it is coindexed with the subject (183).

(183) a. \([mā \ [nàà^a \ mī] \ dònī\]
   \(1\text{Sg} \ [1\text{SgRefl Poss}] \ \text{eat.meat.Pfv}\)
   ‘I have eaten (=devoured) mine.’

b. \(bànàr = [àà \ mī] \ dònī\)
   \(B \ [3\text{SgHumRefl Poss}] \ \text{eat.meat.Pfv}\)
   ‘Bakari has eaten (=devoured) his (own).’ (/bàkà̀rì à mì dònì/)

c. \([mā \ [[nàà^a \ mī] \ wù] \ tēē\]
   \(1\text{Sg} \ [[1\text{SgRefl Poss}] \ \text{head}] \ \text{shatter.Pfv}\)
   ‘I have shattered (=crushed) the head of mine (=my lion cub).’ (2016_02 @ 01:42)

For the use of this default possessum construction in predicates with ‘it is X’ enclitic (‘it’s mine’, etc.), see §11.5.3.2.

6.3 Core NP (noun plus adjective)

6.3.1 Noun plus regular adjective

In the combination N-Adj, the nominal suffix and plural suffix, if required by the wider morphosyntactic context, are added to the adjective, and the noun stem is bare.

(184) a. \(nàà-nà\)
   woman-Nom
   ‘a/the woman’

b. \(nàà \ nè-nà\)
   woman \ good-Nom
   ‘a/the good woman’

c. \(nàà \ nè-nà-à-nù\)
   woman \ good-Nom-Pl-Pl-Nom
   ‘(the) good women’
Tonal interactions in N-Adj combinations are described with examples in the following sections. The table in (185) anticipates and summarizes the results. Where N-Adj combinations are discussed in this chapter, to distinguish nominal from adjectival lexical melodies and surface tones, I use lowercase (l m h) for the latter. Lexical melodies of the noun are shown on top, in uppercase (L M H). The hyphen indicates the break between the adjectival stem and the nominal suffix, so H l-h means H-toned noun followed by L-toned adjective with H-toned nominal suffix. The final (L) or (H) is shown in the nominal melodies even where redundant.

(185) Noun-adjectival tonal patterns (summary)

<table>
<thead>
<tr>
<th>noun</th>
<th>adj</th>
<th>/H(H)/</th>
<th>/M(M)/</th>
<th>/L(H)/</th>
<th>/H(L)/</th>
<th>/LH(L)/</th>
<th>/MH(L)/</th>
</tr>
</thead>
<tbody>
<tr>
<td>/m(m)/</td>
<td>H m-m</td>
<td>M m-m</td>
<td>a) L m-m</td>
<td>H l-l</td>
<td>LH l-l</td>
<td>MH l-l</td>
<td></td>
</tr>
<tr>
<td>/l(h)/</td>
<td>H l-h</td>
<td>MH l-h</td>
<td>a) LH l-h</td>
<td>b) L l-h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>/h(h)/</td>
<td>H * h-h</td>
<td>M h-h</td>
<td>L h-h</td>
<td>H l-h</td>
<td>LH l-h</td>
<td>MH l-h</td>
<td></td>
</tr>
<tr>
<td>/h(l)/</td>
<td>H h-l</td>
<td>M h-l</td>
<td>L h-l</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>/hm(l)/</td>
<td>H hm-l</td>
<td>M hm-l</td>
<td>L hm-l</td>
<td>H hm-l</td>
<td>LH hm-l</td>
<td>MH hm-l</td>
<td></td>
</tr>
</tbody>
</table>

Final Tone-Raising and low-level downstep in H * h-h are the only tonal modifications on adjectives that follow a level-toned noun (/H/, /M/, or /L/). Factoring this out, the following generalizations can be made.

(186) a. Before an adjective, /HM(L)/ merges with /H(L)/;
    b. Nouns with associated {L} drop /m/ adjectives to l-l (so that even the suffix is L-toned);
    c. The same nouns with associated (L) shift all other adjectives to /l-h/, except invariant /hm(l)/ adjectives which are unaffected
    d. There are two types of /L(H)/ melody nouns, one of which (‘person’) irregularly merges tonally with a following l(h) or m(m) adjective to form L l-h, the other being phonologically regular.

Most of the processes in (186) are akin to tone-sandhi rules but are arguably morphologically specialized. (186a) could be treated as a special case of H-Leveling (§3.8.3.2). (186c) could be analysed phonologically as two different versions of Floating-L Docking (§3.8.3.4). (186b) could be analysed in the same way as (186c), with the further twist that M-Spreading has previously applied to the adjective-suffix combination, forming a tonally rigid terrace, so when the floating L lowers the tones of the adjective the suffix is included.
6.3.1.1 Tones of noun-adjective combinations

Adjectives representing various tonal types are in (187). The lexical tones for ‘red’ and ‘black’ are unmistakable, but those of the other four require discussion.

(187) adjective tones with suffix gloss

<table>
<thead>
<tr>
<th>Adjective</th>
<th>Tone</th>
<th>Suffix</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>kānā</td>
<td>/m(m)/</td>
<td>kān-nā</td>
<td>'red'</td>
</tr>
<tr>
<td>gbōʔò</td>
<td>/l(h)/</td>
<td>gbōʔò-rā</td>
<td>'black'</td>
</tr>
<tr>
<td>sūmāá</td>
<td>/h(h)/</td>
<td>sūmāá-nā</td>
<td>'long'</td>
</tr>
<tr>
<td>gbó</td>
<td>/h(l)/</td>
<td>gbó-rā</td>
<td>'big'</td>
</tr>
<tr>
<td>tāā</td>
<td>/hm(l)/</td>
<td>tāā-rā</td>
<td>'hot'</td>
</tr>
<tr>
<td>wūd5</td>
<td>/hm(l/-invariant</td>
<td>wūd5-rā</td>
<td>'new'</td>
</tr>
</tbody>
</table>

The adjectives in (187) combine with nouns of various tone classes as shown below. Apologies for semantically nonsensical combinations. We must jointly consider tonal processes affecting the noun (other than low-level tone sandhi) and those affecting the adjective.

The most straightforward adjectival type is the /l(h)/-toned ‘black’ (188). In the “N-adj tones” column, any tones of the noun that are different from those in isolation (i.e. in the “N tones” column) are underlined.

(188) gbōʔò ‘black’ (/l/ melody)

<table>
<thead>
<tr>
<th>Noun</th>
<th>N tones</th>
<th>Adj</th>
<th>N-adj tones</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>yīʔé</td>
<td>/H(H)/</td>
<td>yīʔé gbōʔò-rá</td>
<td>H 1-h</td>
<td>‘fish’</td>
</tr>
<tr>
<td>gbāā</td>
<td>/M(M)/</td>
<td>gbāā gbōʔò-rá</td>
<td>MH 1-h</td>
<td>‘stick’</td>
</tr>
<tr>
<td>nūʔù⁰</td>
<td>/L(H)/a</td>
<td>nūʔù⁰ gbōʔò-rá</td>
<td>LH 1-h</td>
<td>‘wrap (n)’</td>
</tr>
<tr>
<td>mīʔì⁰</td>
<td>/L(H)/b</td>
<td>mīʔì⁰ gbōʔò-rá</td>
<td>L 1-h</td>
<td>‘person’</td>
</tr>
<tr>
<td>kpésé</td>
<td>/H(L)/</td>
<td>kpésé gbōʔò-rá</td>
<td>H 1-h</td>
<td>‘chewstick’</td>
</tr>
<tr>
<td>kūrù⁰</td>
<td>/HM(L)/</td>
<td>kūrù⁰ gbōʔò-rá</td>
<td>H 1-h</td>
<td>‘boat’</td>
</tr>
<tr>
<td>tōrã</td>
<td>/LH(L)/</td>
<td>tōrã gbōʔò-rá</td>
<td>LH 1-h</td>
<td>‘brick’</td>
</tr>
<tr>
<td>mōtō</td>
<td>/MH(L)/</td>
<td>mōtō gbōʔò-rá</td>
<td>MH 1-h</td>
<td>‘motorcycle’</td>
</tr>
</tbody>
</table>

‘Black’ has invariant L(H)-toned form throughout, but there are some tonal processes affecting the preceding noun. ‘Wrap (n)’ goes from L.L to L.H before an L-tone by Final Tone-Raising (§3.8.3.1). Irregular ‘person’, also L.L, does not undergo this process. The merger of /HM(L)/ with /H(L)/ nouns, here ‘boat’ and ‘chewstick’, is typical of all N-Adj combinations; see H-Leveling (§3.8.3.2).

In (189), the adjective is lexically /m/-toned ‘red’. There is now a split into three sets of surface forms. I take the m(m)-toned adjective in (189a) to reflect lexical /m(m)/ melody. The adjective becomes l(h)-toned in (189b), by ablaut, and l(l)-toned in (189c), in both cases by Floating-L Docking (§3.8.3.4).
The split between the adjectival tones in (189a) and (189c) above correlates with the tones of the nominal suffix following the same nouns when unmodified. The nouns in (189a) have non-low nominal suffixes (yíʔé-rá, gbáah-rá, júʔú-ná). Those in (189c) have L-toned suffixes (kpvé-rá, kúru-ná, tófá-rá, mótó-rá). The nouns in (189b) therefore have the ability to drop tones in a following suffix, or in a following adjective. Notably, the entire adjective including its nominal suffix is dropped to l(l), which suggests a morphophonological process (tonal ablaut) rather than simple floating L. By contrast, irregular ‘person’ in (188b) has suffixed form mìʔí-ná, with the same tones as suffixed júʔú-ná ‘wrap (n)’. However, the adjective after ‘person’ has l-toned stem (and, if present, h-toned suffix). This could be analysed as an {l(h)} overlay, or as a floating L-tone that spreads to the end of the adjectival stem only.

The paradigms of ‘big’ (representing monomoraic Cv stems) in (190) and ‘hot’ (representing bimoraic or heavier stems) in (191) below each split into one set of combinations with h-initial (all-h or hm) adjective and another with l(h)-toned adjective due to a floating L-tone from the noun. ‘Big’ is gbáh-rá in (190a) and gbáh-rá in (190b). ‘Hot’ is tāá-rá in (191a) and tāá-rá in (191b). The tones of these adjectives correlate with the tones of the nominal suffixes when added directly to the relevant unmodified nouns, and suggest that the nouns in (190b) and (191b) have a floating L-tone that spreads into the adjective (stem only). There is also a small class of CvCv adjectives represented by wúdá-wúdá ‘new’ in (192) that have the same hm(l) tones as ‘hot’ in (191a), but do not shift to l-h after nouns with floating L. This type is labeled “hm(l)-invariant.”
(190) *gbò* ‘big’ (/h(l)/ melody) (suffixed *gbò-rà*, irregular variant *gbò-nà*)

<table>
<thead>
<tr>
<th>noun</th>
<th>N tones</th>
<th>with Adj</th>
<th>N-adj tones</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. adjective h-l</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>yí̀́̀é</em> /H(H)/</td>
<td><em>yí̀́̀é</em> <em>gbò-rà</em></td>
<td>H h-l</td>
<td>‘fish’</td>
<td></td>
</tr>
<tr>
<td><em>gbàá</em> /M(M)/</td>
<td><em>gbàá</em> <em>gbò-rà</em></td>
<td>M h-l</td>
<td>‘stick’</td>
<td></td>
</tr>
<tr>
<td><em>nù̀́̀ù</em> /L(H)/-a</td>
<td><em>nù̀́̀ù</em> <em>gbò-rà</em></td>
<td>L h-l</td>
<td>‘wrap (n)’</td>
<td></td>
</tr>
<tr>
<td><em>mí̀́́ì</em> /L(H)/-b</td>
<td><em>mí̀́́ì</em> <em>gbò-rà</em></td>
<td>L h-l</td>
<td>‘person’</td>
<td></td>
</tr>
<tr>
<td>b. adjective l-h</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>kpèsé</em> /H(L)/</td>
<td><em>kpèsé</em> <em>gbò-rá</em></td>
<td>H l-h</td>
<td>‘chewstick’</td>
<td></td>
</tr>
<tr>
<td><em>kù̀́́rá</em> /HM(L)/</td>
<td><em>kù̀́́rá</em> <em>gbò-rá</em></td>
<td>H l-h</td>
<td>‘boat’</td>
<td></td>
</tr>
<tr>
<td><em>tò̀́́fà</em> /LH(L)/</td>
<td><em>tò̀́́fà</em> <em>gbò-rá</em></td>
<td>LH l-h</td>
<td>‘brick’</td>
<td></td>
</tr>
<tr>
<td><em>mò̀́́tó</em> /MH(L)/</td>
<td><em>mò̀́́tó</em> <em>gbò-rá</em></td>
<td>MH l-h</td>
<td>‘motorcycle’</td>
<td></td>
</tr>
</tbody>
</table>

(191) *táá* ‘hot’ (/hm(l)/ melody)

<table>
<thead>
<tr>
<th>noun</th>
<th>N tones</th>
<th>with Adj</th>
<th>N-adj tones</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. adjective hm-l</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>yí̀́́é</em> /H(H)/</td>
<td><em>yí̀́́é</em> <em>táá-rà</em></td>
<td>H hm-l</td>
<td>‘fish’</td>
<td></td>
</tr>
<tr>
<td><em>gbàá</em> /M(M)/</td>
<td><em>gbàá</em> <em>táá-rà</em></td>
<td>M hm-l</td>
<td>‘stick’</td>
<td></td>
</tr>
<tr>
<td><em>nù̀́́ù</em> /L(H)/-a</td>
<td><em>nù̀́́ù</em> <em>táá-rà</em></td>
<td>L hm-l</td>
<td>‘wrap (n)’</td>
<td></td>
</tr>
<tr>
<td><em>mí̀́́ì</em> /L(H)/-b</td>
<td><em>mí̀́́ì</em> <em>táá-rà</em></td>
<td>L hm-l</td>
<td>‘person’</td>
<td></td>
</tr>
<tr>
<td>b. adjective l-h</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>kpèsé</em> /H(L)/</td>
<td><em>kpèsé</em> <em>táá-rá</em></td>
<td>H l-h</td>
<td>‘chewstick’</td>
<td></td>
</tr>
<tr>
<td><em>kù̀́́rá</em> /HM(L)/</td>
<td><em>kù̀́́rá</em> <em>táá-rá</em></td>
<td>H l-h</td>
<td>‘boat’</td>
<td></td>
</tr>
<tr>
<td><em>tò̀́́fà</em> /LH(L)/</td>
<td><em>tò̀́́fà</em> <em>táá-rá</em></td>
<td>LH l-h</td>
<td>‘brick’</td>
<td></td>
</tr>
<tr>
<td><em>mò̀́́tó</em> /MH(L)/</td>
<td><em>mò̀́́tó</em> <em>táá-rá</em></td>
<td>MH l-h</td>
<td>‘motorcycle’</td>
<td></td>
</tr>
</tbody>
</table>

(192) *wú́́tɔ́́* ~ *wú́́dɔ́* ‘new’ (/hm(l)/-invariant melody)

<table>
<thead>
<tr>
<th>noun</th>
<th>N tones</th>
<th>with Adj</th>
<th>N-adj tones</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>adjective hm-l (regardless of preceding noun type)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>yí̀́́é</em> /H(H)/</td>
<td><em>yí̀́́é</em> <em>wú́́tɔ́́-rɔ́</em></td>
<td>H hm-l</td>
<td>‘fish’</td>
<td></td>
</tr>
<tr>
<td><em>gbàá</em> /M(M)/</td>
<td><em>gbàá</em> <em>wú́́tɔ́́-rɔ́</em></td>
<td>M hm-l</td>
<td>‘stick’</td>
<td></td>
</tr>
<tr>
<td><em>nù̀́́ù</em> /L(H)/-a</td>
<td><em>nù̀́́ù</em> <em>wú́́tɔ́́-rɔ́</em></td>
<td>L hm-l</td>
<td>‘wrap (n)’</td>
<td></td>
</tr>
<tr>
<td><em>mí̀́́ì</em> /L(H)/-b</td>
<td><em>mí̀́́ì</em> <em>wú́́tɔ́́-rɔ́</em></td>
<td>L hm-l</td>
<td>‘person’</td>
<td></td>
</tr>
<tr>
<td><em>kpèsé</em> /H(L)/</td>
<td><em>kpèsé</em> <em>wú́́dɔ́-rɔ́</em></td>
<td>H hm-l</td>
<td>‘chewstick’</td>
<td></td>
</tr>
<tr>
<td><em>kù̀́́rá</em> /HM(L)/</td>
<td><em>kù̀́́rá</em> <em>wú́́dɔ́-rɔ́</em></td>
<td>H hm-l</td>
<td>‘boat’</td>
<td></td>
</tr>
</tbody>
</table>
Comparing ‘big’ and ‘hot’ to the consistently L-toned ‘black’ in (188) above, we see that taking ‘big’ and ‘hot’ to be lexically L-toned on the basis of (190b) and (191b) would not work. Instead, these stems have lexical melody /h(l)/ or /hm(l)/, as seen in (190a) and (191a), and become l(h) only after the noun types that have an associated floating L-tone. ‘New’ is like ‘hot’ except that it is unaffected by a floating L coming in from the noun.

‘Long’ in (193) below is the most tonally complex of the adjectives considered here. It surfaces with h, downstepped ṭ, and l tones (193). Since its tonal forms are distinct both from the clearly /l(h)/-toned ‘black’ in (188) above and from the clearly /m(m)/-toned ‘red’ in (189) above, ‘long’ is best analysed as lexically /h(h)/-toned. This is the tonal form that it has after a level-toned noun (193a). Its l(h)-toned form sùmáá ‘long’ (193b) can be explained in the same way as l(h)-toned gbɔ́-rā ‘big’ and tàà-rá ‘hot’ in (190b) and (191b) above, viz., as due to a floating L-tone associated with nouns that spreads rightward across the adjective stem.

(193) sùmáá ‘long’ (/h(h)/ melody)

<table>
<thead>
<tr>
<th>noun</th>
<th>N tones with Adj</th>
<th>N-adj tones</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. adjective h-h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yìlé /H(H)/</td>
<td>yìlé ⻁́máá-ná</td>
<td>H h-h</td>
<td>‘fish’</td>
</tr>
<tr>
<td>gbāá /M(M)/</td>
<td>gbāá sùmáá-ná</td>
<td>M h-h</td>
<td>‘stick’</td>
</tr>
<tr>
<td>ṃù?ù’u /L(H)/-a</td>
<td>ṃù?ù’u sùmáá-ná</td>
<td>L h-h</td>
<td>‘wrap (n)’</td>
</tr>
<tr>
<td>mì?u’u /L(H)=b</td>
<td>mì?u’u sùmáá-ná</td>
<td>L h-h</td>
<td>‘person’</td>
</tr>
<tr>
<td>b. adjective l-h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kpésè /H(L)/</td>
<td>kpésè sùmáá-ná</td>
<td>H l-h</td>
<td>‘chewstick’</td>
</tr>
<tr>
<td>kùrù’u /HM(L)/</td>
<td>kùrù’u sùmáá-ná</td>
<td>H l-h</td>
<td>‘boat’</td>
</tr>
<tr>
<td>tòfá /L(H)/</td>
<td>tòfá sùmáá-ná</td>
<td>L h-h</td>
<td>‘brick’</td>
</tr>
<tr>
<td>mòtò /MH(L)/</td>
<td>mòtò sùmáá-ná</td>
<td>MH l-h</td>
<td>‘motorcycle’</td>
</tr>
</tbody>
</table>

The downstepped H-tone in yìlé ⻁́máá-ná (193) sounds impressionistically like M-tone. However if ‘long fish’ were #yìlé sùmáá-ná with M-toned adjective, and therefore #yìlé sùmáá without the nominal suffix, its final syllable would be affected by Final Tone-Raising before an L-tone. Instead, ⻁́máá in (194) has level pitch.

(194) mā [yìlé ᯍmáá] jié
1Sg [fish long] see.Pfv
‘I saw a/the long fish.’

133
6.3.1.2 Inventory of basic adjectives by tonal type

The basic adjectives (excluding morphologically complex deverbal adjectives) are organized into tonal types in (195). As with nouns, adjectival /h(l)/ and /hm(l)/ melodies are not distinguishable in Cv stems. /h(l)/ and /hm(l)/ are predominant tonal melodies for simple adjectives. The forms shown are those that follow an L-toned noun.

(195) tone melody adjective suffixed gloss

a. /l(h)/ gbô?ô gbô?ô-râ ‘black’

b. /m(m)/ kânâ kân-nâ ‘red’
   kpêê kpêê-râ ‘white’

c. /h(l)/ kú kú-rô ‘dead’
   gbò gbô-râ ‘big’
   gbê gbê-râ ‘fresh’
   ṣè ṣè-nâ ‘good’
   ná ná-nâ ‘foreign’

d. /hm(l)/ tââ tââ-râ ‘hot’
   kûmâ kûmâ-nâ ‘cold’
   kîtâ kîtâ-râ ‘bad’ (t ~ d)
   kûtâ kûtâ-rô ‘old’ (t ~ d)
   gûnî gûnî-nâ ‘short’
   ~ gûn-nâ
   bákûnî bákûnî-nâ ‘short’
   ~ bákûn-nâ

e. /hm(l)/-invariant kpê?rê kpê?r-rô ‘small’
   wûtô wûtô-rô ‘new’ (t ~ d)

f. /h(h)/ ná ná-nâ ‘foreign’
   wéé wéé-râ ‘other’
   dâálâ dâá-lâ ‘first’
   sùmâá sùmâá-nâ ‘long’
   gbá?álâ gbá?álâ-râ ‘thin; dry’
   ~ gbá?ál-lâ

6.3.1.3 Adjective sequences

The combinations in (196) below include a noun and two adjectives. The outermost (=leftmost) adjective in the English glosses (right-hand column) corresponds in each case to
the outermost (=rightmost) Jalkunan adjective. In some cases a different adjectival order would be preferred, but I am here focusing on tones.

(196) a. kpèsé kpèè súmáá-ná ‘long white chewstick’
    kpèsé gbôʔò súmáá-ná ‘long black chewstick’
    kpèsé gbôʔò gbɔ̀-rà ‘big black chewstick’
    kpèsé sùmàà ñɛ̀-ná ‘good long chewstick’
    kpèsé sùmàà gbôʔò-rà ‘black long chewstick’
    kpèsé tàà gbôʔò-rà ‘black hot chewstick’
    ɲùù ñù súmáá gbɔ́-rà ‘big black wrap’
    ɲùù ñù gbɔ́-nàn ‘red long wrap’
    ɲùù ñù gbôʔò-rà ‘black hot wrap’
    kpèsé sùmáá ‘long’ is downstepped after an H-toned noun.

b. yīlé kánà ‘súmáá-ná’
    ‘long red fish’
    yīlé kánà gbɔ̀-rà ‘big red fish’

c. ɲùù ‘súmáá gbɔ́-rà ‘big long wrap’
    ɲùù ‘súmáá kān-nā ‘red long wrap’

d. ɲùù ‘tāa gbɔ̀-rà ‘big hot wrap’
    yīlé ‘súmáá-nā ‘long hot fish’

e. yīlé ‘súmáá gbɔ́-rà ‘big long fish’
    yīlé ‘súmáá gbòʔò-rā ‘black long fish’

The first stage of derivations is tonal adjustments involving the noun and the first adjective, as though the second adjective were absent. Nouns with associated floating L, like kpèsé ‘chewstick’, drop tones of any immediately following adjective. In this case, if the adjective itself elsewhere has a floating L (tàà +L ‘hot’), its floating tone is eliminated, i.e. the final adjective is unaffected by it. H-toned súmáá ‘long’ is downstepped after an H-toned noun. An L(H)-toned noun like ‘wrap (n)’ undergoes Final Tone-Raising before an l(h)-toned adjective, as in ‘big black wrap’ at the end of (196a).

After this first stage, the first adjective is l(h)-toned in (196a), m(m)-toned in (196b), h(h)-toned in (196c), hm(l)-toned in (196d), and downstepped * h(h)-toned in (196e). The next stage is the interaction between the two adjectives.

In (196a) the first adjective retains this l(h)-tone, but the associated H-tone destined for the nominal suffix cannot be realized since the suffix is not allowed. The first adjective is therefore l-toned. Furthermore, it fails to undergo Final Tone-Raising even when it is followed by an l-toned syllable (‘black long/hot chewstick’). Instead, tonal dissimilation is achieved by raising gbôʔò from l(h) to m(m). One way to think of this is that the suffixal (h) in the l(h) tone of the first adjective does not disappear entirely, rather it partially raises the tone of the second adjective, from l(h) to m(m).

In (196b), the stem of the m(m)-toned first adjective kānā is raised to h-toned. This then forces downstep on the following H-toned súmáá-nā.

No changes occur in (196c), where each word surfaces with its underlying tones.
In (196d), hm(l) tāā has not been modified in the first stage, so its stem flattens to h-toned and its floating (l) drops the tones of the second adjective.

In (196e), sūmāā has been downstepped in the first stage. No further changes occur when the second adjective is added. That downstepped H ‘sūmāā rather than M-toned sūmāā is the correct analysis is shown by the fact that it does not undergo Final Tone-Raising before the L-toned adjective gbṑlò ‘black’.

These tonal processes apply in a similar way to N-Adj-Num sequences (§6.4.2).

6.3.2 Expansions of adjective

6.3.2.1 Adjectival intensifiers

Predicate adjectives (i.e. inchoative adjectival verbs) can be intensified with bèlè ‘pass’ (197a-b). ‘Become hot’ (perfective dēé ~ dēé) shifts to +ATR dēē in (197a-b). This might have originated as an adjunction construction with nonhuman 3Sg è and 3Pl èèⁿ preceding ‘pass’, contracting as in /dēē è/ → dēē. However, I did not hear a nasalized vowel in (197b), so an actual adjunction does not seem to be present (synchronously).

(197) a. yí dēé bèlè
  water become.hot.Pfv pass
  ‘The water is very hot.’

  b. yí-rá-àⁿ dēé bèlè
  water-Nom-Pl become.hot.Pfv pass
  ‘The waters are very hot.’

The same ‘pass’ verb is common in comparatives (chapter 12).

6.3.2.2 ‘Good to eat’

In (198), the adjectival predicate (inchoative adjectival verb) is modified by a postverbal noun in adverbial function indicating the context.

(198) yēgē-kúⁿ dì kūmēᵉ-nā
  tree be.sweet.Pfv meal-Nom
  ‘The tree is good to eat.’

6.4 NPs including a numeral

The forms of numerals are given and discussed in §4.6 above.
6.4.1 Nominal suffixation in the presence of a numeral

In the absence of a numeral, a simple noun has a nominal suffix (-ra or variant), in isolation and in some phrasal contexts. It is pluralized by adding a plural suffix -àn, to which may be added, in isolation and in a few syntactic contexts, an additional nominal suffix. Thus dí 'child', with suffix dí-rá, plural dí-rá-àn 'children', with suffix dí-rá-à-nù. If an adjective follows the noun, the nominal suffix and the plural suffix are attached to the adjective: dí njé-nà-àn or suffixed dí njé-nà-à-nù 'good children'. See §4.1.1 for details.

When a numeral is added to the mix, both the nominal suffix and the (redundant) plural suffix are disallowed.

(199) a. dí (dí-rá) dálì
    child (#child-Nom) one 'one child'

b. dí (dí-rá-à) flà
    child (#child-Nom-Pl) two 'two children'

c. dí njé (njé-nà-à) flà
    child good (#good-Nom-Pl) two 'two good children'

This constraint is relaxed when the N-Num sequence is preceded by a possessor or by an NP in partitive function. All suffixes can be added in Poss-N-Num sequences, e.g. mùlí àrì ñáá 'our three fish', see (179c) above. In the partitive construction, the simple nominal suffix is usual, to judge by àà flàà-rá 'the two of them' in text 2016_02 @ 02:40.

6.4.2 Tones of noun plus numeral

6.4.2.1 Noun plus unsegmentable numeral

Morphologically noncomposite numerals are m-toned or h-toned, except for one of two synonyms for ‘thousand’ (wàrà). In this section I use lowercase for numeral tones, as I did for adjectives in preceding sections. m-toned numerals are flà ‘2’, sigbò ‘3’, and nàá ‘4’. h-toned numerals are sóóló ‘5’ and tàá ‘10’. For bimorphemic ‘6’ to ‘9’ see the following section.

The tonal patterns in N-Num combinations are similar to those of N-Adj combinations described above.

Combinations of m-toned numerals with nouns of various tone classes are in (200). The numeral remains m-toned after level-toned nouns, i.e., the nouns that take a non-low nominal suffix when unmodified: yìì-rá ‘fish’, gbàá-rá ‘stick’, nùìì-ná ‘wrap (m)’ (200a). The numeral drops to l-toned when the noun comes with a floating L-tone (200b).
(200) Nouns with m-toned ‘2’, ‘3’, and ‘4’

<table>
<thead>
<tr>
<th>noun</th>
<th>N tones with Num</th>
<th>N-num tones</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. numeral M-toned</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yīʔé /H(H)/</td>
<td>yīʔé flá / sigbō / nāānì</td>
<td>H m(m)</td>
<td>‘fish’</td>
</tr>
<tr>
<td>gbāā /M(M)/</td>
<td>gbāā flá / sigbō / nāānì</td>
<td>M m(m)</td>
<td>‘stick’</td>
</tr>
<tr>
<td>Ṉùʔùn /L(H)/</td>
<td>Ṉùʔùn flá / sigbō / nāānì</td>
<td>L m(m)</td>
<td>‘wrap (n)’</td>
</tr>
<tr>
<td>b. numeral L-toned</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kpésé /H(L)/</td>
<td>kpésé flá / sigbō / nāānì</td>
<td>H l(l)</td>
<td>‘chewstick’</td>
</tr>
<tr>
<td>kūrūn /HM(L)/</td>
<td>kūrūn flá / sigbō / nāānì</td>
<td>H̃ l(l)</td>
<td>‘boat’</td>
</tr>
<tr>
<td>tòfā /LH(L)/</td>
<td>tòfā flá / sigbō / nāānì</td>
<td>LH l(l)</td>
<td>‘brick’</td>
</tr>
<tr>
<td>mōtō /MH(L)/</td>
<td>mōtō flá / sigbō / nāānì</td>
<td>MH l(l)</td>
<td>‘motorcycle’</td>
</tr>
</tbody>
</table>

The h-toned numerals combine with the same nouns in (201) below. The h-tones of the numerals are heard as such after a level-toned noun, except for downstep after an H(H)-toned noun (201a). They drop to l after nouns with a final floating L (201b).

(201) Nouns with h-toned ‘5’ and ‘10’

<table>
<thead>
<tr>
<th>noun</th>
<th>N tones with Num</th>
<th>N-num tones</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. numeral h-toned (sometimes downstepped)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yīʔé /H(H)/</td>
<td>yīʔé ‘sōóló’ / ‘táá’</td>
<td>H m(m)</td>
<td>‘fish’</td>
</tr>
<tr>
<td>gbāā /M(M)/</td>
<td>gbāā ‘sōóló’ / ‘táá’</td>
<td>M m(m)</td>
<td>‘stick’</td>
</tr>
<tr>
<td>Ṉùʔùn /L(H)/</td>
<td>Ṉùʔùn ‘sōóló’ / ‘táá’</td>
<td>L h(h)</td>
<td>‘wrap (n)’</td>
</tr>
<tr>
<td>b. numeral l-toned</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kpésé /H(L)/</td>
<td>kpésé ‘sōóló’ / ‘táá’</td>
<td>H l(l)</td>
<td>‘chewstick’</td>
</tr>
<tr>
<td>kūrūn /HM(L)/</td>
<td>kūrūn ‘sōóló’ / ‘táá’</td>
<td>H̃ l(l)</td>
<td>‘boat’</td>
</tr>
<tr>
<td>tòfā /LH(L)/</td>
<td>tòfā ‘sōóló’ / ‘táá’</td>
<td>LH l(l)</td>
<td>‘brick’</td>
</tr>
<tr>
<td>mōtō /MH(L)/</td>
<td>mōtō ‘sōóló’ / ‘táá’</td>
<td>MH l(l)</td>
<td>‘motorcycle’</td>
</tr>
</tbody>
</table>

6.4.2.2 Noun plus bimorphemic numeral ‘6’ to ‘9’

Numerals ‘6’ to ‘9’ are bimorphemic, consisting of initial ma- or mi- representing the base ‘5’ (but unrelated to sóóló ‘5’ or to bɔlɔ ‘hand’) plus a more or less distorted form of ‘1’ through ‘4’.

‘7’ to ‘9’ are bimorphemic beginning with mà- ~ má-. The last numeral in this sequence, mà-nānì ‘9’, is unique in resisting tonal changes. ‘7’ and ‘8’ have mà- drop to mà- after nouns associated with a floating L-tone (202b). ‘9’ usually does not; an exception is tāā-rá mà-nānì
'19' in (131) above. The remaining syllables, -álà for '7' (irregularly related to flá '2') and -sígbo (identical to '3'), are invariant tonally.

(202) Nouns with bimorphemic numerals ‘7’ to ‘9’

<table>
<thead>
<tr>
<th>noun</th>
<th>N tones</th>
<th>with Num</th>
<th>N-num tones</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. numeral begins with H-toned má-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yířé /H(H)/</td>
<td>yířé má-álà</td>
<td>H hl</td>
<td>‘fish’</td>
<td></td>
</tr>
<tr>
<td>yířé má-sígbo</td>
<td>H hm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yířé má-náni</td>
<td>H hml</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gbáá /M(M)/</td>
<td>gbáá má-álà</td>
<td>M hl</td>
<td>‘flour’</td>
<td></td>
</tr>
<tr>
<td>gbáá má-sígbo</td>
<td>M hm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gbáá má-náni</td>
<td>M hml</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pùrùa /L(H)/</td>
<td>pùrùa má-álà</td>
<td>L hl</td>
<td>‘wrap (n)’</td>
<td></td>
</tr>
<tr>
<td>pùrùa má-sígbo</td>
<td>L hm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pùrùa má-náni</td>
<td>L hml</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. numeral begins with L-toned mä- (<del>’7’, ’8’) or H-toned má- (</del>’9’)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kpésé /H(L)/</td>
<td>kpésé má-álà</td>
<td>H hl</td>
<td>‘chewstick’</td>
<td></td>
</tr>
<tr>
<td>kpésé má-sígbo</td>
<td>H lmm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kpésé má-náni</td>
<td>H hml</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kúrúa /HM(L)/</td>
<td>kúrúa má-álà</td>
<td>H hl</td>
<td>‘boat’</td>
<td></td>
</tr>
<tr>
<td>kúrúa má-sígbo</td>
<td>H lmm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kúrúa má-náni</td>
<td>H hml</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tòfá /LH(L)/</td>
<td>tòfá má-álà</td>
<td>LH hl</td>
<td>‘brick’</td>
<td></td>
</tr>
<tr>
<td>tòfá má-sígbo</td>
<td>LH lmm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tòfá má-náni</td>
<td>LH hml</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mótó /MH(L)/</td>
<td>mótó má-álà</td>
<td>MH hl</td>
<td>‘motorcycle’</td>
<td></td>
</tr>
<tr>
<td>mótó má-sígbo</td>
<td>MH lmm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mótó má-náni</td>
<td>MH hml</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

mí-iló ‘6’ is even more opaque, though etymologically it presumably consists of a variant of mà- ~ má- plus a variant of dúlì ‘1’. Unlike ‘7’ to ‘9’, mí-iló patterns tonally as though unsegmentable. Therefore, like ‘2’ to ‘4’, it has stem-wide m-toned and l-toned forms.

(203) Nouns with ml-toned ‘6’

<table>
<thead>
<tr>
<th>noun</th>
<th>N tones</th>
<th>with Num</th>
<th>N-num tones</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. entire numeral is M-toned</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yířé /H(H)/</td>
<td>yířé mí-iló</td>
<td>H m(m)</td>
<td>‘fish’</td>
<td></td>
</tr>
<tr>
<td>gbáá /M(M)/</td>
<td>gbáá mí-iló</td>
<td>M m(m)</td>
<td>‘flour’</td>
<td></td>
</tr>
<tr>
<td>pùrùa /L(H)/</td>
<td>pùrùa mí-iló</td>
<td>L mm</td>
<td>‘wrap (n)’</td>
<td></td>
</tr>
</tbody>
</table>
b. entire numeral is L-toned

\[
\begin{array}{llll}
kpésè & /H(L)/ & kpésè mì-ilò & H II & ‘chewstick’ \\
kùrù" & /HM(L)/ & kùrù" mì-ilò & H II & ‘boat’ \\
tòfà & /LH(L)/ & tòfà mì-ilò & LH II & ‘brick’ \\
mòtò & /MH(L)/ & mòtò mì-ilò & MH II & ‘motorcycle’ \\
\end{array}
\]

6.4.2.3 N-Adj-Num sequences

The combination N-Adj-Num behaves tonally like N-Adj-Adj. First, tonal operations apply between the noun and the adjective. Nouns like ‘chewstick’ with associated floating L drop the tones of the adjective, also erasing any floating L associated with this adjective (‘hot’).

h-toned sùmáá ‘long’ becomes m-toned after an H(H)-toned noun like ‘fish’. An L-toned noun undergoes Final Tone-Raising before an L-tone (jù?ù” → jù?ú”).

This is then the input to the next stage, where the adjective and the numeral interact tonally. h-toned sóóló ‘5’ drops to l-toned after an adjective with undeleted floating L (tàà ‘hot’), and the hm stem tones of tàà flatten to h. m-toned kpèè ‘white’ and kànà ‘red’ are raised to h-toned before any numeral.

\[
(204) \quad a. \quad kpésè \quad kpèè \quad sóóló \quad ‘five white chewsticks’ (< kpèè) \\
kpésè \quad tàà \quad sóóló \quad ‘five hot chewsticks’ (< tàà) \\
jù?ù” \quad gbù?ò \quad sóóló \quad ‘five black wraps’ \\
yílé \quad kpéé \quad ‘sóóló \quad ‘five white fish’ (< kpèè) \\
yílé \quad tàá \quad sóóló \quad ‘five hot fish’ (< tàà) \\
jù?ù” \quad sùmáá \quad ‘sóóló \quad ‘five long wraps’ \\
yílé \quad ‘sùmáá sóóló \quad ‘five long fish’ \\
\]

b. yílé \quad kánà \quad sigbò \quad ‘three red fish’

kpésè \quad tàà \quad sigbò \quad ‘three hot chewsticks’

yílé \quad tàá \quad sigbò \quad ‘three hot fish’

jù?ù” \quad sùmáá \quad sigbò \quad ‘three long wraps’

6.5 NP with determiner

6.5.1 Noun plus demonstrative mí

The basic demonstrative mí was described in §4.4.1. It is tonally distinct from relative mì and from default possessum mì, among other segmentally similar morphemes (see Index).

\[
(205) \quad a. \quad wùlà \quad mí(-nà) \\
dog \quad Dem(-Nom) \quad ‘this/that dog’
\]
b. **wùlà**  **mí-nà-â³(-nū)**  
*dog*  *Dem-Nom-Pl(-Nom)*  
‘these/those dogs’

c. **dí**  **‘mí(-nà)**  
*child*  *Dem(-Nom)*  
‘this/that child’

d. **dí**  **‘mí-nà-â³(-nū)**  
*child*  *Dem-Nom-Pl(-Nom)*  
‘these/those children’

6.5.2  Noun plus specific indefinite *dò* ‘one’

[X *dò*], where X is some noun, mean ‘a (certain/specific) X’. *dò* is likely related to numeral *dáli* ‘1’. [X *dò*] occurs in my data exclusively at the introduction of a discourse reference (person, place, thing) into a narrative or other extended discourse. Although the NP ending in *dò* is third singular referentially, it behaves like -3Sg NPs in its tonal effect on following words. For example, *jíé* ‘see’ at the end of example (206) is the H-toned verb form used after -3Sg objects.

(206)  
êê[^a]  **kú**  **klé-nà,**  
3PlNonh  *begin*  *hunt(n)-Nom,*  
**bon,**  êê[^a]  **táʔá [yálá  dò]  jíé**  
well,  3PlNonh  *go.Adjn [hole one] see.Pfv*  
‘They (hare and hyena) were hunting. Well, they went and saw a hole.’ (< *yálā*)  
(2016_02 00:49)

*dò* is always L-toned in this construction (i.e. modifying a noun), and can trigger Final Tone-Raising on the noun: *sàá dò* ‘a house’ (*sàà*), *kùgú dò* ‘a stone’ (*kùgù*).

*dò* can occur absolutely, i.e. without a modified noun, in the sense ‘one’ (as in ‘I saw one yesterday’) or, with reference to masses, ‘some’ (as in ‘I have brought you some’).

(207)  
è  **táʔá  dò  bílí = f-yà,**  
3SgNonh  *go.Adjn one give.lpfv Nonh-3SgObj,*  
[yálá  tòó]  dè  
[hole in]  *there*  
‘He (=hare) went and gave some (more) to him (=hyena).’ (2006_02 03:35) (/bílí è-yà/, tòó < tò ‘in’)

There is a plural *dò-ô³* ‘certain ones’. It is used in a set-partitioning context, as in ‘some stayed here, (while) some (others) left’.

‘When they (had) arrived in Damana (village), some (of them) left there, they came …’ (2016_01 00:47)

This plural dô-ôⁿ should be distinguished from the phonetically similar dôô that functions as an extended form of dô with a linker = n̄, before nàà ‘now’ or dè ‘there (definite)’ (209).

(209) àâⁿ wâř bilí [mèʔeⁿ dôô]= n̄ nàà 3PlHum money give.Pfv [person one]=Link here

‘They gave money to someone here.’

6.6 Universal and distributive quantifiers

bûʔa ~ bûʔú is discussed here as a quantifier. The same form is used as an ‘and’ conjunction (§7.1).

6.6.1 Universal ‘all’ (bûʔa ~ bûʔú)

This universal quantifier can be used with countable or mass NPs (210a-b). The tonal form is bûʔú except bûʔù after a +3Sg pronoun or NP, and bûʔù after an M-toned pronominal. With a countable NP, it may add a plural nominal suffix -nú (→ -nû after the M-toned variant) where syntactically allowed, including in isolation or clause-finally. With a mass NP, the suffixed form is bûʔù-ná, which appears to derive from an earlier nasalized form *bùʔùⁿ ~ *bûʔúⁿ.


‘All of the children have gone.’


‘The birds ate all the millet.’

c. à tàgá bilí [mùʔùⁿ bûʔú-ñú] 3SgHum sheep give.Pfv [1Pl all-Nom]

‘He/She gave the sheep-Sg to us all.’

The full set of pronominal combinations is in (211).
a. M-toned pronominal
één bùʔù-nū ‘all of you-Pl’

b. +3Sg pronominal
dè bùʔù-nú ‘all of it (nonhuman)’

c. other -3Sg pronominal
mùʔù bùʔù-nú ‘all of us’
dàn bùʔù-nú ‘all of them (human)’
déén bùʔù-nú ‘all of them (nonhuman)’

A variant bàgi-ná ‘entirety’ for bùʔù-nú was recorded in a text (2016_01 @ 03:20).

6.6.2 Distributive ‘each’

bùʔù ~ bùʔù ‘all’ can also be used in distributive contexts. In (212), the speaker states that he gave 200 units (= 1000 francs CFA) to each child, not a total of 200 units to the children as a group.

(212) mā jáʔ⁻tàá bìlí [dí kpéʔrē dù-dālí bùʔù-nú]
1Sg 200 give.Pfv [child small Rdp-one each-Nom]
‘I gave 200 (currency units) to each child.’

Distributivity is expressed mainly by keeping ‘small child’ singular in form, and by adding the reduplicated numeral ‘one’, i.e. ‘one by one, one at a time, singly’ (§4.6.1.6).
7 Coordination

7.1 NP coordination

7.1.1 NP conjunction (‘X and Y’) with $bùʔù - bùʔú$

The conjunctive particle is $bùʔù - bùʔú$, which is also the universal quantifier ‘all’ (§6.6.1 above). In careful pronunciation, $bùʔù$ occurs after +3Sg NPs, and $bùʔú$ after -3Sg NPs, except $bùʔú$ by M-Spreading after an M-toned pronominal. In allegro speech, reduced pronunciations occur (e.g. $bùʔú$) and the pitch may be lower than the tone markings suggest.

When the left conjunct is a singular NP that can elsewhere end in a nominal suffix, the suffix is disallowed. A plural left conjunct likewise omits its final nominal suffix -$nù$ (213c). When the entire conjoined NP is uttered in isolation or in a position requiring a final nominal suffix, the suffix occurs on the right conjunct (213a-c). In (213b), $tāgā$ becomes $tāgá$ before the L-toned $bùʔù$ by Final Tone-Raising.

$$\text{(213) a. di}kīn \quad bùʔù \quad jiā-nā$$

man and woman-Nom

‘(a/the) man and (a/the) woman’ (cf. suffixed $di$kī$n-nā$)

$$b. \quad tāgā \quad bùʔù \quad bā-rā$$

sheep and goat-Nom

‘(a/the) sheep and (a/the) goat’ (cf. suffixed $tāgā-rā$, $bā-rā$)

c. $di$kī$n-nā-ā$ \quad bùʔú \quad jnā-nā-ā-nū$$

man-Nom-Pl and woman-Nom-Pl

‘(the) men and women’

When the coordinands are pronouns, the left conjunct has simple proclitic form, while the right conjunct has independent form with suffix -$n̄$ or variant.

$$\text{(214) a. mā \quad bùʔù \quad wē-n̄}$$

1Sg and 2Sg-Indep

‘me and you-Sg’

b. $ā \quad bùʔù \quad mā-n̄$$

3SgHum and 1Sg-Indep

‘he/she and me’
7.1.2  **tú** ‘along with’

In one textual segment of the type *X*, **tú** *Y* with a pause after *X*, **tú** appears to be a kind of afterthought conjunction: ‘*X*, along with *Y*’. The speaker is presenting the topic of a tale that he is about to narrate. It is notable that ‘hyena’ has its nominal suffix, as it does in isolation.

(215)  **sürükú-rà, tú**  cf"  dè
ty  along.with  hare  there.

‘(Tale of) hyena, along with hare.’ (2016_02 @ 00:38)

For **tú** in composite numerals and other add-on quantities, see (132) in §4.6.1.3 and (280c) in §8.5.6.7. The possibility of an etymological connection with **tòɔ̀** ‘stay, remain’, whose forms include **túú**, see (274), is worth consideration.

7.1.3  ‘*X* and *Y*’ with a modifier or postposition

Non-quantifying modifiers such as adjectives and demonstratives that have scope over all conjuncts are avoided. Instead, the modifier is repeated on each conjunct. This indicates that conjunction of NPs occurs at a high syntactic level. This is illustrated by the demonstrative in (216a) and the adjective ‘black’ in (216b).

(216)  a.  [náá  mí-nà-à"]  bùʔú  [dígíí  mí-nà-à”]=Ø

[woman  Dem-Nom-Pl] and  [man  Dem-Nom-Pl]=Ipfv

**sí = í**  wàá

Fut=3SgNonhObj  go.Ipfv

‘These women and (these) men will go.’
b. $[náä \text{ black-Nom-Pl}]$ $búʔú$ $[dígíní \text{ black-Nom-Pl}]$ = Ø  

\begin{align*}
\text{woman} & \quad \text{and} \quad \text{man} \\
\text{Fut}=3\text{SgNonhObj} & \quad \text{go.Ipfv} \\
\text{‘The black women and (black) men will go.’} 
\end{align*}

When the universal quantifier $búʔú \sim búʔú$ has scope over the entire conjoined NP, it is not usually repeated on each conjunct. This may be due in part to its homophony with (or its secondary use as) the ‘and’ conjunction (217). In theory this could be parsed as ‘[(some/the) women] and [(all) the men] …’, but the normal interpretation is with wide scope.

\begin{equation}
[[náä-nà-àⁿ \text{ all}] \ bútú \ dígíní \ bútú] \ sí=í \quad \text{wàá}
\end{equation}

\begin{align*}
\text{[[woman-Nom-Pl and man] all} & \quad \text{Fut}=3\text{SgNonhObj} \quad \text{go.Ipfv} \\
\text{‘All the women and men will go.’} 
\end{align*}

If a numeral has scope over the entire conjoined NP, no single-clause construction is available. My assistant rephrased ‘Six [men and women] will go’ as (218), using ‘people’ as the quantified noun and reducing ‘men and women’ to an extraposed clarifying comitative PP in partitive-like function.

\begin{equation}
[[mèlèⁿ \text{ six}] \ \text{Fut}=3\text{SgNonhObj} \ \text{go.Ipfv}]
\end{equation}

\begin{align*}
[[dígín \ bútú \ nàà] \ dò] & \quad \text{[[man and woman] with]} \\
\text{‘Six people will go, out of male(s) and female(s).’} 
\end{align*}

When a possessor has scope over both or all conjuncts, as in ‘X’s [Y and Z]’, if the possessor is repeated it normally takes the form of a reflexive possessor (§18.1.1). This is clear in the case of 1st/2nd person possessors, most of which have distinct forms for reflexive possessor (219a). There is no overt difference for third person possessors, but I assume that here too the possessor is reflexive (219b). A conjunction of the type ‘X and [X’s Y]’, where the first conjunct is coindexed to the possessor of the second conjunct, also has a reflexive possessor (219c), though only 1st/2nd person pronouns have overtly distinct reflexive possessor forms.

\begin{equation}
\text{a. } [mā \text{ father}] \ \text{and } [1\text{SgRefl mother-Nom}] \\
\text{‘my father and (my) mother’}
\end{equation}

\begin{equation}
\text{b. } [zákù \text{ father}] \ \text{and } [3\text{SgHumRefl mother-Nom}] \\
\text{‘Zaki’s father and (his/own) mother’} \\
\text{(or: ‘Zaki’s father and his/her (someone else’s) mother’}
\end{equation}
c. \( mā \ būʔā = [ā^{o}\ jé-ná] \)
\( 1\text{Sg} \) and \( [1\text{SgRefl} \text{father-Nom}] \)
‘I and my father’

I have also heard examples where the repeated pronominal possessor is elided. Therefore (220a) with repeated pronominal possessor has a variant (220b) with zero second possessor. ‘Goats’ in (220b) is therefore subject to the tonal influence of the -3Sg ‘and’ conjunction, compare (213b) above.

(220) a. \([mā \ tāgā-rā-a^n] \ būʔūjā^n \ bāá-rā-a^n]\) \( \emptyset \) \( \text{wḗé} \)
\([1\text{Sg} \text{sheep-Nom-Pl}] \) and \( [1\text{SgRefl} \text{goat-Nom-Pl}] \) \( 3\text{SgNonhObj} \) \( \text{go.Pfv} \)
‘My sheep-Pl and (my) goats have gone away.’

b. \([mā \ tāgā-rā-a^n] \ būʔūbāá-rā-a^n]\) \( \emptyset \) \( \text{wḗé} \)
\([1\text{Sg} \text{sheep-Nom-Pl}] \) and \( \text{goat-Nom-Pl} \) \( 3\text{SgNonhObj} \) \( \text{go.Pfv} \)
‘My sheep-Pl and (my) goats have gone away.’

Postpositions need not be repeated after each conjunct (221).

(221) \( ā \ sè [\text{té} \ būʔūsūkāř] \ dē \)
\( 3\text{SgHum} \) \( \text{come.Pfv} \) \( \text{[tea and sugar] with} \)
‘He/She brought tea and sugar.’ (< \( sūkāř \))

7.2 Disjunction (\( \text{wálímà, wāā} \))

Disjunction (‘or’) is closely related to yes/no interrogation. \( \text{wálímà} \) ‘or’ occurs in paired two-sentence interrogatives, where the second sentence is disjunctive to the first.

(222) \( wō \ sà \ tāʔāā, \ wálímà \ wō \ sà \ tūă ñà\)
\( 2\text{Sg} \) \( \text{Fut} \) \( \text{go.Lpfv, or} \) \( 2\text{Sg} \) \( \text{Fut} \) \( \text{stay.Lpfv here} \)
‘Will you go, or will you stay?’ (\( tṓ \to \ tūă \) before \( ñà \))

When the disjuncts in an interrogative context are NPs, a disjunction \( \text{wāā} \) may be used.

(223) \( mā-ńī \ wāā \ zākū\)
\( 1\text{Sg-Indep} \) \( \text{or} \) \( Z \)
‘(Do you want) me or Zaki?’

In practice, disjunction of NPs and similar constituents is difficult to elicit. French cues containing them usually led to rephrasings like (224a-b) with a topic-like preposed conjoined NP in partitive function, followed by a sentence with a single NP resuming the two.
An alternative is to use *ou bien* more or less as in French. This is now quite common in local languages.
8 Postpositions and adverbials

Jalkunan has a full set of postpositions, which combine with preceding NPs to form postverbal adverbial phrases of various types. The NP occurs without its word-final nominal suffix. Pronouns take their usual proclitic forms. Before an L-toned postposition, nouns and bimoraic or longer pronouns subject to Final Tone-Raising. Most postpositions are tonally sensitive to the +3Sg versus -3Sg opposition (§3.8.3.5) among their complements, but most postpositions are also subject to M-Spreading from M-toned pronominals. Postpositions beginning with L-tone trigger Final Tone-Raising on a preceding L- or M-toned noun or bimoraic pronoun.

8.1 Dative and benefactive

8.1.1 No dative postposition with ‘give’ or ‘show’

There is no dative postposition for the indirect object (recipient) of ‘give’ or ‘show’. The indirect object is expressed by a bare postverbal object NP. The preverbal object denotes the theme. Postverbal NPs require the final nominal suffix if they are morphologically capable of having it; postverbal pronouns take independent form.

(225) a. mā wāř bīlī zākī
    1Sg money give.Pfv Z
    ‘I gave the money to Zaki.’

b. mā wāř bīlī
    1Sg money give.Pfv 2Sg-Indep
    ‘I gave you-Sg the money.’

c. mā sāá dūdāl [ā̞ ] jē-nā
    1Sg house show.Pfv [1Sg father-Nom]
    ‘I showed the house to my father.’

8.1.2 Dative mā ~ má after ‘say’

Dative postposition mā occurs with the indirect object of ‘say’ verbs.

(226) a. mā [n-ī būʔū] tšē [bākārī mā]
    1Sg [Obj-3SgNonh all] say.Pfv [B Dat]
    ‘I told it all (=everything) to Bakari.’
b. \text{mā síní tɔ̀ʔɛ̀ [náā mà]} = nēʔ
\begin{align*}
1\text{Sg} & \text{anything say.Pfv} \\
& \text{woman Dat} = \text{Neg}
\end{align*}
‘I didn’t say anything to the woman.’ (< \text{síní})

c. \text{mā síní tɔ̀ʔɛ̀ [náā-nà-a” mà]} = nēʔ
\begin{align*}
1\text{Sg} & \text{anything say.Pfv} \\
& \text{woman-Nom-Pl Dat} = \text{Neg}
\end{align*}
‘I didn’t say anything to the women.’

For \text{mà} as a spatial postposition ‘on’, see §8.3.3.3.

8.1.3 Benefactive \text{kè”} \sim \text{kê”}

The complement of this postposition is an NP denoting the beneficiary of an action. The forms are \text{kê”} after +3Sg, and \text{kè”} after -3Sg except \text{kê”} by M-Spreading after M-toned pronominal.

(227) a. \text{wō sé [tē dē] [mā kē”]}
\begin{align*}
2\text{Sg} & \text{come.Pfv} \\
& \text{tea with} & \text{1Sg Benef}
\end{align*}
‘You-Sg brought me some/the tea.’

b. \text{mā bāārá mè-yá=} [ámádú kē”]
\begin{align*}
1\text{Sg} & \text{work(n) do-Prog} \\
& \text{A Benef}
\end{align*}
‘I work for Amadou.’

See also (52a-c).
For the sense ‘chez, at the place of X’, see §8.3.3.4 below.

8.2 Instrumental and comitative

8.2.1 Instrumental-comitative \text{dè} \sim \text{dé}

The form is \text{dè} after +3Sg, \text{dé} after -3Sg except \text{dē} after M-toned pronominal. In (228), the complement of \text{dè} \sim \text{dé} denotes an instrument.

(228) a. \text{ mùë” gbāá bègé [jēn dē]}
\begin{align*}
1\text{Pl} & \text{wood cut.Pfv} \\
& \text{ax with}
\end{align*}
‘We chopped the wood with an ax.’ (gbāā)

b. \text{mā kàá bàʔrà [kùkù dē]}
\begin{align*}
1\text{Sg} & \text{snake hit.Ipfv} \\
& \text{stone with}
\end{align*}
‘I hit-Present the snake with a stone.’ (kàá, kùkù)

150
c. ààⁿ së [fàgá dë]
3Pl enter.Pfv [force with]
‘They entered by force.’ (= ‘They barged in.’) (fàgà)
d. tàgà-rá-àⁿ dë
sheep-Nom-Pl with
‘with (the) sheep-Pl’

This postposition is also part of the ‘bring’ and ‘take (there)’ constructions. The verb is intransitive ‘come’ or ‘go’, followed by a PP with dë ~ dë denoting the theme (the transported entity).

(229) a. sā [té dë]
come.Imprt [tea with]
‘Bring the tea!’

b. sīnl má sà tāʔá [tàgá dë] jí-nà
tomorrow 1Sg Fut go.Ipfv [sheep with] market-Nom
‘Tomorrow I will take (=convey) the sheep-Sg to the market.’

The verb bié ‘hold’ has a similar syntax, see (298b).

One could describe the ‘bring/take’ (i.e. ‘convey’) function of dë ~ dë as comitative. In any event it is not instrumental since the tea and the sheep in (229) are not means of transportation. However, more general comitative contexts require a different postposition (see the following section).

As predicate following ‘be’ subject enclitic, PPs with dë ~ dë denote temporary possession (custody), see §11.5.2.

8.2.2 Comitative dò ~ dó

The forms are dò after +3Sg, dó after -3Sg except dō after M-toned pronominal. This postposition normally takes a human complement, denoting accompaniment.

(230) a. mā bārá mè-yá [zákí dò]
1Sg work(n) do-Prog [Z Comit]
‘I work with Zaki.’ (< bārá)

b. mā bārá mè-yá [dí-rá-àⁿ dó]
1Sg work(n) do-Prog [child-Nom-Pl Comit]
‘I work with (the) children.’ (< bārá)

c. bākārī tēʔè-yá [mā dō]
B go.Prog [1Sg Comit]
‘Bakari is going (on a trip) with me.’
PPs with dò ~ dó may occur as predicates after the ‘be’ subject enclitic, denoting co-presence (accompaniment), see §11.5.2.2.

For postposition dò ~ dó in temporal PPs with noun ‘day’, see (553a) in §15.4.1. Postposition dò ~ dó is functionally distinct from NP-final specific indefinite dò ‘one’ (§6.5.2). An etymological relationship cannot be excluded.

8.3 Spatiotemporal postpositions

8.3.1 Locative, allative, and ablative functions

As generally in languages of the zone, the distinction between static locative (‘in’, ‘at’, ‘on’), allative (‘to’), and ablative (‘from’) is expressed by directionally sensitive verbs and other predicates, not by PPs. (231a-c) illustrate this for the postposition tɔ̀ ‘in’. The context is (static) locative in (231a), allative in (213b), and ablative in (213c).

(231) a. má = Ø [sàá  tɔ̀]
1Sg=be [house  in]
‘I am in the house.’ (< sàà )

b. mà sọ̀ [sàá  tɔ̀]
1Sg enter.Pfv [house  in]
‘I went into the house.’ (< sélé, sàà )

c. mà bọ́  [sàá  tɔ̀]
1Sg exit.Pfv [house  in]
‘I went out from the house.’ (< bọ́, sàà )

8.3.2 Temporal adverbs and place names without a postposition

Simple temporal adverbs like ‘at night’ and ‘during the dry season’ are expressed with postverbal nouns without a postposition. NPs end in their nominal suffix where morphologically possible (232a-b).

(232) a. má bã́ářá  mà  kùmàyèlémà-nà = nē?  
1Sg work(n) do.Ipfv dry.season-Nom=Neg  ‘I don’t work in (=during) the dry season.’ (màà )

b. zàkí bã́ářá  mà  kò?ì-nà  
Z work(n) do.Ipfv night-Nom  ‘Zaki works at night.’
Place names likewise generally occur without a postposition, as with the village/city names in (233). However, jálsá-dù ‘Blédougou’, the chief Jalkunan-speaking community, may itself contain a frozen locative postposition dù (§8.3.3.2).

(233) \[ má = \emptyset \quad \text{jálsá-dù} / \text{bôbô} \]
1Sg=be Blédougou / Bobo
‘I am in Blédougou / Bobo Dioulasso.’

One term for ‘village’ is kúnú. The suffixed form kún-ná can function as a locational without a postposition. In (234) it has a nominal suffix, as also in (466a).

(234) \[ má = \emptyset \quad \text{kún-ná} \]
1Sg=be village-Nom
‘I am in the village.’

Very often kúnú in this adverb-like function occurs without the nominal suffix, as in (257b), (425a-b), (572a-b), compare morphologically simplified English in town or at home.

8.3.3 Basic monosyllabic locative postpositions

8.3.3.1 Locative tò ~ tò ‘in’

This postposition places the moveable entity (trajector) inside a container or other bounded space.

(235) a. \[ mā \quad k₃^\circ \quad sɔ̀ \quad [bɔɔrɔ̀ \quad tɔ̀] \]
1Sg honey put.Pfv [sack in]
‘I put the honey in the sack.’ (k₃⁰)

b. \[ mā \quad ní \quad wɛ̀ \quad bɔɔrɔ̀fɔ̀rɔ̀ \quad [káár \quad tɔ̀] \]
1Sg 3SgNonhObj go.Pfv B [bus in]
‘I went to Banfora by (=in the) bus.’ (wɛ̀ < wɛ̀)

c. \[ má = \emptyset \quad [kálá \quad tɔ̀] \]
1Sg=be [home in]
‘I am at home.’

Further examples are (561), (663), text 2016_02 @ 00:57 and @ 03:48, and text 2016_04 @ 00:03.

More abstractly, this postposition takes as complement a form of nùù ‘tracks, trail’ with possessor (X) in the sense ‘in the place of X’, as when a new village chief takes over the position of his predecessor. An example is [nà nùù] tò ‘in his tracks/place’ in text 2016_01 @ 03:59. Compare English big shoes to fill or (follow) in X’s footsteps in similar contexts.
Another abstract function of \( t \circ \) occurs in text 2016_02 @ 02:05: \( w \text{ó } t \circ \) ‘that’s why …’ or perhaps ‘(it’s) in \( t \text{at} \) (context) that …’.

As with other monosyllabic postpositions, this one has L-toned form \( t \circ \) after a +3Sg NP or pronoun as illustrated above, and an H-toned form \( t \acute{\circ} \) after -3Sg NPs and pronouns. Compare \( b\text{á}r\text{á}r \text{ó } t \circ \) ‘in the sack’ in (235a) above with its plural in (236).

(236) \( b\text{á}r\text{á}r \text{ó } t \circ \)

\( \text{sack-Nom-Pl} \quad \text{in} \)

‘in (the) sacks’

It is \( t \circ \) by M-Spreading after M-toned pronominals (1Sg, 2Sg, 2Pl), a combination that is elicitable but rare.

This postposition may be used in in temporal PPs (237); a variant occurs in text 2016_04 @ 03:40.

(237) \( \text{[è } s\text{ò}\text{ʔ} \text{o]} \quad t \circ \)

\( \text{[3SgNonh day]} \quad \text{in} \)

‘on that day’

8.3.3.2 Locative \( d \text{ù} \sim d \text{ú} \) ‘in, inside of’

This postposition combines with nouns that denote an enclosing field (not a container as such). It is most common in a small number of high-frequency combinations with singular nouns conceptualized as denoting an extended or unbounded zone that an individual can be surrounded by (238).

(238) locative gloss noun

\( k\text{á} \text{á} \text{á} \text{o } d \text{ú} \) ‘in the bush (outback)’ \( k\text{á} \text{á} \text{á} \text{o} \)

\( m\text{ú} \text{á} \text{á} \text{o } d \text{ú} \) ‘in the field’ \( m\text{ú} \)

\( y\text{í } d \text{ú} \) ‘in (the) water’ \( y\text{í} \)

\( y\text{é}g\text{é} \text{-k\text{á}á} \text{ú } d \text{ú} \) ‘in the tree’ \( y\text{é}g\text{é} \text{-k\text{á}á} \text{ú} \text{o} \)

\( s\text{á} \text{á} \text{o } d \text{ú} \) ‘in (the) house, at home’ \( s\text{á} \)

\( s\text{á} \text{á} \text{o } d \text{ú} \) can also mean ‘traveling, on a trip’, as in (553a).

The -3Sg variant \( d \text{ú} \) is uncommon but is exemplified by \( m\text{ú} \text{-ná-ā } d \text{ú} \) ‘in the fields’. I cannot cite an M-toned form since this postposition does not easily take 1st/2nd person pronouns as complements.

In spite of \( y\text{í } d \text{ú} \) ‘in (the) water’, postposition \( t \circ \sim t \acute{\circ} \) occurs in contexts like ‘bathe in the river’, see \( g\text{ó}l\text{á } t \circ \) ‘(in) to the river’ in text 2016_04 @ 00:03. ‘In (the) water’ with \( d \text{ú} \) conceptualizes an unbounded mass of water that surrounds a trajector, as in describing the habitat of fish. ‘In(to) the river’ with \( t \circ \) is conceptualized as a bounded zone that one may
enter and exit. The opposition between dù ~ dú and tɔ̀ ~ tɔ́ also occurs in compound initials; see (146a-b).

jäls-dù ‘Blédougou’, the main Jalkunan-speaking community, probably contains a frozen locative postposition. “-dougou” is a common compound final in Jula-Bambara and other village and city names (Ouagadougou, etc.).

For dù in the abstract context *(say it in (language X)*, see text 2016_01 @ 00:12.

8.3.3.3 Locative mà ~ má ‘on’

This postposition expressed position on, or motion onto or off from, a horizontal or vertical surface, or on a large object that can be thought of as having a surface.

(239) a. kùgù-rá = Ø [dàʔàlí mà] stone-Nom=be [mat on] ‘The stone is on the mat.’


c. sìŋāā-ná = Ø [sàà-ɡúⁿ mà] gecko-Nom=be [wall on] ‘The gecko is on the wall.’

d. kùkú bè [mā mà] stone fall.Pfv [1Sg on] ‘The stone fell on me.’ (< bèè)

e. kùkù-rá-âⁿ mà stone-Nom-Pl on ‘on the stones’

See also text 2016_02 @ 02:12 (‘stood on its feet’) and @ 04:43 (‘sprinkled grains on it’). mà is also part of the composite postposition ‘behind’ (§8.3.4.3).

This is also the common postposition with ‘courtyard’ as in kélé mà, see text 2016_04 @ 00:19, which is often translatable as ‘(at/to) home’. Multiple houses/apartments may be centered on a courtyard, which then defines the household residence. mà can also be used with ‘house’ if not conceptualized as an enclosure, see ‘(arrived) at the first house’ in text 2016_04 @ 01:38.

Abstract senses of mà ~ má include ‘about’ in ‘ask X [about Y]’, see text 2016_01 @ 00:02 (line 2). It occurs in complements of ‘prevent’ (§17.4.2).

For dative use of mà with ‘say’, see §8.1.2. See also the ‘prevent’ construction (§17.4.2).
8.3.3.4  \( k\text{ê}^{n} \sim k\text{ê}^{n} \) ‘chez’

This postposition means ‘chez X’, i.e. ‘at the residence/place of X’. For benefactive function of this postposition, see §8.1.3.

(240)  a.  \( \text{mù}\text{û}^{n} \text{ wà} \quad [\text{zàkû} \\text{kê}^{n}] \)

1Pl  go  [Z  chez]

‘Let’s go to Zaki’s place!’

b.  \( [\text{dí} \\text{kpê?r-à-à}] \quad \text{kê}^{n} \)

[child  young-Nom-PI] chez

‘at the children’s place’

See also text 2016_02 @ 04:22 (lion’s den) and 2016_04 @ 01:43 (chief’s house).

8.3.3.5  \( gl\text{à} \sim gl\text{à} \) ‘next to’

This postposition denotes position very close to the landmark. It need not be to the side of the landmark (so I gloss ‘next to’ rather than ‘beside’).

(241)  tones  noun  gloss  PP  gloss

/L/  ñàá  ‘house’  ñàá  glà  ‘next to the house’
/M/  gbàá  ‘stick’  gbàá  glà  ‘next to the stick’
/H/  yi?é  ‘fish’  yi?é  glà  ‘next to the fish’

After a -3Sg NP the postposition is H-toned glá.

(242)  gbàá-rá-à

stick-Nom-Pl  glá  next.to

‘next to the sticks’

Pronominal examples are in (243). The M-toned pronouns spread the M-tone into the postposition (243a). The remaining pronouns follow the singular/plural division seen in nouns (243b-c).

(243)  a.  \( \text{mã} \text{ glã} \)

‘next to me’

\( \text{wô} \text{ glã} \)

‘next to you-Sg’

\( \text{êã}^{n} \text{ glã} \)

‘next to you-Pl’

b.  \( \text{mù}\text{û}^{n} \text{ glã} \)

‘next to us’

\( \text{àã}^{n} \text{ glã} \)

‘next to them (human)’

\( \text{êè\text{ê}^{n}} \text{ glã} \)

‘next to them (nonhuman)’
c. à glà ‘next to him/her’
è glà ‘next to it’

Examples are in (244).

(244) a. bákàrí = ∅ [mā glà]
B=be [1Sg next.to]
‘Bakari is next to me.’

b. ē sāʔā [bákàrì glá]
2SgRefl sit.Imprt [B next.to]
‘Sit down next to Bakari!’ (‘sit’ is pseudo-transitive)

One could argue for a bisyllabic representation gilà. If so, Syncope to glà is more or less automatic.

8.3.3.6 kinà ~ kíná ‘in front of’

This is the literal ‘in front of’ postposition denoting a spatial relationship. kinà follows +3Sg complements, kíná follows -3Sg, except that M-Spreading occurs after M-toned pronouns (1Sg mā kínà, 2Sg wō kínà, 2Pl ēeⁿ kínā).

(245) a. má = ∅ [sàá kinà]
1Sg=be [house in.front.of]
‘I am in front of the house.’

b. má = ∅ [nā-nā-àⁿ kíná]
1Sg=be [woman-Nom-Pl in.front.of]
‘I am in front of the women.’

c. ē sāʔā [mā kínà]
2SgRefl sit.Imprt [1Sg in.front.of]
‘Sit down in front of me!’

See also text 2016_04 @ 03:20 (‘her breasts were thrown in front of her’). This postposition is most felicitous in contexts like these where the landmark has a natural front-back orientation (person, animal, house). However, it can be used with unoriented landmarks (a tree, a well) to denote position relative to the axis linking the landmark to an observer’s position. (246) would make sense if the 3Sg referent is close to the well in such an observational configuration.
(246) á = Ø [kòli³ kìnà] 3SgHum=be [well(n) in.front.of]
‘He/She is in front of the well.’ (kòli³)

For the temporal sense ‘before X’, see §8.3.5.1 below.

kìnà occurs with the verb ‘fear, be scared of’, denoting the feared entity. This phrasing is more spatially concrete than that of English.

(247) má = Ø jòⁿ-yá [zàkú³ kìnà] 1Sg=lpfv fear-Prog [Z in.front.of]
‘I am scared of Zaki.’

8.3.3.7 njà ‘in the presence of’

When the context is ‘in the presence of X’ where X is a respected individual or office-holder, rather than simple spatial ‘in front of X’, njà is used. Unlike normal postpositions, this one is invariant tonally.

(248) àáⁿ njà tɔʔɔ̀ [màà njà] 3PlHum cause(n) tell.Adjn [owner in.presence]
‘They explained the matter in the presence of the chief.’ (2016_03 @ 10:46)

8.3.3.8 fúúlú ‘between’

This postposition appears to require a plural landmark, whether a simple plural pronoun or noun or the conjunction of two singulars. The form is therefore always H-toned fúúlú.

(249) a. [mà bùʔù wò] fúúlú [1Sg and 2Sg] between ‘between you-Sg and me’

b. múʔùⁿ fúúlú 1Pl between ‘between us’

c. [zàkí bùʔù bákàrì] fúúlú [Z and B] between ‘between Zari and Bakari’
8.3.9 kpà in temporal expressions

This morpheme is attested in expressions with temporal nouns (‘day’, ‘year’, etc.), either by itself (functioning like a postposition) or preceding locative tò ~ tò.

(250) a. [è sòtò kpà] tò
[3SgNonh day Temp] in
‘on that day’ (< sòtò)

b. [è nèe kpà] mā cié [sàà dù]
[3SgNonh year Temp] 1Sg be.Past [house in]
‘In that year, I was away (traveling).’

Nonhuman 3Sg è is a “possessor” in (250a-b).

See also the complex postposition kpà-mà ~ kpá-mà and its variant kpà-ŋà ~ kpá-ŋà indicating goal or pursued target (§8.4.3).

8.3.4 Complex and multisyllabic spatial postpositions

8.3.4.1 gbɔ́lɔ́kɔ́ ~ gbɔ́lɔ́kɔ́ ‘over/above’ or ‘on top of’

This postposition is L-toned gbɔ́lɔ́kɔ́ after +3Sg, gbɔ́lɔ́kɔ́ after -3Sg, and gbɔ́lɔ́kɔ́ after M-toned pronominal (e.g. mā gbɔ́lɔ́kɔ́ ‘above me’). The sense is either ‘over/above X’, denoting position on a vertical axis passing through the landmark X but without contact (251a-b), or ‘on top of X’, involving contact (251c).

(251) a. kò-ŋà-ŋà=Ø [sàà gbɔ́lɔ́kɔ́]
bird-Nom-Pl=be [house above]
‘The birds are (in flight) over the house.’ (sàà)

b. kò-ŋà-ŋà=Ø [sàà-rá-ŋà gbɔ́lɔ́kɔ́]
bird-Nom-Pl=be [house-Nom-Pl above]
‘The birds are (in flight) over the houses.’

c. bákkàr sidáni [sàà gbɔ́lɔ́kɔ́]
B ascend.Pfv [house on.top.of]
‘B has gone up onto the house (=the roof).’

An abstract sense ‘(burden/fallout be) on X’ is illustrated in text 2016_02 @ 04:51.
8.3.4.2  \( k\u026a\u00f3 \sim k\u0265 \) ‘under’

This postposition is \( k\u026a\u00f3 \) after +3Sg complements, \( k\u0265\) after -3Sg, and \( k\u0265\) after an M-toned pronoun (\( m\u0101 k\u0265 \) ‘under me’). It might contain locative \( t\o \sim t\o \) at least etymologically.

\[
\begin{align*}
(252) \quad a. \quad & k\u0269\u00f5\u2010r\u00f5 = \emptyset \quad [d\u027a\u016b\u01c8 \ k\u026a\u00f3] \\
& \quad \text{stone-Nom=be} \quad [\text{mat} \quad \text{under}] \\
& \quad \text{‘The stone is under the mat.’} \ (< d\u027a\u016b\u01c8) \\

b. \quad & k\u0269\u00f5\u2010r\o\u2010\o \u2010n = \emptyset \quad [d\u027a\u016b\u01c8\u0162\u027a\u01c8 \ k\u0265] \\
& \quad \text{stone-Nom-Pl=be} \quad [\text{mat} \quad \text{under}] \\
& \quad \text{‘The stones are under the mats.’}
\end{align*}
\]

The sense ‘under’ can be stretched to ‘in (a dense or canopied forest)’, see (652).

8.3.4.3  \( k\u0265\u00f5\u2010m\u026a \sim k\u0265\u00f5\u2010m\u026a \) ‘behind’

This is a complex postposition combining \( m\u026a \) ‘on’ with a stem \( k\u0265\u00f5\u2010r\u026a \) after +3Sg complement, \( k\u0265\u00f5\u2010r\u026a \) after -3Sg, and \( k\u0265\u00f5\u2010m\u026a \) after M-toned pronoun. One suspects that it originated as a PP based on a noun ‘back (of body)’ or ‘base’. Its historical relationships to \( k\o\u00f3 \) ‘back (of body)’ and to the final in \( t\o\u0162\u026a-k\u0101\u0121\u2010d\u026a \) ‘foundation (of house)’ are unclear.

\[
\begin{align*}
(253) \quad a. \quad & m\u00f3 = \emptyset \quad [s\u0106\u0102\u010b\u0162 \ k\u0265\u00f5\u2010r\u026a] \quad m\u026a] \\
& \quad 1\text{Sg=}\text{be} \quad [[\text{house} \quad \text{behind}] \quad \text{on}] \\
& \quad \text{‘I am in front of the house.’} \\

b. \quad & m\u00f3 = \emptyset \quad [[n\u0141\u0162\u0162\u0162-n\u026a\u0162 \ k\u0265\u00f5\u2010r\u026a] \quad m\u026a] \\
& \quad 1\text{Sg=}\text{be} \quad [[\text{woman-Nom-Pl} \quad \text{behind}] \quad \text{on}] \\
& \quad \text{‘I am in front of the women.’} \\

\quad & \quad \text{c. } e\quad s\u0106\u010b\u0162 \quad [[m\u00f3 \ k\u0265\u00f5\u2010r\u026a] \quad m\u026a] \\
& \quad 2\text{SgRefl} \quad \text{sit.Imprt} \quad [[1\text{Sg} \quad \text{behind}] \quad \text{on}] \\
& \quad \text{‘Sit down behind me!’}
\end{align*}
\]

See also text 2016.01 @ 00:28. For the temporal sense ‘after’, see §8.3.5.1 below.

8.3.4.4  \( c\u0146\u010d\u00f5\u2013r\o \sim c\u0146\u010d\u00f5\u2013r\o \) ‘in the middle of’

‘In the middle of X’ is expressed by a possessed form of the noun \( c\e\o\u010d\u00f5 \sim c\e\o\u010d \) ‘middle’, ending in its nominal suffix, rather than by a PP as such. The \( g \) may be elided, but if so the nasal is prolonged and the metrical shape is preserved. The suffixed form \( c\e\o\u010d\u00f5\u2013r\o \sim c\e\o\u010d\u00f5\u2013r\o \) always has suffixal \( r \) rather than nasalized \( n \) in my data.
8.3.5 Temporal postpositions

In addition to the sections below, see also ‘on that day’ in (237) above, with tɔ̀ ‘in’.

8.3.5.1 Temporal uses of ‘in front of’ and ‘behind’

‘In front of’ can mean ‘before’, and ‘behind’ can mean ‘after’, when combined with an NP used as a temporal reference point.

(255) a. sēr  kinà
   prayer in_front.of
   ‘before the prayer’

   b. [sēr  kūt̥r̥ɔ́] mà
      [prayer behind] on
      ‘after the prayer’

‘Over’ and ‘under’ are not attested in a temporal (or abstract quantitative) sense, as in ‘over (=more than)’ or ‘under (=less than)’ a quantity.

8.3.5.2 fɔ̄ ~ fɔ́ ‘until/all the way to’

fɔ̄ ~ fɔ́ precedes rather than follows the adverb or NP that it has scope over. The sense may be spatial (‘all the way to’) or temporal (‘until’). It is often emphatic.

(256) a. mā  fīdī  bàà“fɔ́rɔ́  [fɔ̄  jàlsà-dù]
    1Sg  run.Pfv  Ba  [until  Bl]
    ‘I ran from Banfora (city) all the way to Blédougou.’

   b. múʔú’  sà  wál  màà  [fɔ́  sîní]  
      1Pl  Fut  work(n)  do.Ipfv  [until tomorrow]
      ‘We’ll work until tomorrow.’
For a different function of \( f_{3} \), perhaps from French *il faut*, see §17.1.4.

8.3.5.3 \( fu\text{ù}rù \) ‘until, within (time span)’

This morpheme is not, strictly speaking, a postposition and it does not show tone variation. It occurs in temporal phrases beginning with a temporal adverb meaning ‘from now, hence(forth)’, such as *sánì* or *yàní*, continuing with an NP denoting a duration, and ending with *fu\text{ù}rù*.

(257)  a. \( mùʔù^{o} \ sà kwèg^{o} \ bègè \ mà \)
\( 1\text{Pl} \ \text{Prog} \ \text{crops} \ \text{cut} \ \text{do.Lpfv} \)
\( sánì \ \text{[yèè kpèn-dàà]} \ \text{fu\text{ù}rù} \)
\( \text{from.now} \ \text{[month end(v)-Nom]} \ \text{until} \)

‘We’ll harvest the crops within a month from now.’

b. \( mà \ \text{si=ì} \ \text{wàá} \ kùnù \)
\( 1\text{Sg} \ \text{Fut=3SgNonh} \ \text{go.Lpfv} \ \text{village} \)
\( yàní \ \text{[kpásòò flà]} \ \text{fu\text{ù}rù} \)
\( \text{from.now} \ \text{[week two]} \ \text{until} \)

‘I will go to the village within two weeks.’

8.3.5.4 \( w\text{ònò} \sim w\text{á}n\text{à} \) ‘still on (a topic)’

This postposition occurs in a construction with locational ‘be’. It presupposes that the subjects (often plural) have been discussing a topic.

(258)  a. \( mùʔù^{o} = \emptyset \ [nì \ w\text{ònò}] \)
\( 1\text{Pl}=\text{be} \ [3\text{SgNonh} \ \text{still.on}] \)

‘We are still talking about it.’

b. \( mùʔù^{o} \ [nì \ w\text{ònò} = nèî] \)
\( 1\text{Pl} \ [3\text{SgNonh} \ \text{still.on}=\text{Neg}] \)

‘We are not still talking about it.’

See text 2016_02 @ 04:51.
8.4 Purposive and possessive postpositions

8.4.1 Purposive-causal ‘for, because of’ (küdù ~ kúdú)

In (259a), ‘for money’ can be expressed by either the postposition mà ‘on’ or the dedicated purposive postposition küdù. Only küdù occurs in (259b), where ‘for God’ has the sense ‘without expectation of (earthly) reward’.

(259) a. mà wálí mé-yá [wár mà / kúdú]
   1Sg work(n) do-Prog [money on / for]
   ‘I work for money.’

   b. mà wář bìl= á-yà [álá kúdù]
   1Sg money give.Pfv Hum-3SgObj [God for]
   ‘I gave him/her some money for God (=freely).’ (< /bílí à-yà/)

8.4.2 Custodial wù ~ wú

This postposition is used after a verb like ‘put X [into Y]’, and specifies that the container (e.g. a pocket or bag worn with a neck strap) is in the custody (temporary possession) of the individual denoted by the complement.

(260) càʔácí cf= [fî wù]
   peanut be.put [3SgNonh Custod]
   ‘(Unshelled) peanuts had been put in his control (=into his sack).’ (2016.02 at 01:42)

This postposition lends itself to reflexive pronominals, where the postpositional complement is coindexed with the clausemate subject, as in ‘I put X [into my (pocket/bag)]’, compare English I socked it away. Examples are (261) with ‘it’ as preverbal object and (262) with ‘peanuts’ as preverbal object. The verbs are perfectives bèɛ ~ bèɛ ‘put (object) down’ (261) and ciɛ ~ ciɛ ‘put or pour (mass, many small objects) in’ (262).

(261) mà ní bá= [àⁿ wù]
   ‘I put it in (e.g. my pocket/bag)’
   mùʔùⁿ ní bá= [àⁿ wù]
   ‘We put it in.’

   wō ní bè= [è wù]
   ‘You-Sg put it in.’

   ën ní bè= [èⁿ wù]
   ‘You-Pl put it in.’

   à ní bá= [á wù]
   ‘He/She put it in.’

   òn ní bá= [àⁿ wù]
   ‘They-Hum put it in.’

   è ní bè= [è wù]
   ‘It put it in.’

   ën ní bè= [èⁿ wù]
   ‘They-Nonh put it in.’

163
(262) mā càʔací ciè = [êⁿ wú]  ‘I put peanuts in (e.g. pocket)’
mûʔäm càʔací ciè = [êⁿ wú]  ‘We put peanuts in.’
wō càʔací ci = [i wú]  ‘You-Sg put peanuts in.’
ēeⁿ càʔací ci = [iⁿ wú]  ‘You-Pl put peanuts in.’
à càʔací ciè = [ê wú]  ‘He/She put peanuts in.’
ààⁿ càʔací ciè = [êⁿ wú]  ‘They-Hum put peanuts in.’
è càʔací cí = [ì wú]  ‘It put peanuts in.’
èèⁿ càʔací cí = [ìⁿ wú]  ‘They-Nonh put peanuts in.’

8.4.3 Goal postposition kpâ-mà ~ kpâ-mà or kpâ-nà ~ kpâ-nà

kpâ-mà ~ kpâ-mà functions synchronically more or less like a single postposition in spite of the hyphens. It can mean ‘for’ (purposive) or ‘in(to) the presence of (someone)’. It can also express the target of ‘pursue’. In general it denotes the goal. Forms are kpâ-mà (after +3Sg), kpâ-mà (after M-toned pronominal), and kpâ-mà (after other -3Sg).

(263) a. [mâ sè]  [wâr] kpâ-mà
    [1Sg come.Pfv]  [money goal]
    ‘I came for the money.’

b. [mâ sè]  [wō] kpâ-mà
    [1Sg come.Pfv]  [2Sg goal]
    ‘I came to you (into your presence).’

c. jèr-râ=Ø sî=í sàà [mâ kpâ-mà]
   lion-Nom=Ipfv Fut=3SgNonhRefI pursue.Ipfv [1Sg goal]
   ‘The lion will pursue me.’

See text 2016_02 @ 00:23, 00:39, and 03:09.

A variant kpâ-nà ~ kpâ-nà or kpâ-nà ~ kpâ-nà is also attested in the ‘follow/pursue’ context: text 2016_02 @ 02:27 and @ 00:35

The variant kpâ-mà ~ kpâ-mà is probably a frozen combinations of kpânà ‘follow’ (in adjoined form kpâ”nà), and an original PP with postposition mà ‘on’ such as human 3Sg à mà. It is no longer possible to insert a postpositional complement before -mà in kpâ-mà. The verb kpânà still exists, but it requires one of the postpositions presented above.

(264) mâ kpânî [zâkí] kpâ-mà / kpâ-nà
    1Sg follow.Pfv [Z goal]
    ‘I followed Zaki.’
8.4.4  \( \text{ná} \) after plural ethnicity name

This postposition (or at least postposition-like element) follows plural ethnicity names and is therefore always H-toned. It is attested with the verb ‘exit’ in the sense ‘extend beyond’.

\[
\text{(265) } mā \ bā' \ [\text{jăl-á-á}^n-ń / kṑd-ră-á}^n / bōbō-ră-á}^n / băł-lă-á}^n \ \text{ná}
\]

\[1\text{Sg exit.Pfv [Jali/-Natiooro-/Bobo-/Senoufo-Nom.Pl ethnicity]}\]

‘I went beyond the Jali/Natiooro/Bobo/Senoufo ethnicity.’

\( \text{ná} \) may be related to the adjective \( \text{ná} \) ‘foreign’, suffixed \( \text{ná-ná} \). However, it is clearly not adjectival in (265), where it follows plural-marked nouns. In true N-Adj combinations, the nominal suffix and plural suffix(es) are added to the adjective while the noun is bare.

8.4.5  \( \text{kósò}^n \) ‘because of’

\( \text{kósò}^n \) is a noun-like element that functions like a postposition ‘because of’, explaining a reason or cause. It is tonally invariant: \( mā \ kósò^n \) ‘because of me’, \( dī \ kósò^n \) ‘because of the child’, etc.

\( \text{kósò}^n \) occurs in the expression \( wō \ kósò^n \) with focalized 3Sg complement (or possessor) in the sense ‘\text{that [focus]’s why …’}. See §13.1.5 on resumptive focalizations of this type.

8.5  Other adverbs (or equivalents)

8.5.1  ‘Like, similar to’ (\( \text{gbś-nń} \))

I take \( \text{gbś-nń} \) to be a noun (suffixed form implies \( \text{gbś}^n \) as the stem). It immediately follows an NP denoting the comparandum. There are no tonal interactions like those in possessor-possessum combinations.

\[
\text{(266) a. } wō=Ø \ wālī \ māà \ [\text{náā gbś-nń}]
\]

\[2\text{Sg=Ipfv work(n) do.Ipfv [woman manner-Nom]}\]

‘You-Sg work like a woman.’

\[
\text{b. } mā=Ø \ wālī \ māà \ [\dot{ā} \ gbś-nń]
\]

\[1\text{Sg=Ipfv work(n) do.Ipfv [3SgHum manner-Nom]}\]

‘I work like him/her.’

8.5.2  Extent (‘a lot’, ‘a little’)

Words with these meanings can be adverbs (non-argument postverbal nouns) or, in some cases, NPs capable of functioning as arguments (subjects, preverbal objects).
‘a lot’ can be either an adverb (267a) or an NP (267b). (267b) shows that it behaves like a +3Sg NP with respect to its tonal effect on a following word, so ‘give.Pfv’ is +3Sg bilí instead of -3Sg bilí.

(267) a. à jìmê féēⁿ
3SgHum weep.Pfv a.lot
‘He/She wept a lot.’

b. à féēⁿ bìlī mā-ŋ
3SgHum a.lot give.Pfv 1Sg-Indep
‘He/She gave me a lot.’

See also the comparative construction in (446b).

For ‘a little’ the adverb (postverbal noun) is nēʔēkē ‘a little’ (268a-b).

(268) a. à jìmê nēʔēkē
3SgHum weep.Pfv a.little
‘He/She wept a little.’

b. á bìlī mā-ŋ nēʔēkē
3SgHum give.Pfv 1Sg-Indep a.little
‘He/She gave me a little.’

The noun dɔ̀ɔ̀nì can mean ‘a little’ or, in temporal contexts, ‘a little while’ (hence ‘soon’).

(269) a. [à dɔ̀ɔ̀nì bìlī mā-ŋ]
[3SgHum a.little give.Pfv 1Sg-Indep]
‘He/She gave me a little.’

b. [sáñi dɔ̀ɔ̀nì] [zàkúi = Ø ‘sáá]
[by a.little] [Z=Ipfv come.Ipfv]
‘Zaki will come by (=within) a little while.’

See also (570).

8.5.3 ‘Exactly’ (kpèʔé-nù ~ kpèʔé-nù)

Exactness of a quantity is specified by adding kpèʔé-nù after the numeral. After the numeral ‘1’ the form is kpèʔé-n(ù). The core sense is ‘only, not more than’ (§19.1.3).

(270) a. tàgà jàáⁿ-flā
sheep twenty-two
‘forty sheep’
b. [tàgà jáⁿ-flā kpēʔ-nū] tôʔrí
   [sheep twenty-two exactly] sell.Imprt
   ‘Sell-2Sg exactly forty sheep!’

c. [tàgà dūlí kpēʔ-ń] tôʔrí
   [sheep one exactly] sell.Imprt
   ‘Sell-2Sg exactly one sheep!’

For the sense ‘precisely X’ (i.e. X and no-one else) where X denotes a person or other referent, see the emphatic ‘X himself’ construction in §18.1.2.3.

8.5.4 Evaluation

8.5.4.1 ‘Well’ and ‘badly’

Evaluations of how well an activity was performed are phrased not with adverbs like English *well* and *badly*, rather by adding evaluative adjectives to a nominal complement. Only *ɲɛ́* ‘good’ is common; the clause containing it can be negated to translate ‘bad(ly)’.

(271) a. á = Ø ['wālī ɲɛ́] màà
   3SgHum=Ipfv [work(n) good] do.Ipfv
   ‘He/She works well.’ (lit. “… does good work”)

   b. àaⁿ = Ø [sīgī ɲɛ́] sàà = rēʔ
   3PlHum=Ipfv [song good] sing.Ipfv=Neg
   ‘They sing badly.’ (lit. “… sing bad songs”)

8.5.4.2 ‘Proper, right, (socially) normal’ (*ɲàànè ~ ɲàάǹè*)

A predicate characterizing an action as socially correct (normal, proper, right), or with negation as incorrect, is expressed by variants of imperfective *ɲàànà ~ ɲàάǹà* ‘become good/better, improve’. The form used is *ɲàànè ~ ɲàάǹè*, trimmed to *ɲààná = ~ ɲàάǹá* before the negative enclitic.

(272) a. [á = Ø mī mē-yā]
   [3SgHum=Ipfv Rel do-Prog]
   [è *ɲàànè* / ɲàάǹá = nēʔ]
   [3SgNonh be.normal.Ipfv / be.normal.Ipfv =Neg]
   ‘What he/she is doing is normal / isn’t normal.’
8.5.5 Manner adverbs (‘like this/that’)

The basic noninterrogative manner adverb (‘like this/that’, ‘so’, ‘thus’) is \textit{nàné}. It may be historically connected in some way with \textit{nàà} ‘here’ and/or \textit{nè} ‘here/there’.

\textbf{(273) a.} \textit{è mà nànè}\\ 3SgNonh do.Imprt \textit{like.this}\\ ‘Do-2Sg it like this!’

\textbf{(273) b.} \textit{bí wálí mà nànè = nè?}\\ Proh work(n) do.Imprt \textit{like.this}=Neg\\ ‘Don’t-2Sg work (do the work) like that!’

There is also an adverb \textit{yààlàà} ‘thus’. It occurs in a narrative where it resumes a situation that has been described, before the next foregrounded event appears.

\textbf{(274) donc àà\textsuperscript{n} tú = ú yààlàà, …}\\ so 3PlHum stay.Pfv=Link \textit{thus, …}\\ ‘So, they remained thus (=in that situation), (until) ….’ (2016_04 @ 00:23)

8.5.6 Spatiotemporal adverbials

8.5.6.1 Temporal adverbs

Some of the major temporal adverbs are in (275). See also §8.5.6.7-8 below.

\textbf{(275) a.} \textit{fì}  \\
\textit{lò}  \\
\textit{wòsí\textsuperscript{s} tò}  \\
\textit{wòsí\textsuperscript{s} tò dè}  \\
kààtò  \\
sísà\textsuperscript{n}  \\
‘today; nowadays’  \\
‘yesterday; formerly, in the old days’  \\
‘day before yesterday’  \\
‘a few/several days ago’  \\
‘now’ (current time)  \\
‘now’ (also in Jula; discourse marker, see §19.3.1)

\textbf{b.} \textit{síní}  \\
síní kéné  \\
síní kéné kútúrò-mà  \\
‘tomorrow; in the future’  \\
‘day after tomorrow’  \\
‘second day after tomorrow’ (third from today)
c. *bùlù* ‘last year’

*wò nè̀ mà = éé dè* ‘a few/several years ago’

*ɲèè-wè* ‘next year’

*ɲì̄nà* ‘this year’

### 8.5.6.2 Spatial adverbs

The following are the main spatial adverbs.

(276) a. *álà mà* ‘above, upward, on top’

*dòʔó mà* ‘below, down, under’


*kɔ̀ʔɔ̀-dúgú* ‘in the north’ (“salt place”, cf. *kòò* ‘salt’)

*tál-bàà tò-nɔ* ‘in the west’ (“sun-fall at”)

*tál-fidè tò-nɔ* ‘in the east’ (“sun-rise at”)

c. *kùdɔ́rɔ̀ mà* ‘in the rear’

*knà* ‘forward; in front’

‘Right hand’ is *tùkùnì bɔ́l-ɔ̀* with *bɔ̄l* ‘hand’ and a compound initial or possessor. ‘Left hand’ is *nɔ̀kɔ̀lɔ́ bɔ̄l-ɔ̀*.

### 8.5.6.3 ‘(Go) straight’ (*télénà*)

Adverbial ‘straight, directly (to somewhere)’ in the context of motion is expressed by the intransitive verb ‘go straight’ with imperfective *télénà* and perfective *tèlén* ~ *télén*, rather than by an adverb.

(277) *mùʔù* *télénì* *f5 jàlsà-dù*

1Pl go.straight.Pfv all.the.way Blé

‘We went straight (=directly) to Blédougou (village).’

### 8.5.6.4 ‘Apart, separate’ (*dánà*)

The adverb *dánà* may occur after an NP, or more typically in parallelistic constructions repeated after two contrasting NPs.

(278) *páà-nà-á* = Ø  *dánà*,  *dígi-nà-á* = Ø  *dánà*

woman-Nom-Pl=be  apart,  man-Nom-Pl=be  apart

‘Women and men separate(ly)’
Such a phrase is usually attached as a kind of adverbial adjunct to some main clause, but it has its own sentence-like prosody.

8.5.6.5 ‘Always’ and ‘never’

There is no dedicated adverb ‘always’. The sense is expressed by the phrase ‘(at) all time(s)’ (279a). Similarly, there is no dedicated ‘never’ adverb. The sense is roughly expressed by an emphatic construction whose core sense is ‘not … at all’ (279b).

(279) a. \[ á = \emptyset \quad \[\text{wálf} \quad \text{unj} \] \quad \text{màà} \quad \[\text{wáʔáuí} \quad \text{bùʔá-nù} \] \quad \text{do.}\text{lpfv} \quad \text{[time all-Pl]} \]

‘He/She always does good work.’

b. \[ á = \emptyset \quad \[\text{wálf} \quad \text{unj} \] \quad \text{màà} \quad \text{fésé-fésé = rēʔ} \quad \text{do.}\text{lpfv} \quad \text{at.all=Neg} \]

‘He/She never does good work.’

8.5.6.6 ‘Still’, ‘since’, ‘(not) yet’

For ‘still’ see §8.3.5.4. For ‘(ever) since’ see §15.4.3, and the ‘keep VPing’ construction with \(tɔ̀ɔ̀\) ‘stay’ in §15.1.1.2. For \(tɔ̄\) = \(nɛ́ \) ‘(not) yet’ see §15.4.4.2.

8.5.6.7 ‘By, between now and’ \((\text{sání and } \text{yàní ~ jàní})\)

\(\text{sání}\) followed by a temporal expression defines a time interval beginning with the present, cf. French \(d’ici\) or one sense of German \(bis\) (280a). There is also a synonym \(\text{yàní ~ jàní}\) (280b-c).

(280) a. \[ [\text{sání} \quad \text{wūláára}] \quad \text{[zàkũ = \emptyset} \quad \text{’sáá]} \quad \text{[from.now evening]} \quad \text{[Z=lpfv come.lpfv]} \]

‘Zaki is coming by (=no later than) this evening.’

b. \[ [\text{mùʔù} = \emptyset \quad \text{sà} \quad \text{kwéé’-bégé} \quad \text{màà}] \quad \text{[1Pl=lpfv Fut crops-cut.VblN do.Ipfv]} \quad \text{[yèè dülì]} \quad \text{from.now [month one]} \]

‘We’ll harvest the crops one month from now.’ (< \text{kwéé’, bégé’})
(281)  a.  bákăr   téʔ =
    B   go.Pfv
    [à bül =] [ɔ̀ sá] kàbáⁿ
    [3SgHum return.Adjn] [3SgHum come.Adjn] already
    ‘Bakari went and has already come back.’

b.  à   kú   [mèʔá  kpà-mà] náání
    3SgHum begin [person goal] already
    ‘He/She is already stalking the person’ (2016_04 @ 00:39)

c. [mí-nà-áⁿ [yí dù] kàbáⁿ náání dōô]
    [Dem-Nom-Pl [water in] already already too]
    ‘(She saw that) those (women) were already in the water.’ (2016_04 @ 00:48)

8.5.7 Expressives

Jalkunan does not seem to make much use of lexical expressive adverbials. The two tales that have been transcribed have plenty of nonlexical interjections of the “ah!” and “ooh!” type. However, there is only one good textual example of a lexical expressive:

(282) wábáw!,  é  fidi
    whoosh!,  3SgNonh run.Adjn.Defoc
    ‘Whoosh! He (=warthog) ran away.’ (2016_02 @ 04:54)

The translation ‘whoosh!’ is misleading since the English form is a semi-onomatopoeia, whereas wábáw is an expressive adverb with a lexical sense and non-iconic (arbitrary) phonological form. There are probably more such forms that would turn up in a larger text collection.
9 Verbal derivation

9.1 Reversive verb derivation absent

No reversive derivation or productive reversive phrase type was observed. Reversive-like senses are expressed by dedicated lexical items or by semantic extensions. ‘Unlock’ is expressed as dẽ̀ ‘open (door)’, which can also be used in the sense ‘uncover, remove blanket from (sb)’. ‘Take out, remove’ is simply the transitive use of ‘exit, go out’, with no derivational morpheme. There is a dedicated lexical item for ‘untie’ (fẽ̀nà), functioning as reversive for the phonologically unrelated ‘tie, bind’ (kû̀lñà) as well as for ‘hobble (animal, with rope)’ (fîríkîyà).

9.2 Morphological causative derivation absent

There is no productive morphological causative. For alternations, using the same ambi-valent verbs, like intransitive ‘fall’ and transitive ‘knock down’, see §9.4 below.

If no simple lexical item can express the sense intended, a periphrastic causative using the verb ‘put down’ (imperfective bàà) and a postverbal nominalized verb can fill the bill.

(283) mā nà bè fídī-rá
1Sg 3SgHumObj put.down.Pfv run.VblN-Nom
‘I made him/her run.’

9.3 Morphological passive derivation absent

There is likewise no morphological passive derivation. If a specific agent is overt, it is the subject. There is no difference in Jalkunan between ‘I was robbed by the bus driver’ and ‘The bus driver robbed me.’ Nonspecific or generalized agency is expressed by ‘they’ as subject (284).

(284) dàⁿ mā jştña
3Pl 1Sg rob.Pfv
‘I was robbed.’ (“They robbed me.”)

9.4 Ambi-valent (labile) verbs without suffixal derivation

Ambi-valent (or labile) verbs can function intransitively and transitively, by definition. Since pronominal objects are nonzero in form, the existence of a preverbal object is sufficient to
indicate transitive status of the verb. Ambi-valent verbs are very common in Jalkunan. ‘Fall’ and ‘cause to fall, knock down’ (also ‘put down’) are exemplified in (285).

(285) a. à bëë
   3SgHum fall.Pfv
   ‘He/She fell.’

   b. mā ná bëë
   1Sg 3SgHumObj make.fall.Pfv
   ‘I made him/her fall.’

Some of the most common ambi-valent verbs are in (286). In the imperfective columns, the parenthesized tonal forms are those not used in the intransitive (positive), which does not make the +3Sg/-3Sg distinction.

<table>
<thead>
<tr>
<th>(286)</th>
<th>Pfv</th>
<th>Ipfv</th>
<th>gloss (intr)</th>
<th>gloss (tr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+3Sg</td>
<td>+3Sg</td>
<td>-3Sg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bëë</td>
<td>bàà</td>
<td>(báá)</td>
<td>‘fall’</td>
<td>‘knock down, put down’</td>
</tr>
<tr>
<td>bɔ̀ë</td>
<td>(bɔ̀ɔ̀)</td>
<td>bɔ́ɔ́</td>
<td>‘exit, go out’</td>
<td>‘take out’</td>
</tr>
<tr>
<td>sɔ̀ë</td>
<td>(sɔ̀ɔ̀)</td>
<td>sɔ́ɔ́</td>
<td>‘enter’</td>
<td>‘put in’</td>
</tr>
<tr>
<td>kpèë”</td>
<td>(kpàà”)</td>
<td>kpáà”</td>
<td>‘die’</td>
<td>‘kill’</td>
</tr>
<tr>
<td>kàʔrí</td>
<td>(kàʔrà)</td>
<td>kàʔrày</td>
<td>‘snap, be broken’</td>
<td>‘snap, break (sth)’</td>
</tr>
<tr>
<td>bìë</td>
<td>(bìè)</td>
<td>bìë́</td>
<td>‘(fire) be lit’</td>
<td>‘light (fire)’</td>
</tr>
<tr>
<td>mèë</td>
<td>(màà)</td>
<td>māá</td>
<td>‘be done, happen’</td>
<td>‘do’</td>
</tr>
</tbody>
</table>

The transitive in each case is semantically the causative of the intransitive.

9.5 Deadjectival inchoative and factitive verbs

Most basic adjectives have an associated verb that can be used as inchoative (‘X become ADJ’) or factitive (‘Y make X become ADJ’). Inchoatives, like other intransitives, have a single form in positive imperfective clauses. For factitives, which (like other transitives) distinguish +3Sg and -3Sg tonal forms, the +3Sg form is given in parentheses. The -3Sg form (not shown) replaces the initial L-tones of the +3Sg form with H-tones.

<table>
<thead>
<tr>
<th>(287)</th>
<th>adjective</th>
<th>gloss</th>
<th>inchoative Ipfv (factitive Ipfv +3Sg)</th>
</tr>
</thead>
</table>
| a. transparently related adjective and verb
| kpèë | ‘white’ | kpèë (kpèë) |
| kànnà | ‘red’ | kànnà (kànnà) |
| gbɔ̀ʔɔ̀ ~ gbɔ̀ʔɔ̀ | ‘black’ | gbɔ̀ʔɔ̀ (gbɔ̀ʔɔ̀) |
| njé | ‘good’ | njànnà (njànnà) |
gbáʔálá ‘thin; dry’
kbú̀má ‘cold’
ktá ‘bad’
gúní ‘short’

b. suppletive or highly irregular
táʔ ‘hot’
súmáá ‘long’
kút ‘old’

A number of other verbs also denote intransitive changes of state, but do not correspond to any of the few true (morphologically simple) adjectives in the language. One can, however, construct nominal modifiers from verbs like these phrasally (§4.5.3). Parenthesized forms are +3Sg factitives (i.e. transitives).

(288) inchoative (factitive) inchoative gloss

ɲílènáá (ɲílènàá) ‘become wet’
 dóʔoyáá (dutoyáá) ‘shrink, become small’
 táʔ ‘rot’ (factitive unknown)
 jáá ‘become sweet, delicious’
 nó́nó ‘grow, become big, widen’
 gbáʔálaná (gbáʔáláná) ‘dry off’
 gbàá (gbáà) ‘become difficult or expensive’
 nèè-bàà (nèè-bàà) ‘become bitter(-tasting)’
 ṃ̀nùn (ənù́n) ‘become sour’

9.6 Incorporated object in compound verbs

OV transitives have a preverbal object slot that is often filled by a noun without its nominal suffix. (There are no definite or all-purpose indefinite markers.) This makes it difficult to distinguish object-verb sequences from compounds of a verb with an incorporated object. A further difficulty is the absence of genitive/possessive morphology in possessed NPs. Consider (289).

(289) má = Ø särá múú mé-yá
1Sg=Ipfv tobacco field do-Prog
‘I grow tobacco.’ (mùù)

‘Field’ plus ‘do’ is a standard collocation meaning ‘do farm work’. The question is the status of ‘tobacco’. The options are a) to treat särá múú, whether analysed as a nominal compound (‘tobacco-field’) or as a possessed NP (‘tobacco’s field’, ‘field of tobacco’), as the object of ‘do’, or b) to analyse múú as an incorporated noun, leaving särá as a true syntactic object.
If we take ‘tobacco’ out, the result is (290).

(290) \( mā = \emptyset \quad mùù \quad mè-yá \)
\[ 1\text{Sg}=\text{Ipfv} \quad \text{field} \quad \text{do-Prog} \]
‘I do farming.’

Here the options are a) to treat ‘field’ as a conventionalized object of ‘do’, or b) to analyse \( mùù \) as an incorporated noun, making the noun-verb combinations a derived intransitive verb (cf. to duck-hunt versus to hunt ducks).

A pronominal object is also possible. In (291), ‘it’ could refer to a specific crop mentioned in preceding discourse.

(291) \( mā = \emptyset \quad nī \quad mùù \quad mè-yá \)
\[ 1\text{Sg}=\text{Ipfv} \quad 3\text{SgNonhObj} \quad \text{field} \quad \text{do-Prog} \]
‘I grow it.’

Here a stronger case can be made for taking ‘field-do’ as a compound verb functioning syntactically as transitive, with \( nī \) as its direct object. However, even here \( nī \) could also be parsed as a possessor of ‘field’, since there is no difference in form between an object proclitic to a verb and a possessor proclitic to a noun. A possessed noun reading would entail that ‘its field’ in (291) is the preverbal object (and no noun-verb compound need be recognized). This type of possessed NP analysis is clear in cases like (292) where for semantic reasons \( nà \) cannot be construed as a direct object ‘him/her’ (as in #‘I work-do him’).

(292) \( mā = \emptyset \quad [nà \ wàlí] \quad mè-yá \)
\[ 1\text{Sg}=\text{Ipfv} \quad [3\text{SgHum} \quad \text{work}] \quad \text{do-Prog} \]
‘I do his/her work.’

The absence of case-marking of objects, and of overt genitive or possessive morphemes, leaves only tone patterns as possible evidence to distinguish simple object nouns before simple transitive verbs from incorporated objects in noun-verb compounds (whether transitive or intransitive). In (292) above, work (\( wàlí \)) has the \{L(H)\} overlay associated with +3Sg possessors. In (293), it has the \{L(L)\} overlay associated with alienable -3Sg possessors, but then undergoes Final Tone-Raising before the initial L-tone of the verb.

(293) \( á = \emptyset \quad [mā \ wàlí] \quad mè-yá \)
\[ 3\text{SgHum}=\text{Ipfv} \quad [1\text{Sg} \quad \text{work}] \quad \text{do-Prog} \]
‘He/She does my work.’

Returning to (289) above, the LH tones of \( mùù \) ‘field’ (lexical \( mùù \) ) could be due to Final-Tone Raising before an L-tone, as clearly in (290) above, or they could reflect the \{L(H)\} overlay on possessums following +3Sg possessor (‘tobacco’).

(294) shows perfective VPs with ‘bury’ and a pronominal object. The issue is whether \( kù \) ‘corpse’ is incorporated into the verb \( s̀é \sim s̀é \) ‘put in (perfective)’, or is possessed by the
pronoun. For example, is the 1Sg version literally ‘corpse-put me’ (compound) or ‘put [my corpse]’ (possessum)?

(294) mā kū  sê  ‘buried me’ (variant mā kū sê)
ná kū  sê  ‘buried him/her’
nāān kū  sê  ‘buried them (human)’

In (294) the pronoun has a clear tonal effect on kū ‘corpse’, reflecting the +3Sg/-3Sg opposition. This is compatible with a possessive reading, as in ‘put [my/his-or-her/their corpse(s)’). However, the forms in (294) above are tonally distinct from those in (295) below, which have the same morphemes but which clearly involve possession. To begin with, the verb now has the LH tones of a perfective verb following a +3Sg object. Secondly, M-Spreading has applied to ‘my corpse’ (mā kū), although kū is later subject to Final Tone-Raising to ku (MH-tone). M-Spreading is regular for inalienable possessums after M-toned pronominal possessors. Third, ‘his/her corpse’ has LH-toned noun, which can be ascribed either to an {L(H)} overlay (controlled by a +3Sg possessor) or to Final Tone-Raising (tone sandhi).

(295) [mā kū]  sê  ‘put my corpse in’
[ná kū]  sê  ‘put his/her corpse in’
[nāān kū]  sê  ‘put their corpse in’

These considerations suggest that (294) exemplifies a transitive compound construction [NP  N-Vb], while (295) exemplified a regular transitive construction with inalienably possessed object [[Poss N]  Vb]. However, the two constructions do not have sharp boundaries.

Some other cases that I initially took to be compounds turned out to pattern tonally as (alienably) possessed object constructions. For example, ‘scare’ and ‘bother’ in (296-7) behave tonally like (295) rather than (294) above.

(296) [mā jāā]  bègé  ‘scared me’
[ná jāā]  bègé  ‘scared him/her’
[nāān jāā]  bègé  ‘scared them (human)’

(297) [mā nā]  kpání  ‘bothered me’
[ná nā]  kpání  ‘bothered him/her’
[nāān nā]  kpání  ‘bothered them (human)’

Further examples of verb-verb compounds are presented in §15.3.1-2. See also discussion of ‘be healthy’ (405a-b) in §11.1.2.6.
10 Verbal inflection

10.1 Inflection of regular indicative verbs

10.1.1 Valency

10.1.1.1 Intransitive and transitive

For purposes of this chapter, the relevant distinction is between intransitive verbs (defined here as verbs that do not take a preverbal object) and transitive verbs (those that do take a preverbal object). Given this definition, intransitives are distinctive in that, in the perfective, they directly follow the subject without an intervening inflectional morpheme or object NP. Similarly, intransitive verbs occur clause-initially in the imperative. For a more complex and syntactically oriented presentation of valency, see §11.1.1-2.

Some verbs that translate as transitive, and that normally take a postverbal complement of some sort, are (morphologically) intransitive in the sense that they do not allow a preverbal object. In (298a-b), the “object” takes the form of a postverbal PP. In (298c-d), the verbs normally require an object, but this NP appears postverbally (with no postposition).

(298)  
a. \textit{sā} [sùkār dè] \newline come.Imprt [sugar with] \newline ‘Bring (the) sugar!’

b. \textit{bī} [gbā dè] \newline hold.Imprt [stick with] \newline ‘Hold-2Sg the stick!’

c. \textit{bàli} wār-rà \newline accept.Imprt money-Nom \newline ‘Accept-2Sg the money!’

d. \textit{bàʔrì} dàʔal-là \newline touch.Imprt mat-Nom \newline ‘Touch-2Sg the mat!’

10.1.1.2 Pseudo-transitive verb ‘go’ (\textit{wàá})

There are two verbs translatable as ‘go’. One is \textit{tāʔá}, whose morphosyntax is that of a simple intransitive verb. The other is \textit{wàá}, which takes an obligatory but apparently nonreferential
nonhuman 3Sg object. The distinction can be observed in the imperative, where only \( wá \) takes an obligatory object pronoun.

(299) verb (lpfv +3Sg) gloss imperative

a. \( wáá \) ‘go’ è wá
b. \( táʔá \) ‘go’ táʔá

The pro-forma nonhuman 3Sg “object” of a pseudo-transitive occurs in some but not all syntactic environments. The perfective aspect conjugations of pseudo-transitive ‘go’, true intransitive ‘come’, and true transitive ‘hit’ (here with a true nonhuman 3Sg object) are presented side by side in (300) below. The pseudo-transitive has an overt nonhuman 3Sg object \( ní \) only in (300a) for 1Sg and 2Sg subject, where it aligns with the transitive. With other subject categories, the pseudo-transitive has no overt object and aligns segmentally with the intransitive paradigm (300b-c).

(300) Perfective paradigms including pseudo-transitive ‘go’

<table>
<thead>
<tr>
<th>subject</th>
<th>‘go’</th>
<th>‘come’</th>
<th>‘hit it’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pseudo-transitive</td>
<td>intransitive</td>
<td>transitive (OV)</td>
</tr>
<tr>
<td>a. 1Sg/2Sg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1Sg</td>
<td>mā ní wěē</td>
<td>mā séé</td>
<td>mā ní bâʔrí</td>
</tr>
<tr>
<td>2Sg</td>
<td>wō ní wěē</td>
<td>wō séé</td>
<td>wō ní bâʔrí</td>
</tr>
<tr>
<td>b. 3Sg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3SgHum</td>
<td>á = Ø wěē</td>
<td>à séé</td>
<td>à ní bâʔrí</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3SgNonh</td>
<td>é = Ø wěē</td>
<td>è séé</td>
<td>è ní bâʔrí</td>
</tr>
<tr>
<td>c. other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1Pl</td>
<td>mùʔuⁿ = Ø wěē</td>
<td>mùʔuⁿ séé</td>
<td>mùʔuⁿ ní bâʔrí</td>
</tr>
<tr>
<td>2Pl</td>
<td>èèⁿ = Ø wěē</td>
<td>èèⁿ séé</td>
<td>èèⁿ ní bâʔrí</td>
</tr>
<tr>
<td>2Pl</td>
<td>mǎā = Ø wěē</td>
<td>mǎā séé</td>
<td>mǎā ní bâʔrí</td>
</tr>
<tr>
<td>3PlHum</td>
<td>àáⁿ = Ø wěē</td>
<td>àáⁿ séé</td>
<td>àáⁿ ní bâʔrí</td>
</tr>
<tr>
<td>3PlNonh</td>
<td>èèⁿ = Ø wěē</td>
<td>èèⁿ séé</td>
<td>èèⁿ ní bâʔrí</td>
</tr>
</tbody>
</table>

However, the tones of the subject pronouns in (300b-c) suggest that a segmentally covert object morpheme is present, even though the morphology is not identical to true transitive morphology. \( á = Ø wěē \) ‘he/she went’ and \( é = Ø wěē \) in (300b) have H-toned 3Sg proclitics \( á \) and \( é \). This differs from L-toned \( à \) and \( è \) in the corresponding forms for ‘come’. However, it matches the alternative options for ‘hit it’, which I transcribe as \( á Õ bâʔrí \) and \( é Õ bâʔrí \), where \( Õ \) represents a segmentally deleted 3Sg object pronominal (§4.3.1.3). In (300c), the
rising tones in the subject proclitics for ‘go’ are ambiguous; they could reflect the tonal residue of a segmentally deleted object pronominal, or they could be due to Final Tone-Raising. However, this raising rule could be relevant only because the verb weē ‘went’ begins with an L-tone, unlike corresponding forms of intransitive ‘came’. These tones of the verb imply that a covert 3Sg object morpheme is virtually present in the ‘go’ column even in (300c), compare nonhuman 3Sg nī before L-initial transitive verb bàʔrî. I therefore transcribe mùʔn=Æ weē and so forth, attributing both the final H-tone on the pronoun and the initial L-tone on the verb to an otherwise hidden 3Sg object morpheme.

An overt nonhuman 3Sg object marker also occurs when weē ‘went’ is directly preceded by a nonpronominal NP that is morphologically capable of ending in the nominal suffix (-ra or variant). The suffix is required in this case, but it contracts with the 3Sg object, both in pseudo-transitive (301a) and true transitive (301b). The nonhuman 3Sg object pronoun takes the allomorph è or èⁿ.

(301) a. dî-ré = è(ⁿ) weē
   child-Nom 3SgNonhObj go.Pfv
   ‘The child went.’ (< dî-rá)

   b. dî-ré = è(ⁿ) bàʔrî
   child-Nom 3SgNonhObj go.Pfv
   ‘The child hit it.’ (< dî-rá)

The structure in (301a) is paralleled in (302a), where an adjective is added to the subject noun. This is because adjectives can take the nominal suffix, which in this construction is obligatory. By contrast, noun-numeral sequences (302b) and personal names (302c) do not have the nominal affix as subject NPs, and there is no segmentally overt nonhuman 3Sg object marker between them and pseudo-transitives.

(302) a. [tàgà gbɔ́-rè =] è(ⁿ) weē
   [sheep big-Nom] 3SgNonhObj go.Pfv
   ‘The big sheep-Sg went.’ (< gbɔ́-rà)

   b. [tàgà flá =] è(ⁿ) weē
   [sheep two] = 3SgNonhObj go.Pfv
   ‘Two sheep went.’ (< flá)

   c. ámáðû = è(ⁿ) weē
   A= 3SgNonhObj go.Pfv
   ‘Amadou went.’

When the verb is preceded by a nonzero inflectional particle, the pro forma nonhuman 3Sg object is again obligatory before a pseudo-transitive (303a). Compare true intransitive (303b).
(303) a.  
\[ \text{dí-rá} = \emptyset \quad \text{sí} = i \quad \text{wàá} \]
child-Nom=Ipfv  Fut=3SgNonhObj  go.Ipfv

‘The child will go.’ (optionally pronounced \( \text{sí} = i \ \text{wàá} \) by H-Leveling)

b.  
\[ \text{dí-rá} = \emptyset \quad \text{sà} \quad \text{sáá} \]
child-Nom=Ipfv  Fut  come.Ipfv

‘The child will come.’

I conclude that ‘go’ (imperfective and citation form \( \text{wàá} \) ) is basically a transitive with a nonreferential nonhuman 3Sg object, but that it has some irregularities especially in the perfective.

\( \text{wàá} \) ‘go’ verb is one of the verbs that shows an ATR alternation in the perfective. Clause-finally the +ATR form with \( \text{e} \)-vowel is used (304a-b). Clause-medially the unmarked form is -ATR with \( \text{e} \)-vowel (304a-d), unless the following element (such as \( \text{dè} \) ‘there’ or \( \text{nàà} \) ‘here’) requires a +ATR preceding form (304e).

(304) a.  
\[ \text{á} = \emptyset \quad \text{wěē} \]
3SgHum=  3SgNonhObj  go.Pfv

‘He/She went (away).’

b.  
\[ \text{àá}^{n} = \emptyset \quad \text{wěē} \]
3PlHum=  3SgNonhObj  go.Pfv

‘They went (away).’

c.  
\[ \text{á} / \text{àá}^{n} = \emptyset \quad \text{wěē} \quad [\text{síbí} \quad \text{dè}] \quad \text{bá} \]
3SgHum/3PlHum=  3SgNonhObj  go.Pfv  [meat with]  over.there

‘He-or-she/They took the meat over there.’

d.  
\[ \text{á} = \emptyset \quad \text{wěē} \quad \text{jàlsà-dù} \]
3SgHum=  3SgNonhObj  go.Pfv  Blédougou

‘He/She went to Blédougou.’

e.  
\[ \text{á} = \emptyset \quad \text{wěē} \quad \text{dè} \]
3SgHum=  3SgNonhObj  go.Pfv  there.Def

‘He/She went there-Definite.’

10.1.1.3 Pseudo-reflexive (middle) verbs

These verbs have an obligatory preverbal object that is coindexed to the subject. They resemble pseudo-reflexive verbs in Romance languages in form and function. However, unlike Romance, Jalkunan morphologically distinguishes pseudo-reflexive objects, which have the same reduced form as reflexive nonsubject possessors (§18.1.1), from true reflexive objects (§18.1.2).
Pseudo-reflexives can be easily distinguished from intransitives since their singular-addressee imperatives begin with an overt 2Sg reflexive proclitic ū (305).

(305) verb (+3Sg Ipfv) gloss imperative

a. motion
   jô'ra 'jump' ē jô'ri
   kiâⁿ 'fly away' ē kiⁿ
   mùnnâ 'crawl' ē mûnî

b. stance
   sàà 'lie down' ē sâ
   bâlâ 'stand; stop' ē bâl
   sâ?à 'sit' ē sâ?â
   cònjôlâ 'squat' ē cònjôlô
   sô?ô'sô'râ 'squat' ē sô'sô'rî
   màsâ 'bow, bend over' ē màsâ

This pseudo-reflexive pattern is regular for basic stance verbs (305b) and for a few motion verbs emphasizing locomotion mechanism (305a). However, most basic motion verbs are simple intransitives. Their singular-subject imperatives are not preceded by proclitics (306).

(306) verb gloss imperative

sáá 'come' sâ
bô 'exit' bô
sô 'enter' sô
sidu'mâ 'ascend' sidá
jâ?ànà 'descend' jâ?àn
fidë 'run' fidë
ći 'arrive' cì

Perfective paradigms of two pseudo-reflexive verbs are in (307). The (pseudo-)reflexive object pronouns are identical (or nearly so) to the reflexive possessor proclitics used with preverbal objects, see the perfective column in (626) in §18.1.1.4.

(307) Perfective pseudo-reflexive paradigms

subject 'sit' 'jump'

a. M-toned pronominal
   1Sg mâ nāⁿ sâ?'ë mâ nāⁿ jô'ri
   2Sg wô nîi sâ?'ë wô nîi jô'ri
   2Pl ēôⁿ nîi sâ?'ë ēôⁿ nîi jô'ri
b. M-final pronominal

2Pl  māā nīiⁿ  sēʔē   māā nīiⁿ  jōʔrī

c. 3Sg pronominals

3SgHum  à ná  sēʔē ~ á sēʔē   à ná  jōʔrī ~ á jōʔrī
3SgNonh  è ní  sēʔē ~ è sēʔē   è ní  jōʔrī ~ è jōʔrī

d. other plural pronominals

1Pl  mùʔuⁿ  nàà  sēʔē   mùʔuⁿ  nàà  jōʔrī
     ~ mùʔuⁿ  nāāⁿ  sēʔē   ~ mùʔuⁿ  nāāⁿ  jōʔrī
3PlHum  àà  sēʔē   àà  jōʔrī
3PlNonh  èè  nīiⁿ  sēʔē   èè  nīiⁿ  jōʔrī

There is one textual example in which è-yàá occurs instead of nonhuman 3Sg pseudo-reflexive è ní, namely è-yàá òbàlí ‘it (=lion cub) stood up’. For the discourse context, which involves a repetition, see text 2016_02 @ 02:12. My assistant indicated that the 3Pl counterpart would be èè-yàà nīiⁿ bálī, showing that yàà is part of the subject pronominal and is followed by the reflexive object (here nonhuman 3Pl nīiⁿ). What relationship (if any) yàà has to the much better attested but strictly 3Sg à-yà (human à-yà, nonhuman è-yà contracting as i-yà), used almost exclusively in postverbal objects, is unclear. See also the discussion following (104a-c) of rare nonhuman 3Sg è-yà and 3Pl è-yà-àⁿ variants in (nonreflexive) preverbal object function.

Paradigms for ‘sit’ in various non-perfective inflections (present, future, progressive) are in (308). One small detail to notice is the tones of sá=àⁿ and sì=ìⁿ in the 3Pl future examples, versus sà=àⁿ (1Sg, 1Pl) and sì=ìⁿ (2Pl). 3Sg future sá=á (human) and sì=í (nonhuman) have undergone H-Leveling (§3.8.3.2).

(308) Non-perfective pseudo-reflexive paradigms for ‘sit’

subject  ‘sit(s)’  ‘be sitting’  ‘will sit’

a. M-toned pronominal

1Sg  má = Ø nààⁿ  sáʔá    má = Ø nààⁿ  sēʔé-yà
     má = Ø sá = àⁿ  sáʔá
2Sg  wó = Ø nìì  sáʔá    wó = Ø nìì  sēʔé-yà
     wó = Ø sì = íⁿ  sáʔá
2Pl  èèⁿ = Ø nììⁿ  sáʔá    èèⁿ = Ø nììⁿ  sēʔé-yà
     èèⁿ = Ø sì = íⁿ  sáʔá

b. M-final pronominal

2Pl  māā = Ø nììⁿ  sáʔá    māā = Ø nììⁿ  sēʔé-yà
     māā = Ø sì = íⁿ  sáʔá
10.1.2 Structure of verbal paradigms

10.1.2.1 Stem alternations for intransitive verbs

Each verb has four basic stems: perfective, imperfective, progressive, and imperative. The progressive has a suffix -yá. The three other stems have less transparently affixal structure, but differ chiefly in their final segment(s), especially the final vowel. We can posit a primary perfective/imperfective split, and think of the imperative as (usually) a shortened form of the imperfective.

Additional tonal variants are created by interactions with preceding NPs (including pronouns). This applies to transitive verbs in all TAM categories, and to intransitives in the perfective. By contrast, in positive clauses, imperfective and progressive forms of intransitive verbs are always immediately preceded by an inflectional morpheme, which do not affect verb tones but which protect the verb from tonal interactions with subjects. Singular-subject imperative forms of intransitives are clause-initial, and so of course have no tonal interactions with subjects.

Further tonal and segmental modifications are created by tone sandhi and some further tonal adjustments triggered by a negative enclitic or by a following word.

Examples of intransitive paradigms follow. (309) has perfectives ending in mid-height e or e (E-stem). Final long vowels (ee) and diphthongs (ie, xe, oe) in the perfective take their full form clause-finally and in isolation, but lose the second mora clause-internally. For perfectives, the tonal form that follows a -3Sg NP is under the one that follows a +3Sg NP and slightly indented.
Intransitives (E-stem perfective)

<table>
<thead>
<tr>
<th>Pfv</th>
<th>Ipfv</th>
<th>Imprt</th>
<th>Prog</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>+3Sg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-3Sg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cèé</td>
<td>cāá</td>
<td>—</td>
<td>cè-yā</td>
<td>‘ripen, harden’</td>
</tr>
<tr>
<td>gbèé</td>
<td>gbàà</td>
<td>—</td>
<td>gbè-yā</td>
<td>‘become difficult’</td>
</tr>
<tr>
<td>jèé</td>
<td>jàá</td>
<td>—</td>
<td>jè-yā</td>
<td>‘become sweet’</td>
</tr>
<tr>
<td>sèé</td>
<td>sāá</td>
<td>sā</td>
<td>sè-yā</td>
<td>‘come’</td>
</tr>
<tr>
<td>kpèé&quot;</td>
<td>kpá&quot;</td>
<td>kpā&quot;</td>
<td>kpè-yā</td>
<td>‘die’</td>
</tr>
<tr>
<td>bèé</td>
<td>bàà</td>
<td>bà</td>
<td>bè-yá</td>
<td>‘fall’</td>
</tr>
<tr>
<td>kpèé</td>
<td>kpêé</td>
<td>—</td>
<td>kpê-yá</td>
<td>‘turn white’</td>
</tr>
<tr>
<td>dèé</td>
<td>dèè</td>
<td>dè</td>
<td>dè-yá</td>
<td>‘get hot’</td>
</tr>
<tr>
<td>bòé</td>
<td>bòó</td>
<td>bò</td>
<td>bò-yá</td>
<td>‘exit’</td>
</tr>
<tr>
<td>sèé</td>
<td>s só</td>
<td>s só</td>
<td>só-yá</td>
<td>‘enter’</td>
</tr>
<tr>
<td>cié</td>
<td>cié</td>
<td>ci</td>
<td>ci-yá</td>
<td>‘arrive’</td>
</tr>
<tr>
<td>kùmè</td>
<td>kùmà</td>
<td>—</td>
<td>kùmá-yà</td>
<td>‘cool off’</td>
</tr>
<tr>
<td>bèlé(é)</td>
<td>bèlé</td>
<td>bèlé</td>
<td>bèlé-yá</td>
<td>‘pass’</td>
</tr>
<tr>
<td>jìnè</td>
<td>jìnmà</td>
<td>jìmà</td>
<td>jìnè-yà</td>
<td>‘forget’</td>
</tr>
<tr>
<td>gbò?è</td>
<td>gbò?à</td>
<td>gbò?à</td>
<td>gbò?ò-yá</td>
<td>‘turn black’</td>
</tr>
<tr>
<td>tòlè (see comment below)</td>
<td>tòló</td>
<td>tòló</td>
<td>tòló-yá</td>
<td>‘rot’</td>
</tr>
<tr>
<td>jiùmè</td>
<td>jiùmà</td>
<td>jiùmà</td>
<td>jiùmè-yà</td>
<td>‘weep’</td>
</tr>
</tbody>
</table>
The intransitives in (310) have perfectives ending in i (I-stem). Nonmonosyllabic perfectives ending in a long vowel ii are trimmed to i clause-medially. This affects ‘think’ and ‘worsen’.

(310) Intransitives (I-stem perfective)

<table>
<thead>
<tr>
<th>PfV</th>
<th>Ipfv</th>
<th>Imprt</th>
<th>Prog</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>bìí</td>
<td>bìé</td>
<td>—</td>
<td>bì-yá</td>
<td>‘be lit’</td>
</tr>
<tr>
<td>bůlí</td>
<td>bůl̩</td>
<td>bůl̩</td>
<td>bůl̩-yá</td>
<td>‘return’</td>
</tr>
<tr>
<td>dîbí</td>
<td>dîbé</td>
<td>—</td>
<td>dîbí-yá</td>
<td>‘be extinguished’</td>
</tr>
<tr>
<td>fîdî</td>
<td>fîd̩</td>
<td>fîd̩</td>
<td>fîd̩-yá</td>
<td>‘run’</td>
</tr>
<tr>
<td>kônî</td>
<td>kôn̩</td>
<td>k̩</td>
<td>kôn̩-yá</td>
<td>‘grow’</td>
</tr>
<tr>
<td>gûnî</td>
<td>gûn̩</td>
<td>gûa</td>
<td>gûn̩-yá</td>
<td>‘become short’</td>
</tr>
<tr>
<td>ñûnî</td>
<td>ñûn̩</td>
<td>—</td>
<td>ñûn̩-yá</td>
<td>‘become sour’</td>
</tr>
<tr>
<td>ñàání</td>
<td>ñàán̩</td>
<td>ñ̩</td>
<td>ñàání-yá</td>
<td>‘improve’</td>
</tr>
<tr>
<td>miîlî</td>
<td>miîl̩</td>
<td>miîl̩</td>
<td>miîl̩-yá</td>
<td>‘think’</td>
</tr>
<tr>
<td>jàʔání</td>
<td>jàʔán̩</td>
<td>jàʔa̩</td>
<td>jàʔání-yá</td>
<td>‘descend’</td>
</tr>
<tr>
<td>sîdání</td>
<td>sîd̩</td>
<td>sîd̩</td>
<td>sîd̩-yá</td>
<td>‘ascend’</td>
</tr>
<tr>
<td>kânnî</td>
<td>kânn̩</td>
<td>—</td>
<td>kânnî-yá</td>
<td>‘turn red’</td>
</tr>
<tr>
<td>kânn̩</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

`tòl̩̩ ‘rot’ (+3Sg perfective) has been heard as tòlo, tólō, and tólē. Of these tòlō is structurally correct, but the oe diphthong is marginal in Jalkunan (§3.3.5.1). tòlo is regular non-clause-finally after the ē is trimmed. My assistant produced only tólē for the -3Sg perfective, suggesting that a fall from H to M-tone favors Monophthongization.
 Array (311) gives fuller sets of forms for three intransitives, including negative forms.

<table>
<thead>
<tr>
<th>(311) category</th>
<th>‘come’</th>
<th>‘fall’</th>
<th>‘descend’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pfv +3Sg</td>
<td>sèé</td>
<td>bèé</td>
<td>já?áni</td>
</tr>
<tr>
<td>Pfv +3Sg Neg</td>
<td>sèé = rë?</td>
<td>bèé = rë?</td>
<td>já?án = në?</td>
</tr>
<tr>
<td>~ sèé = rë?</td>
<td>~ bèé = rë?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pfv -3Sg</td>
<td>sèé</td>
<td>bèé</td>
<td>já?áni</td>
</tr>
<tr>
<td>Pfv -3Sg Neg</td>
<td>sèé = rë?</td>
<td>bèé = rë?</td>
<td>já?án = në?</td>
</tr>
<tr>
<td>~ sèé = rë?</td>
<td>~ bèé = rë?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ipfv</td>
<td>sáá</td>
<td>bàà</td>
<td>já?ánà</td>
</tr>
<tr>
<td>Ipfv Neg</td>
<td>sáá = rë?</td>
<td>bàà = rë?</td>
<td>já?ánà = në?</td>
</tr>
<tr>
<td>Prog</td>
<td>sè-yá</td>
<td>bè-yá</td>
<td>já?áni-yá</td>
</tr>
<tr>
<td>Prog Neg</td>
<td>sè-yá = rë?</td>
<td>bè-yá = rë?</td>
<td>já?áni-yá = rë?</td>
</tr>
<tr>
<td>Imprt</td>
<td>sá</td>
<td>bà</td>
<td>já?ánà</td>
</tr>
<tr>
<td>Imprt Pl</td>
<td>èéⁿ sá</td>
<td>èéⁿ bà</td>
<td>èéⁿ já?áⁿ</td>
</tr>
<tr>
<td>Proh</td>
<td>bí sá = rë?</td>
<td>bí bà = rë?</td>
<td>bí já?á = në?</td>
</tr>
<tr>
<td>Proh Pl</td>
<td>èéⁿ bí sá = rë?</td>
<td>èéⁿ bí bà = rë?</td>
<td>èéⁿ bí já?á = në?</td>
</tr>
<tr>
<td>Verbal noun</td>
<td>sèé</td>
<td>bó bèé</td>
<td>já?áni</td>
</tr>
</tbody>
</table>

10.1.2.2 Stem alternations for transitive verbs

Transitive verbs have paradigms similar to those described above for intransitives, and many stems switch easily between intransitive and transitive contexts. However, transitives in all TAM categories (including imperfective, progressive, and imperative) are immediately preceded by NPs and therefore have two tonal variants, one with initial L-tone (after +3Sg NPs) and the other with initial H-tone (after -3Sg NPs).

The difference between intransitives and transitives is striking in their imperfectives, for example. Intransitives (including monosyllabics and CvCv) in positive clauses have a single form, whose tone is lexically assigned (unpredictable). Transitives have L-initial and H-initial forms, correlated with the category of the preceding NP. For some transitives, the respective L- and H-tones spread rightward to the end of the stem, so no lexical tones need be posited. However, prosodically heavy transitives with shapes like CvvCv and CvCvCv may have lexically specified H-tones in noninitial moras.
(312) Transitives (E-stem perfective)

<table>
<thead>
<tr>
<th>Pfv</th>
<th>Ipfv</th>
<th>Imprt</th>
<th>Prog</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>+3Sg</td>
<td>+3Sg</td>
<td>+3Sg</td>
<td>+3Sg</td>
<td></td>
</tr>
<tr>
<td>-3Sg</td>
<td>-3Sg</td>
<td>-3Sg</td>
<td>-3Sg</td>
<td></td>
</tr>
</tbody>
</table>

- bèé  bèà  bà  bè-yá  ‘put down’
- bèé  bèá  bá  bè-yá  ‘put down’
- jéé  jáà  já  jé-yá  ‘sweeten’
- jéé  jáá  já  jé-yá  ‘sweeten’
- dèé  déè  dé  dé-yá  ‘heat (sth)’
- dèé  déé  dé  dé-yá  ‘heat (sth)’
- mèé  mèè  mé  mè-yá  ‘hear’
- mèé  mèè  mé  mè-yá  ‘hear’
- bóé  bòó  bó  bò-yá  ‘remove’
- bóé  bóó  bó  bò-yá  ‘remove’
- mòé  mòò  mò  mò-yá  ‘rub’
- mòé  mòò  mò  mò-yá  ‘rub’
- jìé  jìè  ji  ji-yá  ‘see’
- jìé  jìè  ji  ji-yá  ‘see’
- dòë  dòò  dò  dò-yá  ‘step on’
- dòë  dòò  dò  dò-yá  ‘step on’
- jòë  jòò  jò  jò-yá  ‘rob’
- jòë  jòò  jò  jò-yá  ‘rob’
- yèé  yèè  yè  yè-yá  ‘send (sb)’
- yèé  yèè  yè  yè-yá  ‘send (sb)’
- fìé  fìè  fìé  fè-yá  ‘fan (v)’
- fìé  fìè  fìé  fè-yá  ‘fan (v)’

Similar paradigms for transitive verbs with I-stem perfectives are in (313).

(313) Transitives (I-stem perfective)

<table>
<thead>
<tr>
<th>Pfv</th>
<th>Ipfv</th>
<th>Imprt</th>
<th>Prog</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>+3Sg</td>
<td>+3Sg</td>
<td>+3Sg</td>
<td>+3Sg</td>
<td></td>
</tr>
<tr>
<td>-3Sg</td>
<td>-3Sg</td>
<td>-3Sg</td>
<td>-3Sg</td>
<td></td>
</tr>
</tbody>
</table>

- kìí  kìè  kìí  kì-yá  ‘sow’
- kìí  kìè  kìí  kì-yá  ‘sow’
- mìí  mìè  mìà  mì  mì-yá  ‘drink’
- mìí  mìè  mìà  mì  mì-yá  ‘drink’
- dèë  dèè  déí  dé-yá  ‘open’
- dèë  dèè  déí  dé-yá  ‘open’
<table>
<thead>
<tr>
<th>Category</th>
<th>‘taste’</th>
<th>‘put down’</th>
<th>‘push’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pfv +3Sg</td>
<td>nènéè</td>
<td>bèè</td>
<td>jùlí</td>
</tr>
<tr>
<td>Pfv Neg +3Sg</td>
<td>nènéè = nè?</td>
<td>bèè = rè?</td>
<td>jùl = lè?</td>
</tr>
<tr>
<td>Pfv -3Sg</td>
<td>nènéè</td>
<td>bèè</td>
<td>jùlí</td>
</tr>
<tr>
<td>Pfv Neg -3Sg</td>
<td>nènéè = nè?</td>
<td>bèè = rè?</td>
<td>jùl = lè?</td>
</tr>
<tr>
<td>Ipfv +3Sg</td>
<td>nènéè</td>
<td>bàà</td>
<td>jùlì</td>
</tr>
<tr>
<td>Ipfv +3Sg Neg</td>
<td>nènéè = nè?</td>
<td>bàà = rè?</td>
<td>jùlì = rè?</td>
</tr>
<tr>
<td>Ipfv -3Sg</td>
<td>nènéè</td>
<td>bàà</td>
<td>jùlì</td>
</tr>
<tr>
<td>Ipfv -3Sg Neg</td>
<td>nènéè = nè?</td>
<td>bàà = rè?</td>
<td>jùlì = rè?</td>
</tr>
<tr>
<td>Prog +3Sg</td>
<td>nèné-yá</td>
<td>bè-yá</td>
<td>jùlí-yá</td>
</tr>
<tr>
<td>Prog +3Sg Neg</td>
<td>nèné-yá = rè?</td>
<td>bè-yá = rè?</td>
<td>jùlí-yá = rè?</td>
</tr>
<tr>
<td>Prog -3Sg</td>
<td>nèné-yá</td>
<td>bè-yá</td>
<td>jùlí-yá</td>
</tr>
<tr>
<td>Prog -3Sg Neg</td>
<td>nèné-yá = rè?</td>
<td>bè-yá = rè?</td>
<td>jùlí-yá = rè?</td>
</tr>
<tr>
<td>Imprt -3Sg</td>
<td>nèné</td>
<td>bàèè</td>
<td>jùlì</td>
</tr>
<tr>
<td>Imprt Sg</td>
<td>nèné = nè?</td>
<td>bà = rè?</td>
<td>jùl = lè?</td>
</tr>
<tr>
<td>Imprt Pl</td>
<td>nèné</td>
<td>bàèè</td>
<td>jùlì</td>
</tr>
<tr>
<td>Proh Sg</td>
<td>nèné</td>
<td>bà = rè?</td>
<td>jùl = lè?</td>
</tr>
<tr>
<td>Proh Pl</td>
<td>nèné = nè?</td>
<td>bà = rè?</td>
<td>jùl = lè?</td>
</tr>
<tr>
<td>VblN</td>
<td>nèné – nèné</td>
<td>bèè ~ bèè</td>
<td>jùlí ~ jùlì</td>
</tr>
</tbody>
</table>

Full transitive paradigms including negative forms for three transitive verbs are in (314) below. ‘Put is the same stem as intransitive ‘fal’ in (309) above, i.e. it is one of many ambi-valent (labile) stems. In the sense ‘put down’ it is not accompanied by the noun bó. The tone of transitive verbal nouns, like that of indicative verbs, depends on the category (+3Sg or -3Sg) of the preceding object.
10.1.2.3 Analysis of verb-stem alternations

The imperfective is the best option for a citation form, since it often has lexical information that is masked in the other forms. For example, a final vowel in the imperfective may be converted to a front vowel in the perfective and clipped off in the imperative. For intransitives, the tone of the imperfective is also unpredictable and therefore lexically specified, while that of the perfective in particular is determined by the preceding NP.

Relevant inflectional morphemes that can occur next to the verb are post-subject inflectional morphemes on the left and the negative enclitic on the right. The post-subject morphemes are future sà (and variants), imperfective /H+ = Ø/, and prohibitive bí. They immediately precede intransitive verbs, but are separated from transitive verbs by the object. The negative enclitic is added to the final word of the clause, which is often (but not always) the verb.

Word-final perfective diphthongs are truncated when the verb is not clause-final, including when it is followed only by the negative enclitic. For example, se and oi lose their second elements in this position.

The post-subject particles do not interact tonally with the verb. Addition of the negative enclitic directly to the verb is useful in checking the latter’s vowel length and tone. However, the negative marker does induce some phonological changes when it encliticizes directly on the verb. Since the verb is now non-clause-final, the truncation of verb-final diphthongs mentioned above takes place. Especially in monosyllabic and Cvʔv perfectives, -ATR vowels are optionally shifted to +ATR before the negative enclitic (and some other clause-final morphemes). The +ATR shift then cycles back into the enclitic itself, which is subject to ATR Harmony. These phenomena are illustrated by bò̀è ‘exited’ becoming negative bò̀ɔ̀=rèʔ varying with bòò=rèʔ ‘did not exit’.

The perfective stem ends in a front vowel {i e ē}. As indicated above, when this vowel is the final element in a perfective diphthong, it is deleted except when clause-final. The imperfective normally ends in a low or -ATR vowel from the set {ɛ a ɔ}, rarely +ATR o. All known verbs with final c(e) in the perfective and imperative, and most with final o in the perfective and imperative, shift this vowel to the -ATR counterpart or to a in the imperfective. In (315), all verb forms are of the +3Sg tonal type if transitive, or if perfective intransitive. Our focus here is on vowel qualities, not tones.

<table>
<thead>
<tr>
<th>(315)</th>
<th>imperative</th>
<th>perfective</th>
<th>imperfective</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>+3Sg or intr</td>
<td>+3Sg</td>
<td>+3Sg or intr</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. shift to -ATR in imperfective

- wè wèè wèè ‘bathe (sb)’
- ò tè tèè tèè ‘shatter (sth)’
- ɛ́ yè yèè yèè ‘send on mission’
- dèì dèìì dèè ‘open’
- bègè bègè bègè bègè ē ‘cut’
- dàkò dàkòì dàkɔ̀ ‘catch (sth thrown)’
b. no shift to -ATR in imperfective

\[
\begin{align*}
kō & \quad kōnì & \quad kónó & \quad \text{‘grow’} \\
lē & \quad lënì & \quad lènà & \quad \text{‘look at’} \\
sè̠'rí & \quad sè̠'rí & \quad sè̠'rà & \quad \text{‘sweep’}
\end{align*}
\]

The progressive systematically shifts -ATR vowels to +ATR (in the broad sense, including high vowels). Therefore even stems that have -ATR vowels in the positive imperative, perfective, and imperfective shift it to +ATR before progressive -yá. The known exceptions are multisyllabic verbs with an initial -ATR vowel, and may be morphologically segmentable.

(316) imperative perfective imperfective progressive gloss

<table>
<thead>
<tr>
<th>a. +ATR in progressive only</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>dë̠</td>
<td>dë̠'</td>
<td>dë̠'</td>
<td>dë̠-yá</td>
<td></td>
<td>‘heat (sb)’</td>
</tr>
<tr>
<td>mò'</td>
<td>mò'</td>
<td>mò'</td>
<td>mò-yá</td>
<td></td>
<td>‘rub’</td>
</tr>
</tbody>
</table>

b. initial -ATR in heavy stem preserved in progressive

\[
\begin{align*}
kò̠'řiyá & \quad kò̠'řiyé̠̱' & \quad kò̠'řiyáà & \quad kò̠'řiyé̠̱-yá
\end{align*}
\]

The imperative is usually closely related to the imperative. However, where the perfective and imperfective diverge in vocalism (simple ATR shift, or perfective i versus imperfective -ATR or low vowel), the imperative sides with the perfective. Factoring this out, the imperative is best derived from the imperfective by stem-final reduction (shortening a final long vowel, deleting a final short vowel). See §3.5 for fuller discussion.

10.1.3 Reduplicated verb stems

Some verbs have a reduplicative appearance. Those with a monosyllabic repeated segment are least transparently reduplicative (317a), but in some cases they might have been shortened by Syncope. Those with a bisyllabic repeated segment are more obvious (317b). There is an iconic element insofar as most verbs in (317b) denote actions that tend to be repetitive or prolonged in real life (317b). Two examples are iterations of independently occurring verbs, adding an emphatic or repetitive element (317c).

(317) a. CvN- or Cvⁿ-

\[
\begin{align*}
gbè̠ngbè̠à & \quad \text{‘hammer (sth)’} \\
pè̠mpè̠'rà & \quad \text{‘engage energenticially in (activity)’} \\
sò̠'sò̠'rà & \quad \text{‘squat’} \\
\text{possibly syncopated from CvCv-} & \quad \text{‘(group) scatter’}
\end{align*}
\]

possibly syncopated from CvCv-

ej"jè̠nà
b. lèkè-lèkà ‘tickle’ \((k \sim g)\)
mènè-mènè ‘grope, feel one’s way’
mùgù-mùgá ‘break up lumps’
gùnù-gùnà ‘groan’ or ‘murmur’
yègè-yègè ‘(chicken) scratch the ground’
yùgù-yùgá ‘shake (sth)’
köñ-góñónà ‘roll’
mùñù-mùnnà ‘spin, rotate’

c. bègè-bégà ‘chop (with ax)’
bègè ~ bègà ‘cut’
dèn-dénà ‘stalk (one’s prey)’
dénà ‘follow’

The data show that the reduplicant does not exceed \(CvCv\)-shape even when the base is trisyllabic. ‘Stalk (one’s prey)’ in (317c) confirms that \(CvL\)-reduplicant may have been syncopated. The forms shown in (317a-c) are imperfective, so the base ends in \{a œ e\}, but this vowel is not copied onto the reduplicant, which is invariant across TAM inflections.

10.2 Negation

10.2.1 Clause-final negative enclitic \(=rÈʔ( =rēʔ \sim =rêʔ)\)

The all-purpose negative enclitic \(=rēʔ \sim =rêʔ\) (or variant, see below) is used with all types of predicate, including negative imperatives (prohibitives). On the segmentability of the final glottal stop, see §10.2.2 below.

The enclitic is hosted by the otherwise clause-final word. It is therefore separated from the verb only if there is a postverbal constituent such as a bare postverbal NP (318a) or a PP (318b).

(318) a. mùñù= Ø wèé bóbó = rēʔ
1Pl= 3SgNonhObj go.Pfv Bobo=Neg
‘We didn’t go to Bobo (city).’

b. mā dó-sé [kòó mā] = nēʔ?
1Sg add.Pfv [salt on]=Neg
‘I didn’t add salt.’ (kòò)

Since Jalkunan is an S-infl-O-V-X-Neg language, the postverbal position X is often vacant, and the negative clitic is therefore very often hosted by the verb.

Both the consonant and the vowel of the enclitic are subject to phonological alternations. The citation form \(=rÈʔ\) takes the tap \(r\) as basic, and is neutral as to \(e\) versus \(e\). Since tap \(r\) is not normally allowed word-initially, and since the \(r\) in \(=rÈʔ\) is subject to the same kind of modifications as seen with nominal suffix \(-ra\) (and variants), I transcribe the negative morpheme as an enclitic rather than as a free particle.
r-Nasalization (§3.6.1) converts r to n after a nasal syllable, such as Na or Caⁿ, i.e. after a syllable with nasal consonant onset or one with a nasalized vowel. It also applies when the enclitic directly follows a nasal consonant, though follows Apocope of a final vowel and so reduces to the Na case.

\[(319)\]

a. \(\text{à niné} [\text{sibí mà}]=\text{nè}^?\)

3SgHum forget.Pfv [meat on]=Neg

‘He/She didn’t forget the meat.’

b. \(\text{à kpè} =\text{nè}^?\)

3SgHum die.Pfv=Neg

‘He/She didn’t die.’ (< kpèⁿ)

c. \(\text{ɲù ñ-3ⁿ} \text{gbá álán} =\text{nè}^?\)

garmet-Nom-Pl dry.off.Pfv=Neg

‘The clothes didn’t dry.’ (< gbá álání)

r-Lateralization (§3.6.1.2) occurs only when the tap r is immediately preceded by l, after Apocope of a final vowel. The result is an ll cluster over the enclitic boundary (320a). This process also occurs when the expected result after Apocope would be rr (320b). Apocope in these examples is optional, so fuller forms like bàří=rē? are also possible, and preferred in careful speech.

\[(320)\]

a. \(\text{mā nā}^{n} \text{bål}=\text{le}^?\)

1Sg 1SgRefl stand.Pfv=Neg

‘I didn’t stand/stop.’ (< bålī)

b. \(\text{mā nā} \text{bā}l=\text{le}^?\)

1Sg 3SgHum hit.Pfv=Neg

‘I didn’t hit him/her.’ (< bàřf́)

ATR Harmony (§3.4.1) determines the surface vowel quality of the enclitic, e or e. However, when the enclitic directly follows a verb, a Cvv verb itself optionally shifts from -ATR to +ATR, thus à sèe=rē? ~ à sèe=rē? ‘he/she didn’t come’. After any such shift, but before Apocope, the enclitic surfaces with e after a syllable with \{a e \}, and with e after a syllable with \{i u e o\}. As usual, a is treated as -ATR and high vowels are treated as +ATR. Apocope of the final word of the host word applies after ATR Harmony and does not affect the ATR value of the negative enclitic, as shown by bī=í bāl=le? ‘(don’t) stop!’ where +ATR e in the negative enclitic is required by the apocopated (or syncopated) /i/.
The tone of the enclitic is consistently M when clause-final. Adding the enclitic makes it easy to confirm tonal markings, except for final <LH>-toned syllable, see (323) below. The negative enclitic also makes it easy to determine the basic vowel length of the stem-final syllable of verbs.

(321) host-final V positive negative gloss

<table>
<thead>
<tr>
<th></th>
<th>host-final V</th>
<th>positive</th>
<th>negative</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. -ATR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>े = Ø sā sā</td>
<td>े sā ‘sā = rē?</td>
<td>‘it will (not) come’</td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>mā nī jiē</td>
<td>mā nī jiē = rē?</td>
<td>‘I did (not) see it’</td>
<td></td>
</tr>
<tr>
<td>o</td>
<td>े = Ø sā tālā</td>
<td>े sā tālā = rē?</td>
<td>‘it will (not) rot’</td>
<td></td>
</tr>
<tr>
<td>b. +ATR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>े bālī</td>
<td>bī = i bālā = rē?</td>
<td>‘(don’t) stop!’</td>
<td></td>
</tr>
<tr>
<td>े</td>
<td>े kūa</td>
<td>े kī = nē?</td>
<td>‘it did (not) fly’</td>
<td></td>
</tr>
<tr>
<td>u</td>
<td>े gūa</td>
<td>bī = i gū = nē?</td>
<td>‘(don’t) shorten it’</td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>े lē</td>
<td>bī = i lē = rē?</td>
<td>‘(don’t) look at it’</td>
<td></td>
</tr>
<tr>
<td>o</td>
<td>े dākō</td>
<td>bī = i dākō = rē?</td>
<td>‘(don’t) catch it!’</td>
<td></td>
</tr>
</tbody>
</table>

(322) host tones positive negative gloss

<table>
<thead>
<tr>
<th></th>
<th>host tones</th>
<th>positive</th>
<th>negative</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. monosyllabics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>èè⁰ déé</td>
<td>èè⁰ déé = rē?</td>
<td>‘They got/didn’t get hot.’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(~ déé = rē?)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>mā nāa⁰ jiē</td>
<td>mā nāa⁰ jiē = rē?</td>
<td>‘I saw/didn’t see them.’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(~ jiē = rē?)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>ā = Ø nāā</td>
<td>ā = Ø nāā = nē?</td>
<td>‘He/She is(n’t) here.’</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>ā = Ø sā sāā</td>
<td>ā sā ‘sā = rē?</td>
<td>‘He/She will (not) come.’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>mā = Ø sā sāā</td>
<td>mā sā sā = rē?</td>
<td>‘I will/won’t come.’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ā = Ø sā bōō</td>
<td>à sā ‘bōō = rē?</td>
<td>‘He/She will (not) exit.’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(~ bōō = rē?)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;HM&gt;</td>
<td>èè⁰ bīī</td>
<td>èè⁰ bīī = rē?</td>
<td>‘They caught/didn’t catch fire.’</td>
<td></td>
</tr>
<tr>
<td>&lt;LH&gt;</td>
<td>è déé</td>
<td>è déé = rē?</td>
<td>‘It got/didn’t get hot.’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(~ déé = rē?)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>è bīī</td>
<td>è bīī = rē?</td>
<td>‘It caught/didn’t catch fire.’</td>
<td></td>
</tr>
</tbody>
</table>
### b. nonmonosyllabics

<table>
<thead>
<tr>
<th>Type</th>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LL</td>
<td>े = Ø sā tōlō े sā tōlō = rē?</td>
<td>‘It will (not) rot.’</td>
</tr>
<tr>
<td>HH</td>
<td>sōōlō = Ø = sōōlō = Ø = rē?</td>
<td>‘It’s (not) five.’</td>
</tr>
<tr>
<td></td>
<td>yīlē-rē = Ø = yīlē-rē = Ø = rē?</td>
<td>‘It’s (not) a fish.’</td>
</tr>
<tr>
<td>MM</td>
<td>mī-ilō = Ø = mī-ilō = Ø = rē?</td>
<td>‘It’s (not) six.’</td>
</tr>
<tr>
<td></td>
<td>jū-rē = Ø = jū-rē = Ø = rē?</td>
<td>‘It’s (not) millet.’</td>
</tr>
<tr>
<td></td>
<td>gbāa-rē = Ø = gbāa-rē = Ø = rē?</td>
<td>‘It’s (not) a stick.’</td>
</tr>
<tr>
<td>LH</td>
<td>à fīdī à fīdī = rē?</td>
<td>‘He/She ran.’</td>
</tr>
<tr>
<td></td>
<td>wūl-ā = Ø = wūl-ā = Ø = rē?</td>
<td>‘It’s (not) a dog.’</td>
</tr>
<tr>
<td></td>
<td>bōbō = Ø = bōbō = Ø = rē?</td>
<td>‘It’s (not) Bobo Dioulasso (city).’</td>
</tr>
<tr>
<td>HM</td>
<td>अ फीदी अ फीदी = rे?</td>
<td>‘They ran (didn’t run).’</td>
</tr>
<tr>
<td></td>
<td>è kītālī è kītālī = rē?</td>
<td>‘It got worse (didn’t get worse).’</td>
</tr>
<tr>
<td></td>
<td>mā nā bāðñrī mā nā bāðñrī = lē?</td>
<td>‘I (didn’t) hit him/her.’</td>
</tr>
<tr>
<td>HL</td>
<td>अ = Ø kītālīा अ = kītālīा = rे?</td>
<td>‘It worsens/doesn’t worsen.’</td>
</tr>
</tbody>
</table>

< LH >-toned syllables, which occur in +3Sg forms of monosyllabic perfective and imperative verbs, flatten to L before the enclitic (323a-c). This avoids surface CvC̃̄v and CvC̄C̃̄v sequences. When an apparent CvÉ verb instead preserves its rising tones before the negative enclitic, which happens with Cī É verbs, this suggests that these forms are structurally bisyllabic, i.e. /Cī.(y)ú/ (323d).

(323) a. positive imperative prohibitive े gūn े gūn = nē? ‘Shorten it!’

b. positive perfective negative perfective à sēé à sēé = rē? ‘He/She came.’

( ~ sēé = rē? )

c. positive perfective negative perfective mā nā jīé mā nā jīé = rē? ‘I saw him/her.’

( ~ jīé = rē? )

d. positive perfective े bīì े bīì = rē? ‘It caught fire.’

‘It didn’t catch fire.’

#### 10.2.2 Status of the glottal stop in negative = rÊ?

Although the negative enclitic is always heard with the glottal stop when clause-final, there is some evidence that the glottalization is analytically detachable from the enclitic.
First, the yes/no interrogative enclitic may be added after the negative enclitic. In other combinations, the interrogative enclitic has forms like \( =\dot{a} ~ =\dot{a} \) and \( =y\dot{a} \) (§13.2.1). The combination of the negative and interrogative enclitics is \( =r=\dot{a} ~ =r=\dot{a} \), the latter after a back rounded vowel.

\[(324) \quad \begin{align*}
   \text{a.} & \quad \dot{a}^a = \emptyset \quad \text{tù} \quad kà = r = \dot{a} \\
            & \quad 3\text{PLHum}=\text{Ipfv} \quad \text{millet.cakes want.Stat=Neg=Q} \\
            & \quad \text{‘Don’t they like millet cakes?’} \quad (< \text{tù})
   \\
   \text{b.} & \quad \dot{a}^a \quad b̥ù\acute{s} = r = \dot{a} \\
            & \quad 3\text{PLHum} \quad \text{return.Ipfv=Neg=Q} \\
            & \quad \text{‘Won’t they go back?’}
\end{align*}\]

There is also a textual passage where a clause ending in negative \( =r\dot{e}\) is paired with a contrasting positive clause that has a final glottal stop (325). This raises the possibility that the final glottal is, or was formerly, a truth-conditional emphatic that has now come to occur almost entirely with the negative enclitic.

\[(325) \quad \begin{align*}
   & \quad \text{[person all] come.Pfv} \quad \text{[woman old Dem] come.Pfv=Neg} \\
   & \quad \text{‘All the (other) people came, but that old woman didn’t come.’} \quad (2016\_04 \@ \text{03}:00)
\end{align*}\]

The situation is complicated by the use in local Jula of final glottal stops in a range of sentence types. Since all Jalkunan speakers are bilingual this could affect their Jalkunan speech.

10.2.3 Tonal reverberations of clause-final negation

The presence of a clause-final negator has some unexpected reverberations for the morphotonology of the beginning of the clause (subject plus inflectional particles).

\[(326) \quad \begin{align*}
   & \quad \text{‘they …’} \quad \text{‘he/she …’} \quad \text{‘I …’}
   \\
   \text{a. perfective} & \quad \begin{align*}
   \dot{a}^a & \text{ séé} \quad \acute{s} \text{ séé} \quad m\tilde{a} \text{ séé} \quad \text{‘… came’}
   \dot{a}^a & \text{ séé = rē?} \quad \acute{s} \text{ séé = rē?} \quad m\tilde{a} \text{ séē = rē?} \quad \text{‘… didn’t come’}
   \text{(also negative variants with +ATR séē = rē?)}
\end{align*}
   \\
   \text{b. present (imperfective stem begins with H-tone)} & \quad \begin{align*}
   \dot{a}^a & = \emptyset \quad ‘\acute{s}\text{á}’ \quad \dot{a} = \emptyset \quad ‘\acute{s}\text{á}’ \quad m\tilde{a} = \emptyset \quad ‘\acute{s}\text{á}’ \quad \text{‘… come(s)’}
   \dot{a}^a & \text{ sá\acute{a} = rē?} \quad \acute{s} \text{á\acute{a} = rē?} \quad m\tilde{a} \text{ sáā = rē?} \quad \text{‘… do(es)n’t come’}
\end{align*}
\end{align*}\]
c. future

\[ \ddot{a}a^n = \emptyset \text{ sà sá̃} \quad \ddot{a} = \emptyset \text{ sà sá̃} \quad m\ddot{a} = \emptyset \text{ sà sá̃} \quad \ldots \text{ will come} \]

\[ \ddot{a}a^n \text{ sà sá̃ } \ddot{a} = \emptyset \text{ sà sá̃ } \quad m\ddot{a} = \emptyset \text{ sà sá̃ } \quad \ldots \text{ won't come} \]

d. present (imperfective stem begins with L-tone)

\[ \ddot{a}a^n = \emptyset \text{ báà } \quad \ddot{a} = \emptyset \text{ báà } \quad m\ddot{a} = \emptyset \text{ báà } \quad \ldots \text{ falls} \]

\[ \ddot{a}a^n \text{ báà } = \ddot{r} \quad \ddot{a} \text{ báà } = \ddot{r} \quad m\ddot{a} \text{ báà } = \ddot{r} \quad \ldots \text{ do(es)n't fall} \]

e. progressive

\[ \ddot{a}a^n = \emptyset \text{ sёyá } \quad \ddot{a} = \emptyset \text{ sёyá } \quad m\ddot{a} = \emptyset \text{ sёyá } \quad \ldots \text{ are/is coming} \]

\[ \ddot{a}a^n \text{ sёyá } = \ddot{r} \quad \ddot{a} \text{ sёyá } = \ddot{r} \quad m\ddot{a} \text{ sёyá } = \ddot{r} \quad \ldots \text{ aren't/isn't/am not coming} \]

\[ \ddot{a}a^n = \emptyset \text{ bёyá } \quad \ddot{a} = \emptyset \text{ bёyá } \quad m\ddot{a} = \emptyset \text{ bёyá } \quad \ldots \text{ are/is falling} \]

\[ \ddot{a}a^n \text{ bёyá } = \ddot{r} \quad \ddot{a} \text{ bёyá } = \ddot{r} \quad m\ddot{a} \text{ bёyá } = \ddot{r} \quad \ldots \text{ aren't/isn't/am not falling} \]

In negative perfectives (326a) LH-toned sёé flattens to sёè before the M-toned enclitic; see LH-to-L before nonlow tone (§3.8.3.6). M-Spreading occurs after M-toned pronominal subjects (here 1Sg).

In the non-perfective inflections (326b-e), the imperfective subject enclitic /H+ = \emptyset/, consisting of a floating H-tone, disappears in most negative combinations. Therefore human 3Pl \ddot{a}a^n, which combines with the floating H-tone as /\ddot{a}a^n H/ → \ddot{a}a^n in the positive examples in (326b-e), is heard as L-toned \ddot{a}a^n in the negative examples in (326b,c,e). Likewise, human 3Sg \ddot{a} is raised to /\ddot{a} H/ → \ddot{a} in the positive examples in (326b-e), but not in the negative examples in (326b,c,e).

When the imperfective subject enclitic disappears, an intransitive progressive becomes sensitive to the +3Sg versus -3Sg opposition among subjects (326e). In the positive, ‘be coming’ is sё-yá, where the stem sё- shows the lexical H-tone of ‘come’ also seen in its imperfective sáá. Compare bё-yá, progressive of ‘fall’, with L-toned bё- as in imperfective báà. When negation causes deletion of the imperfective subject enclitic, the lexical tones vanish, and the tones of both ‘not be coming’ and ‘not be falling’ are determined entirely by the preceding subject, just as in all transitive progressives.

Future morpheme sà unexpectedly becomes H-toned under negation, except when M-Spreading has occurred. Thus human 3Pl \ddot{a}a^n sá, human 3Sg á sá, but 1Sg mä sá (326c).

The other morphemes that unexpectedly become H-toned in the negative in (326) are monomoraic subject proclitics. Human 3Sg is normally L-toned á in the absence of the imperfective enclitic, and indeed it is L-toned as expected under negation in (326a-c) and (326e). However, in (326d), where it precedes a lexically L-toned imperfective verb, it surfaces as H-toned á, hence á báà = \ddot{r}; ‘he/she doesn’t fall’. The 1Sg counterpart is likewise mä báà = \ddot{r}. Some kind of tone-raising process is at work here that is not taken care of by the regular tone sandhi rules.

Historically, it may be that the unexpected H-tones in future sá in (326e), and/or in the 3Sg and 1Sg pronouns á and mä in (326d), are traces of one or two ancient H-toned negative morphemes that once occurred in the “-infl-” zone in S-infl-O-V-X-Neg, so that negation could be expressed both at the beginning and at the end of VPs, in the fashion of French ne ... pas and analogues in many languages.
However, synchronically, the pronominal-subject cases (á and má) in (326d) are sufficiently close to the regular Final Tone-Raising rule that I incline to treat them as extensions of this rule. In its regular form, the rule accounts unproblematically for 3Pl áá from /áá/ in áá báá = rēʔ ‘they don’t fall’ in (326d). The same áá remains L-toned in áá sáá = rēʔ ‘they don’t come’ (326b), which has exactly the same categorial structure as áá báá = rēʔ, but differs in that imperfective báá ‘fall(s)’ is lexically L-toned, while sáá ‘come(s)’ is lexically H-toned. The raising under negation of 3Pl áá from /áá/ in áá sáá = rēʔ ‘they don’t fall’ in (326d). The same áá sáá = rēʔ remains L-toned in áá sáá = rēʔ, likewise occurs only before L-toned báá in (326d), and fails to occur before H-toned sáá in (326b). These details indicate a (morpho-)phonological solution, as opposed to one based directly on grammatical formatives like the imperfective subject enclitic. I therefore posit an extended, but morphologically restricted, version of Final Tone-Raising that applies in the negative forms in (326d). While the regular Final Tone-Raising rule converts LL#L to LH#L, and MM#L to MH#L, and requires at least two level-toned nonhigh moras before the boundary, the expanded version converts L#L to H#L and M#L to H#L, without reference to any preceding tones. That this expanded Final Tone-Raising is not broadly productive, and indeed is very restricted, is shown by human 3Sg á sēé ‘he/she came’ and á sēé = rēʔ ‘he/she didn’t come’ in (326a), along with many similar examples, cf. the paradigm in (331) below. Similar conclusions apply to negative nonverbal predicates, see especially the discussion in §11.2.3.4 below.

It is not possible to account for the raising of future sà to sá in (326c) by extending Final Tone-Raising to it, since in e.g. á sà ‘sáá = rēʔ ‘he/she won’t come’, sá is followed by an H-tone rather than by an L-tone. So for future sá under negation we have no choice but to recognize an ad hoc morphophonological rule with no real phonological or grammatical basis. The only hypothesis that I can think of to account for H-toned sá historically is to posit an ancient H-toned negative morpheme, adjacent to the future morpheme, and assume that it disappeared segmentally but left its H-tone behind. Another interesting synchronic fact that is relevant to this matter is that future sà remains L-toned in the future-in-past construction with cí sà ‘was going to (VP)’, see (369b) below.

Further examples of negative present-tense sentences, this time transitives with an object noun directly following the subject, are in (327a-c). Again, subject pronouns including human 3Sg á and 1Sg má undergo Final Tone-Raising only before an L-tone (327a), not before M- or H-tones (327b-c). These examples show that the tone-raising to á and má does not depend on the adjacency of the verb. Rather, it occurs only before an L-tone.

(327) a. áá wùlà dānɔ = nɛʔ
3PlHum / 3SgHum / 1Sg dog eat.meat.Ipfv=Neg
‘They/He-or-she/I do(es)n’t eat dog (meat).’ (< wùlà )

b. áá yīʔɛ dānɔ = nɛʔ
3PlHum / 3SgHum / 1Sg fish eat.meat.Ipfv=Neg
‘They/He-or-she do(es)n’t eat fish.’
10.3 Indicative tense-aspect categories

This section covers perfective, present, future, and progressive categories, which are expressed within verbal morphology, in the nonperfective cases in combination with the imperfective subject enclitic.

Some additional tense-aspect categories are expressed by constructions that include auxiliaries. The main ones are:

- durative inceptive (‘begin doing’) with \( kū \) (§15.1.1.1);
- continuative (‘keep doing’) with \( təs \sim tə́ \) (§15.1.1.2)
- experiential perfect (‘have ever done’) with \( dů̆ \) (§15.1.1.3).

10.3.1 Perfective

There is one basic perfective category. The perfective is the standard way to report an already completed (i.e. past) event.

(328) a. \( mā \quad sibí \quad dən̥(i) \)
   \( 1Sg \quad \text{meat} \quad \text{eat.meat.Pfv} \)
   ‘I ate (the) meat.’

b. \( á = \quad ∅ \quad wée \quad bòbò \)
   \( 3Sg= \quad 3SgNonhObj \quad \text{go.Pfv} \quad \text{Bobo} \)
   ‘He-or-she went to Bobo (city).’

One would expect that the perfective is also used in antecedent clauses in ordinary conditional constructions. However, there is a special verb form used in antecedents, see (366) in §16.1.2.

10.3.1.1 Subjects of perfective verbs

Subjects of perfective verbs, pronominal and nonpronominal, have their regular tones (subject to local tone sandhi processes). Thus 1Sg pronoun \( mā \), human 3Pl pronoun \( ā̂̂n \), and human 3Sg \( ā \) all have their distinctive lexical tones. This distinguishes perfectives from the entire imperfective system (present tense, future tense, progressive), which require an imperfective enclitic /H+ = ∅/.
10.3.1.2 Form of perfective verb

The perfective is expressed by the E/I-stem of the verb (i.e. the E-stem for some verbs and the I-stem for others), with no post-subject inflectional particle. The E/I-stem ends in a front vowel from the set \{i e \}, which may be subject to deletion. There are two large subclasses of verbs. For one, the perfective is the E-stem, when verbs end in mid-height \(e\) or \(ɛ\), the choice depending on the ATR category of the final syllable of the stem. However, in some contexts -ATR \(ɛ\) optionally becomes +ATR \(e\), for example when followed by negative enclitic \(=rÉʔ\), by past \(ké\), spatial adverbs \(nàà\) ‘here’ and \(dè\) ‘there (definite)’, and some other elements. For the remaining stems, the perfective is the I-stem, with final \(i\). There is a broad but nonrigorous correlation with prosodic weight: perfectives of \(Cvv\) are mostly E-stems, those of trisyllabics are mostly I-stems, and those of \(CvCv\) verbs are more evenly split.

Perfective verbs are always immediately preceded by an NP (including pronominal proclitics). For each intransitive or transitive perfective stem, there are two final forms, based on whether the verb is preceded by a +3Sg or -3Sg NP (§3.8.3.5). There is no M-Spreading from preceding M-toned pronominals. The +3Sg form begins with an L-tone, the -3Sg form with an H-tone. Most \(Cvv\) stems have +3Sg \(Ĉv̂\) and -3Sg \(C̃ṽ\). There are also several cases of +3Sg \(Ĉv̂\) or \(C̃ṽ\) versus -3Sg \(C̃ṽ\), suggesting that these verbs have a lexical H-tone medially. Bisyllabic \(CvCv\) stems are +3Sg \(Ĉv̂\) and -3Sg \(C̃ṽ\) (the latter with final M-tone). Heavy stems, e.g. \(CvCvv\), \(CvvCv\), \(CvCvC\), and \(CvCvCv\), have a lexical H-tone in a noninitial syllable. If this H-tone begins in a medial syllable, the final syllable is normally M-toned. This …HM-toned ending is a distinctive feature of perfectives. In stems with a lexical H-tone (medial or final), the +3Sg versus -3Sg opposition affects only the tones of the syllable(s) preceding the lexical H-tone.

Sample perfectives of intransitive verbs (those with no preverbal object, i.e. including VO transitives) are in (329). The forms shown are those that occur clause-finally, and are therefore not subject to the trimming of second moras in final \(Cvv\) syllables.

(329) Perfective verbs (intransitive, prepausal)

\[
\begin{array}{ccc}
\text{+3Sg} & \text{-3Sg} & \text{gloss} \\
\hline
\text{a. E-stem (-ATR } e) \\
\text{monosyllabic} \\
bèè & bèè & ‘fall’ \\
dèè & déè & ‘get hot’ \\
sèè & sèè & ‘come’ \\
kpèè & kpèè & ‘die’ \\
bòè & bòè & ‘exit’ \\
sòè & sòè & ‘enter’ \\
\text{CvCv (bimoraic)} \\
pìnè & pìnè & ‘forget’ (VO) \\
dèʔè & déʔè & ‘escape’ \\
tèʔè & tèʔè & ‘go’ \\
\end{array}
\]
heavy

\[ jìím ě̄ \]
\[ jìím ě̄ \]
‘weep’

b. E-stem (+ATR \( e \), less common)

**monosyllabic**

\[ bèé \]
\[ bèé \]
‘be sated (full after eating)’

\[ tèé \]
\[ tèé \]
‘be shattered’

**nonmonosyllabic**

\[ tòlé(è) \]
\[ tòlé(è) \]
‘rot’

\[ ~ tòléè \]
\[ ~ tòléè \]
‘melt’

\[ wàwàwè \]
\[ wàwàwè \]
‘yawn’

c. I-stem (stems with final \( Cv \))

**CvCv stem**

\[ bùlí \]
\[ bùlí \]
‘return’

\[ fìdí \]
\[ fìdí \]
‘run’

**CvCvv stem**

\[ nàánì \]
\[ nàánì \]
‘improve, become good’

**CvCvCv stem**

\[ sìdànì \]
\[ sìdànì \]
‘ascend’

\[ jàʔànì \]
\[ jàʔànì \]
‘descend’

\[ tùnànì \]
\[ tùnànì \]
‘become lost’

**CvCvCvCv stem**

\[ gbàʔàlànì \]
\[ gbàʔàlànì \]
‘become thin’ or ‘dry off’

d. I-stem (stems with final \( Cvv \))

**Cvv stem**

\[ nìí \]
\[ nìí \]
‘spend night’

\[ sòìí \]
\[ sòìí \]
‘wait’

**CvCvv stem**

\[ jàábìì \]
\[ jàábìì \]
‘reply’

\[ mìílíì \]
\[ mìílíì \]
‘think’

I-stem perfectives with final short \( i \) like those for ‘return’ and ‘run’, are sometimes extended as \( ìí ~ ìì \), mimic-ing lexical final long vowels like \( ìí ~ ìì \) in verbs like ‘think’. In principle, the final long vowel in \( bùlí \) ‘returned’ should occur only in continuity intonation in discourse, while that in \( mìílíì \) ‘thought’ should be regular in all clause-final or isolation pronunciations (cf. imperfectives \( bùlɔ̀ \) and \( mìílìà \)). However, there is some raggedness in my data on this point, and the distinction is not so clean as these considerations suggest. For example, one would expect consistent perfective \( fìdí \) for ‘ran’, since imperfective \( fìdɛ́ ɛ̀ \) has \( CvCv \) shape, but in fact the perfective often ends in a short vowel (\( fìdí \)).

Perfective forms ending in \{ìì ē ē é\}, like those in (329) above, occur prepausally, i.e. in isolation and clause-finally. Clause-medially, a final front vowel marking the perfective is
subject to deletion by trimming when it is part of a long vowel or diphthong. For example, 
*bôé ‘exited’ (+3Sg) becomes *bô. Before the negative enclitic such forms have long vowels, 
suggesting a Monophthongization rule (§3.6.2.4), e.g. /se/ → *sà, as in *bô = rê? ~ *bô = rê?
‘did not exit’ (+3Sg). What isn’t clear is whether Monophthongization applies to the output of 
trimming (in which case the vowel must be lengthened, if the stem is monosyllabic), or 
whether it applies to the full Cvv syllable.

As with all verbs, the negative enclitic is hosted directly by the verb only if there are no 
postverbal constituents (which is most of the time, but not all of the time). If the verb and the 
negative enclitic are separated, the form of the perfective verb is not influenced by the 
enclitic. (330) compares clause-final and clause-medial (exemplified by negative) perfective 
forms, and gives imperfective counterparts for comparison.

(330) clause-final Pfv  Pfv negative
      +3Sg -3Sg +3Sg -3Sg  Ipfv  gloss
a. final i or ii, no systematic trimming
   Cii
   \ji\ji  \ji\ji  \ji\ji = rê?  \ji\ji = rê?  \ji\ji\ji
   ‘spend night’
   CvCii
   bùlí  bùlí  bùlí = rê?  bùlí = rê?  bùlí
   ‘return’
   CvCvCii (subject to Syncope)
   sidáni  sidáni  sidáni = nê?  sidáni = nê?  sidáni
   ‘ascend’
   final Cii
   mílíi  mílíi  mílíi = rê?  mílíi = rê?  mílíi
   ‘think’
   b. final e in Coe trimmed medially, no lengthening
   tòlòé  tòlòé  tòlò = rê?  tòlò = rê?  tòlò
   ~ tòlòé
   ‘rot’
   c. Monophthongization
   bôé  bôé  bô = rê?  bô = rê?  bô
   ~ bô = rê?  ~ bô = rê?
   bèé  bèé  bèé = rê?  bèé = rê?  bàà
   ~ bèé = rê?  ~ bèé = rê?
   dèé  dèé  dèé = rê?  déé = rê?  dèé
   ~ dèé = rê?  ~ dèé = rê?
   ‘get hot’

When the final \{i e è é\} is deleted, the underlying length of the final vowel is revealed. For 
example, although bûlí ‘returned’ can be pronounced bûlíi, mimic-ing perfectives like mílíi
‘thought’, when the negative enclitic is added the form bûlí = rê? shows that ‘return’ ends in 
Cv while the form mílíi = rê? shows that ‘think’ ends in Cv. This distinction is confirmed by 
their imperfectives (bûlí and mílíì). We might therefore analyse the perfectives (omitting 
initial tones) as underlying /bulúii/, /niíi/, /miílíii/, /sidánni/, /tòlòé/, /bppéé/, /béeé/ (or /baaé/),
and /boo/. This way, the underlying vowel length appears automatically when the final vowel is trimmed off.

Clause-finally and in isolation, monosyllabic perfectives like those in (330c) above are usually pronounced with short vowels. For example, ‘got hot’ is heard as [dɛ̂] (+3Sg) and [dɛ́] (-3Sg), and ‘exited’ is heard as [dɔ́ɛ̂] (+3Sg) and [dɔ́ɛ́] (-3Sg). That these are structurally long vowels is shown by their negative forms (and confirmed by their imperfectives). I do not indicate the phonetic shortening in my normal transcription.

A representative intransitive perfective paradigm is ‘fall’ in (331). The initial tone of the verb is determined by the +3Sg or -3Sg category of the preceding subject, except that M-toned pronominals (1Sg, 2Sg, 2Pl) spread the M-tone, in the negative only. Negative variants with +ATR vowels (e.g. 3Sg bèè=rēʔ) are omitted in this array.

(331) Perfective paradigm (intransitive)

\begin{itemize}
\item a. -3Sg perfective
  \begin{itemize}
  \item pronouns, M-toned
    \begin{itemize}
    \item 1Sg mā bēé
    \item 2Sg wō bēé
    \item 2Pl ē̂n bēé
    \end{itemize}
  \item other plural pronouns
    \begin{itemize}
    \item 1Pl mù?ùn bēé
    \item 3PlHum ā̂n bēé
    \item 3PlNonh ē̂n bēé
    \end{itemize}
  \item plural noun
    \begin{itemize}
    \item ‘people’ mèʔè-nà¬n bēé
    \item ‘Bakari’ bákàr bēé
    \end{itemize}
  \item personal name
    \begin{itemize}
    \item ‘people’ mèʔè-nà¬n bēé
    \item ‘Bakari’ bákàr bēé
    \end{itemize}
\end{itemize}

\item b. +3Sg perfective
  \begin{itemize}
  \item pronouns
    \begin{itemize}
    \item 3SgHum à bēé
    \item 3SgNonh è bēé
    \end{itemize}
  \item singular nouns
    \begin{itemize}
    \item ‘person’ mèʔèn bēé
    \item ‘wall’ kogó bēé
    \item ‘fish’ yĩʔè bēé
    \item ‘onion’ jābá bēé
    \item ‘brick’ tōfá bēé
    \end{itemize}
\end{itemize}
\end{itemize}

Perfective forms for transitives that can take a range of objects are in (332). Imperfective stems are shown for comparison.
Perfective paradigm (transitive)

<table>
<thead>
<tr>
<th></th>
<th>positive</th>
<th>negative</th>
<th>Ipfv</th>
</tr>
</thead>
<tbody>
<tr>
<td>+3Sg</td>
<td>-3Sg</td>
<td>+3Sg</td>
<td>-3Sg</td>
</tr>
</tbody>
</table>

a. E-stem (-ATR e)

**monosyllabic**

\[
\begin{align*}
\text{bè} & \quad \text{bé} & \quad \text{bè} = \text{rè}? & \quad \text{bé} = \text{rè}? & \quad \text{bàà} & \quad \text{‘put down’} \\
\text{dè} & \quad \text{dé} & \quad \text{dè} = \text{rè}? & \quad \text{dé} = \text{rè}? & \quad \text{dè} & \quad \text{‘heat (sth)’} \\
\text{ciè} & \quad \text{ciè} & \quad \text{ciè} = \text{rè}? & \quad \text{ciè} = \text{rè}? & \quad \text{ciè} & \quad \text{‘put (in sth)’} \\
\text{dè}^n & \quad \text{dè}^n & \quad \text{dè}^n = \text{nè}? & \quad \text{dè}^n = \text{nè}? & \quad \text{dè}^n & \quad \text{‘step on’} \\
\text{jè}^n & \quad \text{jè}^n & \quad \text{jè}^n = \text{nè}? & \quad \text{jè}^n = \text{nè}? & \quad \text{jè}^n & \quad \text{‘rob’} \\
\end{align*}
\]

**nonmonosyllabic**

\[
\begin{align*}
\text{dè?èè} & \quad \text{dè?èè} & \quad \text{dè?èè} = \text{rè}? & \quad \text{dè?èè} = \text{rè}? & \quad \text{dà?à} & \quad \text{‘let go’} \\
\text{dèréè} & \quad \text{dèréè} & \quad \text{dèréè} = \text{rè}? & \quad \text{dèréè} = \text{rè}? & \quad \text{dà?à} & \quad \text{‘squeeze’} \\
\text{sà?èè} & \quad \text{sà?èè} & \quad \text{sà?èè} = \text{rè}? & \quad \text{sà?èè} = \text{rè}? & \quad \text{sà?èè} & \quad \text{‘catch’} \\
\text{màmòì} & \quad \text{màmòì} & \quad \text{màmòì} = \text{nè}? & \quad \text{màmòì} = \text{nè}? & \quad \text{màmòì} & \quad \text{‘carry on back’} \\
\end{align*}
\]

b. E-stem (+ATR e)

**monosyllabic**

\[
\begin{align*}
\text{yè} & \quad \text{yè} & \quad \text{yè} = \text{rè}? & \quad \text{yè} = \text{rè}? & \quad \text{yè} & \quad \text{‘send (on a mission)’} \\
\text{tè} & \quad \text{tè} & \quad \text{tè} = \text{rè}? & \quad \text{tè} = \text{rè}? & \quad \text{tè} & \quad \text{‘shatter’} \\
\end{align*}
\]

**nonmonosyllabic**

\[
\begin{align*}
\text{gèrrèé} & \quad \text{gèrrèé} & \quad \text{gèrrèé} = \text{rè}? & \quad \text{gèrrèé} = \text{rè}? & \quad \text{gèrrèà} & \quad \text{‘belch’ (onomatopoeic)} \\
\end{align*}
\]

c. I-stem

**monosyllabic**

\[
\begin{align*}
\text{dé} & \quad \text{dé} & \quad \text{dé} = \text{nè}? & \quad \text{dé} = \text{nè}? & \quad \text{dé} & \quad \text{‘open (door); uncover’} \\
\end{align*}
\]

**nonmonosyllabic**

\[
\begin{align*}
\text{bà?rì} & \quad \text{bà?rì} & \quad \text{bà?l} = \text{lè}? & \quad \text{bà?l} = \text{lè}? & \quad \text{bà?rà} & \quad \text{‘hit’} \\
\text{dàkòì} & \quad \text{dàkòì} & \quad \text{dàkòì} = \text{rè}? & \quad \text{dàkòì} = \text{rè}? & \quad \text{dàkòì} & \quad \text{‘catch (sth thrown)’} \\
\text{gìlènì} & \quad \text{gìlènì} & \quad \text{gìlènì} = \text{nè}? & \quad \text{gìlènì} = \text{nè}? & \quad \text{gìlènà} & \quad \text{‘hang up’} \\
\end{align*}
\]

Examples with ‘he/she hit __’ are in (333). The variants with à Ø instead of à ná or à ní for 3Sg object are difficult to model, see (103a) and discussion preceding it. The variant à (à) à for expected #à à for expected #à à may be a special case of Final Tone-Raising (before an L-tone).
(333) ‘he/she hit __’  ‘he/she didn’t hit __’

a. take “other” perfective form

**pronouns**

1Sg  à mā bāʔrī  à mā bāʔrī = rē?

2Sg  à wō bāʔrī  à wō bāʔrī = rē?

1P  à múʔuə bāʔrī  à múʔuə bāʔrī = rē?

2P  à ēə bāʔrī  à ēə bāʔrī = rē?

3P  à āʔuə bāʔrī  à ēə bāʔrī = rē?

~ à nāʔ(ā)ə bāʔrī  ~ à nāʔ(ā)ə bāʔrī = rē?

3PNonh  à ēə bāʔrī  à ēə bāʔrī = rē?

~ à nū(ī)ə bāʔrī  ~ à nū(ī)ə bāʔrī = rē?

**plural noun**

‘people’  à mēʔè-ná-āə bāʔrī  à mēʔè-ná-āə bāʔrī = rē?

b. 3Sg perfective form

**pronouns**

3SgHum  à nā bāʔrī  à nā bāʔrī = rē?

~ à ṙ bāʔrī  ~ à ṙ bāʔrī = rē?

3SgNonh  à nī bāʔrī  à nī bāʔrī = rē?

~ à ṙ bāʔrī  ~ à ṙ bāʔrī = rē?

**singular nouns**

‘person’  à mēʔènə bāʔrī  à mēʔènə bāʔrī = rē?  (< mēʔènə)

‘wall’  à kógō bāʔrī  à kógō bāʔrī = rē?  (< kógō)

‘fish’  à yīʔè bāʔrī  à yīʔè bāʔrī = rē?  (< yīʔè)

‘onion’  à jābā bāʔrī  à jābā bāʔrī = rē?  (< jābā)

‘brick’  à tōfā bāʔrī  à tōfā bāʔrī = rē?  (< tōfā)

For the perfective paradigm of pseudo-transitive ‘go’, see §10.1.1.2.

10.3.2  Imperfective positive system

The present tense (no preverbal inflectional particle) and future tense (preverbal inflectional particle sā) both use of the imperfective stem; the two are distinguished by a post-subject particle sā which occurs in the future.

The imperfective stem ends in a or less often e. The latter may reflect earlier *a via contraction, e.g. *ea → e(e). Vocalic contractions are indeed common. Typical imperfective shapes for monosyllabics are Caʔ, Caʔ, Ceʔ, Ciʔ, and Ciʔ, the last two often in free variation. Typical imperfective shapes for CVC bisyllabics are CiCa, CuCa, and several types of CVC, with repeated non-high vowel (usually -ATR CοCο, CοCa, and CeCe, less often +ATR CoCo and CeCe). Trisyllabics generally end in a (or ā after a back rounded vowel).

Intransitive imperfective stems have a lexical tone observed in positive utterances, and are invariant in form (in positive clauses), e.g. sāá ‘come(s)’ versus bàá ‘fall(s)’. Unlike
perfectives, imperfectives never end in M-tones. Many of the longer imperfectives have contour-toned melodies including a lexically specific medial H, most often L...HL as in fidéə ‘run(s)’, jàʔànà ‘descend(s)’, and ségéléə ‘limp(s)’, but HL is attested in gbɔ́gɔ́ ‘bark(s)’. Transitives are preceded by objects, which may be +3Sg or -3Sg in tonal type, so transitives have variable tone at least on the onset (the part preceding a lexical H-tone, if present). For example, ‘put down’ (the transitive counterpart of ‘fall’) has imperfective bàà after +3Sg and bàa after -3Sg object. Some bisyllabic and even longer transitives similarly have an all-L versus all-H split, e.g. +3Sg sànnà ~ -3Sg sànnà ‘buy’ and a rare trisyllabic stem without lexical medial H-tone like +3Sg sidànà ~ -3Sg sidànáá. However, many bisyllabics and most polysyllabics end in an all-L versus all-H split, e.g. +3Sg sàʔàtáá ~ -3Sg sàʔàtáá ‘cook (meat, vegetables)’.

The other indicative category of the imperfective system is the progressive, which has a suffix -yà ~ -yá and no preverbal inflectional particle. It shifts at least final-syllable vowels to +ATR and shortens CvCv to CvC. Its tones are related to those of the imperfective stem, most obviously in intransitives: sé-yá ‘is coming’ (imperfective sáá), bè-yá ‘is falling’ (imperfective bàa).

The vocalism of the imperative resembles that of the imperfective stem in some verbs, but many imperatives are truncated or else end in the I-stem, versus final -ATR a or e for the imperfective (§10.5.1).

10.3.2.1 Enclitic /H+ = Ø/ on subjects in the imperfective system

In comparison with perfectives, imperfective-system predicates (present, future, and progressive) require a form of the subject pronoun with the final (or only) tone raised. This tonal form occurs in positive clauses; for negative clauses see §10.2.3. Conjugation paradigms for the present tense are in (334); the transcription will be amended later in this section.

(334) ‘exit (v)’ ‘fall’

<table>
<thead>
<tr>
<th></th>
<th>‘exit (v)’</th>
<th>‘fall’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Sg</td>
<td>mà ˈbɔɔ̃</td>
<td>mà bàà</td>
</tr>
<tr>
<td>2Sg</td>
<td>wó ˈbɔɔ̃</td>
<td>wó bàà</td>
</tr>
<tr>
<td>1Pl</td>
<td>múʔáa ˈbɔɔ̃</td>
<td>múʔáa bàà</td>
</tr>
<tr>
<td>2Pl</td>
<td>éɛa ˈbɔɔ̃</td>
<td>éɛa bàà</td>
</tr>
<tr>
<td>3SgHum</td>
<td>á ˈbɔɔ̃</td>
<td>á bàà</td>
</tr>
<tr>
<td>3SgNonh</td>
<td>é ˈbɔɔ̃</td>
<td>é bàà</td>
</tr>
<tr>
<td>3PlHum</td>
<td>àáa ˈbɔɔ̃</td>
<td>àáa bàà</td>
</tr>
<tr>
<td>3PlNonh</td>
<td>éɛa ˈbɔɔ̃</td>
<td>éɛa bàà</td>
</tr>
</tbody>
</table>

The tone-raising occurs not only before L-tones (‘fall’), but also before H-tones (‘exit’), which are then usually downstepped in this combination. If the tone-raising had been limited
to ‘fall’, it could be accounted for by tone sandhi (Final Tone-Raising), since the verb begins with an L-tone. However, this tone sandhi rule cannot account for the other subject tones for ‘fall’, nor for any of the subject tones for ‘exit’. It is therefore necessary to recognize an enclitic /H+=Ø/, segmentally zero but with an H-tone that is realized on the final mora (or only mora in some cases) of the pronoun. (334) can therefore be revised notationally as (335). The presence of /H+=Ø/ enclitic in the transcription indicates that the H-tone has attached to the host pronoun.

(335)  
<table>
<thead>
<tr>
<th></th>
<th>‘exit (v)’</th>
<th>‘fall’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Sg</td>
<td>má = Ø 'bɔ́ɔ́</td>
<td></td>
</tr>
<tr>
<td>2Sg</td>
<td>wó = Ø 'bɔ́ɔ́</td>
<td></td>
</tr>
<tr>
<td>1Pl</td>
<td>múʔáa = Ø 'bɔ́ɔ́</td>
<td></td>
</tr>
<tr>
<td>2Pl</td>
<td>ééa = Ø 'bɔ́ɔ́</td>
<td></td>
</tr>
<tr>
<td>3SgHum</td>
<td>á = Ø 'bɔ́ɔ́</td>
<td></td>
</tr>
<tr>
<td>3SgNonh</td>
<td>é = Ø 'bɔ́ɔ́</td>
<td></td>
</tr>
<tr>
<td>3PlHum</td>
<td>áá = Ø 'bɔ́ɔ́</td>
<td></td>
</tr>
<tr>
<td>3PlNonh</td>
<td>éé = Ø 'bɔ́ɔ́</td>
<td></td>
</tr>
</tbody>
</table>

/H+=Ø/ also occurs after nonpronominal subject NPs. It is audible in the final syllable of ‘Bakari’ in (336a). For nouns like ‘fish’ in (336b) that already end in an H-tone, there is no audible change. Singular nouns with falling HL or ML tone contours also show no consistent tonal effect attributable to /H+=Ø/ (336c–d).

(336)  

a.  
\[\text{bákàrí} = Ø \text{'bɔ́ɔ́ / bàà} \]
B=lpfv  
exit.lpfv / fall.lpfv  
‘Bakari goes out/falls (regularly).’ (< \text{bákàrí} )

b.  
\[\text{yíʔé-rá} = Ø \text{'bɔ́ɔ́ / bàà} \]
fish-Nom=lpfv  
exit.lpfv / fall.lpfv  
‘The fish goes out/falls (regularly).’ (< \text{yíʔé-rá} )

c.  
\[\text{jāŋgbáá-rá} = Ø \text{bɔ́ɔ́ / bàà} \]
cat-Nom=lpfv  
exit.lpfv / fall.lpfv  
‘The cat goes out/falls (regularly).’

d.  
\[\text{búʔú-ná} = Ø \text{bɔ́ɔ́ / bàà} \]
liver-Nom=lpfv  
exit.lpfv / fall.lpfv  
‘The liver comes out/falls (regularly).’

When the subject is a plural noun, if the isolation form ends in L-toned - rá-á”, there is a final rise due to the /H+=Ø/ enclitic (337a). If the isolation form ends in HL-toned - rá-á”, I usually hear the form with imperfective enclitic as - rá-á” = Ø with no overt tonal effect of the

206
enclitic. However, I sometimes hear it as -rā-āⁿ with final M-tone (337b). If this is correct, /H+ = Ø/ can (inconsistently) limit the fall of the final mora to M rather than all the way to L.

(337) a. jàngbáá-rā-āⁿ = Ø yíñé dȳná
   cat-Nom-Pl=lpfv fish eat.meat.lpfv
   ‘(The) cats eat fish (regularly).’

b. yíñé-rā-āⁿ = Ø bɔɔ / bàà
   fish-Nom-Pl=lpfv exit.lpfv / fall.lpfv
   ‘(The) fish-Pl go out/fall (regularly).’

The imperfective enclitic /H+ = Ø/ is also regular on all subjects preceding future particle sà (338a).

(338) mā = Ø / mùñáⁿ = Ø / àáⁿ = Ø sà bɔɔ
   1Sg=lpfv / 1Pl=lpfv / 3PlHum=lpfv Fut exit.lpfv
   ‘I/we/they will go out.’

Imperfective subject clitic /H+ = Ø/ prevents +3Sg and -3Sg subjects from having their distinct tonal effects on following words. For example, the distinction between +3Sg and -3Sg subject in imperfective (339a) has no tonal effect on the object ‘fish’. By contrast, in the perfective counterparts (339b-c), ‘fish’ has different tones (L.H versus H.H) depending on the category of the immediately preceding subject.

(339) a. á = Ø / àáⁿ = Ø yíñé dȳná
   3SgHum=lpfv/3PlHum=lpfv fish eat.meat.lpfv
   ‘He/She eats fish.’ (< yíñé )

b. à yíñé dỳná
   3SgHum fish eat.meat.Pfv
   ‘He/She ate a/the fish.’

c. àáⁿ yíñé dỳná
   3PlHum fish eat.meat.Pfv
   ‘They ate a/the fish.’

Further imperfective examples are in (340).

(340) a. é = Ø ‘yf mìà
   3SgNonh=lpfv water drink.lpfv
   ‘It (=sheep) drinks water.’
b. ́á = Ø  ’nínáʔá  kpàà<sup>a</sup>
3SgHum=lpfv  scorpion  kill.lpfv
‘He/She kills a scorpion (regularly).’

c. ́á = Ø  bāʔá  mià
3SgHum=lpfv  porridge  drink.lpfv
‘He/She drinks porridge.’ (< bāʔá )

d. ́á = Ø  jū  kùnò
3SgHum=lpfv  millet  eat.lpfv
‘He/She eats millet.’ (< jū )

e. ́á = Ø  kūmēé  kùnò
3SgHum=lpfv  meal  eat.lpfv
‘He/She eats a meal.’ (< kūmēé )

f. má = Ø  / mùʔá<sup>a</sup> = Ø  / āá<sup>a</sup> = Ø  ́yíʔé  dànñá
1Sg=lpfv / 1Pl=lpfv / 3PlHum=lpfv  fish  eat.meat.lpfv
‘I/we/they eat fish.’

g. ́á = Ø  āá<sup>a</sup>  bāʔrá
3SgHum=lpfv  3PlHum  hit.lpfv
‘He/She hits them (regularly).’

h. jāngbáá-rà = Ø  yíʔé  dânñá
cat-Nom=lpfv  fish  eat.meat.lpfv
‘A/The cat eats fish.’

i. bākàrí = Ø  ́yíʔé  dànñá
B=lpfv  fish  eat.meat.lpfv
‘Bakari eats fish.’

Imperfective enclitic /H+ = Ø/ can be equated morphemically with the locational ‘be (present)’ subject enclitic /H+ = Ø/ (§11.2.3.1), exemplified in (341).

(341) bākàrí = Ø  [kálá  tɔ̃]
B=be  [home  in]
‘Bakari is at home.’

A linking enclitic  =́í  =̀h is added to the ‘be’ enclitic before some spatial adverbs (§11.2.3.2). This does not happen with the imperfective clitic, probably because it cannot be immediately followed by such adverbs.
10.3.2.2 Present

As in other imperfective-system categories, in the present tense the subject is followed by imperfective enclitic /H+ = Ø/. The enclitic adds an H-tone to subject pronouns and requires a final nominal suffix on noun-headed subject NPs. The verb is in the imperfective form without further inflectional morphology. Intransitive verbs, which directly follow the enclitic /H+ = Ø/, have a single imperfective form (in positive clauses), not varying tonally (or otherwise) by subject category. Regular (OV) transitive verbs are preceded by the object and therefore have two distinct tonal forms, depending on whether the object is +3Sg or -3Sg (§3.8.3.5).

This inflectional category is a general present, for example describing regularly occurring activities.

(342) a. sòʔóó-sòʔò má = Ø nà bàʔrà
day-day 1Sg=Lpfv 3SgHumObj hit.Lpfv
‘Every day I hit-him/her.’

b. sòʔóó-sòʔò má = Ø nàⁿ bàʔrà
day-day 1Sg=Lpfv 3PlHumObj hit.Lpfv
‘Every day I hit-them.’

c. má = Ø sìbí bègà
1Sg=Lpfv meat cut.Lpfv
‘I (regularly) cut-Present (the) meat.’ (< sìbì)

d. má = Ø 'yìʔé-rá-àⁿ bègá
1Sg=Lpfv fish-Nom-Pl cut.Lpfv
‘I (regularly) cut-Present (the) fish-Pl.’

e. njè-ɲì má = Ø nì wàá bòbò
year-year 1Sg=Lpfv 3SgNonhObj go.Lpfv Bobo
‘Every year I go to Bobo (city).’

Conjugation paradigms of the present forms of two intransitive verbs with initial L-tone are in (343). They illustrate the tone-raising enclitic on the subject (inaudible on singular ‘woman’ because of its falling tone pattern), and the constant form of the imperfective of intransitive verbs. For additional paradigms see the preceding section.
Two more paradigms, this time with intransitive verbs whose imperfectives begin with H-tone, are in (344). The H-tone is downstepped after the final H-tone of the subject.

In the case of ‘go’, the downstepped H is so low that it sounds closer to L than to M, but it still behaves as H-toned phonologically. It does not undergo Final Tone-Raising before an L-tone, so the two syllables of ‘táʔá’ in (345a) have the same pitch. Its pitch is also higher than that of a following M-toned negative enclitic =rɛʔ in (345b).
A sample of intransitives showing positive/negative tonal relationships in the present is in (346). Optional +ATR negative variants are omitted.

(346) Intransitive imperfectives

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. H-toned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bɔ́ɔ́</td>
<td>bɔ́ɔ́ = rɛʔ</td>
<td>‘exit (v)’</td>
</tr>
<tr>
<td>sɔ́</td>
<td>sɔ́ = rɛʔ</td>
<td>‘enter’</td>
</tr>
<tr>
<td>kpáá&quot;</td>
<td>kpáá = nɛʔ</td>
<td>‘die’</td>
</tr>
<tr>
<td>sáá</td>
<td>sáá = rɛʔ</td>
<td>‘come’</td>
</tr>
<tr>
<td>tāʔá</td>
<td>tāʔá = rɛʔ</td>
<td>‘go’</td>
</tr>
<tr>
<td>bûló</td>
<td>bûló = rɛʔ</td>
<td>‘return’</td>
</tr>
<tr>
<td>b. L-toned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bàà</td>
<td>bàà = rɛʔ</td>
<td>‘fall’</td>
</tr>
<tr>
<td>dèè</td>
<td>dèè = rɛʔ</td>
<td>‘become hot’</td>
</tr>
<tr>
<td>c. contour-toned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>fidèè</td>
<td>fidèè = rɛʔ</td>
<td>‘run’</td>
</tr>
<tr>
<td>mílí</td>
<td>mílí = rɛʔ</td>
<td>‘think’</td>
</tr>
<tr>
<td>sìdánà</td>
<td>sìdánà = nɛʔ</td>
<td>‘ascend’</td>
</tr>
<tr>
<td>jàʔánà</td>
<td>jàʔánà = nɛʔ</td>
<td>‘descend’</td>
</tr>
</tbody>
</table>

A sample OV-transitive conjugation is (347). The tonal form of the verb depends on the category of the immediately preceding object: bàʔrà after +3Sg, báʔrâ after -3Sg. The third person object pronouns have their usual n-initial form. All pronominal objects are L-toned (perhaps originally downstepped H or M).
(347) object ‘he/she hits ___’

a. -3Sg object
   1Sg  á = Ø  mà  bá?rá
   2Sg  á = Ø  wò  bá?rá
   2PI á = Ø  èè”  bá?rá
   1PI á = Ø  mù?ù”  bá?rá
   3PIHum á = Ø  nàà”  bá?rá
   3PINonh á = Ø  nìì”  bá?rá
   ‘the children’ á = Ø  dí-rá-à”  bá?rá
   ‘Bakari’ á = Ø  bákàrì  bá?rá

b. +3Sg object
   3SGHum   á = Ø  nà  bá?rá  
   3SGNonh á = Ø  nì  bá?rá
   ‘the child’ á = Ø  dí  bá?rá

More examples of transitive present-tense forms are in (348).

(348) Transitive present tense

<table>
<thead>
<tr>
<th></th>
<th>positive</th>
<th>negative</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>+3Sg</td>
<td>-3Sg</td>
<td>+3Sg</td>
<td>-3Sg</td>
</tr>
<tr>
<td>a. level-toned</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bègè  bègè</td>
<td>bègè = re?  bègè = re?</td>
<td>‘cut’</td>
<td></td>
</tr>
<tr>
<td>bìlè  bìlè</td>
<td>bìlè = re?  bìlè = re?</td>
<td>‘give’</td>
<td></td>
</tr>
<tr>
<td>bònô  bònô</td>
<td>bònô = nè?  bònô = nè?</td>
<td>‘pour out’</td>
<td></td>
</tr>
<tr>
<td>dútślô  dútślô  dútślô = re?  dútślô = re?</td>
<td>‘point at’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dìmìnàà  dìmìnáá  dìmìnàà = nè?  dìmìnáá = nè?</td>
<td>‘hurt (sb)’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. contour-toned</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>dáksiô  dáksiô  dáksiô = re?  dáksiô = re?</td>
<td>‘catch (sth thrown)’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kúlśnô  kúlśnô  kúlśnô = nè?  kúlśnô = nè?</td>
<td>‘tie’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>firikîè  firikîè  firikîè = re?  firikîè = re?</td>
<td>‘hobble (animal)’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10.3.2.3 Future (sà)

Future particle sà occurs in post-subject position, preceding the entire VP (including any preverbal objects). The verb takes the same imperfective form as in the present. The positive conjugation has the imperfective /H+=Ø/ subject enclitic, as also in the present and
progressive paradigms, and the future particle sà is L-toned. In the negative conjugation, there is no enclitic on the subject, the M-toned subject pronouns spread the M into the future particle which therefore surfaces as sà (349a), and the other pronouns are followed by H-toned sá (349b). See §10.2.3 above for comments about the tonal changes under negation.

(349) subject '___ will run' '___ will not run'

a. sà by M-Spreading in negative
   1Sg má = Ø sà fidéè má sà fidéè = rē?
   2Sg wó = Ø sà fidéè wō sà fidéè = rē?
   2PI čēu = Ø sà fidéè čēu sà fidéè = rē?
   2PI máāu = Ø sà fidéè máāu sà fidéè = rē?

b. H-toned sá in negative, pronominal subject
   1PI müùu̯ = Ø sà fidéè müùu̯ sà fidéè = rē?
   3SGHUM á = Ø sà fidéè á sà fidéè = rē?
   3SGNonH č = Ø sà fidéè č sà fidéè = rē?
   3PIHUM àa̯u = Ø sà fidéè àa̯u sà fidéè = rē?
   3PINonH čēu = Ø sà fidéè čēu sà fidéè = rē?

c. H-toned sá in negative, nonpronominal subject
   'the child' dí-rá = Ø sà fidéè dí-rá sà fidéè = rē?
   'the children' dí-rá-āu = Ø sà fidéè dí-rá-āu sà fidéè = rē?

In (350), the imperfective verb is H-toned tā?á. In the negative conjugation, it is downstepped after the H-toned variant sá (350b). In the negative column of (350a), the sā appears to drop slightly in pitch before the H-toned verb. I take this to be a low-level dissimilation (a kind of downstep), and I observe that 2PI čēu has flat pitch, as it would before an M (or H) tone rather than before an L-tone.

(350) subject 'will go' 'will not go'

a. 1Sg má = Ø sà tā?á má sà tā?á = rē?
   2Sg wó = Ø sà tā?á wō sà tā?á = rē?
   2PI čēu = Ø sà tā?á čēu sà tā?á = rē?
   2PI máāu = Ø sà tā?á máāu sà tā?á = rē?

b. 1PI müùu̯ = Ø sà tā?á müùu̯ sà tā?á = rē?
   3SGHUM á = Ø sà tā?á á sà tā?á = rē?
   3SGNonH č = Ø sà tā?á č sà tā?á = rē?
   3PIHUM àa̯u = Ø sà tā?á àa̯u sà tā?á = rē?
   3PINonH čēu = Ø sà tā?á čēu sà tā?á = rē?
c. ‘the child’ 
\[ \text{dí-rá} = \emptyset \text{ sà táʔá} \] 
\[ \text{dí-rá só 'táʔá = rē?} \]

‘the children’ 
\[ \text{dí-rá-āⁿ} = \emptyset \text{ sà táʔá} \] 
\[ \text{dí-rá-āⁿ só 'táʔá = rē?} \]

Transitive verbs are preceded by an object (NP or pronoun). The verb is therefore separated from the future particle \( \text{sà} \) and does not interact with it tonally. The verb is imperfective in form (as in the present tense) and has the usual tonal variants depending on whether it is immediately preceded by a +3Sg or -3Sg object. ‘Hit’ is therefore L-toned in (351a) but H-toned in (351b).

\[ \begin{align*}
(351) \quad & \text{a. } \text{má} = \emptyset \quad \text{sà} \quad \text{dí} \quad \text{báʔrá} \\
& 1\text{Sg=Ipfv Fut child hit.Ipfv} \\
& \text{‘I will hit the child.’} \\
& \\
& \text{b. } \text{má} = \emptyset \quad \text{sà} \quad \text{dí-rá-āⁿ} \quad \text{báʔrá} \\
& 1\text{Sg=Ipfv Fut child-Nom-Pl hit.Ipfv} \\
& \text{‘I will hit the children.’}
\end{align*} \]

Consider now the interactions between \( \text{sà} \) and immediately following object pronouns. We have seen above that \( \text{sà} \) itself is L-toned after all subjects in the positive conjugation. (352) below shows how this \( \text{sà} \) combines with object pronouns in positive transitives. In (352a), the usually M-toned pronouns become H-toned as objects after \( \text{sà} \). Since in this construction they are always followed by an H-initial verb, this verb is downstepped. In (352b-d), the other object pronouns have their usual L-toned forms. The future particle is L-toned \( \text{sà} \) before 1st/2nd person objects (352a-b), but becomes H-toned \( \text{sá} \) before third person objects (352c-d), though the phonology is obscured somewhat by vv-Contraction. This tone raising arguably results from an extended form of Final Tone-Raising (normally LL→LH or MM→MH before #L, but here L→H before #L). Nonhuman third person forms have vowel quality \( i \) rather than \( e \) in the contraction. In 3Pl object forms \( \text{sá=à(à)ⁿ} \) and \( \text{sí=ì(ì)ⁿ} \), the length of the object pronoun vowel is usually not audible because of contraction with the vowel of \( \text{sá} \).

\[ \begin{align*}
(352) \quad & \text{Object pronouns in the positive transitive future} \\
& \text{object} \quad \text{sà plus object} \quad \text{example with ‘he/she hit’} \\
& \text{a. } 1\text{Sg} \quad \text{sà má} \quad \text{á = } \emptyset \text{ sà má ‘báʔrá} \\
& \text{2Sg} \quad \text{sà wó} \quad \text{á = } \emptyset \text{ sà wó ‘báʔrá} \\
& \text{2Pl} \quad \text{sà ééⁿ} \quad \text{á = } \emptyset \text{ sà (é)eⁿ ‘báʔrá} \\
& \text{b. } 1\text{Pl} \quad \text{sà múʔùⁿ} \quad \text{á = } \emptyset \text{ sà múʔùⁿ báʔrá} \\
& \text{c. } 3\text{PlHum} \quad \text{sá = à(à)ⁿ} \quad \text{á = } \emptyset \text{ sá = à(à)ⁿ báʔrá} \\
& \text{3PlNonh} \quad \text{sí = ì(ì)ⁿ} \quad \text{á = } \emptyset \text{ sí = ì(ì)ⁿ báʔrá} \\
\end{align*} \]
3SgHum \( \text{sá} = \text{à} \) \( \text{á} = \emptyset \text{sá} = \text{à \ bà} \text{rà} \)
3SgNonh \( \text{sí} = \text{i} \) \( \text{á} = \emptyset \text{sí} = \text{i \ bà} \text{rà} \)

In (352d), \( \text{sá} = \text{à} \) and \( \text{sí} = \text{i} \) are optionally leveled to \( \text{sá} = \text{á} \) and \( \text{sí} = \text{í} \) by H-Leveling (§3.8.3.2) since they are always followed by an L-tone.

When a future clause is negated, we saw above that there is a split in subject pronouns between those that are followed by \( \text{sá} \) (due to M-Spreading) and those that are followed by H-toned \( \text{sá} \). This tonal split has no effect on a following object pronoun. Using 1Sg \( \text{mā \ sā} \) (or, when the object is first person, 2Sg \( \text{wō \ sā} \)) and human 3Sg \( \text{ā \ sā} \) as examples, (353) shows how these combine with object pronouns. The verb is ‘hit’ in all examples. In (353a), the three normally M-toned pronouns become L-toned. The other object pronouns have their usual L-toned forms (353b-c). Therefore all object pronouns in the future negative are L-toned.

(353) Object pronouns in the negative future transitive

\[
\begin{align*}
\text{object} & \quad \text{mā/wō \ sā} \quad \text{plus object} \quad \text{à \ sā} \quad \text{plus object} \\
\text{a. 1Sg} & \quad \text{wō \ sā \ mā \ bà?rā-rē?} \quad \text{à \ sā \ mā \ bà?rā=rē?} \\
\text{2Sg} & \quad \text{mā \ sā \ wō \ bà?rā-rē?} \quad \text{à \ sā \ wō \ bà?rā=rē?} \\
\text{2Pl} & \quad \text{mā \ sā \ èèⁿ \ bà?rā-rē?} \quad \text{à \ èèⁿ \ bà?rā=rē?}
\end{align*}
\]

b. 1Pl \( \text{wō \ sā \ mūⁿ \ bà?rā-rē?} \quad \text{à \ sā \ mūⁿ \ bà?rā=rē?} \)
3PlHum \( \text{mā \ sā = å(å)ⁿ \ bà?rā-rē?} \quad \text{à \ sā = å(å)ⁿ \ bà?rā=rē?} \)
3PlNonh \( \text{mā \ sī = î(î)ⁿ \ bà?rā-rē?} \quad \text{à \ sī = î(î)ⁿ \ bà?rā=rē?} \)

c. 3SgHum \( \text{mā \ sā = å \ bà?rā-rē?} \quad \text{à \ sā = å \ bà?rā=rē?} \)
3SgNonh \( \text{mā \ sī = i \ bà?rā-rē?} \quad \text{à \ sī = i \ bà?rā=rē?} \)

\( \text{sā} \) occurs most often in predications about the future. However, some elicited and textual examples appear to denote processes in progress. See, for example, (556b) in §15.4.3. In the following textual example, hyena is stuck in a pit at a critical point in a narrative:

(354) \( \text{sùrúkú-rò = \emptyset} \quad \text{sí = î} \quad \text{jîé} \)
hyena=Nom=lpfv Fut=3SgNonh see=lpfv
‘Hyena was considering (how to escape).’ (2016_02 @ 02:19)

10.3.2.4 Progressive (-\( \text{yà} \) ~ -\( \text{yá} \))

The progressive is expressed by its own verb form ending in suffix -\( \text{yà} \), realized as -\( \text{yá} \) after stems with contour tones. In positive clauses, the subject has the same /H+ = \( \emptyset \)/) enclitic as the other imperfective system categories. The subject pronouns therefore have the same H-toned
form in progressive (355a) as in present (355b), in contrast to their nonhigh tonal forms in perfective (355c).

(355)  

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| a. | má = Ø / á = Ø | sibí | bègè-yá | 1Sg / 3SgHum  
  meat  
  cut-Prog  
  ‘I am/He-or-she is cutting (the) meat.’ (< sibí )
| b. | má = Ø / á = Ø | sibí | bègà (~ bègè ) | 1Sg / 3SgHum  
  meat  
  cut.Ipfv  
  ‘I cut/He-or-she cuts the meat (regularly).’
| c. | mā / à | sibí | bègé | 1Sg / 3SgHum  
  meat  
  cut.Pfv  
  ‘I/He-or-she cut-Past the meat.’

Each intransitive progressive has a single tonal form in positive clauses, since progressive verbs directly follow the subject with its imperfective clitic (356). The vocalism of the progressive is +ATR, so it is difficult to determine whether the progressive form is most closely relative to the perfective or to the imperfective. For monosyllabic stems and some bisyllabics, the tones of intransitive progressives are based on those of the imperfective. However, intransitive ‘go’ (progressive tèʔè-yá versus imperfective táʔá ) irregularly has divergent tones in the two forms. The suffix is H-toned -yá except when the imperfective ends in a HL falling pattern (‘forget’, ‘ascend’, ‘descend’, ‘think’, ‘run’).

(356) Intransitive progressives compared to imperfective & perfective

<table>
<thead>
<tr>
<th></th>
<th>Prog</th>
<th>Pfv +3Sg</th>
<th>Ipfv</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>ø to ø before -ya suffix</td>
<td>bó-yá</td>
<td>bèé</td>
<td>bɔɔ</td>
</tr>
<tr>
<td></td>
<td>só-yá</td>
<td>sèé</td>
<td>sɔɔ</td>
<td>‘enter’</td>
</tr>
<tr>
<td>b.</td>
<td>a or e to e before -ya suffix</td>
<td>sè-yá</td>
<td>sèé</td>
<td>sáá</td>
</tr>
<tr>
<td></td>
<td>kpɛⁿ-yá</td>
<td>kpɛⁿ</td>
<td>kpɛáⁿ</td>
<td>‘die’</td>
</tr>
<tr>
<td></td>
<td>dè-yá</td>
<td>dèé</td>
<td>dèé</td>
<td>‘become hot’</td>
</tr>
<tr>
<td></td>
<td>jìnè-yá</td>
<td>jìné</td>
<td>jìnáá</td>
<td>‘forget’</td>
</tr>
<tr>
<td></td>
<td>tèʔè-yá</td>
<td>tèʔé</td>
<td>táʔá</td>
<td>‘go’</td>
</tr>
<tr>
<td></td>
<td>jùmè-yá</td>
<td>jùmè</td>
<td>jùmáá</td>
<td>‘weep’</td>
</tr>
</tbody>
</table>

216
Transitive progressives, like other transitive verbs, are subject to tonal modifications based on whether the immediately preceding object is +3Sg or -3Sg, as explained in §3.8.3.5 and elsewhere.

(357) a. \( \text{má} = \emptyset \ \text{nà} \ \text{bàʔrì-yà} \)
\( 1\text{Sg} = \emptyset \ \text{3SgHumObj} \ \text{hit-Prog} \)
‘I am hitting him/her.’

b. \( \text{má} = \emptyset \ \text{nàa}^{n} \ \text{bàʔrì-yà} \)
\( 1\text{Sg} = \emptyset \ \text{3PIHumObj} \ \text{hit-Prog} \)
‘I am hitting them.’

Some further examples of the forms of transitive progressives are in (358).

(358) progressive +3Sg  progressive -3Sg  Ipfv +3Sg  gloss

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>bè-yà</td>
<td>bè-yà</td>
<td>bàà</td>
<td>‘put down’</td>
<td></td>
</tr>
<tr>
<td>dè-yà</td>
<td>dè-yà</td>
<td>dèè</td>
<td>‘heat (sth)’</td>
<td></td>
</tr>
<tr>
<td>dòⁿ-yà</td>
<td>dòⁿ-yà</td>
<td>dòⁿ</td>
<td>‘step on’</td>
<td></td>
</tr>
<tr>
<td>jòⁿ-yà</td>
<td>jòⁿ-yà</td>
<td>jòⁿ</td>
<td>‘rob’</td>
<td></td>
</tr>
<tr>
<td>cì-yà</td>
<td>cì-yà</td>
<td>cìè</td>
<td>‘speak’</td>
<td></td>
</tr>
<tr>
<td>bàʔrì-yà</td>
<td>bàʔrì-yà</td>
<td>bàʔrà</td>
<td>‘hit’</td>
<td></td>
</tr>
<tr>
<td>sòʔo-yà</td>
<td>sòʔo-yà</td>
<td>sòʔò</td>
<td>‘catch’</td>
<td></td>
</tr>
<tr>
<td>mòmò-yà</td>
<td>mòmò-yà</td>
<td>mòmò</td>
<td>‘carry on back’</td>
<td></td>
</tr>
</tbody>
</table>

Intransitive positive and negative conjugations are in (359).

(359) subject      ‘am going out’      ‘am not going out’

a. 1Sg \( \text{má} = \emptyset \ ‘bó-yà} \ \text{má} = \emptyset \ ‘bó-yà = rē? \)

2Sg \( \text{wó} = \emptyset \ ‘bó-yà} \ \text{wó} = \emptyset \ ‘bó-yà = rē? \)

2Pl \( \text{eë}^{n} = \emptyset \ ‘bó-yà} \ \text{eë}^{n} = \emptyset \ ‘bó-yà = rē? \)
b. 1Pl  \( m\breve{u}\breve{u}^a = \emptyset 'b\breve{o}-\breve{y}a \)  \( m\breve{\ddot{u}}^a = \emptyset 'b\breve{o}-\breve{y}a = r\breve{e}? \)
3SgHum  \( \acute{\ddot{a}} = \emptyset 'b\breve{o}-\breve{y}a \)  \( \acute{\ddot{a}} = \emptyset 'b\breve{o}-\breve{y}a = r\breve{e}? \)
3SgNonh  \( \acute{\dot{e}} = \emptyset 'b\breve{o}-\breve{y}a \)  \( \acute{\dot{e}} = \emptyset 'b\breve{o}-\breve{y}a = r\breve{e}? \)
3PlHum  \( \breve{\ddot{a}}^a = \emptyset 'b\breve{o}-\breve{y}a \)  \( \breve{\ddot{a}}^a = \emptyset 'b\breve{o}-\breve{y}a = r\breve{e}? \)
3PlNonh  \( \acute{\dot{e}}^a = \emptyset 'b\breve{o}-\breve{y}a \)  \( \acute{\dot{e}}^a = \emptyset 'b\breve{o}-\breve{y}a = r\breve{e}? \)

c. ‘the child’  \( \breve{d}\breve{i}-\acute{r}\acute{a} = \emptyset 'b\breve{o}-\breve{y}a \)  \( \breve{d}\breve{i}-\acute{r}\acute{a} = \emptyset 'b\breve{o}-\breve{y}a = r\breve{e}? \)
‘the children’  \( \breve{d}\breve{i}-\acute{r}\acute{a}-\acute{\ddot{a}}^a = \emptyset 'b\breve{o}-\breve{y}a \)  \( \breve{d}\breve{i}-\acute{r}\acute{a}-\acute{\ddot{a}}^a = r\breve{e}? \)

10.4  \( c\breve{i}e \sim c\breve{i}e \) ‘was/were’ and past morpheme \( k\breve{e} \)

There are two ways to shift the temporal reference point (against which TAM values are calculated) from the moment of speaking to some point in the past. This is not the same as “past tense” in e.g. English, which uses the moment of speaking as the reference time.

In clauses that include the imperfective or ‘be’ subject enclitic, this enclitic is replaced by the verb \( c\breve{i}e \sim c\breve{i}e \) ‘was/were’. \( c\breve{i}e \sim c\breve{i}e \) immediately follows the subject. \( c\breve{i}e \) follows +3Sg subjects, \( c\breve{i}e \) follows -3Sg subjects. Factoring out the time shift, \( c\breve{i}e \sim c\breve{i}e \) behaves syntactically like the imperfective enclitic and occurs in the same constructions, e.g. with following future, progressive, or “present” (\( \rightarrow \) past habitual) predicates. Unlike the imperfective and ‘be’ enclitics, which are omitted in negative clauses, the ‘was/were’ verb occurs in negative as well as positive clauses.

The intransitive verb ‘arrive’ has perfective \( c\breve{i}e \sim c\breve{i}e \) and imperfective \( c\breve{i}e \). This verb, or a homophone, also means ‘be able to’ (§17.3.1). It is possible that the ‘was/were’ verb is an offshoot of either the perfective or imperfective of ‘arrive’. I incline toward the imperfective.

For other clause types that do not allow the imperfective or ‘be’ subject enclitic, shifting the temporal reference point to the past is accomplished by adding an invariant clause-final past morpheme \( k\breve{e} \). This morpheme converts simple perfective (‘did’) to past perfect (‘had done’, §10.4.9). \( k\breve{e} \) also combines with some stative predications, including ‘know’ (§10.4.3) and adjectival predicates ‘be ADJ’ (§10.4.5), the resulting being translatable ‘knew’ and ‘was/were ADJ’.

A verb immediately preceding \( k\breve{e} \) usually shifts at least its final syllable to +ATR, and final \( e \) in \{ee ee ie \} is trimmed. Examples are (363a-b) in §10.4.3, (371c) in §10.4.9, (373) in §10.4.11, (553a) in §15.4.1, and (570-571) in §16.4.

Concerning the origin of \( k\breve{e} \), one possible lead is the verb ‘leave, abandon’, which has imperfective \( k\breve{a}\breve{a} \) and perfective \( k\breve{i}e \sim k\breve{i}e \).

The following sections illustrate constructions that \( c\breve{i}e \sim c\breve{i}e \) ‘was/were’ and past morpheme \( k\breve{e} \) occur in. For the past perfect with \( k\breve{e} \) in the antecedent clause in counterfactuals, and \( c\breve{i}e \sim c\breve{i}e \) in the corresponding consequent clause, see §16.4.
10.4.1 Past-time form of copula construction with \( ciè \sim ciè \)

Examples (360a-c) are past-time versions of clauses with final copula. There is no imperfective or ‘be’ enclitic on the subject in either positive or negative forms.

(360)  

a. \( dáálá \quad è \quad ciè \quad jiⁿ \quad kùⁿ \)  
\( \text{previously} \quad \text{3SgNonh be.Past market Cop} \)  
'It was a market previously.'

b. \( mú\dot{ù}ⁿ \quad ciè \quad jāā-nà-àⁿ \quad kùⁿ \)  
\( \text{1Pl be.Past woman-Pl Cop} \)  
'We were women.'

c. \( mú\dot{ù}ⁿ \quad ciè \quad jāā-nà-àⁿ \quad kùⁿ=nèʔ \)  
\( \text{1Pl be.Past woman-Pl Cop} \)  
'We were not women.'

Example (360a) corresponds to present-time \( ji'-nè = \emptyset = è ( < /jì-nà=H = è/) \) ‘it’s a market’ with identificational ‘it is’ enclitic and with a covert “subject” (§11.2.1.1), while (360b) corresponds to copular clause \( mú\dot{ù}ⁿ=\emptyset \ jāā-nà-àⁿ \ kùⁿ \) ‘we are women’ with overt subject (§11.2.2.1). In other words, the present-time opposition between the ‘it is’ construction and the copula construction is neutralized in the past-time forms.

10.4.2 Past-time form of locational ‘be (somewhere)’ with \( ciè \sim ciè \)

Examples (361a-c) illustrate past time forms of the locational ‘be (somewhere)’ construction. \( ciè=\dot{è} \) in (361a) is prolonged and shifted to +ATR (also raised to H-tone in the +3Sg form) due to the following \( nàà \) ‘here’ (§4.4.2.1).

(361)  

a. \( mā / bákàrì / à \quad ciè =\dot{è} \quad nàà \)  
\( \text{1Sg / B / 3SgHum be.Past=Link here} \)  
'I / Bakari / He-or-she was here.'

b. \( tàgá \quad ciè \quad [mùù \quad dù] \)  
\( \text{sheep be.Past [field in]} \)  
'The sheep-Sg was in the field.'

c. \( tàgà-rā-àⁿ \quad ciè \quad [mùù \quad dù] \)  
\( \text{sheep-Nom-Pl be.Past [field in]} \)  
'The sheep-Pl were in the field.'
d. ʔiːɬ  ciɛ [yì  dù]  
fish  be.Past [water  in]  
‘The fish-Sg was in the water.’

Negative past-time forms are in (362a-b).

(362) a.  à  ciɛ [mùú  dù]=rē?  
3Sg  be.Past [field  In]=Neg  
‘He/She was not in the field.’

b.  bākàrì  ciɛ [mùú  dù]=rē?  
B  be.Past [field  In]=Neg  
‘Bakari was not in the field.’

10.4.3 Past-time forms of ‘know’ (kɛ) and ‘want’ (ciɛ ~ ci̞e)

With ‘know’, cf. §11.2.6.1, the past morpheme kɛ follows the predicate. Perfective sɔ ‘know’, which occurs in stative present-time contexts, becomes +ATR and long-voweled sɔ = ɔ before kɛ.

(363) a.  mā / à  ní  sò = ɔ  kɛ  
1Sg / 3SgHum  3SgNonhObj  know.Pfv=Link  Past  
‘I/He-or-she knew it.’

b.  mā / à  ní  sò = ɔ  kɛ = rē?  
1Sg / 3SgHum  3SgNonhObj  know.Pfv=Link  Past  
‘I/He-or-she didn’t know it.’

The past-time version of ‘want’ is illustrated in (364). ciɛ ~ ci̞e ‘was/were’ replaces the imperfective enclitic that occurs on the subject in the present-time version (§11.2.6.2).

(364) a.  mùʔù  ciɛ  yì  kà  
1Pl  be.Past  water  want.Stat  
‘We wanted some water.’

b.  mùʔù  ciɛ  yì  kà = rē?  
1Pl  be.Past  water  want.Stat=Neg  
‘We didn’t want water.’

10.4.4 Past-time forms of possessive predicates with ciɛ ~ ci̞e

Positive and negative past-time forms of the ‘have’ construction (§11.5.1) are in (365a-b).
a. tàgá ciè [mā kā]
   sheep be.Past [1Sg Poss]
   ‘I had a sheep.’

b. wář ciè [mà kā]=řḕ?
   money be.Past [1Sg Poss]=Neg
   ‘I didn’t have any money.’

The past-time form of the ‘Y belong to X’ construction (§11.5.3.1) is illustrated in (366a-b).

(366) a. [sàà mí] ciè [bákàrì mi] kùⁿ
   [house Dem] be.Past [B Poss] be
   ‘This/That house was Bakari’s.’

b. [sàà mí] ciè [bákàrì mi] kù =nḕ?
   [house Dem] be.Past [B Poss] be=Neg
   ‘This/That house was not Bakari’s.’

10.4.5 Past-time forms of comparatives with ké

Past morpheme ké follows a perfective or stative main verb. It precedes bèlé ‘(sur)pass’, which expresses an asymmetrical comparison (367). This construction may occur in any asymmetrical comparative clause type. For present-time counterparts see §12.1.

(367) a. [mā mi₃] sààⁿ-bèlé ké bèlé [wō mī-nà]
   [1Sg rope] become.long.Pfv Past pass.Pfv [2Sg Poss-Nom]
   ‘My rope was longer than yours-Sg.’

b. à fɔⁿ kê [(blé) mā-n]
   3SgHum better Past [(pass.Pfv) 1Sg-Indep]
   ‘He/She was better than me.’

c. à fɔⁿ kê [(blé) mā-n]=nēʔ
   3SgHum better Past [(pass) 1Sg-Indep]=Neg
   ‘He/She was not better than me.’

10.4.6 Past habitual (positive and negative) with ciè ~ cié

‘Was/were’ replacing the imperfective subject enclitic turns a present-tense form (§10.3.2.1-2) into a past habitual, denoting a recurrent or stable situation during an extended time interval that ended before the here-and-now of the speech event. ‘Was/were’ precedes the VP, which has a simple imperfective verb.
10.4.7 Future-in-past with ciè ~ cié

Adding ‘was/were’ to a predicate with future particle sà expresses an eventuality that was, or seemed likely to be, imminent at the reference time in the past. ‘Was/were’ replaces imperfective subject enclitic /H+ = Ø/ and takes the trimmed form ci ~ ci before sà. Future sà remains L-toned in this combination even before L-toned verb in the negative version (369b).

(369) a. bákàrì cié sà bàà
    B be.Past Fut fall.Ipfv
    ‘Bakari was going to/was about to fall.’

 b. bákàrì cié sà bàà = rē?
    B be.Past Fut fall.Ipfv=Neg
    ‘Bakari wasn’t going to/was about to fall.’

10.4.8 Past progressive (positive and negative) with ciè ~ cié

Addition of ‘was/were’ to a progressive clause shifts the reference point to the past.

(370) a. mă cié sibí bègè-yá
    1Sg be.Past meat cut-Prog
    ‘I was cutting (the) meat.’ (< sibì )

 b. mă cié sibí bègè-yá = rē?
    1Sg be.Past meat cut-Prog=Neg
    ‘I wasn’t cutting (the) meat.’

Past progressives typically function as background for another foregrounded event in narratives. An example is (554).
10.4.9  Past perfect (positive and negative) with \( \text{ké} \)

By shifting the temporal reference point into the past, a simple perfective verb (e.g. ‘I ate’) becomes a past perfect (‘I had [already] eaten’). Here the past morpheme follows the inflected verb and any postverbal constituents. \( \text{ké} \) has H-tone, so the preceding \( \text{d në} \) in (371a-b) undergoes LH-to-L (§3.8.3.6). Monosyllabic perfectives like \( \text{sèè} \sim \text{sèè} \) ‘came’ and \( \text{bòè} \sim \text{bòè} \) ‘exited’ are trimmed of the final \( e \), re-lengthened, and shift to +ATR before \( \text{ké} \) (371c).

\[(371)\]

\(371a\). \text{mā sibí d në ké}  
1Sg meat eat.meat.Pfv Past  
‘I had eaten (the) meat.’ (\( \text{sibí} , \text{d në} \))

\(371b\). \text{mā sibí d në ké=rēʔ}  
1Sg meat eat.meat.Pfv Past=Neg  
‘I hadn’t eaten (the) meat.’

\(371c\). \text{mā sè=rēʔ bò=ō ké}  
1Sg come./exit.Pfv=Link Past  
‘I had come/gone out.’ (< \text{sèè} , \text{bòè} )

10.4.10 Past experiential perfect with \( \text{ciè} \sim \text{cié} \)

‘Was/were’ may be added to an experiential perfect clause (§15.1.1.3). The sense is that the event in question had occurred at some point before the reference time in the past (372a).

A negative counterpart was somewhat problematic. My assistant was uncomfortable with the expected parallel negative form (372b), though he did not reject it. He suggested an alternative phrasing including a perfective form of ‘stay, remain’ (372c), see §15.1.1.2. A literal gloss would be something like “I had remained [(I) not seeing an elephant].”

\[(372)\]

\(372a\). \text{mā cié gbān jiì dú}  
1Sg be.Past elephant see.Pfv ExpPf  
‘I had (once) seen an elephant.’ (< \text{gbān} , \text{jié} )

\(372b\). \text{mā cié gbān jiì dú=rēʔ}  
1Sg be.Past elephant see.Pfv ExpPf=Neg  
‘I had never seen an elephant.’

\(372c\). \text{mā tòò cié [jiì gbān jiì=rēʔ]}  
1Sg stay.Pfv be.Past [1Sg elephant see.Pfv=Neg]  
‘I had never seen an elephant.’ (=‘I remained without having seen …’)

223
10.4.11 Past stative of stance verb (absent)

My assistant did not approve of combinations of stative forms of stance verbs (ending in \textit{ni}́) with the past morpheme. He preferred a past perfect based on the perfective form of the active verb, with the resulting state implied rather than stated.

(373) \textit{miʔi-ná-àⁿ séʔé ‘ké}

\begin{tabular}{l}
person-Nom-Pl & sit.Pfv & \textbf{Past} \\
\end{tabular}

‘The people had sat down (=were seated).’ (< \textit{séʔé})

10.5 Imperatives and Hortatives

10.5.1 Commands

10.5.1.1 Imperatives and prohibitives

Each verb has an imperative form. It is generally closely related to the imperfective, but shorter at the end, suggesting a trimming process (subtractive morphology), see §3.6.3.1 for discussion. The negative enclitic \textit{=rÉʔ} may be added to form the prohibitive. As in other negative clauses, if there is a postverbal constituent such as a PP, the verb and the (clause-final) negative enclitic are separated.

The positive singular-addressee imperative consists simply of the verb, with no overt subject pronominal (374a). The positive plural-addressee imperative has the regular 2Pl subject \textit{ēēⁿ}, which triggers M-Spreading into the verb (374b). In the prohibitive, in addition to the clause-final negative enclitic, there is a post-subject inflectional morpheme \textit{bí} (374c). For plural-addressee prohibitive, \textit{bí} is preceded by 2Pl proclitic \textit{ēēⁿ} (374d).

(374)  
\begin{tabular}{ll}
\textit{a. fídí} & ‘run-2Sg!’ \\
\textit{b. ēēⁿ fídí} & ‘run-2Pl!’ \\
\textit{c. bí fídí =rēʔ} & ‘don’t-2Sg run!’ \\
\textit{d. ēēⁿ bí fídí =rēʔ} & ‘don’t-2Pl run!’ \\
\end{tabular}

Examples of intransitive imperatives and prohibitives are in (375). Many singular imperatives are LH-toned, flattening to L-toned before the M-toned negative enclitic (§3.8.3.6). The imperfective is given for comparison. H-toned imperfectives correspond to M-toned imperatives, which however remain distinct from L-toned imperatives.
(375) Imperatives (intransitive)

<table>
<thead>
<tr>
<th>Imp</th>
<th>Sg</th>
<th>Pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>imperative</td>
<td>prohibitive</td>
<td>Ipfv</td>
</tr>
<tr>
<td>Sg</td>
<td>Pl</td>
<td>Sg</td>
</tr>
</tbody>
</table>

a. imperative stem M-toned (imperfective H- or HL-toned)

**imperfective H-toned**

| sõ | ë êõ sõ | bí sõ = rõ? | ë êõ bí sõ = rõ? | sõsõ | ‘enter’ |
| bõ | ë êõ bõ | bí bõ = rõ? | ë êõ bí bõ = rõ? | bõbõ | ‘exit’ |
| sõ | ë êõ sõ | bí sõ = rõ? | ë êõ bí sõ = rõ? | sãã | ‘come’ |
| kpõ | ë êõ kpõ | bí kpõ = nõ? | ë êõ bí kpõ = nõ? | kpõã | ‘die’ |
| tãõ | ë êõ tãõ | bí tãõ = rõ? | ë êõ bí tãõ = rõ? | tãã | ‘go’ |

**imperfective HL-toned**

| ìëìì | ë êõ ìëìì | bí ìëìì = rõ? | ë êõ bí ìëìì = rõ? | ìëììã | ‘think’ |

d. imperative LH-toned (trimmed from imperfective C̀ĆĆv̀)

| lìdì | ë êõ lìdì | bí lìdì = rõ? | ë êõ bí lìdì = rõ? | lìdêì | ‘run’ |

d. imperative LHL-toned (imperfective C̀ĆĆv̀ or ĆĆĆv̀)

| jììmã | ë êõ jììmã | bí jììmã = nõ? | ë êõ bí jììmã = nõ? | jììmãã | ‘weep’ |
| sidì | ë êõ sidì | bí sidì = rõ? | ë êõ bí sidì = rõ? | sidìì | ‘ascend’ |
| [nasal variants sidìì, bí sidì = nõ?, etc.] | | | | |
| jàìõ | ë êõ jàìõ | bí jàìõ = nõ? | ë êõ bí jàìõ = nõ? | jàìõìì | ‘descend’ |

sã ‘come!’ becomes sé = ê in the combination sé = ê nàà ‘come here’, showing the usual vocalic modifications before ‘here’ and ‘there’ adverbs. ë wà ‘go!’ likewise becomes ë wê = ê in the combination ë wê = ê dê ‘go there (definite)!’

In transitive imperatives, the verb is subject to the usual tonal variation, beginning with L-tone after +3Sg object and with H-tone after -3Sg object. (376) illustrates +3Sg forms.

(376) a. ë | bàìřì
| 3SgNonh | hit.Imprt |
| ‘Hit-2Sg it!’ |

b. ë êõ | Ø | bàìřì
ë êõ | nì | bàìřì
| 2Pl | 3SgNonh | hit.Imprt |
| ‘Hit-2Pl it!’ (two variants) |
c. ɛ̄ ɛ̄ⁿ báʔrí
    ɛ̄ ɛ̄ⁿ ná báʔrí
2Pl  3SgHum hit.Imprt
    ‘Hit-2Pl him/her!’ (two variants)

d. bí= í báʔří = rěʔ
    Proh= 3SgNonh hit.Imprt=Neg
    ‘Don’t-2Sg hit it!’ (variant báʔří = lěʔ, §3.6.1.2)

e. ɛ̄ ɛ̄ⁿ bí= í báʔří = rěʔ
    2Pl Proh= 3SgNonh hit.Imprt=Neg
    ‘Don’t-2Pl hit it!’

Examples (377a-e) show the -3Sg forms, here nonhuman 3Pl. When a stem like ‘hit’ that lacks a lexical H-tone shifts from {LH}-toned +3Sg imperative báʔří to {H}-toned -3Sg báʔří, there is no drop to final M-tone as there is with perfectives (+3Sg báʔří, -3Sg báʔří).

(377)  a. ɛ̄ ɛ̄ⁿ báʔří
    3PlNonh hit.Imprt
    ‘Hit-2Sg them (nonhuman)’!

b. ɛ̄ ɛ̄ⁿ = ě(ě)ⁿ báʔří
    ɛ̄ ɛ̄ⁿ níⁿ báʔří
2Pl  3PlNonh(Obj) hit.Imprt
    ‘Hit-2Pl them (nonhuman)’ (two variants)

c. ɛ̄ ɛ̄ⁿ = ě(ě)ⁿ báʔří
    ɛ̄ ɛ̄ⁿ ná à àⁿ báʔří
2Pl  3PlHum(Obj) hit.Imprt
    ‘Hit-2Pl them (nonhuman)’ (two variants)

d. bí= í(í)ⁿ báʔří = rěʔ
    Proh= 3PlNonh hit.Imprt=Neg
    ‘Don’t-2Sg hit them (nonhuman)’!

e. ɛ̄ ɛ̄ⁿ bí= í(í)ⁿ báʔří = rěʔ
2Pl  Proh= 3PlNonh hit.Imprt=Neg
    ‘Don’t-2Pl hit them (nonhuman)’!

Additional transitive examples are in (378). The imperfectives given for comparison are the 3Sg forms (beginning with L-tone). The prohibitive inflectional morpheme bí and objects are omitted to save space.
### 10.5.1.2 Imperative verb after future *sà*

Although imperatives normally occur without future tense marking, there is a textual passage where this combination does occur. *yálí* in (380) is clearly imperative rather than imperfective (*yàlà ~ yálá*) in form.

<table>
<thead>
<tr>
<th>(378)</th>
<th>imperative</th>
<th>prohibitive</th>
<th>Pfv</th>
<th>Ipfv</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>+3Sg</td>
<td>-3Sg</td>
<td>+3Sg</td>
<td>-3Sg</td>
<td>+3Sg</td>
<td></td>
</tr>
<tr>
<td>dè</td>
<td>dè</td>
<td>… dè = rē?</td>
<td>…  dè = rē?</td>
<td>dèè</td>
<td>‘heat (sth)’</td>
</tr>
<tr>
<td>jî</td>
<td>jî</td>
<td>… jî = rē?</td>
<td>…  jî = rē?</td>
<td>jîè</td>
<td>‘see’</td>
</tr>
<tr>
<td>bà</td>
<td>bà</td>
<td>… bà = rē?</td>
<td>…  bà = rē?</td>
<td>bàà</td>
<td>‘put down’</td>
</tr>
<tr>
<td>kpàⁿ</td>
<td>kpàⁿ</td>
<td>… kpà = nē?</td>
<td>…  kpà = nē?</td>
<td>kpàⁿ</td>
<td>‘kill’</td>
</tr>
<tr>
<td>bô</td>
<td>bô</td>
<td>… bô = rē?</td>
<td>…  bô = rē?</td>
<td>bôô</td>
<td>‘remove’</td>
</tr>
<tr>
<td>bàʔri</td>
<td>bàʔri</td>
<td>… bàʔr = rē?</td>
<td>…  bàʔr = rē?</td>
<td>bàʔrā</td>
<td>‘hit’</td>
</tr>
<tr>
<td>fèéⁿ</td>
<td>fèéⁿ</td>
<td>… fèè = nē?</td>
<td>…  fèè = nē?</td>
<td>fèènà</td>
<td>‘untie’</td>
</tr>
<tr>
<td>dūtsísⁿ</td>
<td>dūtsísⁿ</td>
<td>… dūtsís = nē?</td>
<td>…  dūtsís = nē?</td>
<td>dūtsísⁿō</td>
<td>‘shut’</td>
</tr>
<tr>
<td>fírikí</td>
<td>fírikí</td>
<td>… fírikí = rē?</td>
<td>…  fírikí = rē?</td>
<td>fírikū</td>
<td>‘hobble (animal)’</td>
</tr>
</tbody>
</table>

The verbs that have +ATR perfectives (at least prepausally) contrasting with -ATR imperfectives are +ATR in the imperative (379). This is because the original final -ATR vowel *a* or *ɛ* on imperfectives does not occur in imperatives.

<table>
<thead>
<tr>
<th>(379)</th>
<th>imperative</th>
<th>prohibitive</th>
<th>Pfv</th>
<th>Ipfv</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>+3Sg</td>
<td>-3Sg</td>
<td>+3Sg</td>
<td>-3Sg</td>
<td>+3Sg</td>
<td></td>
</tr>
<tr>
<td>wē</td>
<td>wē</td>
<td>… wē = rē?</td>
<td>…  wē = rē?</td>
<td>wēwē</td>
<td>‘bathe (sb)’</td>
</tr>
<tr>
<td>tē</td>
<td>té</td>
<td>… tē = rē?</td>
<td>…  tē = rē?</td>
<td>tētē</td>
<td>‘shatter (sth)’</td>
</tr>
<tr>
<td>yē</td>
<td>yē</td>
<td>… yē = rē?</td>
<td>…  yē = rē?</td>
<td>yēyē</td>
<td>‘send on mission’</td>
</tr>
<tr>
<td>déí</td>
<td>déí</td>
<td>… déè = rē?</td>
<td>…  déè = rē?</td>
<td>déíđéè</td>
<td>‘open’</td>
</tr>
<tr>
<td>bègé</td>
<td>bègé</td>
<td>… bègé = rē?</td>
<td>…  bègé = rē?</td>
<td>bègébègé</td>
<td>‘cut’</td>
</tr>
</tbody>
</table>

Although imperatives normally occur without future tense marking, there is a textual passage where this combination does occur. *yálí* in (380) is clearly imperative rather than imperfective (*yàlà ~ yálá*) in form.

<table>
<thead>
<tr>
<th>(380)</th>
<th>àáⁿ = Ǿ</th>
<th>s₃r₃ =</th>
<th>[3ⁿ]</th>
<th>si = iⁿ</th>
<th>yálí ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>3PIHum=lpfv</td>
<td>do.then.lpfv</td>
<td>3PIHum Fut=3PINonh</td>
<td>take.İmprt</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

“(She said:) We were then going to take them afterwards.’ (2016_04 @ 01:23)
10.5.2 Hortatives

10.5.2.1 Hortative (1Pl plus imperative or quoted imperative)

The hortative (‘let’s do!’) has overt 1Pl subject mùʔùⁿ. Hortatives, unlike imperatives, make no distinction between singular and nonsingular addressee.

The form of the verb in hortatives is the same as in the quoted imperative (§10.5.3.1 below). That is, a special M-toned quoted imperative is used for intransitive verbs (381b), and the regular imperative stem, with its +3Sg and -3Sg tonal variants, is used for transitives (381c). In the high-frequency ‘let’s go!’ (381a), from irregular pseudo-transitive wàá ‘go’ (§10.1.1.2), wà is tonally simplified from regular imperative wǎ as seen in è wǎ ‘go!-2Sg’.

(381) a. mùʔùⁿ = ∅ wà
   1Pl 3SgNonhObj go.Implt
   ‘Let’s go!’ (pseudo-transitive)

b. mùʔùⁿ  bǎ / bālā / ḕīdī / pīnā / sidāⁿ
   1Pl exit(v)/return/run/forget/ascend.Implt
   ‘Let’s go out/go back/run/forget/go up!’

c. mùʔùⁿ  kūmē  kùⁿ
   1Pl meal eat.Implt
   ‘Let’s eat (a meal)!’

d. mùʔùⁿ  wálā  bàʔrī
   1Pl dog hit.Implt
   ‘Let’s beat the dog!’

10.5.2.2 Hortative negative (1Pl plus bǐ)

The hortative negative has the initial 1Pl subject pronoun as in the positive hortative. It is otherwise identical to the prohibitive: preverbal particle bǐ, imperative stem, and clause-final negative enclitic =rEʔ.

(382) a. mùʔùⁿ  bǐ = ǐ wà =rēʔ
   1Pl Proh 3SgNonhObj go.Implt=Neg
   ‘Let’s not go!’

b. mùʔùⁿ  bǐ  bà =rēʔ
   1Pl Proh fall.Implt=Neg
   ‘Let’s not fall!’
10.5.3 Quoted deontics (imperative and hortative)

10.5.3.1 Quoted imperative

An original imperative may be quoted. The higher quotative verb is perfective positive \( dè \sim dè \) ‘said’ (383a-b) if an actual quotation is being reported.

(383) a. \( zàkìì \ dè \ [mà \ sā / ìdì] \) [mā sā / ìdì] \( sìsàⁿ \)]

Z say.pfv [1Sg come./run.quotimprt now]

‘Zaki told me to come/to run now.’

b. \( mā \ dè \ [à] \) [à] \( sā / ìdì] \)

1Sg say.pfv [3SgHum come./run.quotimprt]

‘I told him/her to come/to run.’

c. \( mā \ dè \ [àà / ìdì] \)

1Sg say.pfv [3PlHum come./run.quotimprt]

‘I told them to come/to run.’

Intransitive quoted imperatives are in (384). It is identical segmentally to the imperative, differing from the imperfective (which often shifts to -ATR or adds a final +ATR vowel). However, while the imperative may be M, L, or LH-toned, the quoted imperative is strictly M-toned for intransitives. Interlinear gloss is “.QuotImprt.” The same M-toned forms occur in conditional antecedent clauses; see (566) in §16.1.2.

(384) quoted Imprt imperfective imperative gloss

a. monosyllabic

imperative M-toned

\( bɔ̀ \) \( bɔ́ \) \( bɔ́ \) ‘exit (v)’
\( sɔ̀ \) \( sɔ́a \) \( sɔ́ \) ‘come’
\( sɔ̃ \) \( sɔ́i \) \( sɔ̃ \) ‘enter’

imperative L-toned

\( bà \) \( bà̀ \) \( bà \) ‘fall’
\( kà \) \( kà̀ \) \( kà \) ‘abandon’
b. nonmonosyllabic

*imperative M-toned*

\[
\begin{align*}
tāʔā & \quad tāʔā & \quad tāʔā & \quad \text{‘go’} \\
būlū & \quad būl̓ & \quad būlū & \quad \text{‘return’} \\
wālī & \quad wālā & \quad wālī & \quad \text{‘shout’} \\
mīlī & \quad mīl̓ & \quad mīlī & \quad \text{‘think’}
\end{align*}
\]

*imperative LH-toned*

\[
\begin{align*}
fīdī & \quad fīđē & \quad fīdī & \quad \text{‘run’} \\
sīdā & \quad sīdānā & \quad sīdā(\text{*}) & \quad \text{‘ascend’}
\end{align*}
\]

For transitive verbs, there is no distinction between imperative and quoted imperative. In both, the tones depend on whether the preceding object NP is +3Sg or -3Sg. I will use “.Imprt” rather than “.QuotImprt” in interlinear.s. Transitive quoted imperatives are illustrated in (385).

(385) a. \text{mā  dé  [à  dī  bāʔri]} \\
1Sg  say.Pfv  [3SgHum  child  hit.Imprt] \\
‘I told him/her to hit the child.’

b. \text{mā  dé  [à  dī-rā-ā\text{*}  bāʔri]} \\
1Sg  say.Pfv  [3SgHum  child-Nom-Pl  hit.Imprt] \\
‘I told him/her to hit the children.’

For more on the syntax of quoted imperatives, see §17.2.4.1.

10.5.3.2 Imprecations and blessings

Imprecations and blessings of the type ‘may God VERB X!’ have a structure similar to that of quoted imperatives, but they lack the higher ‘say’ clause. The archaic variant 2Sg object pronominal ē (instead of the usual wō) is typical of such formulae.

(386) \text{āl̓ē  =  ē  pē  sā} \\
God  2Sg  good  put.in.Imprt \\
‘May God have you enter (there) in good health!’ (< álá)

10.5.3.3 Quoted prohibitive

A quoted prohibitive includes regular prohibitive forms including the prohibitive particle bí. A subject pronoun, not present in the regular prohibitive, is added.
(387) a.  
\[ \text{bí} \quad \text{fìdì = rēʔ} \]  
Proh \quad \text{run.Imprt}=\text{Neg}  
‘Don’t-2Sg run!’

b.  
\[ \text{mā} \quad \text{ dé} \quad \text{[à \quad \text{bí} \quad \text{fìdì = rēʔ}]} \]  
1Sg \quad \text{say.Pfv} \quad [3SgHum \quad \text{Proh} \quad \text{run.QuotImprt}=\text{Neg}]  
‘I told him/her not to come/not to run.’

10.5.3.4 Quoted hortative

A quoted hortative predicate has the same form as a regular hortative. However, if the original ‘we’ did not include the current speaker or addressee, the subject pronominal category is adjusted from 1Pl to human 3Pl (388b).

(388) a.  
\[ \text{zàkū} \quad \text{dé} \quad \text{[mùʔú^n = Ø \quad wà]} \]  
Z \quad \text{say.Pfv} \quad [1Pl \quad 3SgNonhObj \quad \text{go.Imprt}]  
‘Zaki said, let’s go!’ (with 1Pl subject)

b.  
\[ \text{zàkū} \quad \text{dé} \quad \text{[bákàr \quad mà] \quad [ândú^n = Ø \quad wà]} \]  
Z \quad \text{say.Pfv} \quad [\text{Bon} \quad 3PlHum \quad 3SgNonhObj \quad \text{go.Imprt}]  
‘Zaki said to Bakari, let’s go!’ (with 3Pl subject)
11 Clause and predicate structure

11.1 Clausal constituents

There is no case-marking as such, except that object pronouns have some distinctive forms. Subjects, preverbal objects, and postverbal objects are clearly distinguished from each other by linear position and other properties.

11.1.1 Subjects

11.1.1.1 Subjects in indicative main clauses

The subject NP (whether noun-headed or pronominal) occurs clause-initially, preceded optionally by setting adverbs like ‘yesterday’ (which may also occur postverbally). Subjects always precede preverbal direct objects. The two are adjacent but always in this linear order in simple perfective transitives (389a). Subjects are also immediately followed by imperfective subject enclitic /H+ = Ø/, realized overtly (if at all) as a final H-tone on the subject (389b). Future particle sà immediately follows this imperfective enclitic, preceding a preverbal object if one is present (389c).

(389) a. mā yīʔé dàn(i)
    1Sg fish eat.meat.Pfv
    ‘I ate a/the fish.’

b. mó = Ø ‘yīʔé dànɔ̀
    1Sg=lpfv fish eat.meat.lpfv
    ‘I eat fish.’ (< /mā=H …/)

c. mā = Ø sà yīʔé dànɔ̀
    1Sg=lpfv Fut fish eat.meat.lpfv
    ‘I will eat a/the fish.’ (< /mā=H sà …/)

NPs that are morphologically capable of ending in the nominal suffix (-ra or variant) omit this suffix in subject function (390). The exceptions involve combinations with pronominal object clitics, which fuse with subject NPs and trap the nominal suffix (§4.3.1.3).

(390) tàgá bɔ̀ɛ́
    sheep exit(v).Pfv
    ‘A/The sheep-Sg went out.’ (< tàgà )
Other than this, there is no special morphology for subject NPs or pronouns. For example, subject pronominal proclitics like 1Sg mā in (389a-c) above have the same form as corresponding proclitics used as possessor or postpositional complements. There is minor variation in form due to tone sandhi, e.g. Floating-H Docking in (389b-c).

The subject of a clause may bind a reflexive (§18.1.1-2).

11.1.1.2 Subjects of imperative and hortative verbs

Imperatives and hortatives have subjects with the same syntactic properties as subjects of indicative clauses. Although singular-addressee imperatives have no overt subject (391a), the covert subject may bind a reflexive if the verb is transitive (391b).

(391) a. bɔ_exit(v).Imprt
    ‘Go-2Sg out!’

       b. [œ  yêʔré]  bâʔri
        [2SgRefl self]  hit.Imprt
    ‘Hit-2Sg yourself!’

Hortatives (‘let’s go!’) have overt 1Pl subjects (§10.5.2.1).

11.1.1.3 Meteorological and temporal subject-verb collocations

Some meteorological and temporal expressions are subject-verb collocations.

(392) a. kóʔrò  bèè
    night  fall.Pfv
    ‘Night has fallen.’ = ‘It’s gotten dark out.’

       b. sláá  yèlèní
       daytime  day.break.Pfv
    ‘Day has broken.’ = ‘It’s gotten light out.’

       c. káº  sêè
       rain(n)  rain.fall.Pfv
    ‘It rained.’

       d. káº  bâlí(i)
       rain(n)  stand.Pfv
    ‘The rain has stopped.’
11.1.1.4 Emotional and physiological subject-verb collocations

Some terms for emotions and body functions also involve subject-verb collocations. In (393a), bọ́ṣa appears to be a specialized variant, attested only in this collocation, of bùa ‘liver’.

(393) a. [zàkìì  bọ́ṣa]  là?âńí
    [Z  liver]  get.up.Pfv
    ‘Zaki is angry.’ (lit. “Zaki’s liver has arisen.”)

b. [zàkìì  kọ́yí]  jà =  á-yà
    [Z  belly]  become.good.Pfv =  Hum-3SgObj
    ‘Zaki is happy.’ (< /jẹ̀ à-yà/)

c. [mā  sú]  tẹ̀ẹ̀
    [1Sg  nose]  be.shattered.Pfv
    ‘I have a nosebleed.’

11.1.1.5 Physiological states (‘be hungry’ etc.)

Physiological states of persons are normally expressed with the name of a condition (e.g. ‘hunger’) as subject. The subject has the ‘be’ enclitic (floating H-tone), which requires that the nominal suffix be overt for singular NPs. The experiencer follows as a postverbal NP, either an NP (with nominal suffix) or an independent pronoun. The construction is therefore literally of the type “hunger is me.”

(394) a.  kò?ò-rá = ∅  mā-ñì
    hunger-Nom=be  1Sg-Indep
    ‘I am hungry.’
b. \( \text{miká}l-à = \emptyset \quad \text{má-ñ} \)
   thirst-Nom=be 1Sg-Indep
   ‘I am thirsty.’

c. \( \text{fùnén-ná} = \emptyset \quad \text{má-ñ} \)
   heat(n)-nom=be 1Sg-Indep
   ‘I am (=feel) hot.’ (also with \( \text{dɔ̀ʔɔ̀-rò-} \) replacing synonym \( \text{fùnén-ná} \))

d. \( \text{piì-ná} = \emptyset \quad \text{má-ñ} \)
   sleep(n)-Nom=be 1Sg-Indep
   ‘I am sleepy.’

With ‘cold (n)’, the favored construction has an explicit verb ‘exit (v), go/come out’ (395a). This may be to avoid confusion with a verbless construction that has the conventional sense ‘have fever (malaria)’ (395b).

(395)  a. \( \text{kùmáa-ná} = \emptyset \quad \text{bɔ́} \quad \text{má-ñ} \)
   cold(n)-Nom=Ipfv exit.Ipfv 1Sg-Indep
   ‘I am (=feel) cold.’

   b. \( \text{kùmáa-ná} = \emptyset \quad \text{má-ñ} \)
   cold(n)-Nom=Ipfv 1Sg-Indep
   ‘I have fever (malaria).’

11.1.2 Transitives and ditransitives

11.1.2.1 Preverbal objects of OV verbs

Most transitive verbs require a preverbal object (noun-headed or pronominal). The object follows the subject and any inflectional particles (such as future \( \text{sà} \)) or post-subject enclitics. As with subjects (except when fused to an object pronoun), possessors, and postpositional complements, a preverbal object NP that is morphologically capable of ending in the nominal suffix -\( \text{ra} \) (or variant) omits it (396a-b). In the perfective only, the subject and object may be directly adjacent, in which case a +3Sg subject like ‘child’ in (396b) requires initial L-tone on the object noun.

(396)  a. \( \text{má} \quad \text{tàgá} \quad \text{bòé} \)
   1Sg sheep take.out(v).Pfv
   ‘I took the sheep-Sg out.’ (< \( \text{tágá} \), suffixed \( \text{tágá-rá} \))

   b. \( \text{dí} \quad \text{yìlè} \quad \text{bòé} \)
   child fish take.out(v).Pfv
   ‘A/The child took a/the fish out.’ (< \( \text{yìlè} \), suffixed \( \text{yìlè-rá} \))
There is some morphological specialization of object pronouns. In particular, third person pronominal objects have forms beginning in *n* that do not occur in other functions. There are also some slightly irregular tonal alternations in pronominal subject-object combinations. The details vary depending on the clause-level inflectional category (perfective, present, future, progressive); see §4.3.1.3 and the various sections in §10.3 for data and discussion.

### 11.1.2.2 Postverbal NPs without postpositions

Some verbs have an object-like postverbal bare NP with no postposition, but no preverbal object. They are like intransitive verbs that allow a postverbal complement, and the tones of the verb bring this out. The expressions “postverbal object” and “VO transitive verb” are used loosely. For ditransitives ‘give’ and ‘show’ that have both a preverbal object and a postverbal bare NP, see the following section.

If the bare postverbal NP is morphologically capable of ending in a nominal suffix, the suffix is required in this position. If the postverbal object is pronominal, it has independent form for 1st/2nd person categories and for 3Pl, and special forms used as postverbal objects (and rarely in other functions) for 3Sg, namely human *à-ỳà* and nonhuman */è-ỳà* → *ì-ỳà* (§4.3.1.6).

The regular OV transitive verb *bàʔrà* ~ *bàʔrā* means ‘hit’. There are many examples of ‘hit’ with a preverbal object in this grammar, e.g. (340g) above. The same verb, cited as imperfective *báʔrá*, occurs as a VO verb with the less violent sense ‘touch’ (397a-b). It has a synonym also with VO syntax, namely *màʔà* ‘touch’ (397c).

![Example](397)

(397)  
\[ \text{a. } \text{má} = \emptyset \quad \text{sà} \quad \text{báʔr} = \quad \text{à-ỳà} \]  
1Sg=Ipfv Fut touch.Ipfv Hum-3SgObj  
‘I will touch him/her.’ (< *báʔrā*)

\[ \text{b. } \text{má} = \emptyset \quad \text{sà} \quad \text{báʔrā} \quad \text{‘dì-rà} \]  
1Sg=Ipfv Fut touch.Ipfv child-Nom  
‘I will touch the child.’

\[ \text{c. } \text{ɲáà} \quad \text{mèʔé} \quad \text{mà-ì} \]  
woman touch.Pfv 1Sg-Indep  
‘The woman touched me.’

Only a few other verbs with object-like postverbal NP (and no preverbal object) have been recorded. One is *sò̀* ‘help (someone)’ (398a).)

![Example](398)

(398)  
\[ \text{a. } \text{má} = \emptyset \quad \text{sà} \quad \text{sò̀} \quad \text{wò-ì} \]  
1Sg=Ipfv Fut help.Ipfv 2Sg-Indep  
‘I will help you-Sg.’
b. mùʔù° kpáŋí [zàkū kpá-mà] 1Pl follow.Pfv [Z goal]  
‘We pursued Zaki.’

bélé in the sense ‘pass, go past (something)’ can also be mentioned, though one could argue that the postverbal NP functions adverbially. It does appear to be a VO transitive in the sense ‘surpass’ in comparatives, e.g. (367a) above and text 2016_02 @ 04:22 (‘tastier than tears’).

‘Forget’ can occur with a postverbal object-like NP.

(399) mā jìnē zàkū 1Sg forget.Pfv Z  
‘I forgot (about) Zaki.’

‘Forget’ can also take postverbal verbal-noun complements in the sense ‘forget (to do)’ (§17.4.5). There are a few other verbs of this type: ‘consent (to do)’ (§17.4.4) ‘be afraid (to do)’ (§17.4.6).

The verb kpáná in the sense ‘be adjacent to, abut’ takes a postverbal NP. In the sense ‘pursue’, this verb requires a PP, see (403c) below. In fact, most postverbal NPs are postpositional complements rather than bare NPs. An example is the benefactive PP in (400a), with postposition kē° kē° (§8.1.3). For verb-PP collocations, see §11.1.2.4 below.

(400) má = Ø sà sàá [tēē dè] [wō kē°] 1Sg=Ipfv Fut come.Ipfv [tea with] [2Sg Benef]  
‘I will bring you-Sg some tea.’

11.1.2.3 Ditransitives

Ditransitive verbs ‘give’ and ‘show’ combine the characteristics of OV and VO transitives. The preverbal object denotes the theme (entity transferred or shown). The postverbal NP, with no postposition or other case-marking, denotes the recipient. If the recipient is a pronoun it takes independent (i.e. prepausal) form (401a-b). See §8.1.1 for more examples.

(401) a. à tàgá blí / dù̀blí mà-n 3SgHum sheep give.Pfv/show.Pfv 1Sg-Indep  
‘He/She gave/showed me a sheep.’

‘Zaki, said that you-Sg gave a sheep to him.’ (</bılí à-wò-ǹ/)
11.1.2.4 Verb-PP collocations

Some postpositions form collocations with verbs. One important combination is ‘come’ or ‘go’ plus a PP with instrumental-comitative dē ~ dě ‘with’, meaning ‘bring’ or ‘convey, deliver, take (sth/sb, there)’. Either of the two stems for ‘go’, intransitive tái or pseudo-transitive wàá, in addition to sáá ‘come’, may be used in this construction. Examples in (402a-c) have sibi ‘meat’ as the theme (transferred entity).

(402) a. sā [sibí dē] come.Imprt [meat with] ‘Bring-2Sg the meat!’
   b. è wà [sibí dē] bá 3SgNonh go.Imprt [meat with] over.there ‘Take-2Sg the meat over there!’
   c. tái [sibí dē] bá go.Imprt [meat with] over.there ‘Take-2Sg the meat over there!’

‘Hold’ is another sense that requires this postposition (403a). The ‘on’ postposition is required with ‘add’ (403b), and also with the Arabic loan yàfà ‘forgive, pardon’. In the sense ‘pursue (someone)’, kpání requires a PP with goal postposition kpá-mà or variant (403c), see §8.4.3.

(403) a. bí [gbāá dē] hold.Imprt [stick with] ‘Hold-2Sg (onto) the stick!’
   b. à dò-sé [sùkàř mà] 3SgHum add.Pfv [sugar on] ‘He/She added some sugar.’

11.1.2.5 Verbs used with onomatopoeias

The verb màáá (elsewhere ‘touch’) may occur preceding an imitation of a sound, cf. English it went “blurp!” (404a). An alternative is to combine cié ~ cîé ‘say, utter’ with tòò ‘say (something)’, flanking the imitation of the sound.
11.1.2.6 Lexicalized object-verb combinations

As in other languages there are many object-verb collocations. In (405a-b), the noun wéé (variants wèè after 3Sg NP/pronoun, wēē after M-toned pronominal) combines with verb kēē (perfective) or kēà (imperfective) to mean ‘be healthy, be cured, be feeling better (recovering from illness/injury)’. Its negation is the normal way to say ‘be sick’ (405b). Noun wéé is not attested elsewhere. For verb kēē compare (107). wéé does not appear to be a noun morphologically. Although ostensibly singular it does not require initial L-tone on the verb. The combination of the two elements is a candidate for compound-verb status (§9.6).

(405) a. à sà wéé kēà
   3SgHum Fut health affect.Lpfv
   ‘He/She is healthy; he/she has recovered (from illness/injury).’

b. à wèè kēà = rē?
   3SgHum health affect.Pfv=Neg
   ‘He/She is sick (not healthy).’

Some transitive verbs are compatible with many objects in ways reminiscent of English get, pick, take, and the like. The verb bàà (imperfective) means ‘fall’ as intransitive, and its most straightforward sense as transitive is ‘put down’. Slight variations include ‘knock down’ and ‘lay out [mat]’. It combines naturally enough with yálá ‘egg’ to form yálá bàà ‘lay egg’. However, it also combines with a range of other objects in more abstract senses (406).

(406) collocation  gloss  noun

<table>
<thead>
<tr>
<th>Collocation</th>
<th>Gloss</th>
<th>Noun</th>
</tr>
</thead>
<tbody>
<tr>
<td>f3° bàà</td>
<td>‘have fun, play (v)’</td>
<td>f3° ‘fun (n)’</td>
</tr>
<tr>
<td>nii bàà</td>
<td>‘sleep (v)’, also ‘freeze’</td>
<td>nii ‘sleep (n)’</td>
</tr>
<tr>
<td>kpáʔa bàà</td>
<td>‘shout (v), cry out’</td>
<td>kpáʔa ‘shout (n)’</td>
</tr>
<tr>
<td>gàâⁿ bàà</td>
<td>‘wage war, fight (v)’</td>
<td>gàâⁿ ‘combat (n)’</td>
</tr>
<tr>
<td>nùù bàà</td>
<td>‘draw a line’</td>
<td>nùù ‘tracks’</td>
</tr>
<tr>
<td>dí bàà</td>
<td>‘(plant) bear ripe fruit’</td>
<td>dí ‘child’</td>
</tr>
<tr>
<td>dàà-nùùlí bàà</td>
<td>‘spit without hawking’</td>
<td>dàà-nùùlí ‘saliva’</td>
</tr>
<tr>
<td>símí bàà</td>
<td>‘breathe’</td>
<td>símí ‘breath’</td>
</tr>
</tbody>
</table>
èdù̀ bàà ‘ululate, cry for joy’ èdù̀ ‘women’s ululation’
àlàmà̊ì bàà ‘assess a fine’ àlàmà̊ì ‘fine (n)’

The intransitive verb bɔ̀ɔ̀ ‘exit, go out, leave’ has a transitive counterpart bɔ̀ɔ̀ ~ bɔ̀ɔ̀ ‘take out, remove’, with extended senses ‘take off, doff (a garment)’ and ‘pick (any fruit)’. It also occurs in a range of specific collocations.

(407) collocation gloss noun
kōlōkō bɔ̀ɔ̀ ‘cough (v)’ kōlōkō ‘cough (n)’
kāá bɔ̀ɔ̀ ‘hawk and spit’ kāá ‘spittle’
kɔ́kɔ̀ bɔ̀ɔ̀ ‘collect honey from apiary’ kɔ́ ‘honey’
tāʔálí bɔ̀ɔ̀ ‘walk’ tāʔálí ‘walking (n)’

Another versatile verb that occurs in multiple contexts is sàà (imperfective), distinct from ‘come’ (imperfective sáá). As intransitive, sàà combines with subject kā ‘rain (n)’ to mean ‘rain (v)’, as in kā sɛ̀ ‘it rained’. As pseudo-reflexive it means ‘lie down’, as in mā nāā sɛ́ ‘I lay (=laid myself) down’. As a transitive verb, its most general sense is ‘build’, but it can also mean ‘set out (garment) to dry in sun’. It also has the transitive collocations in (408).

(408) collocation gloss noun
sígí sàà ‘sing (a song)’ sígí ‘song’
cé̆ sàà ‘tell a story’ cé̆ ‘tale’

11.1.2.7 Cognate nominals

Jalkunan does not make extensive use of cognate nominals as objects of verbs, e.g. ‘sing a song’, ‘run a run’, etc. One possible case is bó, in the combination bó bàà ‘fall’. The verb bàà has a range of senses including ‘put down’ and intransitive ‘be put (somewhere)’. Addition of bó clarifies the sense.

11.2 ‘Be’, ‘become’, ‘have’, and other statives and inchoatives

11.2.1 ‘It is’ clitics

11.2.1.1 Positive identificational ‘it is X’ ( = è, = ě, = è, = ě, = ī )

The ‘it is’ enclitic occurs in clauses of the simple type ‘it is X’, where ‘it’ denotes a referent established by discourse or physical context and X provides further identification of this referent.

The examples below suggest that the ‘it is X’ enclitic, consisting of a front vowel with M- or L-tone, is added after the locational ‘be’ subject enclitic /H+=O/, which consists only
of a floating H-tone. Subject pronouns take independent form, e.g. 1Sg *mā-nī* (ū), and in the case of third person pronouns they take independent focalized (or logophoric) form. The -nū independent pronominal suffix combines with the ‘it is X’ enclitic as phonetic [nī], so I transcribe e.g. *mā-nī = ņ = ī* (ū), analysed as /mā-nū = H = ĕ/. Likewise, nominal subjects have the nominal suffix (-ra or variant) where morphologically possible (i.e. with common nouns but not personal names), see (411a-c) below.

The ‘it is X’ enclitic itself takes the form = ī after a high vowel. /nū = H = ĕ/ in pronouns contracts as ī = ə = ĕ (409a,d,e).

(409) a. *mā-nī = ņ = ī*

1Sg-Indep=be=it.is

‘It’s me.’

b. *bākārī = ņ = ī*

B=be=it.is

‘It’s Bakari.’ (< bākārì)

c. *ámádū = ņ = ī*

A=be=it.is

‘It’s Amadou.’ (ámádù)

d. *à-wò-nī = ņ = ī*

Hum-3SgFoc-Indep=be=it.is

‘It’s him/her.’

e. *à-māā-nī = ņ = ī*

Hum-3PlFoc-Indep=be=it.is

‘It’s them (human).’

If the preceding stem is a noun that cannot end in the nominal suffix (for example, personal names), if the stem ends in a mid-height or low vowel, the ‘it is X’ enclitic is = ē ~ = ĕ. The choice between = ē and = ĕ depends on the ATR quality of the stem (410a), cf. §3.4.1. The low vowel ē is -ATR, and it usually combines with the enclitic as ē = ə = ē (410b).

(410) a. *kólō = ņ = ē*

K=be=it.is

‘It’s Kolo (personal name).’

b. *wámàrë = ņ = ē*

W=be=it.is

‘It’s Wamara (personal name).’ (/wámārə = H = ē/)

If X is a common noun, as is often the case, the clitic follows the nominal suffix whether the noun is singular or plural. The result for singular nouns is always -rē = ņ = ē or (if the stem is
nasal) -nɛ́ = ɔ́ = ē, in either case with final L-tone (411a-c). In (411c) L-tone in the /H(L)/ melody of the stem, audible on the suffix in jí-nà, is realized as downstep. Corresponding plurals have -à-ní = ɔ́ = i (from -à-nù) with final M-tone (411d).

(411) a. tāgà-ré = ɔ́ = ē  
    sheep-Nom=be=it.is  
    ‘It’s a sheep.’ (< tāgà-rá)

b. jú-né = ɔ́ = ē  
    woman-Nom=be=it.is  
    ‘It’s/She’s a woman.’ (< jú-ná)

c. jí-né = ɔ́ = ē  
    market-Nom=be=it.is  
    ‘It’s a/the market.’ (jí-nà = H = ē)

d. tāgà-rá-à-ní = ɔ́ = i  
    sheep-Nom-Pl-Nom=be=it.is  
    ‘It’s/They’re sheep.’

This construction should be conducive semantically to specific indefinite dò (§6.5.2). However, I have observed the combination of dò and the ‘it is’ enclitic, which is realized as -dòé = ɔ́ = ē, only with the semantically light nouns sèⁿ ‘thing’ (suffixed sèⁿ-nà), where it seems to be obligatory, and mèlèⁿ and variants ‘person’ (suffixed mèlèⁿ-ná), where it is optional.

(412) a. sèⁿ-dòé = ɔ́ = ē  
    thing-one=be=it.is  
    ‘It’s something.’ (♯sèⁿ-né = ē rejected by assistant)

b. mèlèⁿ-dòé = ɔ́ = ē  
    person-oner=be=it.is  
    ‘It’s someone.’ (mèlèⁿ-né = ɔ́ = ē is also acceptable)

For past time, the identificational enclitic is replaced by the verb ciè ~ cié ‘was/were’, and copula kùⁿ ~ kúⁿ comes at the end (§10.4.1). This indicates that the identificational ‘it is X’ construction merges with the copular (‘X is Y’) construction in the past-time forms.

11.2.1.2 ‘It is not X’ (=rÉ? )

The ‘it is X’ construction described above is negated by attaching the negative enclitic =rÉ?, realized as =rē? or =rē? depending on ATR value of the preceding syllable, to the X element. The morphology and tones of the X NP are the same as in the positive, so I again
postulate that the locational ‘be’ subject enclitic /H+ = Ø/ is present before the negative enclitic. The independent 1Sg pronoun is elsewhere mā-ñi ~ mā-nā, so the medial i in mā-n = Ø = i = nē? (413a) may be a direct reflex of allomorphs of the positive ‘it is’ enclitic which has a front vowel (preceding section).

(413) a. mā-n = Ø = i = nē?
   1Sg-Indep=be=it.is=Neg
   ‘It isn’t me.’ (< /mā-nū = H = i = rē?/)

   b. bākār = Ø = Ø = rē?
   Bakari=be=it.is=Neg
   ‘It isn’t Bakari.’ (< bākārì)

c. tāgā-rā = Ø = Ø = rē?
   sheep-Nom=be =it.is=Neg
   ‘It’s not a sheep.’

d. jīā-nā = Ø = Ø = nē?
   woman-Nom=be=it.is=Neg
   ‘It’s not a woman.’

e. tāgā-rā-ā-nī = Ø = Ø = nē?
   sheep-Nom=be=it.is=Neg
   ‘It’s/They’re not sheep-Pl.’ (< /-nū = H = /

11.2.2 Copula

11.2.2.1 Positive ‘X is Y’ (kūⁿ ~ kūⁿ)

The copula is kūⁿ (+3Sg) or kūⁿ (-3Sg). The construction is X = ‘be’ Y kūⁿ meaning ‘X is Y’. X here is the starting point, such as a pronoun, and it takes the ‘be’ subject enclitic. The nominal suffix is therefore required on singular NPs that are capable to ending in it (414c). However, plural subject NPs omit their final plural nominal suffix -nū (414b,d). A pronoun in X function takes regular proclitic form, e.g. 1Sg mā becoming mā = Ø with the enclitic, not independent mā-ñi (414a). Y specifies a class to which X belongs or an identity that X is coreferential with. Y does not take a word-final nominal suffix before kūⁿ.

(414) a. mā = Ø
   jīāa / tāgā
   1Sg=be woman / sheep Cop
   ‘I am a woman/a sheep.’ (< tāgà)
For past time, e.g. ‘we were women’, see §10.4.1.

11.2.2 Negative ‘X is not Y’ (kù=nēʔ, plural kú=nēʔ)

Copular ‘X is Y’ (preceding section) is negated by adding the negative enclitic =rēʔ. Because of the nasality of kùⁿ ~ kúⁿ, the enclitic always takes nasal form =nēʔ. The ‘be’ subject enclitic is absent, as in some other imperfective negative constructions. However, singular subjects nouns have their final nominal suffix (415c). Human 3Sg subject à is raised to á only before an L-tone (415d-e), as in other negative clauses.

(415)  a. mā / à  jnāā  kū=nēʔ
     1Sg / 3SgHum  woman  Cop=Neg
     ‘I am/He-or-she is not a woman.’

  b. mùʔùⁿ  jnāā-nā-āⁿ/ tāgā-rā-āⁿ  kū=nēʔ
     1Pl  woman- / sheep-Nom-Pl  Cop=Neg
     ‘We are not women/sheep-Pl.’

  c. jnāā-nāⁿ = bālāⁿ  kū=nēʔ
     woman-Nom=be  Senoufo  Cop=Neg
     ‘The woman is not a Senoufo (ethnicity).’

  d. à  yīʔé  kū=nēʔ
     3SgHum  fish  Cop=Neg
     ‘He/She is not a fish.’ (< yīʔé)
11.2.3 Existential and locative quasi-verbs and particles

The past-time counterpart of the locational ‘be (present)’ construction, e.g. ‘I was (somewhere)’, replaces the ‘be’ enclitic by ciè ~ cié ‘was/were’, see §10.4.2. The nasal linker =ń is absent in this past-time version. The following subsections cover ‘be (present)’ with reference to present or generalized time.

11.2.3.1 Positive ‘X is present (somewhere)’

The construction treated here is of the form ‘X be [location]’, with any locational phrase (‘here’, ‘in the village’, etc.). Except in the specific cases of ‘be here’ and ‘be there’, locational ‘be’ is expressed by the subject enclitic /H+/Æ/. This may be identified morphemically with the imperfective subject enclitic /H+/Æ/. Examples with noun-headed subjects are in (416).

(416)  

a. bákàří =Ø  [ mùù / yi  dù]  
    B=be  [field / water in]  
    ‘Bakari is (present) in the field/in the water.’ (< mùù )

b. búgū-rà-áⁿ =Ø  [ dúgú  dù]  
    hut-Nom-Pl=be  [the.bush in]  
    ‘The huts are (out) in the bush.’ (< dúgù )

c. tàgà-rá-áⁿ =Ø  [ mùù  dù]  
    sheep-Nom-Pl=be  [field in]  
    ‘The sheep are in the field.’ (< mùù )

d. jnàá-nà-áⁿ =Ø  [ bìŋí  tô]  
    woman-Nom-Pl=be  [granary in]  
    ‘The women are inside the granary.’

e. dìgìŋ-nà-áⁿ =Ø  [ yi  dù]  
    man-Nom-Pl=be  [water in]  
    ‘The men are in the water.’
The man is in the water.'

Pronoun subjects also show the final H-tone even before an H-tone, confirming that the ‘be’ enclitic is present.

(417)  
| mā / māʔü / àá / ēé / à  | = Ø | [yí  dū] |
|———|———|———|
| 1Sg / 1Pl / 3Pl / 2Pl / 3SgHum | =be | [water  in] |

‘I am/we are/they are/you-Pl are/he-or-she is in the field.’

( < mā / māʔü / àá / ēé / à )

11.2.3.2 ‘X is here/there’ with linker =ń ~ =ǹ

When the locational expression is a simple demonstrative adverb nàà ‘here’ or dè ‘there (definite)’, locational ‘be’ is seemingly expressed by an enclitic whose most common tonal form is =ń (variant =ín) instead of (just) by segmentally zero /H+ = Ø/. In addition, a final nominal suffix (e.g. -ra) in singular nouns shifts its vowel to e. This argues for an underlying form / =ín/ (418c). However, there is no similar vocalic change of final a in plural nouns or in pronouns (418d-e).

Because of the tones in combinations like human 3Sg [án] rather than rising #[án], I assume that the enclitic =ń is added after the /H+ = Ø/ enclitic, which accounts for raising /à/ to á. This interpretation reduces =ń to the status of a linker. In this light, it is doubtful that =ń is itself intrinsically H-toned, as opposed to just bearing the H-tone of the /H+ = Ø/ under favorable conditions. In fact, the linker is heard as L-toned =ǹ when preceded by an H-toned vowel (418c), though not by a rising-toned vowel (418e).

(418)  
a.  
| zàkū = Ø = ń | dè |
|———|———|
| Z=be=Link | there Def |

‘Zaki is present (here/there).’

b.  
| bákàr = Ø = ń | nàà |
|———|———|
| B=be=Link | here |

‘Bakari is here.’

c.  
| tàgà-ré = Ø = ń | nàà |
|———|———|
| sheep-Nom=be=Link | here |

‘The sheep-Sg is here.’ (< tàgà-rá )

d.  
| tàgà-rá-a = Ø = ń | nàà |
|———|———|
| sheep-Nom-Pl=be=Link | here |

‘The sheep-Pl are here.’
11.2.3.3 ‘X is over there’ (bá)

For the distant deictic category (‘over there’), bá occurs after /H+ =Ø/. There is no linker.

(419) a. bákàří =Ø  ʻbá
    B=be over.there
    ‘Bakari is over there.’

     b. åá =Ø  ʻbá
    3PLHum=be over.there
    ‘They are over there.’

c. bákàří =Ø  ʻbá = rē?
    B=be over.there=Neg
    ‘Bakari isn’t over there.’

11.2.3.4 Negative ‘X is not present/X is absent (somewhere)’

The positive ‘X is present (somewhere)’ (preceding section) is negated by adding negative enclitic = rÉ? in its usual range of variants to the locational expression (i.e. clause-finally). My assistant omitted the =n linker before dè ‘there (definite)’ but not before nàà ‘here’ (420d-e).

(420) a. bákàří / å / åá” [mùú dù] = rē?
    B / 3SGHum / 3PLHum [field In] = Neg
    ‘Bakari is not / He-or-she is not / They are not in the field.’ (bákàří)
b. bákàr / à / ààⁿ [yí dù] = rē?
   B / 3SgHum / 3PlHum [water In] = Neg
   ‘Bakari is not / He-or-she is not / They are not in the water.’ (bákârì)

c. tàgà-rá / tàgà-rá-àⁿ [yí dù] = rē?
   sheep-Nom / sheep-Nom-Pl [water In] = Neg
   ‘The sheep-Sg is not/The sheep-Pl are not in the water.’

d. zàkìì = ñ
   Z=Link here = Neg
   ‘Zaki is not here.’

e. zàkìì dè = rē?
   Z there.Def = Neg
   ‘Zaki is absent (from here/there).’

There is an issue in these data, and those in §11.2.2.2 above, as to whether the ‘be’ enclitic /H+ = Ø/ is present in the negative sentences. Possible evidence in favor of the presence of the enclitic is a) the H-tone of human 3Sg á in (420a), and b) the overt nominal suffix -rá on singular ‘sheep’ in (420c). Evidence against the presence of the enclitic is the final L-tones in bákàr, à, and ààⁿ as subjects of (420b) in contrast to (420a). In several other examples above, a final H-tone on the subject is ambiguous; it could be attributed either to the ‘be’ enclitic or to tone sandhi (Final Tone-Raising).

I have argued in §10.2.3 above that the imperfective enclitic, which is probably identical to the ‘be’ enclitic, is absent in negative clauses (perfective, imperfective, etc.). Consistent with that, I maintain that the ‘be’ enclitic is absent in (420) as well as in (415) above. The evidence of examples like (420b) is decisive. The H-toned 3Sg subject á only occurs before an L-tone. It occurs before mùù ‘field’ in (420a) but not before H-toned yí ‘water’ in (420b). This points to a morphophonological analysis of H-toned á in (420a), viz., a morphologically restricted extended offshoot of Final Tone-Raising of the type L#L-to-H#L, as explained in §10.2.3.

The presence of the nominal suffix -rá in singular tàgà-rá ‘sheep’ in (420c) would be automatic if the ‘be’ enclitic were present. However, it is not necessary to posit the presence of the enclitic for this purpose. The presence or absence of a word-final nominal suffix is determined by the NPs morphosyntactic context. Some contexts require the suffix, some disallow it. To account for its overt presence in examples like (420c), we merely need to include this context (subject immediately followed by nonverbal predicate) in the list of positions requiring the nominal suffix, see (155) above.
11.2.4 Other stative locational and positional quasi-verbs

11.2.4.1 Stative locational quasi-verbs (‘be in/on’) absent

Expressions like ‘X be in/on/at Y’ where Y is a spatial reference (‘in the fields’, ‘on the mat’, etc.), are expressed by predicate PPs. The subject takes the ‘be’ enclitic /H+ = Ø/. There are no semantically stative verbs with built-in spatial meanings like ‘be in’ or ‘be on’.

(421) a.  kùgù-rá = Ø  [dàʔǎlì  mà]
   stone-Nom=be  [mat  on]
   ‘The stone is on the mat.’

   b.  njáa-nã-aⁿ = Ø  [mùú  dù]
   woman-Nom-Pl=be  [field  in]
   ‘The women are in the field(s).’

See §11.2.3.1 for more examples.

11.2.4.2 Stative stance/position verbs

The active (i.e. aspectually marked) verb ‘sit (down)’ is pseudo-reflexive sàʔà (perfective sèʔé ~ sèʔè), see (305b) above. In addition to active forms, the verb has stative forms denoting stable position as shown in (422). Unlike ‘want’ and ‘have’, these derived statives do not allow the imperfective subject enclitic /H+ = Ø/. This suggests that derived statives are perfective aspectually.

(422) a.  àãⁿ  sèʔèní
   3PlHum  sit.Stat
   ‘They are sitting (=seated).’

   b.  à  sèʔèní
   3SgHum  sit.Stat
   ‘He/She is sitting (=seated).’

Array (423) shows the relationships between active and stative forms of the three most important stance verbs. The statives end in ní. The vowel quality of the stem preceding ní shifts to +ATR. Since +ATR e can correspond to either -ATR e or a, it is indeterminate whether the stative is more closely related to the active imperfective or to the active perfective.
From a text I can add another stative verb, bèèní (+3Sg) ~ bééní (-3Sg), related to bàà ‘put down’ (perfective bèé ~ bèé) and to intransitive bàà ‘fall’.

The variant tùùnì ~ táúní from the verb tòó ‘stay, remain’ may be another case; see (513a-b) below.

My assistant rejected my proposed combinations of these stative forms with the past morpheme (‘was sitting’, etc.). He preferred past perfect forms based on the active perfective (‘had sat down’, etc.); see §10.4.9.

11.2.5 ‘Stay’, ‘become’, and ‘happen’ predicates

11.2.5.1 ‘Stay, remain’ (tòó)

This is an active (aspect-marking) verb. The basic forms are perfective tòé ~ tòé (subject to the usual clause-medial trimming) and imperfective tòó.

a. à tò kúnú / bà
   3SgHum stay.Pfv village / over.there
   ‘He/She stayed in the village / over there.’ (< tòé)

b. à = Ø sà tòó ‘kúnú / ‘bá
   3SgHum=Ipfv Fut stay.Ipfv village / over.there
   ‘He/She will stay in the village / over there.’

The high-frequency demonstrative adverbs ‘here’ and ‘there (definite)’ require a variant tùú in both perfective and imperfective contexts. One might have expected tóó, as in (372c) and other examoles. However, this is not the only case where a shift to +ATR has also raised the vowel to high; see tìí from tàá ‘go(es)’ in (36a-b). The adverbs ‘here’ and ‘there (definite)’ require similar +ATR extensions on verbs and some other elements (§4.4.2.1).
(426)  a.  à  tùú  nàà / dè
    3SgHum  stay.Pfv  here / there.Def
    ‘He/She stayed here/there.’

b.  á = Ø  sà  tùú  nàà / dè
    3SgHum=Ipfv  Fut  stay.Ipfv  here / there.Def
    ‘He/She will stay here/there.’

See §15.1.1.2 for functions of tó as an auxiliary with another following VP.

11.2.5.2 ‘Become, be transformed into’ (jámúló)

‘X become (=be transformed into) Y’ where Y is an NP denoting a type of entity is expressed by the verb jámúló (imperfective) or jámúlí ~ jámúló (perfective). This is followed by the Y NP and by the copula kù~ kù (427a-b). The transitive counterpart ‘X transform Z into Y’ adds an object before jámúló (427c).

(427)  a.  à  jámúlí  [miʔiⁿ  kpēé]  kùⁿ
    3SgHum  be.transformed.Pfv  [person white]  Cop
    ‘He/She turned into a white person.’

b.  á = Ø  sà  jámúló  [miʔiⁿ  kpēé]  kùⁿ
    3SgHum=Ipfv  Fut  be.transformed.Ipfv  [person white]  Cop
    ‘He/She will turn into a white person.’

c.  mā  zákũ  jámúlísí  [miʔiⁿ  kpēé]  kùⁿ
    1Sg  Z  transform.Pfv  [person white]  Cop
    ‘I turned Zaki into a white person.’

11.2.5.3 ‘Happen’

‘Happen, take place, occur’ with reference to an event is expressed by màá ‘be done’, i.e. the intransitive counterpart of màà ~ màá ‘do’, compare French se faire.

(428)  [ accident  dò]  méé
    [accident one]  be.done.Pfv
    ‘An accident happened.’
11.2.6 Mental and emotional statives

11.2.6.1 ‘Know’ (sɔ̀ etc)

This is a transitive verb that takes a preverbal object, typically nonhuman 3Sg (ní and variants) in the abstract sense ‘it’ referring to some state of affairs (429a-b). Variants without ní object (429c) are elicitable with difficulty and do not appear to be in common use. For present-time knowledge the perfective is used: sɔ̀ (+3Sg) ~ sɔ́ (-3Sg). The subject does not have an imperfective enclitic (429a-b,d). The final H-tones on the pronouns in (429c) are due to Final Tone-Raising.

(429)  

<table>
<thead>
<tr>
<th>Line</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>mā / mù?ùⁿ / àⁿ ní sɔ̀</td>
</tr>
<tr>
<td></td>
<td>1Sg / 1Pl / 3PIHum 3SgNonhObj know.Pfv</td>
</tr>
<tr>
<td>b.</td>
<td>mā / mù?ùⁿ ñí sɔ̀ = rē?</td>
</tr>
<tr>
<td></td>
<td>1Sg / 1Pl 3SgNonhObj know.Pfv=Neg</td>
</tr>
<tr>
<td>c.</td>
<td>mù?ùⁿ / àⁿ sɔ̀ = rē?</td>
</tr>
<tr>
<td></td>
<td>1Pl / 3PIHum know.Pfv=Neg</td>
</tr>
<tr>
<td>d.</td>
<td>à yî sɔ̀</td>
</tr>
<tr>
<td></td>
<td>3SgHum water know.Pfv</td>
</tr>
</tbody>
</table>

Past-time ‘knew’ is sòò kë, see §10.4.3. The perfective ‘know’ verb is lengthened and switched to +ATR in this and some other combinations.

An imperfective sɔ̀ (~3Sg) ~ sɔ́ (~3Sg) is elicitable, chiefly in future contexts (‘will know’). Similarly, an imperative sɔ̀ (3Sg object) or sɔ́ (3Pl object) was elicited. The imperfective sɔ̀ ~ sɔ́ is homophonous with that of ‘wait’ (perfective sòì ~ sòì).

11.2.6.2 ‘Want, like’ (kà ~ ká)

In simple clauses with NP object (‘want it’, ‘want that’, ‘want what?’), this is a transitive verb. The form kà ~ ká, probably stative rather than aspect-marked, occurs in this construction when it has reference to the present time. The subject has the imperfective enclitic (final H-tone) in the positive (430a-b) but not negative (430c).

(430)  

<table>
<thead>
<tr>
<th>Line</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>wó = ø ¹kpé kà</td>
</tr>
<tr>
<td></td>
<td>2Sg=Ipfv what? want.Stat</td>
</tr>
</tbody>
</table>
b. $\text{mù} \text{ʔú}^o = \emptyset \text{ ‘yí kà} \text{ want. Stat}\n
1\text{Pl=Ipfv water want. Stat}\n
‘We would like some water.’

c. $\text{mā yíʔé kà = rē?} \text{ want. Stat=Neg} \n
1\text{Sg fish want. Stat=Neg}\n
‘I don’t like/want fish.’

The “object” may take specific indefinite form with $\text{dò}$.

(431) a. $\text{mā = \emptyset [gbāá dó] ká} \text{ want. Stat} \n
1\text{Sg=Ipfv [stick one] want. Stat}\n
‘I want a stick.’

b. $\text{mā [gbāá dó] ká = rē?} \text{ want. Stat=Neg} \n
1\text{Sg [stick one] want. Stat=Neg}\n
‘I don’t want a stick.’

For future time (432) was elicited. I interpret $\text{máá}$ as an intransitive counterpart of (imperfective) $\text{màà ‘do’, i.e. ‘be done, happen’ (§11.2.5.3). The construction is therefore “we will happen to want water tomorrow.”}$

(432) $\text{mù} \text{ʔú}^o = \emptyset \text{ sà màá yí kà síni} \text{ want. Stat} \text{ Fut tomorrow}\n
1\text{Pl=Ipfv Fut be.done. Ipfv water want. Stat tomorrow}\n
‘Tomorrow we will want some water.’

For past time (‘wanted’), see §10.4.3.

With a clausal complement (‘want to go’, ‘want X to go’), the verb normally takes imperfective form $\text{kə́ò – kə̀̈́ò}$ and is followed by the complement (§17.1.1). For a homophone $\text{kà ~ ká}$ in the ‘have’ construction, see §11.5.1.

11.3 Quotative verb

11.3.1 ‘Say’ (tòʔɔ̀, cìɛ̀, dè ~ dè)

As transitive verb with a nonhuman 3Sg object, or other NP object such as ‘that’, the ‘say’ verb is $\text{tòʔɔ̀}$ or $\text{cìɛ̀}$ (cited as imperfectives).

(433) a. $\text{mā ní tòʔɛ́(ɛ)} \text{ say.Pfv} \n
1\text{Sg 3SgHumObj say.Pfv}\n
‘I said it.’
The ‘say’ verb used with a following quotation is dè (+3Sg) or dé (-3Sg), in the perfective positive only (i.e. when the quoted matter was actually uttered or thought by someone). This verb combines with a preceding subject, as in è dè ‘it (animal) said: “… ’. It is replaced by tôʔè under negation (434b).

(434) a. à dè = [à-wò sà sáá]
    3SgHum say.Pfv [Hum-3SgLogo Fut come.lpfv]
    ‘He/she said that he/she would come.’ (< /dè à-wò/)

b. á =∅ tôʔè =rē? [à-wò sà sáá]
    3SgHum 3SgObj say.Pfv=Neg [Hum-3SgLogo Fut come.lpfv]
    ‘He/she didn’t say that he/she would come.’

For the tonal and segmental phonology of dè ~ dé in combination with a following third person subject pronoun, see §17.2.2 below.

11.4 Adjectival predicates

Perfective forms of deadjectival inchoatives (‘become ADJ’, §9.5), can function like stative predicates. In other words, ‘X became long/short’ can mean ‘X is long/short’.

(435) a. [mā m3] sɔ̃-bée / gùní(i)
    [1Sg rope] become.long.Pfv / become.short.Pfv
    ‘My rope is long/short.’

b. [mā m3] sɔ̃-bée =rē? / gùn = nē?
    [1Sg rope] become.long.Pfv=Neg / become.short.Pfv=Neg
    ‘My rope is not long/short.’ (/gùn = nē?/)

11.5 Possessive predicates

11.5.1 ‘Y be had by X’ (kà ~ ká)

In the basic predication of possession translatable as ‘X have Y’, the possessum Y is the subject (!) and hosts the ‘be (somewhere)’ enclitic /H+=∅/. This is followed by the possessor X and a possessive morpheme kà (+3Sg) ~ ká (-3Sg). The construction therefore resembles English ‘Y belong to X’, but it has the sense of ‘X have Y’ where X is topical (often pronominal) and Y may be indefinite or a new discourse referent.
It is difficult to determine the stem-class (stative verb? postposition?) of \(kà\sim ká\), which has no other variants. The fact that it does not surface with M-tone after an M-toned pronominal is a point in favor of a stative verb analysis, since \(Cv\) postpositions do allow M-Spreading (\(mā\ dē\ ‘with me’, etc.). Examples are in (436).

(436) a. \(tāgā-rā=∅\quad [mā\ kā]\)
    sheep-Nom=be [1Sg Poss]
    ‘I have a sheep.’

b. \(tāgā-rā=∅\quad [bākār\ kā]\)
    sheep-Nom=be [B Poss]
    ‘Bakari has a sheep.’

c. \(tāgā-rā-āⁿ=∅\quad [bākār\ kā]\)
    sheep-Nom=be [B Poss]
    ‘Bakari has some sheep.’

d. \(bākārī=∅\quad [mā\ kā]\)
    B=be [1Sg Poss]
    ‘I have Bakari.’

e. \(dī-rā=∅\quad [tāgā\ kā]\)
    child-Nom=be [sheep Poss]
    ‘The sheep has a child (=lamb).’ (< \(tāgā\))

f. \(dī-rā=∅\quad [tāgā-rā-āⁿ\ kā]\)
    child-Nom=be [sheep-Nom=be Poss]
    ‘The sheep-Pl have a child (=lamb).’

The paradigm with possessor is (437).

(437) a. M-toned pronouns
    1Sg \(mā\ kā\)
    2Sg \(wō\ kā\)
    2Pl \(ēⁿ\ kā\)

b. other plural pronouns
    1Pl \(mūʔùⁿ\ kā\)
    3PIHum \(āⁿ\ kā\)
    3PlNonh \(èⁿ\ kā\)

c. 3Sg pronouns
    3SgHum \(à\ kā\)
    3SgNonh \(è\ kā\)
d. singular noun
   ‘sheep-Sg’   tàgá kà   (< tàgà)

e. plural noun
   ‘sheep-Pl’   tàgà-rá-à” ká

The relationship between this ‘have’ construction and the ‘want’ construction is an interesting question. Both look like stative clauses, with imperfective clitic on the subject, followed by an NP and kà ~ ká. However, in the ‘have’ construction (§11.2.6.2) the subject (i.e. possessum) is normally nonhuman, while in the ‘want’ construction the subject is normally human.

The predicate is negated in the usual way by adding enclitic =rɛʔ clause-finally. The imperfective subject enclitic is absent, as usual in negatives. A singular NP as subject ends in the nominal suffix before third-person pronominals, and optionally before other pronominals. Note the absence of the suffix in tàgà before a nonpronominal NP in (438d).

(438)   a. wàř [mā ká] =rɛʔ
        money [1Sg Poss]=Neg
        ‘I don’t have any money.’ (< wàrî)

    b. wàř-rá = [à ká] =rɛʔ
        money-Nom [3SgHum Poss]=Neg
        ‘He/She doesn’t have any money.’

    c. wàř-rá [mùʔùⁿ ká] =rɛʔ
        money-Nom [1Pl Poss]=Neg
        ‘We don’t have any money.’

    d. tàgá zàkíì ká =rɛʔ
        sheep Z Poss=Neg
        ‘Zaki doesn’t have a sheep.’

An apparent nominalization ká-nà occurs in (452a) in §12.2.1 below, raising the possibility of an original nasalized form *káⁿ. However, the examples in (438a-c) above do not nasalize negative enclitic =rɛʔ.

For past-time counterparts with ciè ~ cié ‘was/were’ preceding the combination of subject and kà ~ ká, see §10.4.4.
11.5.2 ‘X be with Y’

11.5.2.1 Predicate is PP including postposition ḍे ‘with’

For instrumental-comitative ḍè ~ ḍé see §8.2.1. The phrasing ‘X be [with Y]’ can be used to describe attributes, whether temporarily possessed (439a) or inherent (439b). A PP based on postposition ḍè ~ ḍé ‘with’ is the predicate. The possessor is the subject.

(439) a. tàgà-rá = Ø [mɔ̀ɔ̀ ḍè]
   sheep-Nom=be [rope-Dim with]
   ‘The sheep has a rope on it.’ (< mɔ̀ɔ̀-nì)

   b. tàgà-rá = Ø [gbò ḍè]
   sheep-Nom=be [horn with]
   ‘The sheep has horns.’ (< gbò)

11.5.2.2 Predicate is comitative PP with dò ~ dó

For the comitative postposition dò ~ dó see §8.2.2. Comitative PPs may be predicative after the ‘be’ subject enclitic or the ‘was/were’ verb, denoting co-presence (accompaniment). The subject and postpositional complement are usually both human, but the subject may be extended to animals. In negative versions (440c), the ‘be’ enclitic is absent, note the tones of ‘Bakari’, but nominal subjects (‘sheep’) do show the nominal suffix.

(440) a. tàgà-rá = Ø / bánà = Ø [mā dó]
   sheep-Nom=be / B=be [1Sg with]
   ‘A sheep/Bakari is with me.’ (i.e. ‘I have a sheep/Bakari with me.’)

   b. tàgà ciè [mā dó]
   sheep-Nom be.Past [1Sg with]
   ‘A sheep was with me.’

   c. tàgà-rá / bánà [mā dó] = rēʔ
   sheep-Nom=be / B=be [1Sg with] = Neg
   ‘A sheep/Bakari is not with me.’

11.5.3 ‘Y belong to X’ predicates

11.5.3.1 Y = ‘be’ [X mì] kù“ belongs to X’

In this construction, the possessum Y is the known starting point, and its belonging to X is predicated. Y is the subject, with ‘be’ subject enclitic (final H-tone), and this subject must be
overt (minimally a proclitic pronoun). The subject is followed by the possessor X, the default possessum $mì$ (invariant for number), and the copula $kù^n$. The combination /$mì \ kù^n$/ undergoes Final Tone-Raising to $mì \ kù^n$. The tone rise is difficult to articulate on a Cv morpheme and the tendency is to flatten it phonetically into a pitch level similar to M-tone. The rising pitch is most easily heard after an L-tone as in human 3Sg à $mì \ kù^n$ ‘(it) is his/hers’. Since $kù^n$ always follows $mì$ in this construction, and since $mì$ is treated tonally as a normal singular noun, $kù^n$ does not vary tonally for possessum number. If X is a nonpronominal NP, it omits the nominal suffix before $mì \ kù^n$ (441d), as usual with possessors. However, the subject Y does have the nominal suffix where morphologically possible.

(441)  a.  $[sàà \ mì-nà]=\emptyset \quad [bákàrì \ mì] \ kù^n$
  [house Dem-Nom]=be [B Poss] Cop
  ‘This/That house is Bakari’s.’

  b.  $[sàà \ mì-nà-à^n]=\emptyset \quad [bákàrì \ mì] \ kù^n$
  [house Dem-Nom-Pl]=be [B/Z Poss] Cop
  ‘These/Those houses are Bakari’s/Zaki’s.’

  c.  $[sàà \ mì-nà]=\emptyset \quad [nà-nà-à^n \ mì] \ kù^n$
  [house Dem-Nom]=be [woman-Nom-Pl Poss] Cop
  ‘This/That house belongs to the women.’

  d.  $[sàà \ mì-nà]=\emptyset \quad [nà-nà \ mì] \ kù^n$
  [house Dem-Nom]=be [woman Poss] Cop
  ‘This/That house belongs to the woman.’

  e.  $bákàrì=\emptyset / \ é=\emptyset \quad [mā \ mì] \ kù^n$
  B=be / 3SgNonh=be [1Sg Poss] Cop
  ‘Bakari/It belongs to me.’

  f.  # $[mā \ mì] \ kù^n$
  # [1Sg Poss] Cop
  [intended sense: ‘It belongs to me.’]

The pronominal paradigm is (442).

(442)  1Sg  $[mā \ mì] \ kù^n$
  2Sg  $[wō \ mì] \ kù^n$
  1Pl  $[mùʔə^n \ mì] \ kù^n$
  2Pl  $[ēɛ^n \ mì] \ kù^n$
Negative examples are (443a-b). They match the positive version except for addition of the clause-final negative enclitic and the absence of the ‘be’ subject enclitic, hence bákàr (< bákàri) rather than bákàrí = Ø in (443b).

\[(443)\]
a. \[sàÀ mì-nà] [bákàrì mì] kù\(^a\) = nē?\]
   [house Dem-Nom] [B Poss] be =Neg
   ‘This/That house is not Bakari’s.’

b. bákàr [mā mì] kù\(^a\) = nē?
   B [1Sg Poss] Cop =Neg
   ‘Bakari doesn’t belong to me.’

For past-time counterparts, see §10.4.4.

11.5.3.2 \[X mì-né] = Ø = è ‘(it) is X’s’

This is simply the ‘it is X’ construction, where instead of a simple NP X we have a default possessum for the possessor X, i.e. ‘X’s (possession)’ (§6.2.4). The default possessum after pronouns is mì, here with nominal suffix mì-ná, combining with the ‘be’ enclitic and the ‘it is’ enclitic as mì-né = Ø = è. The plural is regular: mì-nà-àⁿ-àⁿ = Ø = ī. In this construction, the “subject” Y is optional and when overt it can be considered a preclausal topic.

\[(444)\]
a. sàÀ-rá [mā mì-né] = Ø = è
   house-Nom [1Sg Poss-Nom] =be =it.is
   ‘The house is mine.’

b. [mā mì-né] = Ø = è
   [1Sg Poss-Nom] =be =it.is
   ‘It’s mine.’

c. [mā mì-nà-àⁿ-ní] = Ø = ī
   [1Sg Poss-Nom-Pl-Nom] =be =it.is
   ‘They’re mine.’
12 Comparatives

12.1 Asymmetrical comparatives

12.1.1 Adjectival verb plus blé ‘(sur)pass’

Adjectival predicates (e.g. ‘X be long/short’) are expressed by perfective forms of inchoative verbs, see §9.5 and §11.4. (445b) is a comparative based on the simple noncomparative clause (445a). It features the adjoined verb bèlé (~ bèlè) ‘pass’, cf. English surpass. It is often syncopated to blé especially in comparative constructions. The ‘pass’ verb is immediately followed by the comparandum, which could be described as a postverbal object. The same ‘pass’ verb in simple noncomparative clauses also optionally takes a postverbal object, as in ‘X passed Y’. Negation is by the usual clause-final negative enclitic (445c).

(445)  a. [mā  mɔ̃]  sɔ̀ɔⁿ-bèlè  
       [1Sg rope]  become.long.Pfv  
       ‘My rope is long.’ (mɔ̃’)

       b. [mā  mɔ̃]  sɔ̀ɔⁿ-bè  [blé  [wō  mi-nà]]
       [1Sg rope]  become.long.Pfv  [pass.Adjn  [2Sg Poss-Nom]]
       ‘My rope is longer than yours-Sg.’

       c. [mā  mɔ̃]  sɔ̀ɔⁿ-bèlè  [blé  [wō  mi-nà]]=nɛ̀
       [1Sg rope]  become.long.Pfv  [pass.Adjn  [2Sg Poss-Nom]]=Neg
       ‘My rope is not longer than yours-Sg.’

For past-time contexts (‘was longer’ etc.) with ké, see §10.4.5.

12.1.2 Nonadjectival verb plus blé ‘(sur)pass’

The same construction is used when the main predicate is based on a nonadjectival verb. The main clause has its usual complements, and is followed by the ‘pass’ clause with postverbal object.

(446)  a. zàkū̀  kūmè̀  kùnò  [blé  mā-n]
       Z  meal  eat.Ipfv  [pass.Adjn  1Sg-Indep]
       ‘Zaki eats more food than I (do).’
b. \textit{zàkìì [wàf̣ fě́ṇ] bilì mā-ñ [blé bākàrì]}
Z [money a.lot] give.Pfv 1Sg-Indep [pass.Adjn 1Sg-Indep]
‘Zaki gave me more money than Bakari (gave me).’
‘Zaki gave more money to me than (he gave to) Bakari.’

The ambiguity of (446b) depends on whether Bakari is construed as a giver or as a taker.

12.1.3 ‘Be better’ ($f̣₃^a \sim f̣₅^a$)

In this construction, the predicate is $f₃^a \sim f₅^a$, obeying the usual +3Sg (L-tone) versus -3Sg (H-tone) pattern for monosyllabic verbs. \textit{blé} ‘pass’ is redundant in this case but it is optionally present.

(447) a. \textit{zàkìì $f₃^a$ [(blé) mā-n]}
Z better [(pass.Adjn) 1Sg-Indep]
‘Zaki is better than me.’

b. \textit{à $f₃^a$ [(blé) mā-n]}
3SgHum better [(pass.Adjn) 1Sg-Indep]
‘He/She is better than me.’

c. \textit{à $f₃^a$ [(blé) mā-n]=nē?}
3SgHum better [(pass.Adjn) 1Sg-Indep]=Neg
‘He/She is not better than me.’

Quantitative ‘more’ is expressed using the main verb ‘abound, be(come) many/much’ and the usual ‘pass’ phrase.

(448) a. \textit{jàŋgbàà fié̂nì [blé wùl-à-à-nù]}
cat abound.Pfv [pass.Adjn dog-Nom-Pl-Nom]
‘There are more cats than dogs.’

b. \textit{àà $f₃^a$ fié̂nì [blé mùú-ù-nù]}
3Pl abound.Pfv [pass.Adjn 1Pl-Indep]
‘There are more of them than of us.’

For past time (with past marker \textit{ké} at the end of the first clause, preceding \textit{blé}), see §10.4.5.
12.1.4 ‘Best’

No dedicated single-clause superlative construction was elicited. (449) is not strictly superlative, but in context it can sometimes have this implication, as the variant free translation with ‘the singer’ suggests.

(449) \texttt{zàkìì \[\text{sigi-sèè \ me?è?u} \ nè \ \kù\]}
\texttt{Z \ \[\text{song-sing.VblN \ person} \ \textbf{good}\] \textit{Cop}}

‘Zaki is a/the good singer.’ (→ ‘Zaki is the best singer’).

To get an unambiguously superlative reading, a set must be specified as a preposed topic-like NP in partitive function, followed by a regular comparative clause.

(450) \texttt{[sigi-sèè \ me?è?-nà-à\] \ bù?ù-nû] \ zàkìì \ fïu}
\texttt{[song-sing.Vbln \ person-Nom-Pl \ all-Nom] \ Z \ \textbf{better}}

‘(Out of) all the singers, Zaki is better (=the best).’

12.1.5 ‘A fortiori’ (\texttt{càʔá dòò})

The sense ‘all the more so’ is expressed by \texttt{càʔá dòò} in this textual passage (hyena speaking).

(451) \texttt{[mi?i\'u \ nà yi\] \ dî \ \kù\] \ ì\},
\texttt{[person \ tears] \ become.delicious.Pfv \ Cop \ oh!,}
\texttt{[è \ sibî] \ \textit{càʔá} \ \textit{dòò},}
\texttt{[3SgNonh \ meat] \ \textbf{all.the.more} \ \textbf{too},}

‘(If) someone’s (=an animal’s) tears are delicious, its meat all the more so.’ (2016_02 @ 04:14)

12.2 Symmetrical comparatives

12.2.1 ‘Be equal, same’ (\texttt{dúlí \ kù\})

\texttt{dúlí} (< \texttt{dùlí} ‘1’) plus copula \texttt{\kù\} \textasciitilde \texttt{\kù\} means ‘be equal’. As usual in positive copular clauses (§11.2.2.1), the subject has the ‘be’ enclitic. For deadjectival abstractive ‘length’ (= ‘height’) in (452a) see (95a).

(452) a. \[\texttt{bákàri \ bù?û \ zàkìì}\]
\texttt{[B \ and \ Z]}
\texttt{sù\u2013becé \ kà-nà=\Ø \ \textit{dúlí} \ \kù\}

become.long.VblN \ have.VblN-Nom=be \ \textbf{equal} \ \textit{Cop}

‘Bakari and Zaki are of the same height (=are equally tall).’
b. \([\text{Zàkìì ] bùjù mā] dë}\)
\([[Z \text{ and 1Sg] with}]]
\([\text{mùù'ù] wär-māā hākē = Ø dūlī kù’}]\)
\([1\text{Pl all] money-own extent=be equal Cop}]]

‘With (=between) Zaki and me, we are both equally rich.’
13 Focalization and interrogation

13.1 Focalization

There is no relinearization of constituents when one of them is focalized, except that ‘why?’ may be fronted. There is no focus morpheme, but 3Sg and 3Pl pronouns have special focalized (also logophoric) forms distinct from their proclitics. Perfective intransitive verbs have a special M-toned subject-focus form, but in all other clause types the same verb forms are used with and without focalized constituents. Except for perfective intransitive subjects and focalized third person pronouns, there is no reliable way to mark constituent focalization.

13.1.1 Subject focalization (M-toned verb, third person pronouns)

The distinction between ‘X fell’ and subject-focalized ‘It was X [focus] who fell’ is expressed by the tones of the verb. In unfocalized main clauses, a perfective intransitive verb has LH or LHM tones after a +3Sg subject (453a) and H or HM tones after a -3Sg subject (453b-d). In intransitive perfectives, where a verb immediately follows the subject, the verb has an M-toned subject-focus (“SbjFoc”) form for all focalized subjects. For Cvv verbs, this form may sound short-voweled (CṼ) when clause-final, but it is structurally Cvv and is heard as such before the negative enclitic (454a-d).

(453) a. à bêé / bêé = ré?
   3SgHum fall.Pfv / fall.Pfv=Neg
   ‘He/She fell / didn’t fall.’

b. ààⁿ bêé / bêé = ré?
   3PlHum fall.Pfv / fall.Pfv=Neg
   ‘They fell / didn’t fall.’

c. mā bêé / bêé = ré?
   1Sg fall.Pfv / fall.Pfv=Neg
   ‘I fell / didn’t fall.’

d. zàkìì bêé / bêé = ré?
   Z fall.Pfv / fall.Pfv=Neg
   ‘Zaki fell / didn’t fall.’

In addition, a 3Sg subject pronoun has a focalized form (identical to its logophoric form) with -wò rather than the regular proclitic form, hence à-wò (human) as in (454a) or ë-wò
(nonhuman). A 3Pl subject pronoun likewise takes the focalized (or logophoric) form à-māā (human) as in (454b) or è-māā (nonhuman). My assistant did not accept regular nouns like ‘sheep’ or ‘woman’ in this construction.

(454)  a.  à-wò       bē / bēē = rē?
       Hum-3SgFoc fall.Pfv.SbjFoc (=Neg)
‘It was/wasn’t he-or-she [focus] who fell.’

b.  è-māā       bē / bēē = rē?
       Hum-3PlFoc fall.Pfv.SbjFoc (=Neg)
‘It was/wasn’t they [focus] who fell.’

c.  mā       bē / bēē = rē?
       1Sg fall.Pfv.SbjFoc (=Neg)
‘It was/wasn’t I [focus] who fell.’

d.  zàkī       bē / bēē = rē?
       Z fall.Pfv.SbjFoc (=Neg)
‘It was/wasn’t Zaki [focus] who fell.’

Intransitive perfectives without medial H-tones like ‘fall’ have simple M-toned form under subject focus. Longer stems have forms like fīdī ‘ran’ and sidānī, with a terminal fall from M to L.

This tonal marking of subject focus on the verb is limited to perfective intransitives. It does not apply to present, future, or progressive inflections even for intransitives. In these TAM categories, and in transitives, the only indicator of subject focalization is the form of third person subject pronouns. (455a-b) are positive future clauses with human 3Sg and 3Pl subject focus, respectively. They are negated as (455c-d), showing the usual tonal patterns of the future negative (§10.3.2.3).

(455)  a.  à-wò = ∅       sā       bàà
       Hum-3SgFoc=Lpfv Fut fall.Lpfv
‘It’s he-or-she [focus] who will fall.’ (à-wò)

b.  è-māā = ∅       sā       bàà
       Hum-3PlFoc=Lpfv Fut fall.Lpfv
‘It’s they [focus] who will fall.’

c.  à-wò       sā       bàà = rē?
       Hum-3SgFoc Fut fall.Lpfv =Neg
‘It isn’t he-or-she [focus] who will fall.’
For other subject categories (1st/2nd person pronouns, nonpronominal third persons) there is no overt distinction between unfocalized and focalized clauses in these non-perfective categories (456).

(456) a. má = Ø  sà  bàà
   1Sg  Fut  fall.Ipfv
   ‘I will fall.’ or ‘It’s I [focus] who will fall.’

b. zàkū = Ø  sà  bàà
   Z  Fut  fall.Ipfv
   ‘Zaki will fall.’ or ‘It’s Zaki [focus] who will fall.’

c. mā  sā  bàà = rē?
   1Sg  Fut  fall.Ipfv =Neg
   ‘I won’t fall.’ or ‘It isn’t I [focus] who will fall.’

d. zàkū  sā  bàà = rē?
   1Sg  Fut  fall.Ipfv =Neg
   ‘Zaki won’t fall.’ or ‘It isn’t Zaki [focus] who will fall.’

Even in perfectives, if the verb is transitive, so that the subject is not adjacent to the verb, the verb does not distinguish unfocalized from focalized subjects. The distinction can be made by the choice of simple or focalized third person subject pronoun, so (457a-b) clearly have focalized subjects. No distinction can be made for 1Sg or other subjects, so (457c) could have either an unfocalized or a focalized subject.

(457) a. à-wò  sìbí  dònū / dòn = nē?
   Hum-3SgFoc  meat  eat.meat.Pfv (=Neg)
   ‘It was(n’t) he-or-she [focus] who ate (the) meat. (< /dònī = nē?/)’

b. à-māā  sìbí  dònū / dòn = nē?
   Hum-3PlFoc  meat  eat.meat.Pfv (=Neg)
   ‘It was(n’t) they [focus] who ate (the) meat.’

c. mā  sìbí  dònū / dòn = nē?
   1Sg  meat  eat.meat.Pfv (=Neg)
   ‘I ate/didn’t eat (the) meat.’
   or ‘It was(n’t) I [focus] who ate (the) meat.’
d. tàgá sibí dànní / dànn = nē?
sheep meat eat.meat.Pfv (=Neg)
‘The sheep-Sg ate/didn’t eat (the) meat.’
or ‘It was(n’t) the sheep-Sg [focus] who ate (the) meat.’

In (457a), à-wò does not undergo Final Tone-Raising. à-wò and è-wò do sometimes undergo this process, but not consistently.

13.1.2 Focalization of preverbal objects

The form of the transitive verb does not by itself index focalization of a preverbal object (or subject), except in the ‘why?’ construction (§13.1.4). Object focalization can be expressed by the form of a third person focalized pronoun in the same way as for subjects (458a-b). The initial n and H-tone that appear on third person preverbal object pronouns (e.g. human 3Sg nà) also apply to focalized forms with -wò (458a-b).

(458) a. mā ná-wò bāʾrìì
1Sg HumObj-3SgFoc hit.Pfv
‘It was him-or-her [focus] that I hit.’

b. mā nā-mā bāʾrìì
1Sg HumObj-3PlFoc hit.Pfv
‘It was them [focus] that I hit.’

There is no overt distinction between unfocalized and focalized objects for other object categories (459a-b).

(459) a. à mā bāʾrìì
3SgHum 1Sg hit.Pfv
‘He/She hit me’ or ‘It was me [focus] who(m) he/she hit.’

b. mā zàkíí bāʾrìì
1Sg Z hit.Pfv
‘I hit Zaki.’ or ‘It was Zaki [focus] that I hit.’

13.1.3 Focalization of postverbal NPs

As with preverbal objects, postverbal objects and postpositional complements can mark focalization only by using focalized third person pronouns (same forms as third person logophoric). The postverbal human 3Sg indirect object is unfocalized in (460a) but focalized in (460b).
The complement of the postposition is unfocalized in (461a) but focalized in (461b).

(461)  

a. mā tàgá bīl = à-yà  
1Sg sheep give.Pfv Hum-3SgObj  
‘I gave a/the sheep-Sg to him/her.’ (< /bīl à-yà/)  

b. mā tàgá bīl = è-wô-ñ  
1Sg sheep give.Pfv Hum-3SgFoc-Indep  
‘It was him-or-her [focus] that I gave the sheep to’ (< /bīl à-wô-n/)  

13.1.4 Defocalized (perfective) adjoined verb

kpé kùdù ‘why?’ (“for what?”) is the only WH-interrogative in my data that moves from postverbal to clause-initial position. This fronting is optional but common. When it is fronted, a following perfective intransitive verb is optionally modified, shifting to L-tone and trimming a final vocalic segment. In (462), therefore, a shortened and L-toned form bɔ̀ may occur instead of the regular perfective verb bɔ́ɛ̄.

(462)  

[kpé kùdù] wō bɔ́ɛ̄ / bɔ̀  
‘Why did you-Sg come/go up?’  

Other defocalized intransitive verbs in this construction include sà ‘come’ and sidà (or sidà”) ‘ascend’, see (474b) and (475) in §13.2.3. These forms are identical segmentally to the adjoined form (§15.2.1.1), which trims final vowels in the same way. However, intransitive verbs with H-toned imperfectives (sàá ‘come’, bɔ́bɔ́ ‘exit’) keep the H-tone in the regular adjoined form (sà, bɔ́), whereas all defocalized adjoined verbs are L-toned (sà, bɔ́).

It is more difficult to identify defocalized adjoined transitive verb forms, whose +3Sg adjoined form is already L-toned. However, I tentatively recognize this in clauses where an expected LH-toned perfective verb (after +3Sg object) surfaces as L-toned, like bàrì for expected bàrì ‘hit-Past’ in (463a) below.

A focalized subject apparently does not induce this tonal defocalization of the verb, though the presence of an interrogative enclitic makes the morphology nontransparent. See (471c) in §13.2.2 below.
13.1.5 Topic then focalized resumptive

One common discourse strategy is to present an NP as preclausal topic or to present a clause denoting or summarizing a situation, then resume it with a focalized third person pronoun. This is especially common in ‘that’s why …’ contexts, i.e. explaining a purpose or cause. For abstractions as well as concrete nonhuman entities the pronoun is è-wò or variant ‘it’ (463b-c), but the vocalic prefix is sometimes elided to leave just wò as in (463a).

(463) a. [à mā kōsɔ̀ⁿ] [wò bà?rì]
   [3SgHum 1Sg insult.Pfv] [3SgFoc because] 1Sg 3SgHumObj hit.Adjn.Defoc
   ‘He/She insulted me, it [focus] is why I hit him/her.’

b. [tāgà sibī-rà] mā ni-wò ká
   [sheep meat-Nom] 1Sg NonhObj-3SgFoc want.Stat
   ‘Sheep meat, it [focus] is what I like/want.’

c. jàlsà-dù mùʔu′=∅ té?= [é-wò dé]
   Blédougou 1Pl go.Ipfv [Nonh-3SgFoc there.Def]
   ‘Blédougou, it [focus] is where we’re going.’

13.2 Interrogatives

13.2.1 Polar and tag questions

13.2.1.1 Polar (yes/no) interrogatives (yà )

The yes/no interrogative marker has variants yà (as in Jula) and contracted =à ~ =à. The yà variant is exemplified in (464). Monosyllabic CvV verbs are usually shortened to Cv before yà. This includes elision of the final e in Cε perfectives, e.g. that of bɔ́ɛ́ ~ bɔ̀ɛ́ ‘exited’ which becomes bɔ̀ yà ~ bɔ̀ yà (464a-b) The underlying e does, however, prevent contraction to #bɔ̀=ȧ ~ #bɔ̃=ȧ. In effect, the underlying /e/ becomes, or fuses with, the y of the interrogative allomorph yà. Other verbs ending in e, including Cε perfectives, retain the e before yà (464c-d). The preservation of -ATR vowels e and ə avoids confusion with the progressive verb form (suffix -yá after +ATR stem).

(464) a. zàkú / dí-kpèʔr-ā-āⁿ / wō sé / bɔ yà
   Z / child-young-Nom-Pl / 2Sg come./exit.Pfv Q
   ‘Did Zaki/the children/you-Sg come/go out?’ (< sé̩é, bɔ́é )
b. dí sè / bɔ́ yà
c. ̀sidání / tèʔé / cié yà
d. wō tāá fié yà

The contracting (encliticized) variant =à ~ ɔ̀ is exemplified in (465). Contraction is clear in (465a), where imperfective bɔ́ (which has no underlying final e) combines with =à as bɔ́=à. It is more difficult to determine whether enclisis/contraction occurs after a in (465b), but since nasalization extends to the end of kpá=àⁿ I favor a contraction analysis. There is no contraction (or other evidence of enclisis) after e (465c).

In the preceding examples, the interrogative particle immediately followed the verb. In (466) below, it follows a postverbal constituent. When it contracts with preceding H-toned ã or ɔ, neither the long vowel nor the initial H-tone of the particle is audible after contraction: …ã=à, …ɔ=ɔ (466a-b). However, when it contracts with preceding L-toned ã or ɔ the result is a long <LHL> syllable: …ã=ã, …ɔ=ɔ (466c). (466d) illustrates àà after personal names, which triggers LL#L-to-LH#L (Final Tone-Raising) with ‘Bakari’ and ‘Amadou’. /zàkī àà/ is realized as zàkí àà in allegro speech.

(465) a. zàkī =Ø sà bɔ́=à
t=Ipfv Fut exit.Pfv=Q
‘Will Zaki go out?’ (< bɔ́)

b. ã=Ø sà sá=ã / pìná=ã / kpáⁿ=ãⁿ
t=Ipfv Fut come.Pfv=Q / forget.Pfv=Q / die.Pfv=Q
‘Will he/she come/forget/die?’ (< sàá, pìnáà, kpáά)

c. ã=Ø sà cié / fidé à
t=Ipfv Fut arrive.Pfv / run.Pfv Q
‘Will he/she arrive/run?’ (< fidéè)

(466) a. káⁿ sè kún-ná=à
rain(n) rain-fall.Pfv village-Nom=Q
‘Has it rained in the village?’ (< kún-ná)
b. \(\text{wō ní b(ì)lí kò-nò} = ò\)
   \(2\text{Sg 3SgNonhObj give.Pfv bird-Nom=Q}\)
   ‘Did you-Sg give it to the bird?’ (< \(kò-nò\))

c. \(\text{wō ní bè [sàà tò]} = ò / [dàʔàlí mò] = å\)
   \(2\text{Sg 3SgNonhObj put.Pfv [house in]=Q / [mat on]=Q}\)
   ‘Did you-Sg put it in the house/on the mat?’ (< \(sàà, dàʔàlí\))

d. \(\text{wō ní bìlí bákàrí àà ámàdù àà zàkí àà}\)
   \(2\text{Sg 3SgNonhObj give.Pfv Z Q}\)
   ‘Did you-Sg give it to Bakari/Amadou/Zaki?’ (< \(bákàrì, ámàdù, zàkì\))

For clause-final \(wà\) ‘whether’ in quoted polar interrogatives, see §13.2.9.2 below. This \(wà\) may be related to \(wálímà\) ‘or’, see (467) below and §7.2.

13.2.1.2 Negative polar interrogative

In an overtly disjunctive interrogative (‘yes or no?’), each of the two clauses has at least a subject and a regular inflected verb. Often the second clause is the negation of the first. (Negative interrogatives were difficult to elicit except in this construction.) The combination of negative enclitic \(=rĒʔ\) and the interrogative particle is realized as \(=r=à\) (467).

\[(467) \text{wō=Ø sà táʔá=à,}\]
   \(2\text{Sg=Ipfv Fut go.Ipfv=Q},\)
   \(wálímà wō sà táʔá=r=à\)
   or \(2\text{Sg Fut go.Ipfv=Neg=Q}\)
   ‘Will you-Sg go, or won’t you (go)?’

13.2.1.3 Negative imperfective interrogative \(=rè=è^n\) as hortative

In (468), a negative interrogative with the special form \(=rè=è^n\) instead of \(=r=à\) produces a kind of negative present interrogative clause, literally ‘Do we not take the lion cubs?’ It functions as a (positive) hortative, cf. English \(\text{Shall we not ...?}\) with rhetorical-question force.

\[(468) \text{mùʔúu [jèrè di-rá-à"] yálá=rè=è^n}\]
   \(1\text{Pl [lion child-Nom-Pl] take.Ipfv=Neg=Q}\)
   ‘Shall we not take the lion cubs?’ (2-16_02 @ 01:15)
13.2.1.4 Approval tag question (kè)

Clause-final kè (distinct from past morpheme ké) is attested in textual passages where it functions as a tag yes-no question marker asking the listener to confirm his/her approval for the speaker’s next action, or to confirm the truth of the speaker’s statement.

(469) W: [I want you to tell it to me.]
S: [jàlì-kú dà] dò?i kè
     [Jalkunan in] also tagQ
     ‘In Jalkunan (language), right?’ (2016_01 @ 00:12)

(470) má = Ø sà bél-dè kè
     1Sg=Ipfv Fut begin.Ipfv tagQ
     ‘Shall I begin (telling the tale)? (2016_02 @ 00:38)

kè may also follow a negative interrogative with enclitic complex =r=à. See (519) in §15.1.1.5.

13.2.2 ‘Who?’ (māʔā”, māʔā-nī)

Content interrogatives like ‘who?’, ‘what?’, ‘how?’, ‘when?’, and ‘which?’ are intrinsically focal.

The human interrogative noun is māʔā”, usually in the extended form māʔā-nī (→ māʔā-nī before H-tone). If ‘who?’ is subject and the predicate is clause-final, a final interrogative enclitic consisting of a floating L-tone is added. It is inaudible if the final word already ends in an L-tone, but is audible in other cases, for example before perfective verbs (471c-d).

(471) a. māʔā-nī = Ø = i = Ø
     who?-Indep=be=it.is=Q
     ‘Who is it?’

b. māʔā-nī = nè = Ø
     who?=Indep=be there=Q
     ‘Who is it?’ (variant māʔá nè)

c. māʔā(-nì) sé = è / téʔè = è / bò = è
     who?-Indep come/go./exit..Pfv =Q
     ‘Who came/went/went out’ (< sé, téʔè, bò )

d. māʔā” bò fì
     who? exit(v).Pfv today
     ‘Who went out today?’ (< bò)
If the queried individuals are known to be nonsingular, a specifically plural form māʔāⁿ or māʔāⁿ-i may be used (472).

(472) māʔā-ni = i / māʔā = āⁿ sē = è
who?-Indep-Pl / who?-Pl come.Pfv=SbjFoc=Q
‘Who-Pl came?’

13.2.3 ‘What?’ (kpé), ‘with what?’, ‘why?’

The nonhuman interrogative noun is kpé ‘what?’. It is treated as +3Sg with regard to tonal effects on following words.

(473) a. kpé mè = è
what? be.done.Pfv =Q
‘What happened?’

b. wō kpé jiē = è
2Sg what? see.Pfv=Q
‘What did you-Sg see?’

c. kpé = Ø nè
what?=be there
‘What’s that (there)’
d. \( kpé = \emptyset = ë \)
   \( \text{what}? = \text{be} = \text{it.is} \)
   ‘What is it?’

e. \( \text{wó} = \emptyset \quad \text{sà} \quad \text{kpé} \quad \text{kùnò} \)
   2Sg=Ipfv \quad \text{Fut} \quad \text{what}? \quad \text{eat.Ipfv} \)
   ‘What will you-Sg eat?’

‘With what?’ and ‘why?’ are PPs containing ‘what?’

(474) a. \( \text{wó} = \emptyset \quad \text{mùú} \quad \text{màà} \quad \text{[kpé dè]} \)
   2Sg=Ipfv \quad \text{field} \quad \text{cultivate.Ipfv} \quad \text{[what? \ with]} \)
   ‘What do you-Sg do farm work with?’ (< \text{mùú} )

b. \( \text{[kpé kùdù]} \quad \text{wó} \quad \text{sà} / \text{sidà} \)
   \text{[what? \ for]} \quad 2Sg \quad \text{come./ascend.Adjn.Defoc} \)
   ‘Why did you-Sg come/go up?’

The verb forms in (474b) are defocalized adjoined verbs in perfective function, identical segmentally to regular adjoined verb forms (e.g. \( \text{sá} \quad \text{‘come’}, \quad \text{sidà} \quad \text{‘ascend’} \) but always L-toned.

A circumlocation for ‘why?’ is illustrated in (475). The final verb is again a defocalized adjoined verb in perfective function.

(475) \( \text{[kpé bóó dè]} \quad \text{[êëⁿ \ sà / bɔ́ / sidà]} \)
   \text{[what? \ exit.Pfv \ there.Def]} \quad \text{[2Pl \ \text{come./exit./ascend.Adjn.Defoc}]} \)
   ‘What happened there (so that) you-Pl came/went out/went up?’

13.2.4 ‘Where?’ (\( \text{mì}, \text{dòò} \) )

The simple interrogative locative adverb is \( \text{mì}. \) As an adverb it occurs postverbally.

(476) a. \( \text{wó} = \emptyset \quad \text{mì} \)
   2Sg=be \quad \text{where}? \)
   ‘Where are you-Sg?’

b. \( \text{wó} = \emptyset \quad \text{‘tā?á \ mì} \)
   2Sg=Ipfv \quad \text{go.Ipfv} \quad \text{where}? \)
   ‘Where are you-Sg going?’

c. \( \text{wó} \quad \text{bò} \quad \text{mì} \)
   2Sg \quad \text{exit.Pfv} \quad \text{where}? \)
   ‘Where did you leave?’ (=Where do you come from?) (< \text{bóé} )

274
d.  mùʔúⁿ = Ø  sà  kūmēë  kūnó  mì
   1Pl=lpfv  Fut  meal  eat.lpfv  where?
   ‘Where will we eat?’ (< kūnò )

For the roughly synonymous làʔá.páⁿ tó ‘in which place?’ see §13.2.7 below. This is the only ‘where?’ form that my assistant accepts in predicative function (‘it’s where?’).

A clause-final word dóò can function as predicative ‘be where?’ It may be related to dè ‘there (definite)’.

(477)  ààⁿ  dóò
   3PlHum  be.where?
   ‘Where are they?’

13.2.5  ‘How?’ (mànà )

The manner interrogative is mànà. As an adverb it occurs postverbally.

(478)  a.  mùʔúⁿ = Ø  sì = i  màà  mànà
       1Pl=lpfv  Fut=3SgNonhObj  do.lpfv  how?
       ‘How (=What) will we do?’

b.  màà = Ø  mùú  màà  mànà
   2Pl=lpfv  field  cultivate.lpfv  how?
   ‘How do you-Pl do farm work?’

c.  è = Ø  mànà
   3SgNonh=be  how?
   ‘How is it?’

d.  à  mànà
   3SgHum  how?
   ‘What’s up?’

13.2.6  ‘How much/many?’ (sòló ~ sóló )

The quantificational interrogative is sòló, heard with this rising tone pattern in isolation and after nouns like páá ‘woman’ with HM(L) and similar falling tone patterns. In other combinations where it is noninitial it is H-toned sóló.

(479)  a.  sòló = Ø = è
       how.much?=be=it.is
       ‘How much is it?’
b. \*[t\text{àgà} s\text{óló}] = \Ø \quad \text{wó} \quad k\text{á} = à

\begin{align*}
\text{sheep} & \quad \text{how.many?} \Rightarrow \text{lpfv} & \quad 2\text{Sg} & \quad \text{Poss} = Q \\
\text{‘How many sheep do you-Sg have?’} 
\end{align*}

Further examples showing the tone split are in (480).

(480) a. s\text{óló} \text{after } +3\text{Sg}

\text{ŋáá} s\text{óló} = è

‘It’s how many women?’

b. s\text{óló} \text{after } -3\text{Sg}

dí sóló = è

‘It’s how many children?’

y\text{ivité} sóló = è

‘It’s how many fish?’

t\text{àgà} sóló = è

‘It’s how many sheep?’

s\text{àá sóló} = è

‘It’s how many houses?’

m\text{ùù sóló} = è

‘how many of us?’

The distributive adverbial is \*s\text{òlò-sóló} = è ‘it’s how much (each)?’, a common phrase in markets. The ordinal is \*s\text{óló} = \text{ŋá} ‘how many -eth?’ (French quantième).

13.2.7 ‘Which?’ (n\text{á})

The adjectival interrogative ‘which?’ is n\text{á}. Its L-tone can induce Final Tone-Raising on the preceding noun; there are no other tonal interactions.

(481) w\text{o} = \Ø \quad [[s\text{àá} \quad n\text{á}] \quad t\text{á}] = \text{à}

2\text{Sg}=\text{be} \quad [[\text{house} \quad \text{which?}] \quad \text{in}]=Q

‘Which house are you-Sg in?’ (< s\text{àá})

Some other important interrogative phrases are based on ‘which?’ after a semantically light noun. The combination with l\text{àá} ‘place’ and locative postposition, i.e. ‘in which place?’, functions as a near-synonym of m\text{i} ‘where?’ (§13.2.4 above).

(482) [w\text{o} \quad s\text{àá-rá}] = \Ø \quad [[l\text{àá} \quad n\text{á}] \quad t\text{á}]

[2\text{Sg} \quad \text{house-Nom}]=\text{be} \quad [[\text{place} \quad \text{which?}] \quad \text{In}]

‘Where is your-Sg house?’

For ‘when?’ interrogatives with forms of the ‘(at) which time’ type, see the following section.

13.2.8 ‘When?’ (w\text{áá}á\text{tí} n\text{á-n\text{á}})

The most general temporal adverbial interrogative is a combination of the noun ‘(point in/period of) time’ with the interrogative adjective ‘which?’

276
Other similar combinations can be made by using a different temporal noun, as in süʔún, which? Nom ‘(on) which day?’.

13.2.9 Quoted interrogative

13.2.9.1 Quoted content interrogative

Content interrogatives are replaced under quotation by the corresponding semantically light noun (‘who?’ → ‘person’, ‘where?’ → ‘place’, etc.). This noun is the (internal) head of a relative clause, which may be preposed as a topical NP. For example, ‘I don’t know [who will go]’ is expressed as ‘the person who will go, I don’t know it.’ The final ‘it’ in this translation is nonhuman singular, denoting the abstract situation.

(484) a. [[mèʔú' mi] = Ø, sì = i, wàà],
     [[person Rel] = Lpfv, Fut = 3SgNonh go.Lpfv],
     mā ní sò = rē?
     1Sg 3SgNonhObj know.Pfv = Neg
     ‘Who will go, I don’t know (it).’

b. [[mùʔú' = Ø, sà nié]],
   [[làʔá mi] tű],
   [1Pl = Lpfv, Fut = spend.night.Lpfv, [place Rel] in]]
   mā ní sò = rē?
   1Sg 3SgNonhObj know.Pfv = Neg
   ‘Where we will spend the night, I don’t know (it).’ (< nié)

13.2.9.2 Quoted polar interrogative (wà)

If the quoted interrogative is a yes/no interrogative, the quoted clause ends in wà ‘whether’.

In (485) the ‘whether’ phrase is preposed, like a preclausal topic.

(485) [mùʔú' = Ø, sà nií, nàà wà]
     [1Pl = Lpfv, Fut = spend.night.Lpfv, here whether]
     mā ní sò = rē?
     1Sg 3SgNonhObj know.Pfv = Neg
     ‘Whether we will spend the night here, I don’t know (it).’
     (< nié modified before nàà)
14 Relativization

Relative constructions in Jalkunan internally headed. The “relative clause” is therefore an NP. Relatives are restrictive rather than parenthetical.

14.1 Basics of relative clauses

The major features of Jalkunan relative constructions are summarized below.

- the head NP remains in its regular position within the relative construction (*in situ*);
- there is no “upstairs” head NP outside of the relative construction proper;
- relative marker *mi* is attached at the end of the head NP;
- there is no nominal suffix (*-ra* etc.) preceding *mi* within the head NP, and often no nominal suffix on *mi* itself;
- the head NP is pluralized by changing *mi* to *mi^-i^n*;
- headless relatives have *mi* or *mi^-i^n* without an overt head noun;
- an intransitive perfective verb takes M-toned form (as in subject focalization) after a subject head NP;
- the entire relative construction may be an argument in a larger sentence, or it may be preposed as a topical NP, later resumed by a third person pronoun.

14.2 Relative marker *mi*

Relative marker *mi* is added at the end of the head NP. Its L-tone distinguishes it from demonstrative *mi* ‘this, that’. It is homophonous with interrogative *mi* ‘where?’, and (more suggestively) to default possessum *mi*.

In elicitation, relative *mi* does not allow a nominal suffix even in syntactic environments that normally require it; see especially (498b-c) before third-person object pronominal and (506) as bare postverbal NP below. However, I do have two textual examples with apparently suffixed *mi^-nà* (2016_02 @ 03:16 and @ 04:22). I note that demonstrative *mi* ‘this/that’ (§4.4.1.1) does regularly allow the nominal suffix (*→ mi^-nà*), as does default possessum *mi* (*→ mi^-nà*, §6.2.4). It is possible that I misunderstood these textual examples.

In subject relatives, *mi* may be directly followed by the imperfective or ‘be’ subject enclitic (floating H-tone). Its tone remains L in this case; see (484a) above. However, before an L-tone it may undergo Final Tone-Raising and surface as *mi*, see text 2016_01 @ 02:29.

The plural of relative *mi* is *mi^-i^n*. Plurality is not otherwise marked on the head NP. Thus *sàá mi* ‘the house that …’, plural *sàá mi^-i^n* ‘the houses that …’. There is no (singular) nominal suffix between *mi* and the plural ending, which confirms that the nominal suffix is
not usually added to mì. Near-homonyms are demonstrative mìi and its plural mì-iⁿ (§4.4.1.2).

Except in intransitive perfective subject relatives which require an M-toned verb, mì belongs to the -3Sg rather than +3Sg category with regard to its tonal effect on following words. As a result, when mì occurs at the end of a preverbal object, the following verb begins with H-tone. This applies, for example, to transitive bāʔri ~ bāʔrì ‘hit (perfective)’ in wò [yigì mi] bāʔrì ‘the cow that you-Sg hit-Past’, see (499b) in §14.5.2 below for mark-up. Likewise, when mì occurs at the end of an NP complement to a following postposition, the postposition takes H-toned form as it does after other -3Sg complements. For example, dè ~ dé ‘with’ is H-toned in mùʔù gbā̀ bègé [jéǹ mi] dè ‘the ax with which we chopped the wood’, see (507b) in §14.5.5 below for mark-up. Plural mì-iⁿ, like all plural NPs, also belongs to the -3Sg category for tonosyntactic purposes.

14.3 Head NP

The internal head NP may include a numeral, in which case the plural form of the relative marker (mì-iⁿ) is required (486a). The internal head may also include the ‘all’ quantifier būʔa ~ būʔá, which follows mì-iⁿ (486b).

(486) a. [yìgì fìá mì-iⁿ] bè] è̀n=Ø mì
   [cow two Rel-Pl] fall.Pfv.SbjFoc] 3PlNonh=be where?
   ‘Where are the two cows that fell?’

   b. [wò=Ø [sàá mì-iⁿ būʔá jì-yá nè]
      [2Sg=Ipfv] [house Rel-Pl all] see-Prog there]
      zàkìì mì-nà-à-nú=Ø = ì
      Z Poss-Nom-Pl-Nom=be=it.is
      ‘All the houses that you-Sg see (there) are Zaki’s.’

The usual immediately postnominal demonstrative mì does not co-occur with the segmentally identical relative mì. Instead, my assistant added a minimal ‘there’ demonstrative adverb nè after the relative-clause verb to express the relevant sense, as in (487a-b) below and (486b) above.

(487) a. [wò=Ø [sàá mì] jì-yá nè]
   [2Sg=Ipfv] [house Rel] see-Prog there]
   zàkìì mì-nè=Ø = è
   Z Poss-Nom=be=it.is
   ‘The house that you-Sg see there is Zaki’s.’ (< mì-nâ=è/)
b. \[wó = \emptyset \quad [sàá \quad mì-i^n] \quad jí-yá \quad nè]\n\[2\text{Sg}=\text{Ipfv} \quad [\text{house} \quad \text{Rel}-\text{Pl}] \quad \text{see}-\text{Prog} \quad \text{there}\]
\[zákìì \quad mì-nà-à-nú = \emptyset = i\]
Z Poss-Nom-Pl-Nom=be=it.is
‘The houses that you-Sg see there are Zaki’s.’

14.3.1 Restrictions on the head of a relative clause

A pronoun may function as internal head, though the relative is topicalized in the examples I have and a resumptive pronoun occurs in the following main clause. H-toned \(mí\) in (488b) is due to the following \(nàà\) ‘here’.

(488) a. \[[mùʔú^n \quad mì-i^n] = \emptyset = ñ \quad nàà\]
\[[1\text{Pl} \quad \text{Rel}-\text{Pl-Nom}]=\text{be}=\text{Link} \quad \text{here}\]
\[[mùʔú^n \quad \text{sá} \quad ‘táʔá = rë?]\]
\[[1\text{Pl} \quad \text{Fut} \quad \text{go.Ipfv}=\text{Neg}]\]
‘We who are here, we will not go.’

b. \[[m̃ ñ ñ \quad \text{Recip}\]
\[[\text{man} \quad \text{Rel}-\text{Pl}] \quad \text{and} \quad \text{woman} \quad \text{Rel}-\text{Pl}\]
‘Where are the men and the women who fought (each other)?’

14.3.2 Conjoined NP as head

When a conjoined NP like ‘men and women’ in (489a) becomes a relative head, relative marker \(mí\) (plural \(mì-i^n\)) may be added to both conjuncts (489b-c), though in elicitation the marker was sometimes limited to the second conjunct. My assistant added a resumptive 3Pl subject pronoun \(dà'^a\) in (489b-c), but it may encliticize to and contract with the preceding right conjunct.

(489) a. \[\text{[digǐ̃-nà-à'^a} \quad \text{bùʔú} \quad \text{nà-nà-à'^a} \quad \text{nùʔú^n} \quad \text{báʔrì}\]
\[[\text{man-Nom-Pl} \quad \text{and} \quad \text{woman-Nom-Pl}] \quad \text{Recip} \quad \text{hit.Pfv}\]
‘The men and the women fought (each other).’

b. \[[\text{digǐ̃mì-i^n} \quad \text{bùʔú} \quad \text{nà-nà-à'^a} \quad \text{nùʔú^n} \quad \text{báʔrì}\]
\[[\text{man} \quad \text{Rel}-\text{Pl}] \quad \text{and} \quad [\text{woman} \quad \text{Rel}-\text{Pl}] \quad \text{3PlHum} \quad \text{Recip} \quad \text{hit.Pfv}\]
\[\text{à'^a} = \emptyset \quad \text{mì}\]
3PlHum=be where?
‘Where are the men and the women who fought (each other)?’
(\(\text{/mì-ì'^a} \quad \text{à'^a}/\))
14.3.3 Headless relatives

Headless relatives did not readily occur in elicited utterances but popped up in recorded narratives. (490a-b) are subject relatives.

(490) a. \( mì \) \( jàlsà-dù \) \( sélëë \)  
   Rel  Blédougou   establish.Pfv  
   ‘the one (=person) who established (=founded) Blédougou’  
   (2016_01 @ 01:28)

b. \( mì-rùa \) \( jàlsà-dù \) \( sélëë \)  
   Rel-Pl  Blédougou   establish.Pfv  
   ‘the ones (=people) who established (=founded) Blédougou’  
   (2016_01 @ 02:34)

Example (491) is an object relative. The head is not actually zero here, but it is limited to (underlying) object pronoun \( è \) (nonhuman 3Sg).

(491) \( bòó, \ [cì-në = [è mì] bòó = ] \ [\emptyset \ \Fr{bàlì}] \)
   well,  [hare-Nom [3SgNonh] Rel  take.out.Pfv]  [3SgNonhRefl stand.Pfv]
   ‘Well, the one (lion cub) that hare took out stood up.’  (2016_02 02:12)
   \([/cì-nà [è mi] bòé(è) [è bàlî]/]\

14.4 M-toned perfective verb in subject relatives

As in subject focalization, subject relativization requires that an intransitive perfective verb (the only verb type that can immediately follow the subject without an intervening enclitic or inflectional morpheme) be M-toned.

(492a-b) are regular perfective intransitive main clauses. The verb ‘came’ is LH-toned after a +3Sg subject, and H-toned after a -3Sg subject. After the relativized subjects in (492c-d), the verb has M-tone in both cases. The interlinear has ‘Pfv.SbjFoc’ as in focalization.

(492) a. \( dìgìnì \) \( sélëë \)  
   man  come.Pfv  
   ‘A/The man came.’
b. \textit{digín̄-nà-à̀ ñéé}  
\text{man-Nom-Pl come.Pfv}  
‘(The) men came.’

c. \text{[digínì mi sḕ] á = Ø mi}  
\text{[man Rel come.Pfv.SbjFoc] 3SgHum=be where?}  
‘Where is the man who came?’

d. \text{[digín mi-ì̀-ì̀ sḕ] á = Ø mi}  
\text{[man Rel-Pl come.Pfv.SbjFoc] 3SgHum=be where?}  
‘Where are the men who came?’

The M-tone is easier to hear if a negative enclitic is added.

(493)  a. \textit{digínì mi sḕ-rḕ?}  
\text{man Rel come.Pfv.SbjFoc}  
‘the man who didn’t come’

b. \textit{digín mi-ì̀-ì̀ sḕ-rḕ?}  
\text{man Rel-Pl come.Pfv.SbjFoc}  
‘the men who didn’t come’

14.5 Grammatical relation of relativized-on NP

14.5.1 Subject relative clause

The simple main clause in (494a) becomes a subject relative clause in (494b). In both cases, \textit{yìgì} ‘cow’ lacks its nominal suffix (\textit{yìgì-rá}). The perfective intransitive verb ‘fall’ takes M-toned subject-focus form in (494b).

(494)  a. \textit{yìgì bè́é}  
\text{cow fall.Pfv}  
‘A/The cow fell.’ (< \textit{yìgì })

b. \text{[[yìgì mi] bè́é] á = Ø mi}  
\text{[cow Rel fall.Pfv.SbjFoc] 3SgNonh=be where?}  
‘Where is the cow that fell?’

Examples involving negation are (495a-b). Shifted +ATR variants are omitted.

(495)  a. \textit{yìgì bè́é = rḕ?}  
\text{cow fall.Pfv}  
‘A/The cow didn’t fall.’
b. \[[\text{yìgí} \quad \text{mi}] \quad \text{bēē = rē?]\] \[\text{è = Ø}\quad \text{mì}\]
\[[\text{cow} \quad \text{Rel}]\quad \text{fall.Pfv.SbjFoc=Neg}\] \[\text{3SgNonh=be}\quad \text{where}\?\]
‘Where is the cow that didn’t fall?’

The subject becomes plural in (496a-b). The polarity is positive as in (494a-b) above. Plurality is marked on the relative morpheme.

(496) a. \[\text{yìgí-rá-à}^n \quad \text{bēé}\]
\[\text{cow-Nom-Pl}\quad \text{fall.Pfv}\]
‘A/The cows fell.’

b. \[[\text{yìgí} \quad \text{mi-i}^n]\quad \text{bēj}]\quad \text{èè = Ø}\quad \text{mì}
\[[\text{cow} \quad \text{Rel-Pl}]\quad \text{fall.Pfv.SbjFoc}]\quad \text{3PlNonh=be}\quad \text{where?}\]
‘Where are the cows that fell?’

Negative counterparts of the plural-subject type are (497a-b).

(497) a. \[\text{yìgí-rá-à}^n \quad \text{bēé = rē?}\]
\[\text{cow-Nom-Pl}\quad \text{fall.Pfv}\]
‘A/The cows didn’t fall.’

b. \[[\text{yìgí} \quad \text{mi-i}^n]\quad \text{bēē = rē?]\] \[\text{èè = Ø}\quad \text{mì}
\[[\text{cow} \quad \text{Rel-Pl}]\quad \text{fall.Pfv.SbjFoc=Neg}]\quad \text{3PlNonh=be}\quad \text{where?}\]
‘Where are the cows that didn’t fall?’

Further examples are in (498). In (498b-c) the object proclitics are human 3Sg \(á\) and human 3Pl \(áà\), not their \(n\)-initial variants \(ná\) and \(náà\), but with the same tones.

(498) a. \[\text{mèʔè}^n \quad \text{mi-i}^n\] \[\text{= ŋ \quad nàà}\]
\[\text{[pàà}^\text{n} \quad \text{sá} \quad \text{’táʔà = rē?]}\]
\[\text{[person} \quad \text{Rel-Pl}]\quad \text{=Link here}\] \[\text{[3PIHum} \quad \text{Fut go.Ipfv.Neg]}\]
‘The people who are here, they won’t go.’

b. \[[\text{kàá} \quad \text{mi} \quad \text{á} \quad \text{niní}]\]
\[[\text{snake} \quad \text{Rel}]\quad \text{3SgHumObj} \quad \text{bite.Pfv}]\]
\[\text{è = Ø}\quad \text{mì}\]
\[\text{3SgNonh=be}\quad \text{where?}\]
‘Where is the snake that bit him/her?’ (\text{kàà})

c. \[[\text{kàá} \quad \text{mi-Ø} \quad \text{á}^n \quad \text{niní}]\]
\[[\text{snake} \quad \text{Rel}]\quad \text{3PlHumObj} \quad \text{bite.Pfv}]\]
\[\text{èè = Ø}\quad \text{mì}\]
\[\text{3SgNonh=be}\quad \text{where?}\]
‘Where are the snakes that bit them?’
14.5.2 Preverbal object relative clause

The object remains in its usual preverbal position, and ends in relative mì.

(499) a. mā yìgí báʔri(i)
   1Sg  cow  hit.Pfv
   ‘I hit-Past a/the cow.’ (< yìgì )

b. [wō [yìgí mì] báʔri] ë = Ø mì
   [2Sg [cow Rel] hit.Pfv]  3SgNonh=be  where?
   ‘Where is the cow that you-Sg hit-Past?’

c. [wō = Ø [sàá mì] jíá] [zàkĩ mì-ñɛ́] = Ø = ë
   [2Sg=lpfv [house Rel] see.lpfv] [Z Poss-Nom]=be=it.is
   ‘The house that you-Sg see belongs to Zaki.’ (< sàá, /mì-nà = H = ë )

See also text 2016_02 @ 00:38 (‘the story that I will tell’) and @ 02:30 (‘the hole that I showed you’).

   Plural objects are in (500).

(500) a. mā yìgí-rá-àn báʔri(i)
   1Sg  cow-Nom-Pl hit.Pfv
   ‘I hit-Past a/the cows.’

b. [wō [yìgí mì-ʔ] báʔri] ë=a = Ø mì
   [2Sg [cow Rel-Pl] hit.Pfv]  3PlNonh=be  where?
   ‘Where are the cows that you-Sg hit-Past?’

Negative counterparts of singular-object (499a-b) above are (501a-b).

(501) a. mā yìgí báʔř = rē?
   1Sg  cow hit.Pfv=Neg
   ‘I didn’t hit a/the cow.’ (< /báʔři = rē? )

b. [wō [yìgí mì] báʔř = rē?] ë = Ø mì
   [2Sg [cow Rel] hit.Pfv=Neg] 3SgNonh=be  where?
   ‘Where is the cow that you-Sg didn’t hit?’

Negative counterparts of plural-object (500a-b) are (502a-b).

(502) a. mā yìgí-rá-àn báʔř = rē?
   1Sg  cow-Nom-Pl hit.Pfv=Neg
   ‘I didn’t hit a/the cows.’ (< /báʔři = rē? )
b. [wō [yigí mi-ʔ] báʔ=rēʔ] èé=Ø mi
   [2Sg [cow Rel-Pl] hit.Pfv=Neg] 3PlNonh=be where?
   ‘Where are the cows that you-Sg didn’t hit?’

In elicitation a default (indefinite) nonhuman object, cf. English what I ate, is expressed as ‘thing’ (503). It may be that headless mi is also possible, cf. §14.3.3 above.

(503) [mā [śe=Ø mi] kúñî] sibi-rá = Ø = rēʔ
   [1Sg [thing Rel] eat.meal.Pfv] meat-Nom=be=Neg
   ‘What I ate wasn’t meat.’

14.5.3 Possessor relative clause

A possessor may be relativized on. (504a) has a possessed NP as subject. In (504b) the possessor (‘man’) is relativized on. This is distinct from relativizing on the entire possessed NP with the possessor ‘house’ as NP-head (504c).

(504) a. [[dígîn mi] sàá] bèè
   [man Dem] house fall.Pfv
   ‘This man’s house fell (collapsed).’

b. [[dígîn mi] sàá bè] á=Ø mi
   [man Rel] house fall.Pfv.SbjFoc 3SgHum=be where?
   ‘Where is the man whose house fell?’

c. [[dígîn mi] sàá mi bè] ē=Ø mi
   [man Dem] house Rel fall.Pfv.SbjFoc 3SgNonh=be where?
   ‘Where is this man’s house that fell?’

It isn’t immediately clear from these examples whether or not the ‘house’ has normal possessum tones in (504b) as it clearly has in (504a) and (504b). This is because the LH-tones in sàá could either reflect the /LH/ tone overlay on possessums (after 3Sg possessor), or be due to tone sandhi (Final Tone-Raising, i.e. LL#L-to-LH#L before L-toned relative mi).

The situation is clarified in (505a-b). Unpossessed ‘father’ is jë-ná including the nominal suffix. It becomes jë-ná by {LH} possessum tone overlay in (505a). When the possessor ‘(the) man’ is relativized on, ‘father’ reverts to its lexical (unpossessed) tones (505b).

(505) a. digîni jë-ná
   man father-Nom
   ‘(the) man’s father’ (< dikîni ~ digîni )
b.  [[dígín mi] jé-n = é wèê]  á = Ø mi
   [[man Rel] father-Nom 3SgNonh go.Pfv]  3SgNonh=be where?
   ‘Where is the man whose father went away?’ (< /jé-ná è/)

In other words, relativizing on the possessor breaks the normal (tono-)syntactic bond between possessor and possessum. This conclusion is supported by the tone of the main verb in (504b) above, bè (trimmed from regular perfective bè̂), compare the subject-focus perfective bè̂ in (504c). The difference is that the whole possessed NP is relative head in (504c) while only the possessor is relative head in (504b).

14.5.4 Postverbal object or adverb relative clause

A postnominal NP (object or adverb) may also be relativized on. In (506), a manner adverbial noun is the head.

(506)  jàlsà-dù  sè'?é  [sèʔè-côgô  mi]
   Blédougou  sit.Pfv  [sit.VblN-manner Rel]
   ‘(I ask you about) the way Blédougou was settled.’ (2016_01 @ 00:02)

See also text 2016_04 @ 00:44 (‘a way [for him/her] to get him/her’).

14.5.5 Relativization on the complement of a postposition

The NP complement of a postposition may be relativized on. Main clause (507a) has an instrumental PP. The postposition has its +3Sg tonal form (dè̂) since the complement is a regular singular noun (‘ax’). In (507b) the complement NP is relativized on. The relative morpheme intervenes between this NP and the postposition itself. The postposition then takes its -3Sg tonal form (dè̂).

(507)  a.  mù?ùⁿ  gbáá  bègé  [jéñé  dè]
   1Pl  stick  cut.Pfv  [ax with]
   ‘We chopped the wood with an ax.’

   b.  [mù?ùⁿ  gbáá  bègé  [jéñé  mi  dè]]
   [1Pl  stick  cut.Pfv  [[ax Rel] with]]
   é = Ø  mi
   3SgNonh=be where?
   ‘Where is the ax with which we chopped the wood.’

Further examples are (484b).

For spatiotemporal adverbial relative clauses of this structure, see §15.4.1 (temporal) and §15.5.1 (spatial).
15 Multi-verb constructions and adverbial clauses

15.1 Auxiliary-like constructions with aspectual value

Some constructions combine a regular VP denoting an eventuality type with what appears to be another verb in auxiliary function. The sense is aspectual in a broad sense (including perfect).

$kú$ and $tˢ̆$ precede the main VP, while $dú$ follows it.

15.1.1.1 Durative inceptive $kú$ ‘begin, set about’ plus imperfective

A durative inceptive construction with $kú$ after the subject, followed by an imperfective VP but without the imperfective subject enclitic /H+ = ʔ/, is common in narrative. It indicates the onset and extended duration, often also high energy level, of a purposeful activity. Contextual translations are ‘begin’ and ‘set about (doing)’, cf. French se mettre à, depending on whether the emphasis is on the onset or the continuation of the activity. Typical contexts are setting off (on a long walk), weeping, and digging a pit.

$kú$ has no transparent relationship to any regular verb, though it has some phonological similarity to $kɔ̀ɔ́$ ‘give’. $kú$ may also be followed by a noun denoting an activity; see (206) in §6.5.2 (‘hunting’).

The pronominal paradigm of ‘begin (extended) weeping’ is (508). The form is $kú$, except $kû$ by M-Spreading after an M-toned subject pronominal (508a). The absence of L-toned $#kù$ after a +3Sg NP suggests that $kú$ is not a true verb. The imperfective intransitive verb has its regular tonal form.

(508) ‘__ begin (extended) weeping’

a. 1Sg $mā̆̆̆ kú jiímàà$
   2Sg $wō̆̆̆ kú jiímàà$
   2Pl $ē̆̆̆ kú jiímàà$

b. 1Pl $mùʔûă̆̆ kú jiímàà$
   3SgHum $ā kú jiímàà$
   3SgNonh $ě̆̆̆ kú jiímàà$
   3PlHum $ā̆̆̆ kú jiímàà$
   3PlNonh $ē̆̆̆ kú jiímàà$

c. ‘the child’ $dí-rá̆ kú jiímàà$
   ‘the children’ $dí-rá-â̆̆̆ kú jiímàà$
A textual example is (509). Here the verb is transitive.

(509)  

[[kɔ̀rɔ̀  lè] bélé]  
[[elder.brother warthog] pass.Adj]  
[è kú [yálā mì] sinà]  
[3SgNonh begin [hole Dem] dig.lpvf]  

‘Elder brother warthog moved over and began digging that hole’ (2016_02 @ 03:20)

This construction is stylistically marked ans is very common in tales. See also (554), (568), text 2016_02 @ 01:24, @ 01:28, @ 01:54, @ 02:05, @ 02:56 and text 2016_04 @ 00:06, @ 00:39, @ 01:57, and @ 03:42.

In text 2016_02 @ 03:39, a kú construction is repeated verbatim to emphasize extended duration (‘he was digging, he was digging’).

For simple ‘begin (something)’ or ‘begin (doing)’ with no emphasis on duration or energy level, the verb dàà-sɔ́ʔɔ́ is used (§17.4.7). For simple ‘keep (doing)’ after the onset has already been presented, see the following section.

15.1.1.2 tọ́ (tùú) ‘stay’ as continuative auxiliary (‘keep doing’)

The verb ‘stay, remain (somewhere)’ is tọ́ (cited in the imperfective). In the relevant adjoined constructions it occurs with variants including +ATR tòò ~ tọ́ and tùù ~ tűu. It can be used abstractly to emphasize extended duration of a situation. (510) is a typical example of a narrative filler after a situation has been described, preceding the next foregrounded event. The human 3Sg counterpart is à tű = ú yààlà(ā) with the same H-toned adjoined verb form tűu. Here yààlà(ā), attested in my data only in this example, apparently has the same tonal and vocalic effect as nàà ‘here’ and dè ‘there’ on the preceding word.

(510)  

donc àάⁿ tű = ú yààlàā, …  
so 3PlHum stay.Adjn=Link thus, …  

‘So they remained thus (=in that situation), ….’ (2016_04 @ 00:23)

An example with tọ́o is (373c).

A construction with the ‘stay’ verb plus a second clause is the best way to translate ‘still’ (positive) or ‘(not) yet’ (negative). The second clause usually seems to be a kind of perfective clause, but with some features of clause adjunction, especially with respect to the pronominal subject (when coindexed to the first subject). The pronominal second subject is subject to contraction and is recoverable only by its ATR effect (tọ́ ~ tọ́) and/or by its tonal effect on the adjoined verb. In some examples the second subject seems to be completely absent.
b. *Zàkìì tàɔ́ɔ́ = [Ø sèè = rɛ́]*
Z stay.Adjn [3SgHum come.Pfv=Neg]
‘Zaki hasn’t come yet.’ = ‘Zaki still hasn’t come.’ (< /tɔ́ɔ́ à/)

c. *Zàkìì tàɔ́ [Ø kùmɛ̀ kùn] = nɛ́*
Z stay.Adjn [3SgHum meal eat.Pfv=Neg]
‘Zaki hasn’t eaten (a meal) yet.’ (/kùnì=nɛ́/)

d. *ààⁿ tɔ́ [Ø sèè = rɛ́]*
3PlHum stay.Adjn [3PlHum come.Pfv=Neg]
‘They haven’t come yet.’

e. *mā tɔ́ [Ø sèè = rɛ́]*
1Sg stay.Adjn [(1Sg) come.Pfv=Neg]
‘I haven’t come yet.’

See also (556a-b), with 1Sg subject, but in one case pseudo-reflexive (hence with 1Sg reflexive *ã* ) resulting in *tɔ́= sèè*, the other a regular transitive, with +ATR *tɔ́ ì* hinting at an earlier adjoined *tɔ́ɔ́ ìn*. The ‘stay’ verb can also be added before the *kú* construction described in the preceding section. The sense is ‘keep VP-ing’ (512).

(512) *[ãã tɔ́ɔ] [ãã kù dòó máà]*
[3PIHum stay.Adjn] [3PIHum begin dance(n) do.Ipfv]
*[ãã tɔ́] [ãã kù cii-nà-ã contrôler ].*
[3PIHum stay.Adjn] [3PIHum begin breast-Nom-Pl check]
‘They (=the people) kept dancing. They (=girl and young man) kept checking their (=the women’s) breasts.’ (2016_04 @ 01:57) (< dòò)

tɔ́ɔ ‘stay’ may also occur with a verbal-noun complement. In this case, *tùù ~ tùú* is followed by a syllabic extension *nì* that continues the same tone (*tùùnì ~ tùúnì*) (513a-c). I interpret this as a stative (non-aspect-marking) form of the otherwise active (aspect-marking) verb *tɔ́ɔ*. See §11.2.4.2 for statives of stance/position verbs that end in *nì*.

(513) a. *à tùùnì mùù-mê-rá*
3SgHum stay.Stat field-do.VblN-Nom
‘He/She keeps farming.’
b. ̀àⁿ / mā  tǔúní  mùù-mèè-rá
3PlHum/1Sg  stay.Stat  field-do.VblN-Nom
‘They/I keep farming.’

c. ̀àⁿ  tǔúní  [mā  bāʔ-rā]
3PlHum  stay.Stat  [1Sg  hit.Vbl-Nom]
‘They keep hitting me.’

15.1.1.3 Experiential perfect ‘have ever’ (dú)

The sense ‘have (ever)’ is expressed by dú following another VP. The subject is followed by the imperfective enclitic /H+ = Ø/, reflecting the fact that an experiential perfect denotes a state extending into the present. The main verb looks like a verbal noun in most cases, so the construction may be compared to those described in §17.4 below. However, the verb may really be a perfective, with Cvv stems undergoing vocalic changes before dú like those they undergo before several other clause-final elements. A preceding object noun is not incorporated into the verb (514a-b).

(514)  a.  wó = Ø  gbāⁿ  jìì / kpè̱ⁿ / bèè / sānī / bàʔr(i)  dú = wɔ̃
2Sg=lpfv  elephant  see./kill./put.down./buy./hit.Pfv  ExpPf=Q
‘Have you-Sg ever seen/killed an elephant?’ (< gbāⁿ)
(verbs jìé, kpè̱ⁿ, bèé, sānī, bàʔrī in +3Sg perfective form)

b.  mā = Ø / ̀àⁿ = Ø  yǐlè  jìì / kpè̱ⁿ  dú
1Sg=lpfv / 3PlHum=lpfv  fish  see./kill.Pfv  ExpPf
‘I/They have (once) seen/killed a fish.’

c.  ā = Ø  mā  bāʔr  dú
3SgHum=lpfv  1Sg  hit.Pfv  ExpPf
‘He/She has (once) hit me.’

d.  mā = Ø  sàá  sèè  dú
1Sg=lpfv  house  build.Pfv  ExpPf
‘I have (once) built a house.’

e.  mā = Ø  sàá-rá-àn  sèè  dú
1Sg=lpfv  house  build.Pfv  ExpPf
‘I have (once) built some houses.’

As the paradigm of ‘have (ever) ascended’ in (515) shows, the form of the verb plus dú is invariant for subject category in intransitive positive clauses. The final M-tone in sidān (apocopated < sidānī) is evidence for perfective rather than verbal-noun form (cf. verbal noun sidān).
Negative versions add the usual clause-final negative enclitic. The imperfective subject enclitic is now absent, as seen clearly in (516b). Human 3Pl åá" in (516a) reflects regular Final Tone-Raising, while H-toned human 3Sg á in (516a) is attributable to a more restricted version of that rule that also applies in some contractions; see discussion in §10.2.3 and at the end of §3.8.3.1.

(516) a. åá" / á sidáñ 'dú = ðēʔ  
3PlHum / 3SgHum ascend.Pfv ExpPf=Neg 
‘They have/He-or-she has not ever gone up.’

b. åè" / à yíʔé jìì dú = ðēʔ  
3PlHum / 3SgHum fish see.Pfv ExpPf=Neg 
‘They have/He-or-she has not ever seen a fish.’

15.1.1.4 tàà ~ tàá with ‘arrive’

This auxiliary is attested only in perfective clauses with following cié ‘arrived’. I can detect little semantic difference between forms with and without tàà ~ tàá. Etymologically, tàà ~ tàá may be a contraction of the adjoined (and imperfective) verb tàʔá ‘go’, see (85) in §3.9, but if so the two forms of ‘go’ have diverged synchronically. A further difficulty is that the form cié could be parsed as either a perfective or an adjoined verb (or for that matter an imperfective, which however wouldn’t fit the context).

(517) a. åá" / tàá cié  
3PlHum go(?) arrive.Pfv 
‘They arrived.’ (2016_04 @ 02:03)

b. à tàà cié  
3SgHum go(?) arrive.Pfv 
‘He/She arrived.’
One possibility is that tàà-ciē ~ táá-ciē is now a compound verb.

15.1.1.5 sis in interrogatives

This element occurs in a text in a clause ending with tag question marker kè (518). It follows the subject, like future sà. The latter occurs in combinations like sis=ì when contracted with following object pronouns. However, both the form and the sense of the two morphemes are divergent. I gloss sis provisionally as “Q” in interlinears since it is attested only in a question.

(518) è sí wō ká kè
  3SgNonh Q 2Sg have tagQ
  ‘You-Sg must have it, don’t you?’ (2016_04 @ 03:12)

The context is that one woman is interrogating another woman concerning a stolen item. (518) amounts to an accusation that the addressee stole the item and still has it in her possession. My assistant offered a negative counterpart (519).

(519) è sí wō ká=r=à kè
  3SgNonh Q 2Sg have=Neg=Q tagQ
  ‘You must not have it, right?’

15.2 Clause adunction

In this type of multi-verb construction, a regular main clause with normal TAM marking is followed (often without a prosodic break) by an adjoined clause. The latter has a) a reduced subject pronoun coindexed to the subject of the first clause, and b) an adjoined (“.Adjn”) form of the verb that is not marked for TAM category. Contractions are common between the final vowel of the first verb and the pronominal subject of the adjoined clause, which is normally vowel-initial, see (525) below. The contractions can obscure the underlying representations especially of the adjoined subject pronominal. There is also occasionally a complementizer à at the beginning of the second clause. It too gets involved in vocalic contractions, and it is not always possible to determine whether it is present.

The two clauses can denote either co-events belonging to a single complex event (as in ‘fall’ plus ‘descend’ meaning ‘fall down’), or sequenced events (as in ‘go and come back’).
15.2.1 Forms of verbs and subject pronouns in adjunctions

15.2.1.1 Adjoined verb form in the second (adjoined) clause

The verb in the adjoined clause in this construction is segmentally identical to the imperative, which in some cases involves trimming a final vowel in comparison to the imperfective. However, adjoined and imperative verbs may differ tonally.

The relationship between intransitive adjoined verbs and the primary TAM-marked main-clause intransitive forms are presented in (520). For intransitives, the tonal form of adjoined verbs is invariant; it does not depend on the +3Sg versus -3Sg status of the preceding subject proclitic. Intransitive imperatives are M-toned (520a-b) except for stems that have a lexical H-tone medially (520c). By contrast, intransitive adjoined verbs are either H- or L-toned (following the lexical tone in the imperfective).

(520) Form of verb in adjoined clause (intransitive)

<table>
<thead>
<tr>
<th>Pfv -3Sg</th>
<th>Ipfv</th>
<th>Imprt</th>
<th>adjoined</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>sée</td>
<td>sáá</td>
<td>sā</td>
<td>sá</td>
</tr>
<tr>
<td></td>
<td>bóé</td>
<td>bóó</td>
<td>bóó</td>
<td>bóó</td>
</tr>
<tr>
<td></td>
<td>sóé</td>
<td>sóó</td>
<td>sóó</td>
<td>sóó</td>
</tr>
<tr>
<td></td>
<td>bóé</td>
<td>bówà</td>
<td>bówà</td>
<td>bówà</td>
</tr>
<tr>
<td>b.</td>
<td>bólí</td>
<td>bóló</td>
<td>bóló</td>
<td>bóló</td>
</tr>
<tr>
<td>c.</td>
<td>jáʔání</td>
<td>jáʔání</td>
<td>jáʔání</td>
<td>jáʔání</td>
</tr>
<tr>
<td></td>
<td>sündí</td>
<td>sündí</td>
<td>sündí</td>
<td>sündí</td>
</tr>
<tr>
<td></td>
<td>fidí</td>
<td>fidëè</td>
<td>fidí</td>
<td>fidí</td>
</tr>
</tbody>
</table>

Adjoined forms of OV transitives are in the rightmost columns of (521) below. They are tonally sensitive to +3Sg/-3Sg split in preceding objects, like transitives in all other TAM categories. They are segmentally identical to imperatives. In fact, the only difference between imperative and adjoined transitives is that the +3Sg form of imperatives has LH-tones while the +3Sg adjoined form is L-toned.

(521) Form of verb in adjoined clause (transitive)

<table>
<thead>
<tr>
<th>Pfv +3Sg</th>
<th>Ipfv +3Sg</th>
<th>Imprt +3Sg</th>
<th>-3Sg +3Sg</th>
<th>adjoined +3Sg</th>
<th>-3Sg</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>dólní</td>
<td>dólnɔ</td>
<td>dɔnɔ</td>
<td>dɔnɔ</td>
<td>dɔnɔ</td>
<td>dɔnɔ</td>
<td>‘eat (meat)’</td>
</tr>
<tr>
<td>búgú</td>
<td>búgɔ</td>
<td>bùgú</td>
<td>bùgú</td>
<td>bùgú</td>
<td>bùgú</td>
<td>‘skin (animal)’</td>
</tr>
<tr>
<td>sàní</td>
<td>sànɔ</td>
<td>sãⁿ</td>
<td>sãⁿ</td>
<td>sãⁿ</td>
<td>sãⁿ</td>
<td>‘buy’</td>
</tr>
<tr>
<td>tòʔrí</td>
<td>tôʔrɔ</td>
<td>tôʔrí</td>
<td>tôʔrí</td>
<td>tôʔrí</td>
<td>tôʔrí</td>
<td>‘sell’</td>
</tr>
</tbody>
</table>
The short vowels in adjoined verbs like sá ‘come’ (520a) and dɔ̀ⁿ~dɔ́ⁿ ‘eat meat’ (521) are unmistakable when the negative enclitic is added: sá =rɛ̄ʔ, dɔ̀ =nɛ̄ʔ~dɔ́ =nɛ̄ʔ.

Examples of adjoined verbs occur in various sections of this chapter.

15.2.1.2 Form of the verb in the first (main) clause

The first verb in the adjunction structure has a regular TAM form, for example perfective. However, in addition to vv-Contraction, a tonal modification is observed if the stem has no more than two syllables (Cvv, CvCv). In simple clauses, human and nonhuman +3Sg subject pronouns control an {LH} overlay on an immediately following verb: à bêé ‘he/she fell’, è bêé ‘it fell’, à fidi ‘he/she ran’, è fidi ‘it ran’. All -3Sg pronominal categories begin with H-tone, e.g. bèé and fidi. In clause adjunctions, the first verb usually contracts with the reduced subject of the adjoined clause. The {LH} overlay on the first verb after +3Sg subjects then appears to disappear with verbs of one or two moras, and the first verb ends up with initial H-tone (bê =, fidi =), just as it does after -3Sg subjects. For example, ‘run’ has the same tones with nonhuman 3Sg subject in (522a) as it does with the corresponding plural subject in (522b).

(522) a. [è  fîd= ] [ì  sî] [3SgNonh  run.Pfv] [3SgNonh enter.Adjn] ‘It (=animal) ran in.’ (< /è fîd è sî/)

b. [bêⁿ  fîd= ] [îîⁿ  sî] [3PlNonh  run.Pfv] [3PlNonh enter.Adjn] ‘They (=animals) ran in.’

This looks at first sight like a categorial merger of +3Sg with -3Sg verb forms, but it isn’t. It results from Leftward H-Shift (§3.8.3.7), which applies to the +3Sg forms. That no categorial merger is involved is seen clearly when the first verb in the adjunction is trisyllabic. In (523a-b), +3Sg sidânî ‘ascended’ remains tonally distinct from -3Sg sidání as first verbs in adjunctions.

(523) a. [è  sidâń= ] [î  jàʔàⁿ] [3SgNonh ascend.Pfv] [3SgNonh descend.Adjn] ‘It (=animal) went up and came (back) down.’

b. [mùʔàⁿ  sidâń= ] [în  jàʔàⁿ] [1Pl  ascend.Pfv] [1Pl  descend.Adjn] ‘We went up and came (back) down.’
15.2.1.3 Form of coindexed second subject pronoun in adjoined clause

The adjoined subject pronoun usually contracts with the final vowel of the first verb, as in (524a) and other examples above and below. Except in artificially deliberate speech style, only a few vocalic sequences like i a are uncontracted (524b).

(524) a. [wō bé =] [é jàʔàn] [2Sg fall.Pfv] [2Sg descend.Adjn]
   ‘You-Sg fell down.’ ([béé ñ])

b. [ààⁿ fìd] [(à)àⁿ s5] [3PlHum run.PPfv] [3PlHum enter.Adjn]
   ‘They ran in.’

Allowing for uv-Contraction, we can account for surface forms of adjunctions with third person subjects by positing the usual 3Sg and 3Pl subject proclitics before the adjoined verb, e.g. human 3Pl ãàⁿ in (524b) and nonhuman 3Sg ê in (522a) above. However, this does not work for 1st/2nd person subjects, which have a special set of subject proclitics for adjoined verbs.

(525) proposes underlying forms for adjoined subject proclitics and shows some of the forms they take in contractions. Rounded-vowel variants are due to assimilation from nonfinal vowels in the first verb, e.g. bûl = ú from /bûl é/ and bûl = ñ from /bûl ñ/ in (527a-e) below, see also (536).

(525) Adjoined subject proclitic

<table>
<thead>
<tr>
<th>category</th>
<th>in adjoined clause</th>
<th>in main clause</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>typical forms</td>
<td>underlying</td>
</tr>
<tr>
<td>a. 1Sg</td>
<td>= (i)n, = (ù)n</td>
<td>mā</td>
</tr>
<tr>
<td>1Pl</td>
<td>= (i)n, = (ù)n</td>
<td>mûʔûⁿ</td>
</tr>
<tr>
<td>b. 2Sg</td>
<td>= i, = ú</td>
<td>wō</td>
</tr>
<tr>
<td>2Pl</td>
<td>= iⁿ, = ūⁿ</td>
<td>éëⁿ</td>
</tr>
<tr>
<td>c. 3HumSg</td>
<td>= à, = ñ</td>
<td>à</td>
</tr>
<tr>
<td>3HumPl</td>
<td>= àⁿ, = ñⁿ</td>
<td>àûⁿ</td>
</tr>
<tr>
<td>d. 3NonhSg</td>
<td>= ì, = ù</td>
<td>è</td>
</tr>
<tr>
<td>3NonhPl</td>
<td>= ìⁿ, = ūⁿ</td>
<td>ëëⁿ</td>
</tr>
</tbody>
</table>

Some observations:
(526) a. Underlying vowel-length is usually masked by contraction;

b. 1Sg and 1Pl have unique suppletive forms /in/ and /iin/ with final nasal consonant (not just vowel nasalization) and a high (+ATR) vowel that is often not overt;

c. The ATR split in this paradigm is therefore -ATR human third person versus +ATR for all others (1st/2nd plus nonhuman third);

d. 2Sg has a suppletive form /é/, segmentally similar to ę as 2Sg reflexive possessor or pseudo-reflexive object;

e. 2Sg/2Pl forms are H-toned, not M-toned as elsewhere, but they come with a floating M-tone that drops a following H-tone on the adjoined verb to M (but does not affect a following L-tone);

f. The usual +3Sg versus -3Sg tonal effect on the adjoined verb is absent (3Sg subject, like 3Pl and first person, allows following L- or H-tones)

The second-person floating M can be seen at work in the (a) and (b) examples in (527-9). In (527) the focus is on the tones of yiřé ‘fish’ and kúmání ‘sparrow’, which remain H-toned in (527d-e) even after +3Sg pronoun, but drop to M-toned /yĩřé/ and /kúmání/ in (527a-c). The M-tones of the final syllables then undergo Final Tone-Raising before the L-toned verb in (527a-b).

(527) a. [wō  būl = ] [ū  yĩřé / kúmání  d₃ₐ]
   [2Sg  return.Pfv] [2Sg  fish / sparrow  eat.meat.Adjn]
   ‘You-Sg again ate a fish.’ (/būl ę/, yiřé, kúmání)

b. [ēēⁿ  būlú = ] [iⁿ  yĩřé / kúmání  d₃ⁿ]
   ‘You-Pl again ate a fish/sparrow.’

c. [ēēⁿ  būlú = ] [iⁿ  yĩřé-ráⁿ  d₃ⁿ]
   ‘You-Pl again ate fishes.’

d. [à  būl = ] [ə  yĩřé / kúmání  d₃ⁿ]
   [3SgHum  return=] [3SgHum  fish / sparrow  eat.meat.Adjn]
   ‘He/She again ate a fish/sparrow.’

e. [à  būl = ] [ə  yĩřé-ráⁿ  d₃ⁿ]
   [3SgHum  return=] [3SgHum  fish-Nom-Pl eat.meat.Adjn]
   ‘He/She again ate fish-Pl.’

In (528) below, observe the tones of the adjoined verb ‘touch’. With non-2nd person subject (528c), the adjoined form of this verb is bāʔrí (or bāʔr̥ by Apocope). When the subject is 2Sg (528a) or 2Pl (528b), the floating M-tone fills only the first syllable of bāʔrí ~ bāʔr̥, resulting in bāʔrí ~ bāʔr̥. On this evidence, the way the floating M is applied differs from noun (527) to verb (528).
(528)  

a. \[wō \ būl =] \[ú \ bāʔē \ mā-n\]  
   \[2Sg \ return.Pfv\] \[2Sg \ touch.Adjn \ 1Sg-Indep\]  
   ‘You-Sg again touched me.’

b. \[ēēⁿ būlú =] \[īⁿ bāʔē \ mā-n\]  
   \[2Pl \ return.Pfv\] \[2Pl \ touch.Adjn \ 1Sg-Indep\]  
   ‘You-Pl again touched me.’

c. \[à būl =] \[ɔ̀ bāʔē \ mā-n\]  
   \[3SgHum \ return.Pfv=\] \[3SgHum \ touch.Adjn \ 1Sg-Indep\]  
   ‘He/She again touched me.’

(529)  

shows how H-toned adjoined sā ‘come’ (529c) drops to M-toned sā after second-person subject (529a-b). The distinction is easy to hear when negative = rēʔ is added.

(529)  

a. \[wō \ būl =] \[ū \ sā( = rēʔ)\]  
   \[2Sg \ return.Pfv\] \[2Sg \ come.Adjn(=Neg)\]  
   ‘You-Sg again came/didn’t again come.’

b. \[ēēⁿ būlú =] \[īⁿ sā( = rēʔ)\]  
   \[2Pl \ return.Pfv\] \[2Pl \ come.Adjn(=Neg)\]  
   ‘You-Pl again came/didn’t again come.’

c. \[à būl =] \[ɔ̀ sā( = rēʔ)\]  
   \[3SgHum \ return=\] \[3SgHum \ come.Adjn(=Neg)\]  
   ‘He/She again came.’

In deliberate speech, including “informant-ese,” the adjoined clause may be upgraded to its normal main-clause form, e.g. with 1Pl múʔùⁿ instead of (i)n. This seems to have happened in (537c) in §15.2.2.3.

15.2.1.4 Complementizer à ‘that’ in clause adjunctions

Complementizer à occurs in occurs in factive complements of ‘hear (that …)’ (§17.1.3.1) and in quoted clauses ‘said (that …)’ (§17.2.1). It is not usually present at the beginning of an adjoined clause. However, it can be difficult to determine whether it is present, since this position is rife with vocalic contractions. Consider (530).

(530) \[mā \ sā \ dí-kpēʔ-r-à-àⁿ-n =\]  
   \[1Sg \ help.Pfv\] \[child-young-Nom-Pl-Indep\]  
   \[fā \ àáⁿ \ sidā\] \[that \ 3PlHum \ ascend.Adjn\]  
   ‘I helped the children go up.’
The relevant input can plausibly be taken to be /…-àⁿ-nū à àⁿ sìdà/. This portion is heard as [ànnàá’sìdà], and the rather long [ààⁿ] in the middle is compatible with the presence of à ‘that’ before the second subject.

The reason that I suspect the presence of complementizer à in (530) is that the verb ‘help’ does have à in other similar examples, see (537a-d) in §15.2.2.3. However, it would be unwise to extrapolate from ‘help’ to other adjunction constructions, since those with ‘help’ involve a subject switch at the clause boundary while other constructions require same subjects.

15.2.2 Clause adjunction expressing a single complex event

15.2.2.1 Adjoined co-event clauses

In (531a), the first clause ‘he/she fell’ is quickly followed by adjoined ‘he/she descended’, pronounced with no prosodic break. The adjoined subject proclitic contracts with the final vowel of the first verb. (531b) has the same content except for 1Sg subjects.

\[(531)\]

\[a. \ \ [\ à \ \ bá = ] \ \ [\ à \ \ já?ă”] \ \ [\ yí \ \ dù]\]
\[3SgHum \ fall.Pfv] \ [3SgHum \ descend.Adjn] \ [water \ in]
‘He/She fell down into the water.’ (<\à bē à já?ă”/)

\[b. \ \ [\ mā \ \ bē = ] \ \ [\ hā \ \ já?ă”] \ \ [\ yí \ \ dù]\]
\[1Sg \ fall.Pfv] \ [1Sg \ descend.Adjn] \ [water \ in]
‘I fell down into the water.’ (<\mā bē in já?ă”/)

In this construction, the two clauses denote co-events, i.e. different aspects of what is conceptualized as a single event. In many such combinations the second verb denotes direction of motion while the first verb denotes a more general action.

A pronominal-subject paradigm for this verb pairing is in (532), omitting the final PP ‘into the water’. Leftward H-Shift (§3.8.3.7) has applied to /bē/ in the 3Sg subject cases (532c).

\[(532)\]

\[a. \ \ 1Sg \ \ mā \ \ bē = \ (i)hā \ \ já?ă” \ \]
\[1Pl \ \ mùʔùn \ \ bē = \ (i)hā \ \ já?ă” \]

\[b. \ \ 2Sg \ \ wō \ \ bē = \ (é) \ \ já?ă” \ \]
\[2Pl \ \ ēēⁿ \ \ bē = \ (é)ēⁿ \ \ já?ă” \]

\[c. \ \ 3SgHum \ \ à \ \ bā = \ à \ \ já?ă” \ \ (variant \ bē = \ ē ) \]
\[3PlHum \ \ àâⁿ \ \ bā = \ (à)âⁿ \ \ já?ă” \]

\[d. \ \ 3SgNonh \ \ è \ \ bē = \ è \ \ já?ă” \ \]
\[3PlNonh \ \ ēēⁿ \ \ bē = \ (é)ēⁿ \ \ já?ă” \]
Similar combinations of ‘run’ with ‘enter’ are in (533a-b).

(533)  

a. \[ à \ fíd = ] \ [ è \ sá\]  
\[ 3\text{SgHum run.Pfv} \] \[ 3\text{SgHum enter.Adjn} \]  
‘He/She ran in.’ (< /à fíd à sá/)

b. \[ mà \ fíd = ] \ [ in \ sá\]  
\[ 1\text{Sg run.Pfv} \] \[ 1\text{Sg enter.Adjn} \]  
‘I ran in.’ (< /mà fíd à sá/)

The full pronominal paradigm is (534). Again, Leftward H-Shift (§3.8.3.7) has applied to /fíd/ in (534c).

(534)  

a.  
1Sg \[ mà \ fíd = \] \[ in \ sá\]  
1Pl \[ múʔùa \ fíd = \] \[ in \ sá\]

b.  
2Sg \[ wō \ fíd = \] \[ í \ sá\]  
(unccontracted variant \[ wō fídí é sá\])  
2Pl \[ ēɛn \ fíd = \] \[ (i)ö \ sá\]  
(unccontracted variant \[ wō fídí ēɛn sá\])

c.  
3SgHum \[ ã \ fíd = \] \[ è \ sá\]  
(à fíd à sá)  
3PlHum \[ ààn \ fídí \] \[ (à)àn \ sá\]

d.  
3SgNonh \[ è \ fíd = \] \[ i \ sá\]  
3PlNonh \[ ēɛn \ fídí = \] \[ (i)ö \ sá\]

2Sg subject is distinguished from nonhuman 3Sg by the tones of the adjoined subject proclitic and by those of the adjoined verb. Likewise for 2Pl versus nonhuman 3Pl.

15.2.2.2 \[ bûlō \] ‘return’ plus adjoined clause (‘do again’)  

The verb \[ bûlō \] ‘return, go back’ (perfective \[ bûlì ~ bûlî \]) may combine with a following adjoined clause of the type described above. In this combination, \[ bûlō \] means ‘repeat, VP again’ with no reference to motion (535b). If motion is in fact involved, it is expressed by the adjoined verb (535a).

(535)  

a. \[ à \ bûl = ] \ [ ò \ sá\]  
\[ 3\text{SgHum return.Pfv} \] \[ 3\text{SgHum come.Adjn} \]  
‘He/She came again.’ (< /à bûl à sá/)
b. \[ \begin{array}{llll}
\text{3SgHum} & \text{búl} & \equiv & [\text{return.Pfv}] \\
\text{meal} & \equiv & \text{eat.Adjn}
\end{array} \]

‘He/She ate (a meal) again.’

A pronominal-subject paradigm of ‘X came again’ is (536). The first verb is again perfective \( \text{búli} \sim \text{búlī}. \) The u-vocalism in the first syllable is carried over into the contracted vowels. The restriction of +ATR to human third person is evident. The 3Sg forms have undergone Leftward H-Shift (§3.8.3.7) from /\text{búlí}/.

(536) a. 1Sg \( \text{mā} \) \( \text{búl} \equiv \text{ùn} \) \( \text{sá} \)
1Pl \( \text{mùʔù}^n \) \( \text{búl} \equiv \text{ùn} \) \( \text{sá} \)

b. 2Sg \( \text{wō} \) \( \text{búl} \equiv \text{ú} \) \( \text{sā} \)
2Pl \( \text{èè}^n \) \( \text{búl} \equiv \text{úù}^n \) \( \text{sā} \)

c. 3SgHum \( \text{à} \) \( \text{búl} \equiv \text{à} \) \( \text{sā} \) \( < \text{à bùlí à sá} > \)
3PIHum \( \text{àà}^n \) \( \text{búl} \equiv \text{(à à)}^n \) \( \text{sā} \)

d. 3SgNonh \( \text{è} \) \( \text{búl} \equiv \text{ù} \) \( \text{sā} \)
3PlNonh \( \text{èè}^n \) \( \text{búl} \equiv \text{ùù}^n \) \( \text{sā} \)

15.2.2.3 ‘Help’ (sɔ́ɔ́ ) plus adjoined clause

The verb ‘help’ in simple clauses takes a postverbal object. This may be expanded by adding an adjoined clause. The adjoined clause may begin with \( \text{à} \ ‘that’ \) (§15.2.1.4), which encliticizes to and contracts with a final \( -\text{nū} \) of pronouns or plural nouns. For example, if there is an internal prosodic break in (537a), it occurs after \( \text{mā-n ā} \). The examples in (537) end in adjoined \( \text{sidà} \ ‘ascend’, whose L-tones favor Final Tone-Raising on a preceding morpheme.

(537) a. \[ \begin{array}{llll}
\text{Z} & \text{help.Pfv} & \text{1Sg-Indep} & [\text{that} & \text{1Sg} & \text{ascend.Adjн}]
\end{array} \]

‘Zaki helped me go up.’ (< /\text{mā-}nū à (i)\text{ì} \text{sidà}/)

b. \[ \begin{array}{llll}
\text{[mā \text{help.Pfv} \text{Z}]} & [\text{that= 3SgHum \text{ascend.Adjн}]
\end{array} \]

‘I helped Zaki go up.’ (< /\text{à à} \text{sidà}/)

c. \[ \begin{array}{llll}
\text{[wō \text{help.Pfv} \text{1Pl-Indep}]} & [\text{1Pl \text{ascend.Adjн}]
\end{array} \]

‘You-Sg helped us go up.’ (here with uncontracted second subject)
d. \[mā sā \ dī-kpēʔ-r-à-n = ]
   1Sg help.Pfv child-young-Nom-Pl-Indep
   [ā āāⁿ \ sidā] \[that 3PlHum ascend.Adjn\]
   ‘I helped the children go up.’ (< /-ā-āⁿ-nū ā/)

‘Help’ is the only adjoined construction known to me that requires a change in subjects, which may account for the presence of the ā complementizer; see §15.2.1.4.

15.2.2.4 Adjoined \kāʔrà ~ kāʔrá ‘finally VP’

In simple main clauses, \kāʔrà ~ kāʔrá (cited in the imperfective) means ‘break, snap (sth)’ (transitive) or ‘(e.g.) stick snap’ (intransitive). As an adjoined verb, it combines with the preceding VP to mean ‘VP finally’ or ‘eventually VP’, implying a period of time before the event is completed. Two occurrence of kāʔrá are in textual passage (538).

(538) \[à sè kāʔrá sīsàⁿ, \]
   3SgHum come.Pfv do.finally.Adjn now,
   \[à sè tórś kāʔrá, \]
   3SgHum come.Pfv while do.finally.Adjn,
   ‘She eventually came (=arrived). While she was finally coming (=arriving) there, (no! The dance was in progress).’ (2016_04 @ 03:17)

See also text 2016_02 @ 03:09, and text 2016_04 @ 03:25.

15.2.3 Clause adjunction expressing event sequences

15.2.3.1 Simple same-subject event sequences

Two sequenced events with the same agent may combine loosely to form a macro-event. In (539a-b) the first clause happens to be perfective since the macro-event has been completed, but nonperfective versions (e.g. future) are also possible. The second clause has an adjoined verb form that is not specified for tense-aspect (539a). In (539b) the adjoined clause is itself a two-clause adjunction.

(539) a. \[zākūi sè] [à būlú]
   [Z come.Pfv] [3SgHum return.Adjn]
   ‘Zaki came and (he) went back.’

b. \[zākūi tēlé] [à būl = ] [β sá]
   [Z go.Pfv] [3SgHum return.Adjn] [3SgHum come.Adjn]
   ‘Zaki went and (he) came back.’ (β būlú à sá/)

301
Two adjoined clauses occur in the textual passage (540).

(540) sùràjù jì bòó = [ɔʔ-wò má] sísàⁿ, kùrò — hyena exit.Pfv [Nonh-3SgFoc on] now, [false start] èč≈ fìdì, èč≈ = ə wà 3PlNonh run.Adjn, 3PlNonh 3SgNonhObj go.Adjn ‘Thereupon [focus] Hyena came out now. Elder brother—. They (=hyena and hare) ran, they went (away).’ (2016_02 @ 05:02)

In narratives, the adjoined clause type can become a generalized narrative form, not necessarily closely connecting the relevant event to previous events. This is because tense-aspect marking is mostly unnecessary in describing events that are understood to be sequenced in time, as in most narratives. Adjoined clauses therefore compete with simple perfective clauses. In (540) above, the two adjoined clauses represent a restart of the narrative after a false start.

Additional textual examples, not closely tied to a preceding event, are (541a-c). In (541c) I cannot determine whether the French loan commencer is also in adjoined form.

(541) a. cì-ná bùlù [ɔʔ-wò má] sísàⁿ hare-Nom=Ipfv return.Adjn [Nonh-3SgFoc on] now ‘Thereupon [focus] Hare went back now.’ (2016_02 @ 04:59)

b. wábáw, è fìdì woosh!, 3SgNonh run.Adjn ‘Woosh! He ran away.’ (2016_02 @ 04:54)

In (542a-b), the TAM category, expressed only in the first clause, is future. This has no effect on the form of the adjoined clause, which does not mark TAM.

(542) a. [zàkíì sà táʔá] [à bùlù] [Z Fut go.Ipfv] [3SgHum return.Adjn] ‘Zaki will go and return (=come back).’

b. [zàkíì sà sáá] [à bùlù] [Z Fut come.Ipfv] [3SgHum return.Adjn] ‘Zaki will come and go back.’

When the subject is a 1st/2nd person pronominal, the nonfinal clauses have special vowel-initial forms of the adjoined subject proclitic; see the general paradigm (525) above. There is often not much left phonetically of the proclitic after contraction, but it may determine at least the ATR value of the contracted vowel, as in (543c). 1Sg and 1Pl adjoined proclitics are usually indistinguishable (543a-b).
When the two clauses have OV transitive verbs and share an object, an object often appears just once, before the first verb. In the adjoined clause, this creates an apparent combination of an adjoined subject proclitic immediately followed by a transitive verb without an intervening object, e.g. ‘devour, eat meat’ in (544a). This appearance is deceptive, since the tonal form of the final adjoined verb is determined by the object category (+3Sg versus -3Sg). I therefore posit an underlying 3Sg object in the adjoined clause in each of (544a-c). Whether its deletion is due to a regular phonological rule I leave open, compare main clauses á Æ bàfrí and é Æ bàfrí in (103a) above. When the object is 3Pl or 1st/2nd person, it can appear overtly in the adjoined clause (544d-e).
Good examples of two-part macro-events are combinations of antonymic motion verbs, like ‘ascend’ and ‘descend’ or ‘enter’ and ‘exit’ (545a-b).

(545)  

a. \[
\begin{align*}
\text{[zàkìì sidán =]} & \quad \text{[á jàʔa]\text{H}} \\
\text{Z ascend.Pfv} & \quad \text{3SgHum descend.\text{Adjn}} \\
\end{align*}
\]

‘Zaki went up and came (back) down.’ (< /sidání/)

b. \[
\begin{align*}
\text{[zàkìì sò =]} & \quad \text{[à bò]\text{H}} \\
\text{Z enter.Pfv} & \quad \text{3SgHum exit.\text{Adjn}} \\
\end{align*}
\]

‘Zaki went in and came (back) out.’ (< /sòé/)

An adjoined clause may also be added to an imperative first clause (546). (546a) shows the effect on \(\text{búlù}\) of the floating M after the 2Sg proclitic. In (546b), \(\text{dè}\) ‘there (definite)’ requires an H-toned linking form \(\text{búl} = ú\) of the preceding word, canceling the floating M-tone from the 2Sg subject proclitic (§4.4.2.1).

(546)  

\[
\begin{align*}
\text{sò} & = \quad \text{[é búlù]\text{H}} \\
\text{come.Imprt} & \quad \text{2Sg return.\text{Adjn}} \\
\end{align*}
\]

‘Come-2Sg (here) and (then) go back!’ (< /sò é búlù/)

\[
\begin{align*}
\text{sò} & = \quad \text{[é búl = ú dè]\text{H}} \\
\text{come.Imprt} & \quad \text{2Sg return.\text{Adjn}=Link there.Def} \\
\end{align*}
\]

‘Come-2Sg (here) and (then) go back there!’

15.2.3.2 Adjoined \(\text{kàà ‘leave, abandon’}\)

In main clauses, \(\text{kàà ‘leave, abandon’}\) takes a postverbal object-like NP which is usually followed by a spatial adverb (‘here’ or ‘there’). This verb may also occur in adjoined clauses, in the form \(\text{kà}\). The first clause usually has a verb of transportation or positioning (547a-b). The NP denoting the abandoned entity reappears in pronominal form in the adjoined clause. Final Tone-Raising applies to the proclitic subjects of ‘leave’ in these examples.

(547)  

a. \[
\begin{align*}
\text{[mà tôʔó bò =]} & \quad \text{[í kò = é-yè = è dè]} \\
\text{1Sg waterjar} & \quad \text{put.down.Pfv} \\
\end{align*}
\]

‘I put down the waterjar and left it there.’ (< / tôʔó bò/ /í kà è-yà dè/)

[ë-yà with /a/ → ee before \(\text{dè}\) ]
b. [à tɛ̀ʔɛ̀ [mā dē]]
   [3Sg go.Pfv [1Sg with]]
   [á kā mā-ń dē]
   [3SgHum leave.Adjn 1Sg-Indep there.Def]
   ‘He/She took (=conveyed) me (there) and left me there.’

15.2.4 Negation of clause adjunction

When an adjunction construction expressing a single macro-event is negated, there is just one instance of the clause-final negative enclitic, at the end.

(548) [à búl = ] [â sā] = rē?
   [3SgHum return.Pfv] [3SgHum come.Adjn] = Neg
   ‘He/She did not come (back) again.’ (/bùlí à sá)

15.3 Verb-verb compounds

15.3.1 Verb combinations

If the second verb in an adjunction-like construction is not preceded by even a reduced subject pronominal, so that the two verbs are directly adjacent, we can speak of verb-verb compounds.

In (549), ‘run’ and ‘exit’ are adjacent. fidí is the regular adjoined form for the verb ‘run’; here it undergoes regular Final Tone-Raising to fidí before L-toned bò ‘exit’. The unusual feature is the tone of bò, since its normal adjoined form is bɔ́, preserving the lexical H-tone also found in imperfective bɔ́ɔ́.

(549) súrúkú-rò commencer è fidí bò
   hyena-Nom begin 3SgNonh run.Adjn exit.Adjn
   ‘Hyena began running away.’ (2016_02 @ 02:27)

No subject pronominal may intervene between fidí and bò in this construction: èè° fidí bò ‘they (animals) ran away’, mùńō fidí bò ‘we ran away’. This appears to be an old adjunction construction that is in the process of becoming a verb-verb compound.

15.3.2 Frozen but possibly composite verb stems

Criteria for distinguishing compound intransitive verbs from object-verb collocations are given in §9.6. There are also many stems that function as simple verbs but that may be at least etymologically composite.
For example, two verbs (one of which has two variants) appear to begin with an element \textit{wòlò-} \textit{~ wóló-}. All forms shown are imperfective.

(550) \textit{wòlò-báá} ‘pick out (selectively)’ or ‘untangle’
\textit{wólò-máá} (variant of \textit{wòlò-báá})
\textit{wólò-kónó} ‘welcome (a guest)’ or ‘encounter’

The second elements might be related to \textit{báá} ‘put down’, \textit{màà} ‘do’, and possibly \textit{kónó} ‘become wide’. There is also a verb \textit{wòlònàà} ‘strip off (leaves)’.

Several inchoative verbs related to adjectives (§9.5) end in \textit{-báá} (551).

(551) \textit{fòʔò-báá} ‘go far away’
\textit{kùdù-báá} ‘become heavy’
\textit{nèè-báá} ‘become bitter’
\textit{sɔɔⁿ-báá} ‘become long’
\textit{tòò-báá} ‘become deep’

Some other verbs that may be composite, at least etymologically, are in (552).

(552) a. \textit{nùʔúⁿ-yáá} ‘get better’ (adjective \textit{nùʔúⁿ tɔ́})
\textit{júgú-yáá} ‘become nasty’ (adjective \textit{júgúyéé tɔ́})

b. \textit{dàà-sɔ́} ‘be familiar with (place)’
\textit{dàà-sɔ́ʔɔ́} ‘begin’

c. \textit{dá-’kááⁿ} ‘(sth) finish, end’
\textit{dá-’kpááⁿ} ‘die’ (cf. \textit{kpááⁿ} ‘die’)

d. \textit{bèl-màà} ‘treat, care for (medically)’
\textit{dó-’sáá} ‘add’
\textit{kù-sɔ́} ‘bury’ (\textit{kù} ‘corpse’)
\textit{màà-kúmà} ‘rinse’ (cf. \textit{kúmà} ‘make cold’)
\textit{màà-dimìnà} ‘wound (sb)’ (cf. \textit{dimini} ‘hurt (sb)’)

15.4 Temporal adverbial clauses

15.4.1 Temporal relative clause (‘[at] the time when …’)

A temporal noun (‘time’, ‘day’, ‘year’, etc.) may be relativized on (§14.5.5) to produce a temporal adverbial clause (‘the time/day/year when …’). The relevant postposition is optionally present (‘at the time / on the day / in the year when …’). The postposition is present in (553a) but not in (553b).
15.4.2 Backgrounded imperfective or progressive clauses

An nonperfective clause may function as background to another without an overt subordinator. Progressive clauses lend themselves well to this background character (554).

(554) [zàkíì cié só-ìnà] [má kú bɔɔɔ]
   [Z be.Pfv  enter-Prog] [1Sg begin exit.Ipfv]
   ‘(As) Zaki was entering, I began to leave.’

A simple present-tense clause is used in this way in (555).

(555) má = ∅ nií màà, gbɔɔɔ sà sɔɔɔ
   1Sg=Ipfv sleep(n) do.Ipfv, thief-Nom Fut enter.Ipfv
   ‘While I was sleeping, the thief was about to enter.’

If there is a spatial separation between two activities that overlap in time, a construction with tɔrɔ ‘while’ may be used. See §15.4.5 and example (538) in §15.2.2.4. However, my assistant did not accept this construction in a context like that of (555) where the sleeper was presumably inside the house that was about to be broken into.

15.4.3 ‘Since …’ clauses (kàbí)

A simple ‘since …’ clause can be formed by preposing kàbí ‘since’ to a regular perfective clause (556a). A more elaborate version of e.g. ‘since yesterday’ is a two-clause combination ‘it took it (=picked it up) yesterday (and) it will put it down today’ (556b). This “pick up … put down” construction specifying temporal bookends occurs widely in languages of the zone.
(556) a. [kàbí  mā  sæ]\n\n\n[since  1Sg  come.Pfv]
\nmā  tɔ́ =  [ʒɔ̀  wé̑ɛ́] = rēʔ
\n1Sg  stay.Pfv  [1SgRefl  bathe.Pfv] = Neg
\n‘Since I came, I haven’t bathed (yet).’ (< /tɔ̀ ʔɛ́/ )

b. [é  yàlif  lò]\n\n[3SgNonh.3SgNonh  take.Pfv  yesterday]
\n[è  sì = í  bà  fì]
\n[3SgNonh  Fut=3SgNonhObj  put.down.Pfv  today]
\nmā  tɔ́̅  [Ø̈  kù̀më̀  kù́n] = nēʔ
\n1Sg  stay.Pfv  [1Sg (?)  meal  eat.Adjn] = Neg
\n‘From yesterday through today (=since yesterday), I haven’t eaten.’ (/kùní = nēʔ/)

For the ‘stay’ verbs in these examples, see discussion after (511) in §15.1.1.2.

15.4.4 Chronological reversal (‘before …’ clauses)

15.4.4.1 With sɔ̀rɔ̀ ‘do then’

‘Before …’ with clausal scope is expressed using the auxiliary verb sɔ̀rɔ̀ (imperfective, not attested in perfective form), which means ‘do then’ (cf. English proceed to VP). The subject takes the imperfective enclitic. sɔ̀rɔ̀ is followed by an adjoined clause. In (557c), the two-clause construction with sɔ̀rɔ̀ is itself adjoined to the preceding clause, to judge by 2Sg adjoined subject proclitic è instead of 2Sg imperfective wò = Ø.

(557) a. [mùʔùⁿ  sɔ̞]\n\n[1Pl  enter.Pfv]
\n[ká-ná = Ø  sɔ̀r = [Ø  sà]]
\n[rain-Nom=Ipfv  do.then.Pfv  [3SgNonh  rain.fall.Adjn]]
\n‘We went in before the rain fell.’

b. [zàkíì  ò  wē̑]\n\n[Z  3SgNonh  go.Pfv]
\nmā = Ø  sɔ̀r = [ñ  sà]
\n[1Sg=Ipfv  do.then.Pfv  [1Sg  come.Adjn]]
\n‘Zaki went away before I came.’

c. [nùʔù-nàⁿ  wē =]\n\ngarment-Nom-Pl  wash.Imprt]
\n[é  sɔ̀r = [i =  Ø  wà]]
\n[2Sg  do.then.Adjn  [2Sg  3SgNonh  go.Adjn]]
\n‘Wash the clothes before you-Sg go.’

308
A pronominal subject paradigm expanded from ‘before I came’ in (557b) above is (558) below. My assistant had some difficulties with the first person forms in particular. The second person forms (558b) differ sharply in tones.

(558) ‘Before _ came’

(a) 1Sg

\[ \text{má} = \emptyset \quad s\text{ɔ̀}r̥̃ = n \quad s\emptyset \]

1Pl

\[ \text{mù?ú} = \emptyset \quad s\text{ɔ̀}r̥̃ = n \quad s\emptyset \]

(b) 2Sg

\[ w\ddot{o} = \emptyset \quad s\text{ɔ̀}r = i \quad s\emptyset \]

2Pl

\[ \ddot{c}c\ddot{e} = \emptyset \quad s\text{ɔ̀}r = i\ddot{n} \quad s\emptyset \]

(c) 3SgHum

\[ \ddot{a} = \emptyset \quad s\text{ɔ̀}r = (\ddot{a}) \quad s\emptyset \]

3SgNonh

\[ \ddot{e} = \emptyset \quad s\text{ɔ̀}r = \emptyset \quad s\emptyset \]

d) 3PlHum

\[ \ddot{a}\ddot{d} = \emptyset \quad s\text{ɔ̀}r = \ddot{a}\ddot{n} \quad s\emptyset \]

3PlNonh

\[ \ddot{c}c\ddot{e} = \emptyset \quad s\text{ɔ̀}r = i\ddot{n} \quad s\emptyset \]

15.4.4.2 With \( t5 = nē? \) ‘not yet’

An alternative ‘before …’ clause is illustrated in (559). Synchronically we have preclausal \( f5 \) ‘all the way to, until’, then the positive clause followed by \( t5 = nē? \).

(559) \( bon, \quad f5 \quad \ddot{c}c\ddot{e} \quad c\ddot{c} \quad [\dddot{j}\dddot{e}\dddot{r} \quad m\ddot{a}] \quad t5 = nē? \),

well, until 3PlNonh arrive.Pfv [lion on] \( \text{yet=Neg} \),

\[ \ddot{c}c\ddot{e} \quad c\ddot{c} \quad s\dddot{\text{s}}\dddot{\text{s}}\dddot{\text{ā}}, \quad c\ddot{c} \quad d\ddot{e} \quad [s\ddot{\text{u}}\ddot{r}\ddot{\ddot{u}}\ddot{k} \quad m\ddot{a}], \ldots \]

3PlNonh arrive.Pfv now, hare say.Pfv [hyena on], …

‘Well, before they reached the lion, (before) they arrived now, hare said to hyena: …’

(2016_02 @ 00:33) (< m\ddot{a} )

15.4.4.3 \( t5\ddot{o} \) ‘first’ (adverb)

The nasal in \( t5 = nē? \) ‘not yet’ (see preceding section) presupposes a nasalized vowel in \( t5\ddot{o} \). The form \( t5\ddot{o} \) without the negative enclitic is in fact attested clause-finally in a positive clause, in the adverbial sense ‘first’ (i.e. before another event).

(560) \( m\ddot{a} \quad n\ddot{a} \quad l\ddot{e} \quad t5\ddot{o} \)

1Sg 3SgHum look.at.Imprt first

‘Let me look at him first (=before you do)!’ (2016_02 @ 03:04)
15.4.5 *tɔ́rɔ́ ~ tɔ́nɔ́* ‘while’

This particle can be glossed ‘while’. It anticipates a paired second clause that expresses a simultaneous activity in a distinct location.

(561) mā cié bàrí-mèɛ̀ tɔ́rɔ́,  
1Sg speak.Pfv conversation-do.VblN while,  
gbɔ̀-nɔ́ sà sɔ́ [sàá tɔ́nɔ́]  
thief-Nom Fut enter(v).Ipfv [house in]  
‘While I was conversing (elsewhere), the thief was entering the house.’ (*sàá*)

One can catch the flavor of this by rephrasing the translation as ‘I was conversing (outside); meanwhile, the thief was entering the house.’ See also (538) in §15.2.2.4. If there is no spatial separation, the backgrounded clause is a simple progressive or present main clause (§15.4.2).

*tɔ́rɔ́ ~ tɔ́nɔ́* in the sense ‘while’ may also follow verbal nouns, in durative complements of perception verbs (§17.1.3.2). *tɔ́rɔ́ ~ tɔ́nɔ́* also occurs in purposive clauses (§17.5.1).

The historical relationship between *tɔ́rɔ́ ~ tɔ́nɔ́* and *tɔ́ⁿ* (preceding sections) is unclear.

15.5 Spatial and manner adverbials

15.5.1 Spatial adverbial clause (‘where …’)

Relativizing on the complement (a noun like ‘place’) of a postposition (§14.5.5) creates an NP denoting a location. The NP can be used adverbially, following a verb, or as in (562) it can function as an argument of the verb.

(562) [mùʔuₜₜ][nū] [[làʔ dibₜₜ] tɔ́]  
[1Pl spend.night.Pfv [[place Rel] in]]  
ē = Ø fòʔò-bèɛ̀  
3SgNonh 3SgNonhRefl be.distant.Pfv  
‘The place where we spent the night is far away.’

15.5.2 Manner adverbial clause (*kòmì* ‘as’)

The noun *cógò* ‘manner’ can take a verbal-noun complement. The resulting NP can function as an NP argument in a higher clause (563).

(563) mā [sàá-dèďè cógò] sɔ́dib = rëʔ  
1Sg [house-open.VblN manner] know.Ipfv=Neg  
‘I don’t know how to open the door (to the house).’
kömi ‘as’ (French comme) may be preposed to a regular clause (without cógō) as a manner adverbial (564).

(564) \[\begin{array}{ll}
má = \emptyset & \text{wàlí} \quad \text{mè-yá} \\
1\text{Sg=Ipfv} & \text{work(n)} \quad \text{do-Prog} \\
\end{array}\]

\[\begin{array}{ll}
kömì & \text{zàkìì} = \emptyset \quad \text{wàlí} \quad \text{mè-yá} \\
\end{array}\]

\[\begin{array}{ll}
as & \text{Z}=\text{Ipfv} \quad \text{work(n)} \quad \text{do-Prog} \\
\end{array}\]

‘I work like (=the same way) Zaki works.’ (wàlì)

For preclausal èmmè kömi, see §19.2.3.2.
16 Conditional constructions

16.1 Hypothetical conditional with \textit{nī} ‘if’

16.1.1 Regular antecedent clause

Examples are in (565). Particle \textit{nī} (sometimes heard as \textit{nē} = in contractions) is clause-initial in the antecedent. The consequent clause is a regular main clause, normally future, present, or imperative. The verb form (in some cases M-toned) in the antecedent clause (“Antec” in interliners) is discussed in the following section.

(565) a. \textit{nī} ká-ná = \textit{ sóng}.
   if rain(n)-Nom=lpfv rain.fall.Antec,
   mû?ü" = \textit{ sóng} sòs
   1Pl=lpfv Fut enter.lpfv
   ‘If it rains, we’ll go in.’

b. \textit{nī} wō kā mā-nī,
   if 2Sg abandon.Antec 1Sg-Indep,
   mā = \textit{ sóng} wō \textit{ kpá\”}
   1Sg=lpfv 2Sg kill.lpfv
   ‘If you-Sg leave me, I’ll kill you.’

c. \textit{nī} zàkìì mā bà\’rì,
   if Z 1Sg hit.Antec,
   mā = \textit{ sóng} nì wàá
   1Sg=lpfv 3SgNonhObj go.lpfv
   ‘If Zaki hits me, I’ll go away.’

d. \textit{nī} wō bòó bà là?á
   if 2Sg fall(n) fall.Antec, get.up.Imprt
   ‘If you-Sg fall, get up!’

e. \textit{nī} àà\" bùl = ú dè,
   if 3PlHum return.Antec=Link there.Def,
   àà\" = \textit{ sóng} sà = àà\" \textit{ kpá\”}
   3PlHum=lpfv Fut 3PlHum kill.lpfv
   ‘If they go back there, they (=others) will kill them.’
   (/bùlù/ modified by the following \textit{dè})
16.1.2 Form of verb in antecedent clause

Some of the examples in the preceding section have intransitive verbs in the antecedent. ("Intransitive" here includes VO transitives.) The antecedent functions semantically as perfective, and there is no imperfective subject enclitic. However, the verb is not the usual perfective one.

Additional forms of intransitive verbs in the antecedent (rightmost data column), compared to other forms of the same verbs, are in (566) below. The form shown for ‘fall’ occurs when the preverbal cognate nominal bóó is omitted.

(566) Form of verb in conditional antecedent (intransitive)

<table>
<thead>
<tr>
<th>Pfv -3Sg</th>
<th>Ipfv</th>
<th>Imprt</th>
<th>adjoined</th>
<th>‘if’</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Cvv stems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>imperative M-toned</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sée</td>
<td>sáá</td>
<td>báá</td>
<td>sáá</td>
<td>sáá</td>
<td>‘come’</td>
</tr>
<tr>
<td>báé</td>
<td>báá</td>
<td>báá</td>
<td>báá</td>
<td>báá</td>
<td>‘exit’</td>
</tr>
<tr>
<td>báé</td>
<td>báá</td>
<td>báá</td>
<td>sáá</td>
<td>sáá</td>
<td>‘enter’</td>
</tr>
<tr>
<td>imperative L-toned</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bée</td>
<td>báá</td>
<td>báá</td>
<td>báá</td>
<td>báá</td>
<td>‘fall’</td>
</tr>
<tr>
<td>b. bisyllabic stems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bólí</td>
<td>bólí</td>
<td>bólí</td>
<td>bólí</td>
<td>bólí</td>
<td>‘return’</td>
</tr>
<tr>
<td>fidi</td>
<td>fidi</td>
<td>fidi</td>
<td>fidi</td>
<td>fidi</td>
<td>‘run’</td>
</tr>
<tr>
<td>c. trisyllabic stems (in some cases reduced to bisyllabic)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>jáʔání</td>
<td>jáʔání</td>
<td>jáʔání</td>
<td>jáʔání</td>
<td>jáʔání</td>
<td>‘descend’</td>
</tr>
<tr>
<td>sídání</td>
<td>sídání</td>
<td>sídání</td>
<td>sídání</td>
<td>sídání</td>
<td>‘ascend’</td>
</tr>
<tr>
<td>~ sídání</td>
<td>~ sídání</td>
<td>~ sídání</td>
<td>~ sídání</td>
<td>~ sídání</td>
<td></td>
</tr>
</tbody>
</table>

The data show that the form in intransitive conditional antecedents is segmentally identical to the imperative, but it is M-toned even when the imperative is L- or LH-toned. The forms are therefore identical to those of the quoted imperative, see (384) in §10.5.3.1.

If the antecedent clause is an OV transitive, the antecedent form of the verb is identical to the imperative, with tones depending on the category (+3Sg or -3Sg) of the preceding object. Again this is consistent with the form of the quoted imperative.
16.2 ‘Even if …’ (áli)

áli ‘even’ may replace ní ‘if’ in the antecedent. In this case, the speaker asserts that whether or not the antecedent event is realized, the consequent event will be realized.

(568) [álì ká-ná ‘kù sáá síní]
[even rain(n)-Nom begin rain.fall.Lpfv tomorrow]
[má = ø ní wáá [mùù dù]]
[1Sg=Ipfv 3SgNonhObj go.Lpfv [field in]]
‘Even if it rains tomorrow, I’ll go to the field(s).’ (< mùù )

16.3 Willy-nilly disjunctive antecedents with wò (‘whether X or Y …’)

In this construction, two juxtaposed perfective clauses that have complementary truth conditions are followed by a non-perfective clause (e.g. future or imperative). Typically the second perfective clause is the negation of the first, but it may also denote some other mutually exclusive state of affairs. The truth of the final non-perfective clause is asserted as independent of the truth of either of the perfective clauses. The particle wò ‘whether’ occurs at the end of both perfective clauses, following even the negative enclitic. In the combination =rÊ? plus wò, the negative enclitic drops its final glottal stop, which occurs only at clause boundaries.

(569) [káⁿ sè wò] [káⁿ sè=rê wò]
[rain(n) rain.fall.Pfv whether] [rain(n) rain.fall.Pfv=Neg whether]
[má = ø nì wáá [mùù dù]]
[1Sg=Ipfv 3SgNonhObj go.Lpfv [field in]]
‘Whether it rains or doesn’t rain, I’ll go to the field(s).’

16.4 Counterfactual conditional

Adding past particle ké or the intrinsically past-time verb ciè ~ cíè ‘was/were’ (§10.4) converts a simple conditional into a counterfactual. Both the antecedent and the consequent are time-shifted to a reference time in the past by one or the other of these forms. In (570), the
antecedent has ké and the consequent has cié. This is the common pattern since the antecedent is semantically a past perfect and the consequent is semantically imperfective (future-in-past).

(570)  
[ni ká dòn së = é  `ké]  
[if rain(n) a.little rain.fall.Pfv=Link Past]  
[síns cié nà-nà]  
[maize be.Past goodness-Nom]  
‘If it had rained a little, the maize (crop) would have been good (=grown well).’  
(< dònì, sëé)

A somewhat complex textual example is (571). It was spoken as a concluding “moral” for a long tale, describing how women used to be able to take off their breasts for washing, and the events that ended that situation.

(571)  
né = é ci ké wò?rò  
if 3SgNonh can.Pfv Past be.removed.Adjn  
mèlè-ná-àn cié tò = [3P kú  
person-Nom-Pl be.Past stay.Ipfv [3PHum begin  
[mèlè-ná-àn cié-ná-à] jò]  
[person-Nom-Pl breast-Nom-Pl] steal.Adjn]  
‘If it (=breasts) could (still) be taken off, people would constantly steal (other) people’s breasts.’ (2016_04 @ 03:42) (ci < cié, /tòò àà kú)
17 Complement and purposive clauses

17.1 Full-clause complements

17.1.1 ‘Want’ (kɔ̀ɔ̀) with clausal complement

For simple transitive ‘want’ with NP object see §11.2.6.2. In the following sections I describe clausal complements. A distinction is made between same- and different-subject constructions. In both subtypes, the second clause has an overt subject.

17.1.1.1 Same-subject imperfective subordinated clause

Same-subject examples are in (572a-c). The subordinated clause is in the present tense (imperfective subject enclitic, imperfective form of verb). In (572b), the negative enclitic occurs at the very end but has scope over the entire construction.

(572) a. má = Ø kɔ̀ɔ̀ [má = Ø ni wàá kúñú]
   1Sg=Ipfv want.Ipfv [1Sg=Ipfv 3SgNonhObj go.Ipfv village]
   ‘I want to go to the village.’ (wàá)

b. má = Ø kɔ̀ɔ̀ [má = Ø ni wàá kúñ] = nēʔ
   1Sg=Ipfv want.Ipfv [1Sg=Ipfv 3SgNonhObj go.Ipfv village]=Neg
   ‘I don’t want to go to the village.’ (kúñú)

c. má = Ø kɔ̀ɔ̀ [má = Ø fîd ë̀ ɛ̀]
   1Sg=Ipfv want.Ipfv [1Sg=Ipfv run.Ipfv]
   ‘I want to run.’

Combinations of ‘want’ with different pronouns in the same-subject subtype are in (573). The subjects of the two clauses are coindexed in these combinations. The 1st/2nd person subordinated subject pronouns after kɔ̀ɔ̀ are not reduced, indicating that the subject pronouns are not encliticized to kɔ̀ɔ̀ in the fashion of many adjunction constructions. However, adjunction-like enclisis and tonal modifications do occur for 3Pl subordinated subject; note the falling tones on the subject pronouns (573d). In the 3Sg cases, the subordinated subject is logophoric in form (human ã-wò and nonhuman ë-wò before contractions). If kɔ̀ɔ̀ contracts fully with a following nonhuman 3Sg è the result is +ATR kòò, factoring out tone sandhi.
(573) Same-subject ‘want to run’

a. 1Sg  
   má = Ø  kɔ̀ɔ̀  [mā = Ø  fidéé]
   1Pl  
   mūʔā” = Ø  kɔ̀ɔ̀  [mūʔā” = Ø  fidéé]

b. 2Sg  
   wō = Ø  kɔ̀ɔ̀  [wō = Ø  fidéé]
   2Pl  
   ēē” = Ø  kɔ̀ɔ̀  [ēē” = Ø  fidéé]

c. 3SgHum  
   á = Ø  kɔ̀ɔ́ = [ɔ̀-wò = Ø  fidéé]
   3SgNonh  
   é = Ø  kòó = [ò- wò = Ø  fidéé]

d. 3PlHum  
   àáⁿ = Ø  kɔ̀ = [ɔ́ɔ̀ⁿ = Ø  fidéé]
   3PlNonh  
   èéⁿ = Ø  kɔ̀ɔ̀ = [èèⁿ = Ø  fidéé]

17.1.1.2 Different-subject imperative subordinated clause

‘Want’ also allows combinations with disjoint subjects. In this case, the complement is imperative rather than present tense (imperfective). The imperfective subject enclitic is therefore absent in the subordinated clause. Since (by stipulation) the subjects are not coindexed in this subtype, a 3Sg subordinated subject pronoun has regular (nonlogophoric) form. Compare same-subject logophoric (574a) with different-subject nonlogophoric (574b).

(574) a. zàkū = Ø  kɔ̀ɔ́ = [ɔ̀-wò = Ø  fidéé]
   Z=Ipfv want.Ipfv  [Hum-3SgLogo=Ipfv run.Ipfv]
   ‘Zaki, wants (himself) to run.’ (< /kɔ̀ɔ̀ à-wò/)

b. zàkū = Ø  kɔ̀ɔ́ = [à  fidi]
   Z=Ipfv want.Ipfv  [3SgHum run.Imprt]
   ‘Zaki, wants him/her to run.’

Different-subject combinations are tabulated in (575). No phonological enclisis has been observed. The subject of ‘want’ is open-ended and omitted, but it must be distinct from the subordinated subject. The tones of the imperative verb ‘run’ depend on the +3Sg/-3Sg opposition in the preceding pronoun, except that M-Spreading occurs after M-toned pronouns.

(575) Different-subject ‘want’

a. M-toned subject pronouns
   1Sg  … kɔ̀ɔ̀  [mā  fidi]
   2Sg  … kɔ̀ɔ̀  [wō  fidi]
   2Pl  … kɔ̀ɔ̀  [ēē”  fidi]
b. other -3Sg pronouns

| 1Pl  | ... kòò | [mùʔùʰ fíɗí] |
| 3PlHum | ... kòò | [ààʰ fíɗí] |
| 3PlNonh | ... kòò | [ëëʰ fíɗí] |

c. +3Sg pronouns

| 3SgHum | ... kòò | [à fíɗí] |
| 3SgNonh | ... kòò | [è fíɗí] |

17.1.2 ‘Know that …’ plus factive complement clause

For the simple transitive verb ‘know’ see §11.2.6.1. This verb takes a preverbal NP object, usually a nonhuman 3Sg object pronoun (nì or variant). This can be elaborated by adding a factive clause, in main-clause form. For example, (576a) is embedded without change into (576b).

(576) a. [mà jĕʰ] sèé
    
    [1Sg father] come.Pfv

    ‘My father came/has come.’

b. mà ñí sò [([mà jĕʰ] sèé]

    1Sg 3SgNonhObj know.Pfv [[1Sg father] come.Pfv]

    ‘I know that my father has come.’ (< mà nì)

Since the complement of ‘know’ is a kind of thought quotation, it can take a logophoric pronoun coindexed with the knower. The logophoric human 3Sg pronoun à-wò in (577a) expresses this coindexation. Logophoric human 3Pl à-màá (→ à-màá) does likewise in (577b). The alternative is a simple (non-anaphoric) 3Pl pronoun (577c), which is obligatory for disjoint reference and attested (i.e. optional) for coindexed reference. Complementizer à ‘that’ is perhaps optionally present in these examples, but because of contractions it difficult to tell in many examples, especially with third-person subordinated subject. See §17.2.1-2 on the morphophonological difficulties of analysing such combinations.

(577) a. zàkú í sò

    Z 3SgNonhObj know.Pfv

    [á = Ø-wò = Ø sì = í wàá]

    [that Hum-3Sgl.Logo=lpfv Fut= 3SgNonhObj go.lpfv]

    ‘Zaki knows that he himself will go.’ (í for more common nì)
17.1.3 ‘See/find/hear (that) …’

17.1.3.1 With factive (propositional) complement

Verbs of propositional recognition such as ‘see (that …)’, ‘hear (that …)’, and ‘find, discover (that …)’ take regular main clauses as complements denoting facts (states of affairs). The complementizer à is sometimes present, as in (578a) and probably before contraction in (578c). A coindexed 3Sg subject takes logophoric form (578c).

(578) a. mā ní mè [á zàkí së] 1Sg 3SgNonhObj hear.Pfv [that Z come.Pfv] ‘I heard (it) that Zaki has come.’

b. mā tî?= [í jì] 1Sg go.Pfv [3SgNonh see.Adjn] [mìfì-ná-a wée [mù ú dù]] [person-Nom-Pl go.Pfv [field in]] ‘I went and saw (=it) that the people had gone to the fields.’ (variant wée)

c. ã õ mè 3SgHum 3SgObj hear.Pfv [á õ-wò sà ‘tá?á=ré?] [that Hum-3SgLogo Fut go.IPfv=Neg] ‘He heard (it) that he isn’t going.’ (< mè, à à-wò)
17.1.3.2 Direct-perception type (durative complement)

When the speaker reports having seen an actual event, the complement may be reduced to an imperfective VP with its agent appearing in object position (579a). The imperfective is used even when the event was effectively instantaneous, as with ‘fall’.

(579) a. mā zàkū jíé bòs / sāá / bàá
   1Sg  Z  see.Pfv  exit(v).Ipfv / come.Ipfv / fall.Ipfv
   ‘I saw Zaki go(ing) out / come(ing) / fall(ing).’

   b. mā zàkū jíé [dì-kpèʔ-r-à-o báʔrá]
   1Sg  Z  see.Pfv  [child-small-Nom-Pl hit.Ipfv]
   ‘I saw Zaki hit(ing) the children.’

It is also possible to add tòrś ~ tònś ‘while’ (§15.4.5) to a verbal noun (§4.2.2) complement, emphasizing the durative or progressive aspect of the event.

(580) mā zàkū jíé [‘bóó / ‘séé / bèè tònś]
   1Sg  Z  see.Pfv  [exit./come./fall.VblN while]
   ‘I saw Zaki going out/coming.’

For tòrś ~ tònś in purposive clauses, see §17.5.1.

17.1.4 Obligational (*fò ‘it must be’) with present or future clause

A preposed *fò, which suspiciously resembles French *il faut but might also be identified Jalkunan-internally with *fò, ‘all the way to, until’ (§8.3.5.2), functions as an impersonal ‘it must be that …’ and is followed by a present or future clause.

(581) fò [mà=Ø nì wàa kùnú]
   must  [1Sg=Ipfv 3SgNonhObj go.Ipfv village]
   ‘I must go to the village.’

17.2 Quotative complements

A perfective indicative main clause like (582a) may function without change as a quotation after a verb of saying if there is no update of indexicals (582b).

(582) a. k̀̀ë sè kùnú
   rain(n)  rain.fall.Pfv  village
   ‘It rained in the village.’

320
b. \[\text{zàkùì dè \[káⁿ sè kùnú\]}\]
\[Z \text{ say.Pfv \{rain(n) rain.fall.Pfv village\}}\]
‘Zaki said that it rained in the village.’

However, some other types of clause undergo adjustments when they are quoted. The following sections discuss ‘that’ complementizers, pronominal adjustments, and and clause-level TAM adjustments.

17.2.1 \(\text{à}\) as quotative ‘that’ complementizer

A quoted indicative clause optionally begins with \(\text{à}\) ‘that’. In the majority of elicited quoted indicative clauses, \(\text{à}\) was absent (at least segmentally), but my assistant indicated in each case that it could be added. It is present in (583a) but not in the synonymous (583b).

(583) a. \[\text{zàkùì dè \[\text{à bákàrí = \Ø sà sáá}\]}\]
\[Z \text{ say.Pfv \{that B Fut come.Ipfv\}}\]
‘Zaki said that Bakari will come.’

b. \[\text{zàkùì dè \[bákàrí = \Ø sà sáá\]}\]
\[Z \text{ say.Pfv \{B=Ipfv Fut come.Ipfv\}}\]
‘Zaki said (that) Bakari will come.’

I speculate (subject to correction by Mande-ists) that there may be a historical connection between complementizer \(\text{à}\) ‘that’ and the initial vowel of human third-person logophoric pronouns, singular \(\text{à-wò}\) and plural \(\text{à-màáā}\). The \(\text{à}\) in these pronouns is frequently masked by contractions. Unless an etymological source is found for the complementizer, one possibility is reinterpretation of (apparent) alternations between \(\text{à-wò}\) and simple \(\text{wò}\), and between \(\text{à-màáā}\) and simple \(\text{màáā}\). Or, reversing the direction of etymology, these logophoric pronouns may have originally been \(\text{wò}\) and \(\text{màáā}\), and acquired their initial \(\text{à}\) by reanalysis of ‘that’ clauses beginning with the complementizer. Also relevant to this is the possible historical relationship between third person \(\text{à-wò}\) and \(\text{à-màáā}\) on the one hand and second person pronouns \(\text{wò}\) (2Sg) and \(\text{màáā}\) (2Pl, alongside \(\text{ēēⁿ}\)).

Synchronically, the issue is how to parse examples like (584a-b) below where a quoted clause begins with a third person logophoric subject. Contraction, or rather the possibility of contraction, makes this parsing difficult. In (584a), phonetic \(\text{[awò]}\) could be parsed with or without the \(\text{à}\) complementizer. In (584b), phonetic \(\text{[wò]}\) seemingly has neither the complementizer \(\text{à}\) nor the human prefix \(\text{à}\), but we can’t rule out the possibility that at least one of these morphemes is present and has been elided by \(\text{vv}\)-Contraction.
(584) a. zàkïì dé [à (à)-wò = Ø sà sáá]  
{say.Pfv [that (Hum-)3SgLogo=lpfv Fut come.lpfv]  
or: [à-wò  
[Hum-3SgLogo  
‘Zaki, said that he (himself) will come.’  
}

b. zàkïì dé [Ø-wò sà sáá]  
{say.Pfv [Hum-3SgLogo Fut come.lpfv]  
[= (a)]

In (585a-b) below, dé is structurally H-toned since it follows a personal name (which is treated as -3Sg in its tonal effect on a following verb). However, its pitch is usually below that of normal H-tones. This might simply reflect its status as a high-frequency, quasi-grammatical morpheme. Alternatively, there might be a hidden L-toned complementizer à that contracts with dé.

(585) a. bákàrì dé [zàkïì = Ø sà sáá]  
{say.Pfv [Z=lpfv Fut come.lpfv]  
‘Bakari said Zaki will come.’  
}

b. zàkïì dé [bákàrì = Ø sà sáá]  
{say.Pfv [B=lpfv Fut come.lpfv]  
‘Zaki said Bakari will come.’  
}

17.2.2 Combination of dé ~ dé ‘say’ with third person subject pronoun

Examples like (586a-b) show that there is no morphosyntactic difference in TAM marking when the clause is quoted. The quoted clause in (586b) has the same imperfective verb form and the same imperfective subject enclitic as the unquoted (586a), in both present and future versions.

(586) a. bákàrì = Ø (sà) yîlê dɔ̀nɔ̀  
{say.Pfv (Fut) fish eat.meat.lpfv  
‘Bakari eats/will eat fish.’  
}

b. mā dé [(à) bákàrì = Ø (sà) yîlê dɔ̀nɔ̀]  
{1Sg say.Pfv [(that) B=lpfv (Fut) fish eat.meat.lpfv]  
‘I said that Bakari eats/will eat fish.’  
}

However, when the quoted clause of the imperfective aspectual family (present, future, progressive) begins with a third person subject pronoun (à, è, ààⁿ, èèⁿ), the resulting tones require explanation. Typical pronunciations of the relevant combinations including the
imperfective subject enclitic are shown in (587). The perfective-subject form is shown on the left to make the point that the imperfective ends in H-tone due to the imperfective enclitic.

(587) | unquoted | quoted imperfective |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pfv</td>
<td>Lpfv</td>
</tr>
<tr>
<td>3SgHum</td>
<td>à</td>
</tr>
<tr>
<td>3SgNonh</td>
<td>è</td>
</tr>
<tr>
<td>3PIHum</td>
<td>âà</td>
</tr>
<tr>
<td>3PINonh</td>
<td>ëë</td>
</tr>
</tbody>
</table>

What all the ‘he/she said __’ and ‘I said __’ combinations have in common is that the imperfective enclitic does not have the usual final-tone raising effect as seen in unquoted clauses. This aspect of the problem can be explained provided we can account for the falling tone patterns in the morphemes preceding the enclitic. This is because suffixed nouns with falling final tone pattern, like ɲā-nā ‘woman’, also show no tonal effect when the imperfective enclitic is added: ɲā-nā = ∅.

Consider first the ‘I said __’ column. Here the ‘say’ verb is H-toned dé by virtue of following a -3Sg subject pronoun, in this case lSg mā. We can therefore posit underlying forms like those in (588). The null sign representing the segmentally absent imperfective enclitic is omitted.

(588) | underlying | surface |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3SgHum</td>
<td>/mā dé à H/</td>
</tr>
<tr>
<td>3SgNonh</td>
<td>/mā dé è H/</td>
</tr>
<tr>
<td>3PIHum</td>
<td>/mā dé âà H/</td>
</tr>
<tr>
<td>3PINonh</td>
<td>/mā dé ëë H/</td>
</tr>
</tbody>
</table>

These forms can be understood if the third person subject pronoun (à, etc.) first encliticizes to the ‘say’ verb dé, producing falling tone patterns, as in dé = à. In the plural combinations, the length of the pronominal vowel is reduced, except in careful speech, so that /dé ëë/ is for practical purposes realized as dé = è. When the floating H-tone of the imperfective subject clitic is added to this falling-toned cluster, it has no effect, as is the case when it is added to a noun that ends in falling tones (HM or HL).

Now consider the ‘he/she said __’ column in (587) above. Here we would expect L-toned dè ‘said’ since it follows a +3Sg subject, but in fact the usual pronunciation is with H-toned dè, as in the ‘I said __’ forms.

Since the third person proclitics are all underlyingly L-toned (à, àà, etc.), one possibility is that dè undergoes Final Tone-Raising to dé before an L-tone, prior to (and preventing) docking of the floating H of the imperfective enclitic (589).
(589) ‘He/She said that …

3SgHum…’ 3SgNonh…” 3PlHum…” 3PlNonh…”

/à dé à H/ /à dé è H/ /à dé àò H/ /à dé èò H/  underlying 
/à dé à H/ /à dé à è H/ /à dé àò H/ /à dé èò H/  tone-raising 
/à dé = à H/ /à dé = è H/ /à dé = (à)ò H/ /à dé = (è)ò H/  enclisis 
/à dé = à/ /à dé = è/ /à dé = (à)ò/ /à dé = (è)ò/  no docking of H

The derivation of these forms becomes even more complex if we posit the presence of the complementizer à. The underlying forms would now be of types (590a-b).

(590) /mà dé à òò H/  ‘I said that they (will) …’
/à dé à òò H/  ‘he/she said that they (will) …’

vv-Contraction can account for the reduced vocalism, but the underlying presence of an additional à allows for alternative ways to analyse the tone patterns. In particular, when à ‘that’ occurs between two L-toned syllables, it could undergo Final Tone-Raising, and then trigger Leftward H-Shift, which typically occurs in conjunction with vv-Contraction.

(591) ‘He/She said that …

3SgHum…” 3PlHum…”

/à dé à à H/ /à dé à òò H/  underlying 
/à dé á à H/ /à dé á òò H/  tone-raising 
/à dé = à H/ /à dé = (à)òò H/  Leftward H-Shift and vv-Contraction 
/à dé = à/ /à dé = (à)òò/  no docking of H

Yet another wrinkle is the possibility that dé in 3Sg à dé ‘he/she said’ is underlying /dè/, consistent with the usual +3Sg {LH} overlay on verbs. The final H-tone might end up being the overt H-tone of dé in (589) above. This would make Final Tone-Raising unnecessary, and would also make it moot whether the à complementizer is present.

(592) ‘He/She said that …

3SgHum …’ 3PlHum …’

/à dé à H/ /à dé àò H/  underlying 
/à dé = à H/ /à dé = (à)ò H/  Leftward H-Shift and vv-Contraction 
/à dé = à/ /à dé = (à)ò/  no docking of H

Some examples showing the combinations of ‘say’ with 3Sg subject proclitic and with a noun-headed subject NP ‘sheep’ plus the imperfective subject enclitic are in (593).
(593)  a.  bákàr  dé  [ = à = ∅ / tàgà-rá = ∅  yiʔé  dônà]  
B  say.Pfv  [3SgHum=Ipfv/sheep=Ipfv  fish  eat.meat.Ipfv]  
‘Bakari, said that he-or-she/(the) sheep eats fish.’

b.  bákàr  dé  [ = à = ∅ / tàgà-rá = ∅  sà  yiʔé  dônà]  
B  say.Pfv  [3SgHum=Ipfv/sheep=Ipfv  Fut  fish  eat.meat.Ipfv]  
‘Bakari, said that he-or-she/(the) sheep-Sg will eat fish.’

c.  bákàr  dé  [ = à = ∅ / tàgà-rá = ∅  yiʔé  dônù-yá]  
B  say.Pfv  [3SgHum=Ipfv/sheep=Ipfv  fish  eat.meat.Prog]  
‘Bakari, said that he-or-she/(the) sheep is eating fish.’

The phonology of the ‘be (present)’ subject enclitic is the same as that of the homophonous and probably identical imperfective subject enclitic /H+ = ∅/. The ‘be’ enclitic is followed by a locational expression (‘be here’, etc.) as in (594).

(594)  a.  á = ∅ / tàgà-rá = ∅  [mıū  dù]  
3SgHum=/sheep-Nom=be  [field  in]  
‘He-or-she/(the) sheep-Sg is in the field(s).’  (mıū)

b.  bákàr  dé  [ = à = ∅ / tàgà-rá = ∅  [mıū  dù]]  
B  say.Pfv  [3SgHum=/sheep-Nom=be  [field  in]]  
‘Zaki, said that he-or-she/(the) sheep is in the field(s).’

17.2.3  Pronominal category adjustments in quotations

In ordinary main clauses, most pronouns are proclitics (subject, object, postpositional complement, possessor). When an original main clause is quoted, pronominal categories are modified in two ways (595a-b).

(595)  a.  original 1Sg pronouns are replaced by logophoric 3Sg pronouns;
    b.  other original pronouns are updated if they refer to the current speaker or addressee.

The effect of (595a) can be seen when indicative sentence (596a) with 1Sg subject is quoted (596b). The form of the subject pronoun in the quoted clause is logophoric 3Sg pronoun à-wò rather than the usual human 3Sg subject proclitic à. The latter does occur in (596c), where the subjects of the main and quoted clauses are disjoint.

(596)  a.  mà = ∅  sà  såá
1Sg=Ipfv  Fut  come.Ipfv  
‘I will come.’
b. \( \text{zàkù} \quad \text{dé} = [\text{à}-\text{wò} \quad \text{sà} \quad \text{sáá}] \)
child-Nom-Pl say.Pfv [Hum-\text{3SgLogo} \quad \text{Fut} \quad \text{come.Ipfv}]
‘Zaki\(_s\) said that he\(_s\) (himself) would come.’

c. \( \text{zàkù} \quad \text{dé} = [\text{à} \quad \text{sà} \quad \text{sáá}] \)
child-Nom-Pl say.Pfv [\text{3SgHum} \quad \text{Fut} \quad \text{come.Ipfv}]
‘Zaki\(_x\) said that he\(_y\)/she\(_y\) (someone else) would come.’

For more detail on logophoric pronouns, see §18.3.

The 2Sg subject in (597a) is updated as a 1Sg subject pronoun in (597b), since the addressee in the original utterance (597a) is identical the current speaker of (597b). The subscript indices for the free translations in (597a) and (597b) are coordinated.

(597) a. \( \text{wō} \quad \text{mà} \quad \text{bá}\text{rí} \)
2Sg 1Sg hit.Pfv
‘You-Sg hit-Past me\(_c\).’ (addressed by X to Y)

b. \( \text{zàkù} \quad \text{dé} = [\text{à} \quad \text{mā} \quad \text{ná-wò} \quad \text{bá\text{rí}}] \)
Z say.Pfv [that 1Sg HumObj-\text{3SgLogo} hit.Pfv]
‘Zaki\(_x\) said that I\(_{1}\) hit-Past him\(_c\).’ (current speaker is Y)

My assistant did not update original second person vocatives in this manner. The original 2Sg independent pronoun \( \text{wō-\text{n̄} } \) in (598a) has vocative function (compare simple prohibitive \( \text{bí sā = rē\text{̄} } \) ‘don’t come!’ without an overt 2Sg subject pronoun). When the original addressee becomes the current speaker, (598a) can be quoted as (598b). The vocative is still 2Sg \( \text{wō-\text{n̄} } \), not 1Sg \( \text{mā-\text{n̄} } \) or a third-person form.

(598) a. \( \text{wō-\text{n̄} } \quad \text{bī} \quad \text{sā = rē\text{̄} } \)
2Sg-\text{Indep} Proh come.Imprt=Neg
‘(Hey) you-Sg\(_y\), don’t-2Sg\(_y\) come!’ (addressed by X to Y)

b. \( \text{zàkù} \quad \text{dé} = [\text{mā} \quad \text{mā}] \quad [\text{wō-\text{n̄} } \quad \text{bī} \quad \text{sā = rē\text{̄} }] \)
Z say.Pfv [1Sg with] [2Sg-\text{Indep} Proh come.Imprt=Neg
‘Zaki\(_x\) said to me\(_y\), “(hey) you-Sg\(_y\), don’t-2Sg\(_y\) come!” ’ (spoken by Y)

17.2.4 Jussive complement (reported imperative or hortative)

17.2.4.1 Quoted imperative

There is a quoted imperative (in interlinear “QuotImprt”) verb form. It is based on the regular imperative stem, but for intransitive verbs it is always M-toned, see (384) in §10.5.3.1. It is identical in form to the one used in conditional antecedents, see (566) above.
Representative intransitive quoted imperatives with various subject pronouns are shown in (600). These can all be embedded in a quotative context as in (599b) above.

There is no special quoted imperative verb form for transitives. (601a,c) are transitive imperatives, and (601b,d) are their quoted counterparts. The regular imperative stem is used in both contexts, with the usual tonal distinction \( bā'ři \sim bā'ři \) depending on whether the preceding NP (the object) is \(+\) 3Sg or \(-\) 3Sg.

Imprecations like ‘may God VERB X!’ have some features in common with quoted transitive imperatives but they lack a higher ‘say’ clause. See §10.5.3.2 and (667) in §19.4.
17.2.4.2 Quoted prohibitive

The quoted prohibitive consists of the main-clause prohibitive, as in (602a), plus an overt subject (adjusted to the current speech event) and the framing ‘say’ clause (602b).

(602) a. bí bà = rē? / sā = rē?
    Proh fall.Imprt=Neg / come.Imprt=Neg
    ‘Don’t-2Sg fall/come!’

    b. à dè [mā bí bà = rē? / sā = rē?]
    3SgHum say.Pfv [1Sg Proh fall.Imprt=Neg / come.Imprt=Neg]
    ‘He/She told me not to fall/come.’

17.2.4.3 Quoted hortative

The quoted hortative is based on the main-clause hortative. The ‘say’ clause may have an overt indication of who was addressed (‘X said to me, “…” ’). The hortative clause has an overt plural subject, updated for current speech-event participant roles. See §10.5.3.4 for examples.

17.3 VP complements

17.3.1 ‘Be able to, can’ (cité)

This verb may be a special case of the verb ‘arrive’, which has imperfective cited and perfective cited ~ cited. It distinguishes a simple imperfective VP complement for nonpast time (‘can’) from a past-time construction (‘could’) with the ‘was/were’ verb plus adjoined clause.

17.3.1.1 cited with imperfective VP complement for nonpast time

In present-time and gnomic (timeless) contexts, as in English X can VP, the subordinated event is potential but not necessarily actualized. Invariant imperfective cited follows a subject NP with imperfective enclitic and is itself followed by a subjectless imperfective VP. The complement may be omitted if obvious (603e). Negation comes at the end of the complement (with wide scope), but it does not affect the form of the subject or ‘can’ verb.

(603) a. àáⁿ = Ø · cited sidànà / sáá
    3PLHum=lpfv can.lpfv ascend.lpfv / come.lpfv
    ‘They can go up/come.’
b. \[\text{àá} = \emptyset \quad \text{cîé} \quad \text{sidánà} = \text{ně}_? / \text{sáá} = \text{rě}_?\]
   3PlHum=lpfv  can.lpfv  ascend.lpfv=Neg / come.lpfv=Neg
   ‘They can’t go up/come.’

c. \[\text{àá} = \emptyset \quad \text{cîé} \quad \text{[wálí} \quad \text{màà}]\]
   3PlHum=lpfv  can.lpfv  [work(n)  do.lpfv]
   ‘They can do the work.’

d. \[\text{wó} = \emptyset \quad \text{cîé} \quad \text{sáá} = à\]
   2Sg=lpfv  can.lpfv  come.lpfv=Q
   ‘Can you-Sg come?’

e. \[\text{má} = \emptyset \quad \text{cîé} = \text{rě}_?\]
   1Sg=lpfv  can.lpfv=Neg
   ‘I can’t.’

The future counterpart has a similar structure but adds the future particle \text{sà}. It usually implies that the capability is not true at the time of speaking but will be during some future time interval.

(604) a. \[\text{àá} = \emptyset \quad \text{sá} \quad \text{cîé} \quad \text{sidánà} / \text{sáá}\]
   3PlHum=lpfv  Fut  can.lpfv  ascend.lpfv / come.lpfv
   ‘They will be able to go up/come.’

b. \[\text{àá} = \emptyset \quad \text{sá} \quad \text{cîé} \quad \text{sidánà} = \text{ně}_? / \text{sáá} = \text{rě}_?\]
   3PlHum=lpfv  Fut  can.lpfv  ascend.lpfv / come.lpfv
   ‘They will not be able to go up/come.’

c. \[\text{àá} = \emptyset \quad \text{sá} \quad \text{cîé} \quad \text{[wálí} \quad \text{màà}\]
   3PlHum=lpfv  Fut  can.lpfv  [work(n)  do.lpfv]
   ‘They will be able to do the work.’

17.3.1.2 \text{cîé} ~ \text{cîé} plus adjoined clause for past tense ‘could’

For past time, which implies that the eventuality denoted by the subordinated clause was in fact realized, the ‘can’ (= ‘arrive’) verb takes perfective form \text{cîé} ~ \text{cîé} and there is no imperfective subject enclitic. \text{cîé} ~ \text{cîé} is followed not by a VP as in nonpast contexts, rather by an adjoined clause (§15.1) as in (605a-b). This perfective \text{cîé} ~ \text{cîé} ‘could’ is grammatically distinct, and in part tonally distinct, from \text{cîî} ~ \text{cîé} ‘was/were’ (§10.4).

(605) a. \[\text{àá} = \emptyset \quad \text{cîé} \quad \text{[àá} \quad \text{sidà}\]
   3PlHum  can.Pfv  [3PlHum  ascend.Adjn]
   ‘They were able to go up.’
b.  ààⁿ cíé ((à)àⁿ sá = rë?)
   3PlHum can.Pfv [3PlHum come.Adjn=Neg]
   ‘They were not able to come.’

c.  ààⁿ cíé [(à)àⁿ wálí mà]
   3PlHum can.Pfv [3PlHum work(n) do.Adjn]
   ‘They were able to do the work.’

(605a-c) show no contractions of cíé with the following subject pronominal, but such contractions do occur in allegro speech. Examples are in (606) below. The tonal distinction between +3Sg cíé and -3Sg cíé is neutralized here, perhaps due to Leftward H-Shift (§3.8.3.7) in 3Sg subject forms (606c), e.g. à cíé = è sá < à cíé à sá/. The drop of sá ‘come’ to sā in 606b), right-hand column, is normal in adjunctions, where second-person adjoined subject proclitics come with a floating M. The vowel length of 3Pl subject proclitics is partially respected in spite of contractions. 1Sg mā cíé = in sidā has undergone H-Leveling (§3.8.3.2) from /cíé = ín/ before an L-tone, but 1Pl mūʔùⁿ cíé = (i)ìn sidā from /cíé = ín/ preserves a falling contour before sidā at least in careful speech. 3Pl forms like ààⁿ cíé = èèⁿ sidā (606d) show Final Tone-Raising before L-toned sidā, an even clearer sign that their vowels can be treated as long in spite of contraction.

(606)  ‘could go up’  ‘could come’

a.  1Sg  mā cíé = ín sidā  mā cíé = ín sá
    1Pl  mūʔùⁿ cíé = (i)ìn sidā  mūʔùⁿ cíé = ín sá

b.  2Sg  wō cíé = í sidā  wō cíé = í sā
    2Pl  èèⁿ cíé = íⁿ sidā  èèⁿ cíé = íⁿ sā

c.  3SgHum  à cíé = è sidā  à cíé = è sá
    3SgNonh  è cíé = í sidā  è cíé = í sá

d.  3PlHum  ààⁿ cíé = èèⁿ sidā  ààⁿ cíé = (à)àⁿ sá
    3PlNonh  èèⁿ cíé = íⁿ sidā  èèⁿ cíé = (i)ìn sá

17.4 Nominal complements

Nominal complements are based on verbal nouns (§4.2.2) along with their complements, or sometimes on other deverbal nominals that denote actions.
17.4.1 Durative time-of-day predicates plus nominal complement

‘Spend the (whole) daytime’ is expressed as ‘make fall the afternoon’ (607a). ‘Spend the (whole) night (doing something)’ is expressed as ‘do the night’ (607b). These expressions emphasize duration, and the latter is distinct from intransitive īmë ~ īmë ‘spend the night’ in the sense of ‘stay over(night) (somewhere)’. A main clause with a durative time-of-day predicate may co-occur with a following verbal noun which denotes an activity that filled the relevant time interval.

(607) a. mā wùlā bè mùù-méè-ná
   1Sg afternoon make.fall.Pfv field-do.VblN-Nom
   ‘I spent the (mid-)day farming.’

b. zàkū kó’rò mè dòó-méè-ná
   Z night do.Pfv dance- do.VblN-Nom
   ‘Zaki spend the night dancing.’

17.4.2 ‘Prevent’ (bàlà) plus PP complement

The verb ‘prevent, block, obstruct’ is imperfective bàlà ~ bálà and perfective bàlí ~ bálì. It is the transitive counterpart of ‘stop, stand’, which has pseudo-reflexive morphosyntax (§10.1.1.3). In the transitive sense ‘prevent’, its preferred complement is a PP with postposition mà ‘on’ following a verbal noun, see (93) in §4.2.2. L-toned verbal nouns like bèè and fìdì in (608a) and tòʔrì in (608b) undergo regular Final Tone-Raising before L-toned mà.

(608) a. ká-ná mā bālī
   rain-Nom 1Sg prevent.Pfv
   [[sèé / bóó / bèè / fìdì / sidání] mà]  
   [[come/exit/fall/run/ascend.VblN] on]
   ‘The rain prevented me from coming / going out / falling / running / going up.’

b. è mā bālī …
   3SgNonh 1Sg prevent.Pfv
   … [wátí-méè mà]
   … [work(n)-do.VblN on]
   … [tàgá tòʔrì mà]
   … [sheep sell.VblN] on
   ‘It prevented me from … doing the work/selling the sheep.’

c. è mā bālī [sóó mà] [sàá tò]
   3SgNonh 1Sg prevent.Pfv [enter.VblN on] [house in]
   ‘It prevented me from entering the house.’ (< sàá)
17.4.3 ‘Cease’ (bàlà) plus preverbal verbal noun complement

The same verb (imperfective bàlà) illustrated above in the sense ‘prevent’ can also mean ‘cease, no longer engage in (an activity)’. In this sense has a preverbal object in the form of a verbal noun (609a). (609b) has an alternative phrasing with just ‘beer’ as postverbal object of ‘fall’, while the verb ‘drink’ is understood but not overt.

(609) a. mā [dí-kpɛ̀r-à-à’u] bālirí bāl(i)í
1Sg child-young-Nom-Pl hit.VblN prevent.Pfv
‘I have stopped hitting children.’

b. mā bɛ̀ dɔ̀ bɛ̀ 1Sg fall.Pfv beer-Nom
‘I’ve given up beer.’

17.4.4 ‘Consent’ (bàlà or sɔ̌ɔ̀ⁿ) with postverbal verbal-noun complement

The verb ‘stand, stop’ (imperfective bàlà, perfective bàlí ~ bálí) takes a postverbal verbal-noun complement with final nominal suffix (-rá and variants) (610a-b). There is no pseudo-reflexive morphology in this construction. The clausal complement may be replaced by a nonhuman 3Sg pronoun i-yà ‘it’ (610c-d). In (610c-d), /bàlí ì-yà/ is realized as bál = ì-yà after Leftward H-Shift.

(610) a. à bālī séé-rá / bóó-rá / bālí bèè-rá / fìdî-rá / sidâñ-nà
3SgHum accept.Pfv come./exit.VblN-Nom /
fall./run./ascend.VblN-Nom
‘He/She agreed to come/to come out/to fall/to run/to go up.’

b. à bālí wálí-méé-rá
3SgHum accept.Pfv work(n)-do.VblN-Nom
‘He/She agreed to do the work.’

c. à bál = ì-yà
3SgHum accept.Pfv Nonh-3Sg
‘He/She agreed to/accepted it (proposal or invitation).’ (/bàlí ì-yà/)

d. ã = Ø sà bāl = ì-yà
3SgHum=Ipfv Fut accept.Pfv Nonh-3Sg
‘He/She will agree to/accept it (proposal or invitation).’

The verb sɔ̌ɔ̀ⁿ (cited in imperfective form) ‘accept (doing), be willing (to do)’ has the same syntax. Leftward H-Movement has occurred in (611b).
17.4.5 ‘Forget’ (ɲinàà) with postverbal verbal-noun complement

This verb (imperfective ɲinàà, perfective ɲìnè ~ ɲinè) can take a postverbal object denoting the forgotten entity (399). In the sense ‘forget [to VP]’, the object is a verbal noun (612).

17.4.6 ‘Be afraid to’ (jóò) with postverbal verbal-noun or future complement

In simple ‘X fear Y’ clauses, the verb jóò ‘fear, be afraid of’ (cited in the imperfective_ takes a PP complement with postposition kìnà ~ kínà ‘in front of’ (§8.3.3.6). If the complement is a same-subject VP (‘be afraid to do’), it is in verbal-noun form (613a). If the complement is a full clause with disjoint subject (‘be afraid that …’), it has the form of a complete future clause. A logophoric 3Sg pronoun expresses a non-subject that is coindexed to the subject of ‘be afraid’ (613b).

17.4.7 ‘Begin’ (dàà-sòò) with preverbal verbal noun complement

This OV transitive verb takes an object denoting an activity. This object may be a simple noun like ‘(a) dance’ or a verbal noun. dàà-sòò is likely a combination of dàá ‘mouth’ and sòò ~ sòò ‘catch’, following a regional phrasing pattern.
(614) a. à wálā dàà-sāʔē
   3SgHum shout(n) begin.Pfv
   ‘He/She began to shout.’

b. má = Ø sà wálí-méé dàà-sāʔē
   1Sg=Ipfv Fut work(n)-do.VblN begin.Ipfv
   ‘I will begin to do the work.’

c. kūmē-kúní dàà-sāʔē
   meal-eat.VblN begin.Imprt
   ‘Begin-2Sg eating!’

This verb gets competition now from French loanword commencer (text 2016_02 @ 02:27 and @ 03:39, text 2016_04 @ 02:06).

See also kú ‘set about (doing)’, an auxiliary-like element denoting the onset and the extended duration and energy level of an activity (§15.1.1.1).

17.4.8 ‘Finish’ (dà-kááⁿ ~ dà-‘kááⁿ) with verbal-noun subject or complement

Example (615a) is a simple transitive sentence. To indicate that the action is completed, one option is a verbal noun as object, followed by transitive ‘finished’ (615b). Transitive forms include dē-kēⁿ ~ dē-kēⁿ (perfective) and dà-kááⁿ ~ dà-‘kááⁿ (imperfective), plus variants with g for k. Alternatively, the agent may be the intransitive subject of ‘finish’, followed by a postverbal object in the form of a verbal noun (615c-d). In dà-‘kááⁿ, except when followed by the negative enclitic, a slight downstep is audible (suggesting compound morphology).

(615) a. mā làʔá sēʔrī(i)
   1Sg place sweep.Pfv
   ‘I swept (the place).’ (< làʔá )

b. mā làʔá-sēʔrī dē-geⁿ
   1Sg place-sweep.VblN finished.Pfv
   ‘My sweeping (the place) has finished.’

c. má = Ø sà [làʔá sēʔr] dà-‘kááⁿ
   1Sg=Ipfv Fut [place sweep.VblN] finish.Ipfv
   ‘I will finish sweeping (the place).’

d. mā dē-geⁿ làʔá-sēʔrī-rá
   1Sg finish.Pfv place-sweep.VblN-Nom
   ‘I have finished sweeping (the place).’
17.5 Purposive and causal clauses

17.5.1 Same-subject purposive clause (tɔrɔ ~ tɔnɔ)

Adding tɔrɔ ~ tɔnɔ to the verb of a VP that follows a motion clause expresses or at least strongly implies purpose. If there is a postverbal constituent as in (616d), it follows tɔrɔ, which is postverbal rather than clause-final. The main verb is in verbal-noun form.

(616)

(a) [zàkí = ɪ wèɛ̂] [kùmɛ̀ kùn tɔrɔ]
[Z 3SgNonh go.Pfv] [meal eat.VblN Purp]
‘Zaki went (there) to eat.’

(b) [mā sē] [wāl sêɛ̂ tɔrɔ]
[1Sg go.Pfv] [work(n) look.for.VblN Purp]
‘I came to look for a job.’

(c) [à sē] [yí bèn tɔrɔ]
[3SgHum come.Pfv] [water draw.water.VblN Purp]
‘He/She came to draw water (at a well).’

(d) [mā sē] [‘sōɔ tɔrɔ wō-n]
[1Sg go.Pfv] [help.VblN Purp 2Sg-Indep]
‘I came in order to help you-Sg.’

Note also á wèɛ [klɛn tɔnɔ] ‘he/she went hunting’, with klɛn ‘hunt (noun)’.

tɔrɔ ~ tɔnɔ also means ‘while’ in backgrounded durative clauses, see §15.4.5 and (580) in §17.1.3.2. This raises the possibility that e.g. ‘I came to look for a job’ (616b) should be compared to English I came looking for a job. However, in the other examples of (616) such a translation would be awkward.

17.5.2 Causal (‘because’) clause (bùgɔsr̥e)

In (617), bùgɔsr̥e ‘because’ is followed by a regular indicative clause explaining the reason or motive for the eventuality denoted by the preceding main clause.
'I will stay at the house, because Zaki is sick.'
18 Anaphora

This chapter covers anaphoric elements (reflexive, reciprocal, logophoric) that are coindexed with a specific antecedent. It does not cover ordinary third-person pronouns.

18.1 Reflexive

Reflexives in Jalkunan are of two types. One uses reflexive pronominal proclitics, which are distinct from regular pronouns for 1st/2nd persons but not for third person (§18.1.1). Such proclitics function as reflexive possessors of nonsubject NPs, and as postpositional complements, i.e. pronominals that are non-heads within phrases (NP, PP). They also occur in pseudo-reflexive (middle) clauses. The other type, more similar to English -self reflexives, makes use of a (reflexively possessed) noun yeʔré (§18.1.2). Forms based on possessed yeʔré function as objects, both preverbal and postverbal. In both types, the antecedent is the clausemate subject.

18.1.1 Reflexive possessor of nonsubject NP

This construction occurs when the possessor of a nonsubject NP is coindexed with the clausemate subject. The reflexive possessor is pronominal. The basic forms, subject to modifications due to contractions and morpheme fusion, are those in (618) below. The same forms are used in reflexive postpositional complements (§18.1.1), and in preverbal object position in pseudo-reflexives (§10.1.1.3). Nonreflexive forms are shown for comparison.

<table>
<thead>
<tr>
<th>(618)</th>
<th>reflexive possessor</th>
<th>nonreflexive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>regular</td>
<td>n-initial</td>
</tr>
<tr>
<td>1Sg</td>
<td>āⁿ</td>
<td>nāāⁿ</td>
</tr>
<tr>
<td>2Sg</td>
<td>ē ~ ī</td>
<td>niī</td>
</tr>
<tr>
<td>1Pl</td>
<td>āāⁿ</td>
<td>nāāⁿ</td>
</tr>
<tr>
<td>2Pl</td>
<td>ēēⁿ ~ ŭⁿ</td>
<td>niīⁿ</td>
</tr>
<tr>
<td>3SgHum</td>
<td>à (~ aⁿ)</td>
<td>ná</td>
</tr>
<tr>
<td>3SgNonh</td>
<td>ē ~ ī</td>
<td>ní</td>
</tr>
<tr>
<td>3PlHum</td>
<td>āàⁿ</td>
<td>nāāⁿ ~ nāàⁿ</td>
</tr>
<tr>
<td>3PlNonh</td>
<td>ēēⁿ ~ ŭⁿ</td>
<td>niīⁿ</td>
</tr>
</tbody>
</table>
The n-initial variants occur in preverbal object NPs following the subject (but not after the future particle); see §18.1.1.4 below for details. Reflexive possessors are limited to nonsubject NPs and are therefore always non-clause-initial, except in singular-addresssee imperatives as in [ē jëⁿ] nākì ‘ask your-Sg father!’. Therefore the regular forms (those without initial n) usually undergo vv-contraction with the preceding word. Contraction masks the length of the long vowels in the plural forms. In practice, therefore, 1Sg and 1Pl reflexive possessor forms are often indistinguishable from each other in regular as well as n-initial reflexive possessor series, so the 1Sg/1Pl opposition in the “regular” column is idealized and arguably misleading. Other possessor-number oppositions (2Sg/2Pl, human and nonhuman 3Sg/3Pl) rely more on nasalization than on length.

Third person pronouns do not overtly distinguish reflexive from nonreflexive forms, although I do include “Refl” in interlinear glosses based on syntax and semantics. Since the third person categories are those for which reflexives would have the greatest disambiguating function (He saw himself versus He saw him), disambiguation does not seem to play a role here. Instead, the reduction occurs in the 1st/2nd person possessors. It takes the unusual form of an almost total segmental (but not tonal) merger of first person with human third person, and of second person with nonhuman third person. The segmentally merged forms remain distinct due to the generalization of M-tone among 1st/2nd persons, versus L-tone for third persons. The only segmental difference is that the 1Sg form is nasalized while the human 3Sg form is not consistently nasalized (though it occasionally is). The relationships are brought out by rearranging the categories in the fashion of (619).

(619) Reflexive possessors

<table>
<thead>
<tr>
<th></th>
<th>M-toned</th>
<th>L-toned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Sg</td>
<td>āⁿ</td>
<td></td>
</tr>
<tr>
<td>3SgHum</td>
<td>ā (~ aⁿ)</td>
<td></td>
</tr>
<tr>
<td>1Pl</td>
<td>āāⁿ</td>
<td></td>
</tr>
<tr>
<td>3PlHum</td>
<td>āāⁿ</td>
<td></td>
</tr>
<tr>
<td>2Sg</td>
<td>ē~ī</td>
<td></td>
</tr>
<tr>
<td>3SgNonh</td>
<td>ē~ī</td>
<td></td>
</tr>
<tr>
<td>2Pl</td>
<td>ēēⁿ~īīⁿ</td>
<td></td>
</tr>
<tr>
<td>3PlNonh</td>
<td>ēēⁿ~īīⁿ</td>
<td></td>
</tr>
</tbody>
</table>

Though the basic 3Sg reflexive forms are ā (human) and ē (nonhuman), my assistant sometimes nasalizes their vowels. In the case of human 3Sg ā~āⁿ, the nasalized variant differs only tonally from 1Sg reflexive possessor āⁿ.

This sound-symbolic merger of third human with first person, and of third nonhuman with second person, results in a typologically extraordinary binary category. Whether it is unique in the world’s languages I cannot say. Other Mande languages may not be a good place to look, since most of them do not distinguish ±human or ±animate in third person
pronouns. Diachronically, one suspects that the starting point for the Jalkunan development was the segmental identity of 2Pl ëëⁿ with nonhuman 3Pl ëëⁿ, and (in proto-Jalkunan) that of archaic 2Sg object variant é (preserved in imprecations) with nonhuman 3Sg é. If this is correct, the pattern (segmental identity, but M versus L tone) then spread analogically to first person forms, with 1Sg mā determining their -ATR value.

Except for objects in imperatives with second person possessor, as in [ë jëⁿ] nàki ‘ask your-Sg father!’, reflexive possessors do not occur clause-initially. Since they begin with vowels, and since preceding words normally end in vowels, they are generally subject to vv-Contraction.

Teasing apart the reflexive possessor vowels from their contractions with preceding words, (620) proposes underlying paradigms for alienables. The tones of the possessums are what we would expect for these nouns, based on the patterns described in §6.2.2 above. The {LH} tone overlay for possessums after 3Sg possessors is regular. Rising tones in āáⁿ, ëëⁿ, and ëëⁿ are due to Final Tone-Raising (tone sandhi) before an L-tone.

(620) Reflexively possessed alienables

<table>
<thead>
<tr>
<th></th>
<th>‘fish’ (yirëⁿ)</th>
<th>‘bird’ (kàⁿ)</th>
<th>‘fire’ (tàà)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Sg</td>
<td>ãⁿ yiître-rà</td>
<td>ãⁿ kà-nò</td>
<td>ãⁿ tàà-rà</td>
</tr>
<tr>
<td>2Sg</td>
<td>ë   yiître-rà</td>
<td>ë   kà-nò</td>
<td>ë   tàà-rà</td>
</tr>
<tr>
<td>1Pl</td>
<td>ãàⁿ yiître-rà</td>
<td>ãàⁿ kà-nò</td>
<td>ãàⁿ tàà-rà</td>
</tr>
<tr>
<td>2Pl</td>
<td>ëëⁿ yiître-rà</td>
<td>ëëⁿ kà-nò</td>
<td>ëëⁿ tàà-rà</td>
</tr>
<tr>
<td>3SgHum</td>
<td>è   yiître-rà</td>
<td>è   kà-nò</td>
<td>è   tàà-rà</td>
</tr>
<tr>
<td>3SgNonh</td>
<td>è   yiître-rà</td>
<td>è   kà-nò</td>
<td>è   tàà-rà</td>
</tr>
<tr>
<td>3PIHum</td>
<td>ãàⁿ yiître-rà</td>
<td>ãàⁿ kà-nò</td>
<td>ãàⁿ tàà-rà</td>
</tr>
<tr>
<td>3PINonh</td>
<td>ëëⁿ yiître-rà</td>
<td>ëëⁿ kà-nò</td>
<td>ëëⁿ tàà-rà</td>
</tr>
</tbody>
</table>

Array (621) below shows forms for inalienables. The notable point is that M-Spreading does not occur after M-toned reflexive possessors, though M-Spreading does occur after these possessors in nonreflexive contexts. Therefore 1st/2nd person reflexive possessors are lumped into the -3Sg category, i.e. they have the same tonal effects on following inalienable nouns as do 3Pl reflexive possessors. The result is a binary split, for all alienably possessed nouns, between +3Sg and -3Sg reflexive possessors. For example, 1Sg reflexive ãⁿ jë-nà ‘my (own) father’ in (621) shows no M-Spreading and has the same nominal tone as ãàⁿ jë-nà ‘their father’. By contrast, nonreflexive inalienable mā jë-nà ‘my father’ does show M-Spreading; see (176a) in (§6.2.2.3).
Reflexively possessed inalienables

‘father’ (jëⁿ)    ‘child’ (dí)

1Sg    āⁿ  jé-ná    āⁿ  dí-rá
2Sg    ē   jé-ná    ē   dí-rá
1Pl    āāⁿ jé-ná    āāⁿ dí-rá
2Pl    ēēⁿ jé-ná    ēēⁿ dí-rá
3SgHum   à  jè-ná    à  dí-rá
3SgNonh  è   jè-ná    è   dí-rá
3PlHum   èèⁿ jé-ná    èèⁿ dí-rá
3PlNonh  èèⁿ jé-ná    èèⁿ dí-rá

Reflexive possessors also occur on noninitial conjuncts in conjoined NPs, either of the type ‘X’s [Y and Z]’ phrased as ‘[X’s Y] and [Refl, Z]’, or of the type ‘X and [Refl, Y]’, phrased as ‘X and [Refl, Y]. See (219a-c) in §7.1.3 for examples.

18.1.1.1 Reflexive possessor of postverbal NP

In (622), the relevant possessum is postverbal. Therefore it can have no morphological or tonal interactions with subjects or with post-subject inflectional (TAM) particles. Vocalic contractions are indicated by the enclitic boundary symbol =. The tone-lowering effect of /HM(L)/-toned ‘money’ overrides Leftward H-Shift in (622a,c).

(622) a. mā  wāř  bil = [ààⁿ jé-ná]
   1Sg  money   give.Pfv [1SgRefl father-Nom]
   ‘I gave (the) money to my father.’
   (/wāři +L bili à/)  /wāři +L bili = ààⁿ/ → wāř bil = ààⁿ

b. wō  sà  wāř  bil = [ì jé-ná]
   2Sg  Fut money   give.lpfv [2SgRefl father-Nom]
   ‘You-Sg will give the money to your father.’ (< bilè i )

c. wāř  bil = [ì jé-ná]
   money   give.Imp [2SgRefl father-Nom]
   ‘Give-2Sg the money to your father!’
18.1.1.2 Reflexive postpositional complements

The reflexive forms used in postpositions are identical to the reflexive possessor forms. The reflexive noun yeërë found in subject-object reflexives is absent.

(623) a. mā dêrëkë ji = [ān kūt5]
  1Sg boubou see.Pfv [1SgRefl under]
  ‘I found the boubou (=garment) under myself.’ (< dêrëkë, jië → jë)

b. ṇēn dêrëkë ji = [īn kūt5]
  2Pl boubou see.Pfv [2PlRefl under]
  ‘You-Pl found the boubou under yourselves.’

c. wō dêrëkë ji = [ī kūt5]
  2Sg boubou see.Pfv [2SgRefl under]
  ‘You-Sg found the boubou under yourself.’

18.1.1.3 Reflexive possessors in conjunctions

In a conjunction of the type ‘X and [X’s Y]’, where the possessor inside the right conjunct ‘X’s Y’ is coindexed with the left conjunct X, reflexive possessor forms are used. This is transparent when X is a first or second person pronoun (624a). It is not overt when X is a third person pronoun or NP, since these forms do not distinguish reflexive from nonreflexive possessor (624b). However, I gloss the ambiguous 3Sg possessor in (624b) as reflexive by analogy to 1st/2nd person reflexive forms.

(624) a. [mā būʔā = [ān jé-nāl] = Ø ‘sáá síní]
  1Sg and [1SgRefl father-Nom]=Ipfv come.Ipfv tomorrow
  ‘I and my father are coming tomorrow.’ (< būʔā)

b. [bâkârì būʔā = [ā dōʔō-rā] = Ø ‘sáá síní]
  3SgHumRefl younger.brother-Nom]=Ipfv come.Ipfv tomorrow
  ‘Bakari, and his brother are coming tomorrow.’ (< būʔā)

18.1.1.4 Reflexive possessor of preverbal object

In the examples to follow, the possessed NP is a preverbal object, so the construction in Jalkunan is of the type [NP, Infl [Refl, N] Verb’]. A pronominal subject, inflectional morpheme (if any), and reflexive possessor can become partially fused.
In (625), kɔ́yí ‘belly’ (inalienable) and bàʔá ‘porridge’ (alienable) take their regular possessed tonal forms, namely kɔ́yí (except 3Sg possessed kɔ́yí), and bàʔá (except 3Sg possessed bàʔá). bàʔá becomes bàʔá secondarily by Final Tone-Raising before an L-tone in several examples with other than 3Sg possessor (625b,d,h).

(625) a. mā [nāāʰ] kɔ́yí jìé
   1Sg [1SgRefl belly] see.Pfv
   ‘I saw my belly.’

b. mā [nāāʰ] bàʔá jìé
   1Sg [1SgRefl porridge] see.Pfv
   ‘I saw my porridge.’

c. mùʔùʰ [nāāʰ] kɔ́yí jìé
   1Pl [1PlRefl belly] see.Pfv
   ‘We saw our belly.’

d. mùʔùʰ [nāāʰ] bàʔá jìé
   1Pl [1PlRefl porridge] see.Pfv
   ‘We saw our porridge.’

e. à [nā] kɔ́yí jìé
   3SgHum [3SgHumRefl belly] see.Pfv
   ‘Hex saw hisx (own) belly.’
   (variant á [Ø kɔ́yí jìé )

f. à [nā] bàʔá jìé
   3SgHum [3SgHumRefl porridge] see.Pfv
   ‘Hex saw hisx (own) porridge.’
   (variant á [Ø bàʔá jìé )

g. ààʰ [nāāʰ] kɔ́yí jìé
   3PlHum [3PlHumRefl belly] see.Pfv
   ‘Theyx saw theirx (own) belly.’

h. ààʰ [nāāʰ] bàʔá jìé
   3PlHum [3PlHumRefl porridge] see.Pfv
   ‘Theyx saw theirx (own) porridge.’

Combinations of subjects, inflectional morphemes, and reflexive possessors for preverbal objects are in (626). As usual, the present and future have an imperfective enclitic /H+ = Ø/ on the subject (in positive sentences). In the perfective and present, which have no segmentally nonzero inflectional morpheme separating subject from object, n separates them. This is the same n that occurs in combinations of a pronominal subject with a third-person
pronominal object (e.g. human 3Sg ná), see §3.6.3.2. The n does not occur in the future, which has a nonzero inflectional morpheme sà.

(626)  perfective   present   future   imperative

1Sg  mā nāā
     mā = ∅ nāā
     ~ mā = ∅ nāā

2Sg  wō nīī
     wō = ∅ nīī
     wō = ∅ sī = i
     ∅ ē
     ~ wō = ∅ nīī

1Pl  mū?ū nāā
     mū?ū = ∅ nāā
     mū?ū = ∅ sā = ā
     ~ mū?ū = ∅ nāā

2Pl  ēē nīī
     ēē = ∅ nīī
     ēē = ∅ sī = i
     ēē nīī
     ~ ēē = ∅ nīī

3SgHum  ā ná
        ā = ∅ nā
        ā = ∅ sā = ā
        ~ ā

3SgNonh  è ní
        è = ∅ ní
        è = ∅ sī = i
        ~ è

3PlHum  āā nāā
        āā = ∅ nāā
        āā = ∅ sā = ā
        ~ āā

3PlNonh  èē nīī
        èē = ∅ nīī
        èē = ∅ sī = i
        ~ èē

Sg NP  (n)ā
       = ∅ (n)ā
       = ∅ sā = ā

Pl NP  (n)āā
       = ∅ (n)āā
       = ∅ sā = ā

These forms, specifically including the n-initial 1st/2nd person forms, are identical (or nearly so) to those used (without a possessum) as pseudo-reflexive objects. See (307) in §10.1.1.3.

Etymologically, 1Sg *nā ā was probably distinct from 1Pl *nā āā, and 2Sg *nī ē was probably distinct from 2Pl *nī īī, but v-Contract and the neutralization of vocalic nasality after a nasal consonant have led to mergers. 2Sg and 2Pl are still distinguished by nasality in the future combinations (sī = i versus sī = i).

In (627) the subjects are nonpronominal NPs.

(627)  a.  zākí  [ná  wūlā]  bā?rí
     Z  [3SgHumRefl  dog]  hit.Pfv
     ‘Zaki, hit-Past his (own) dog.’
     [homophonous with ‘Zaki, hit-Past his/her, dog.’]

b.  [zākí  bū?ū  bákàrī]  nāā  wūlā  bā?rí
     [Z and B]  3PlHumRefl  dog  hit.Pfv
     ‘Zaki, and Bakari, hit their (own) dog.’
     [homophonous with ‘Zaki, and Bakari, hit-Past their, dog.’]

Imperative and prohibitive examples are in (628).
(628)  

(a) \([\text{mā} \quad \text{nā}^{\text{n}} \quad \text{yērē}] \quad \text{bārī}\)  
\quad [\text{1SgRefl} \quad \text{self}] \quad \text{hit.Pfv}  
‘I hit-Past myself.’

(b) \(\text{bī} = \quad [\text{i} \quad \text{wūlá} / \text{dōʔō}] \quad \text{bārī} = \text{lē}\)  
\quad \text{Proh} \quad [\text{2SgRefl} \quad \text{dog/younger.brother}] \quad \text{hit.Imprt}=\text{Neg}  
‘Don’t-2Sg hit your dog/your younger brother!’

(c) \(\text{ēēⁿ} \quad \text{bī} = \quad [\text{(ǐ)}^{\text{n}} \quad \text{wūlá} / \text{dōʔō}] \quad \text{bārī} = \text{lē}\)  
\quad 2\text{Pl} \quad \text{Proh} \quad [\text{2PlRefl} \quad \text{dog/younger.brother}] \quad \text{hit.Imprt}=\text{Neg}  
‘Don’t-2Pl hit your dog/your younger brother!’

18.1.2 Reflexive object (\(\text{yērē} \sim \text{yērē}\))

Explicit subject-object reflexives of the type ‘X hit [X’s self]’, i.e. with coindexed subject and object, require a reflexively possessed noun-like word \(\text{yērē}\), comparable to -\textit{self} in English reflexives. It does not allow a nominal affix and has no morphological plural, so its status as a noun must be qualified. \(\text{yērē}\) is also used as an emphatic (§18.1.2.3 below) but it is not attested as an ordinary noun. A -ATR variant \(\text{yērē}\) is also used occasionally by my assistant, see (630b) below. A following verb treats \(\text{yērē}\) as +3Sg for tonal purposes (§3.8.3.5), so this verb is L- or LH-toned depending on inflectional category in (629a-b), cf. also (632a-b). Likewise the postposition ‘with’ is L-toned \(\text{dē}\) in (633) below.

(629)  

(a) \(\text{mā} \quad [\text{nā}^{\text{n}} \quad \text{yērē}] \quad \text{bārī}\)  
\quad 1\text{Sg} \quad [\text{1SgRefl} \quad \text{self}] \quad \text{hit.Pfv}  
‘I hit-Past myself.’

(b) \(\text{mā} \quad \text{sā} = \quad [\text{ā}^{\text{n}} \quad \text{yērē}] \quad \text{bārā}\)  
\quad 1\text{Sg} \quad \text{Fut=} \quad [\text{1SgRefl} \quad \text{self}] \quad \text{hit.Ipfv}  
‘I will hit myself.’

18.1.2.1 Reflexive postverbal NP

In (630), the reflexive is a postverbal NP, so the reflexive possessor pronoun lacks the initial \(n\) and contracts with the final vowel of the verb.

(630)  

(a) \(\text{mā} \quad \text{bārī} = \quad [\text{ā}^{\text{n}} \quad \text{yērē}]\)  
\quad 1\text{Sg} \quad \text{touch.Pfv} \quad [\text{1SgRefl} \quad \text{self}]  
‘I touched myself.’ (< \(\text{bārī}\))
18.1.2.2 Reflexive preverbal object

The paradigm for indicative clauses with a reflexive preverbal object is (631). The basic tonal form is \( \text{yēʔré} \), becoming \( \text{yèʔré} \) with the \{LH\} pattern associated with 3Sg subjects. M-toned \( \text{yēʔré} \) in the 1Sg, 2Sg, and 2Pl perfective is due to M-Spreading from M-toned pronominals.

(631) | perfective | present | future |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1Sg</td>
<td>( \text{mā nāa}^n \text{yēʔré} )</td>
<td>( \text{mā} = \text{∅ nāa}^n \text{yēʔré} )</td>
</tr>
<tr>
<td>2Sg</td>
<td>( \text{wō nū yēʔré} )</td>
<td>( \text{wō} = \text{∅ nū yēʔré} )</td>
</tr>
<tr>
<td>1Pl</td>
<td>( \text{mūʔu}^n \text{mā}^n \text{yēʔré} )</td>
<td>( \text{mūʔu} = \text{∅ nāa}^n \text{yēʔré} )</td>
</tr>
<tr>
<td>2Pl</td>
<td>( \text{ēe}^n \text{nī}^n \text{yēʔré} )</td>
<td>( \text{ēe} = \text{∅ nī}^n \text{yēʔré} )</td>
</tr>
<tr>
<td>2Pl</td>
<td>( \text{māa} \text{nī}^n \text{yēʔré} )</td>
<td>( \text{māa} = \text{∅ nī}^n \text{yēʔré} )</td>
</tr>
<tr>
<td>3SgHum</td>
<td>( \text{à nā yēʔré} )</td>
<td>( \text{à} = \text{∅ nā yēʔré} )</td>
</tr>
<tr>
<td>3SgNonh</td>
<td>( \text{è nī yēʔré} )</td>
<td>( \text{è} = \text{∅ nī yēʔré} )</td>
</tr>
<tr>
<td>3PlHum</td>
<td>( \text{àà}^n \text{nāa}^n \text{yēʔré} )</td>
<td>( \text{àà} = \text{∅ nāa}^n \text{yēʔré} )</td>
</tr>
<tr>
<td>3PlNonh</td>
<td>( \text{èè}^n \text{nī}^n \text{yēʔré} )</td>
<td>( \text{èè} = \text{∅ nī}^n \text{yēʔré} )</td>
</tr>
<tr>
<td>Sg NP</td>
<td>( \text{(n)à yēʔré} )</td>
<td>( \text{=} = \text{∅ nā yēʔré} )</td>
</tr>
<tr>
<td>Pl NP</td>
<td>( \text{(n)àà}^n \text{yēʔré} )</td>
<td>( \text{=} = \text{∅ nāa}^n \text{yēʔré} )</td>
</tr>
</tbody>
</table>

The imperative is illustrated in (632a-b).

(632) a. \( \text{ē yēʔré bàʔri} \)

2SgRef\(l\) self hit.Imp\(rt\)

‘Hit yourself!’

b. \( \text{ēe}^n \text{nī}^n \text{yēʔré bàʔri} \)

2Pl 2PlRef\(l\) self hit.Imp\(rt\)

‘Hit yourselves!’

18.1.2.3 Emphatic nonreflexive use of \( \text{yēʔré} \sim \text{yēʔré} \)

In (633), \( \text{yēʔré} \) added directly to an NP (here a pronoun) functions somewhat like emphatic, nonreflexive \text{myself} in English. In (633) I prefer to translate with the adverb \text{personally}. There
is no anaphoric link to the clausemate subject or other antecedent. Instead, the point is that Zaki refuses to speak to anyone else, such as an underling.

(633) \[zàkìì kɔ́ ɔ̀ wó kɔ̀bɔ̀ kɔ́ciê]\nZ want.Ipfv [Hum-3SgLogo talk(n) speak.Adjn]
[[mà yèrè] dè]
[1Sg self] with
‘Zaki wants to speak with me personally.’ (/kòd à-wò/)

18.2 Reciprocal

18.2.1 Reciprocals (ɲùʔùⁿ)

This morpheme behaves like a possessed inalienable with lexical melody /L/, cf. (172a) in §6.2.2.1. Its morphosyntax resembles that of reflexive \(yèrè\). However, as a preverbal object it allows more contractions than \(yèrè\) does with pronominal subjects. It is intrinsically plural and has no morphologically plural form. The sense is reciprocal (‘each other’).

The tonal effect of \(ɲùʔùⁿ\) on a following word is that of a -3Sg NP in the sense of §3.8.3.5. As a result, a following verb is H-toned at least in its onset. This is exemplified by perfective \(bàʔrī\) ‘hit’ in (636a-b) below as well as in (489a-c).

18.2.1.1 Reciprocal postverbal object

In (634), the reciprocal phrase is a postverbal object.

(634) a. \(mùʔùⁿ bàʔr = [āⁿ ɲùʔùⁿ]\)
1Pl touch.Pfv [1PlRefl Recip]
‘We touched each other.’ (< \(bàʔrī\) )

b. \(ēēⁿ bàʔr = [īīⁿ ɲùʔùⁿ]\)
2Pl touch.Pfv [2PlRefl Recip]
‘You-Pl touched each other.’

c. \(ààⁿ bàʔr = [ààⁿ ɲùʔùⁿ]\)
3PlHum touch.Pfv [3PlHumRefl Recip]
‘They touched each other.’

18.2.1.2 Reciprocal preverbal object

The paradigm for combinations of preverbal reciprocal objects with various (always plural) subjects and with post-subject inflectional morphemes is (635).
(635) Reciprocals

<table>
<thead>
<tr>
<th></th>
<th>perfective</th>
<th>present</th>
<th>progressive</th>
</tr>
</thead>
<tbody>
<tr>
<td>2Pl</td>
<td>ēéⁿ nííⁿ jú?úⁿ</td>
<td>ēéⁿ = ∅ nííⁿ jú?úⁿ</td>
<td>ēéⁿ = ∅ sííⁿ jú?úⁿ</td>
</tr>
<tr>
<td>3PlHum</td>
<td>dáⁿ nááⁿ jú?úⁿ</td>
<td>dáⁿ = ∅ nááⁿ jú?úⁿ</td>
<td>dáⁿ = ∅ sááⁿ jú?úⁿ</td>
</tr>
<tr>
<td>3PlNonh</td>
<td>ēéⁿ nííⁿ jú?úⁿ</td>
<td>ēéⁿ = ∅ nííⁿ jú?úⁿ</td>
<td>ēéⁿ = ∅ sííⁿ jú?úⁿ</td>
</tr>
<tr>
<td>Pl NP</td>
<td>(n)ááⁿ jú?úⁿ</td>
<td>= ∅ nááⁿ jú?úⁿ</td>
<td>= ∅ sááⁿ jú?úⁿ</td>
</tr>
</tbody>
</table>

A transitive verb following jú?úⁿ takes its -3Sg form, beginning with an H-tone, e.g. bà?rí ‘hit (perfective)’.

The variant ∅ jú?úⁿ after plural noun (which then ends in plural -àⁿ) might be thought of as a contraction, but the tonal patterns are not completely consistent with this. The two variant constructions are illustrated in (636a-b).

   child-Nom-Pl [3PlHumRefl Recip] hit.Pfv
   ‘The children hit Past each other.’

b. dí-rá-áⁿ ∅ jú?úⁿ bà?rí
   child-Nom-Pl ∅ Recip hit.Pfv
   [= (a)]

jú?úⁿ in (636b) is tonally distinct from jú?úⁿ in (636a). One possible analysis is that the final L-tone of nááⁿ in (636) has survived deletion of this pronominal and has spread onto the reciprocal morpheme.

18.3 Logophoric third person pronouns

18.3.1 Third person singular logophoric

Logophoric 3Sg pronouns indicate coindexation with the author of the quotation. When simple main clause (637a) is quoted, if the simple human 3Sg subject à is replaced by logophoric 3Sg pronoun à-wò, this tells the listener that the quoted author (Zaki) is sick (637b). If this replacement is not made, the reference is to a third person other than Zaki (637c).
The same procedure may be used with nonsubject pronouns. Addition of logophoric -wò marks coindexation when added to human 3Sg preverbal object ná (638a). This distinguishes it from (638b) where the reference is to a distinct third person.

These examples also show that singular logophoric (or focalized) -wò, unlike regular 3Sg pronominal proclitics, is treated as -3Sg in the sense of §3.8.3.5 for tonal purposes. In other words, -wò does not require that the following word begin with L-tone. Perfective ‘hit’ is therefore bàřǐ with initial H-tone after -wò in (638a), but bàřì with initial L-tone after a regular 3Sg pronominal in (638b). Similarly, comitative postposition dò ~ dó takes H-toned form after -wò in (640a) below, versus L-toned dò after regular 3Sg à in (640b).

For third-person pronouns as postverbal objects, the distinction is made by using logophoric pronoun in its independent form (including the final -n̄) to mark coindexation (639a), versus the usual postverbal object forms such as human 3Sg à-yà in uncoindexed contexts (639b).
Similarly, in PPs the logophoric pronoun (human 3Sg à-wò) marks coindexation in (640a), while the simple human 3Sg proclitic à is not coindexed (640b).

(640) a. òkù dé [wò s = [à-wò dò]]
Z say.Pfv [2Sg come.Pfv [Hum-3SgLogo Comit]]
‘Zaki, said that you-Sg came with him.’ (<s à-wò/)

b. òkù dé [wò sá = [à dò]]
Z say.Pfv [2Sg come.Pfv [3SgHum with]
‘Zaki, said that you-Sg came with him/her,’ (<s à dò/)

The same is true of possessors of nonsubject NPs (641a-b).

(641) a. òkù dé [[à-wò wùlá = ] è wèè]]
Z say.Pfv [[Hum-3SgLogo dog] 3SgNonh go.Pfv]]
‘Zaki, said that his dog went away’

b. òkù dé [[à wùlá = ] è wèè]]
Z say.Pfv [[3SgHum dog] 3SgNonh go.Pfv]]
‘Zaki, said that his/her dog went away’

18.3.2 Third person plural logophorics

Example (642a) has a 1Pl subject pronoun. When it is quoted by a different speaker, it is expressed as a 3Pl logophoric based on màā, i.e. human à-màā (642b), in animal tales also nonhuman è-màā. If there is no coindexation, the simple human 3Pl àà” is used (642c).

(642) a. mùùú= Ø sà sáá
1Pl=Ipfv Fut come.Ipfv
‘We will come.’

b. dí-rá-à” dé [à-màā = Ø sà sáá]
child-Nom-Pl say.Pfv [Hum-3PlLogo=Ipfv Fut come.Ipfv]
‘The children, said that they (themselves) would come.’

c. dí-rá-à” dé [àá” = Ø sà sáá]
child-Nom-Pl say.Pfv [3PlHum=Impf Fut come.Ipfv]
‘The children, said that they (=others) would come.’

I have made the point in §17.2.1 and elsewhere that quotative complements optionally begin with complementizer à ’that’, but that contractions make it difficult to determine whether it is present before human third person pronominals in examples like (642b-c).
An example with 3Pl logophoric independent pronoun as postverbal object (of a ditransitive verb) is (643).

(643) ʤi-rá-à’ dē [wō tàgá billí ḛ-māā-n]
child-Nom-Pl say.Pfv [2Sg sheep give.Pfv Hum-3PILogo-Indep]
‘The children, said that you-Sg gave a sheep to them.’

18.3.3 First and second persons

No logophoric use of independent pronouns occurs with 1st/2nd persons (644a-b). There is no need for overt coindexation with the main-clause subject in these examples since the reference of each occurrence of a 1st/2nd person pronouns is directly indexed to the participants in the speech event.

(644) a. mā dē [mā wēē kēē = rē?]  
1Sg say.Pfv [1Sg health(n) be.healthy.Pfv=Neg]
‘I said that I was sick.’

b. wō dē [wō wēē kēē = rē?]  
2Sg say.Pfv [2Sg health(n) be.healthy.Pfv=Neg]
‘You-Sg said that you-Sg were sick.’
19 Grammatical pragmatics

19.1 NP-final discourse-functional elements

19.1.1  kadí ~ kóní ‘as for’ (topic)

This particle follows NPs, usually clause-initial or preclausal, that switch from a previous topical referent to a new one. The form is +3Sg kadí, -3Sg kóní except kóní after M-toned pronouns. 3Sg pronouns usually (but not always) take the fuller “focalized” form with -wó. The -n suffix (or variant) that occurs in independent pronouns is absent. Array (645) repeats data from (109) in §4.3.1.5.

(645)

<table>
<thead>
<tr>
<th>independent</th>
<th>‘as for X’</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. 1st/2nd person pronouns with final M-tone</td>
<td></td>
</tr>
<tr>
<td>1Sg</td>
<td>mā-ñ</td>
</tr>
<tr>
<td>2Sg</td>
<td>wō-ñ</td>
</tr>
<tr>
<td>2Pl</td>
<td>ēē-ñ</td>
</tr>
<tr>
<td>2Pl</td>
<td>māā-ñ</td>
</tr>
<tr>
<td>b. focalized or logophoric third person pronouns</td>
<td></td>
</tr>
<tr>
<td>3SgHum</td>
<td>à-wó-n</td>
</tr>
<tr>
<td>3SgNonh</td>
<td>ē-wó-ñ</td>
</tr>
<tr>
<td>3PlHum</td>
<td>à-māā-ñ</td>
</tr>
<tr>
<td>3PlNonh</td>
<td>ē-māā-ñ</td>
</tr>
<tr>
<td>c. +3Sg pronouns</td>
<td></td>
</tr>
<tr>
<td>3SgHum</td>
<td>—</td>
</tr>
<tr>
<td>3SgNonh</td>
<td>—</td>
</tr>
<tr>
<td>d. other -3Sg pronouns</td>
<td></td>
</tr>
<tr>
<td>1Pl</td>
<td>mùʔu-ñ(ù)</td>
</tr>
<tr>
<td>3PlHum</td>
<td>āā-ñ, āā-ñú</td>
</tr>
<tr>
<td>3PlNonh</td>
<td>ēē-ñ, ēē-ñú</td>
</tr>
</tbody>
</table>

A NP with kóní may be preclausal. If so it is prosodically set off, and a resumptive pronoun occurs in the following clause. Or the topical NP with kóní may function as subject of the clause, with no coindexed resumptive and no prosodic break. The latter is exemplified by mùʔuª kóní ‘(as for) us’ as clause subject in text 2014_04 @ 01:14.
19.1.2 ‘Also’ and ‘again’

19.1.2.1 ‘Also, too’ (dòʔò ~ dòʔò)

The particle dòʔò ~ dòʔò normally occurs at the end of an NP, which may be a pronoun. The LH-toned form follows +3Sg forms, the H-toned form follows -3Sg forms, and M-toned pronouns trigger M-Spreading. The LH-toned forms flatten to L-toned before a word beginning in a nonlow tone if there is no prosodic break (§3.8.3.6). This is the case in (646c) and (648a) below and in many examples in the texts. An NP ending in the particle is treated as -3Sg with regard to its tonal effect on following words.

Noun-headed NPs with this particle are exemplified in (646a-d).

(646) a. dí dòʔò
   child too
   ‘the child too’

b. dí-rá-àⁿ dòʔò
   child-Nom-Pl too
   ‘the children too’

c. [dí dòʔò] séé
   [child too] come.Pfv
   ‘The child too came.’

d. [dí-rá-àⁿ dòʔò] séé
   [child-Nom-Pl too] come.Pfv
   ‘The children too came.’

The pronominal paradigm is (647), repeating data from (109). M-toned dòʔò occurs by assimilation in (647a). The -3Sg form dòʔò is the only possibility in (647b). 3Sg pronouns (647c) have optional -wò for focalization (or logophoricity). The ‘also’ particle is H-toned after wò, otherwise L-toned.

(647) Pronominal paradigm of ‘also, too’

a. 1st/2nd person pronouns ending in M-tone
   1Sg mā dòʔò
   2Sg wò dòʔò
   2Pl ēːⁿ dòʔò
   2Pl mǎā dòʔò
b. focalized or logophoric third-person pronouns

3SgHum à-wò dóʔó
3SgNonh è-wò dóʔó
3PlHum à-mǎā dóʔó
3PlNonh è-mǎā dóʔó

c. +3Sg pronouns

3SgHum à dòʔó
3SgNonh è dòʔó

d. other -3Sg pronouns

1Pl mùʔùⁿ dóʔó
3PlHum ààⁿ dóʔó
3PlNonh èèⁿ dóʔó

Like English also, dóʔó ~ dóʔó can have the metapragmatic sense ‘moreover, furthermore’, as when the speaker provides additional information to the addressee. However, in Jalkunan the particle is expressed as part of an NP rather than as a preclausal adverb. An example is text 2016_04 @ 00:29.

Other textual examples of dóʔó ~ dóʔó are: text 2016_01 @ 00:28, @ 02:20, @ 02:56, @ 03:16; text 2016_02 @ 01:49; and text 2016_04 @ 00:16, @ 01:01, @ 01:48, @ 02:33, @ 03:25.

19.1.2.2 ‘Again’ (dòʔó ~ dóʔó )

There are two ways to say e.g. ‘X came again.’ One is a two-clause construction with ‘return, repeat’ as the first verb (§15.2.2.2). The second is with dóʔó ~ dóʔó at the end of the subject NP. Simple perfective examples are in (648).

(648) a. [à  dòʔó]  sée
   [3SgHum  again]  come.Pfv
   ‘He/She came again.’

b. [mà  dòʔó]  sée
   [1Sg  again]  come.Pfv
   ‘I came again.’

c. [mùʔùⁿ  dòʔó]  sée
   1Pl  again]  come.Pfv
   ‘We came again.’

That dóʔó ~ dóʔó is part of the subject NP is clearly shown by the position of a post-subject enclitic or future particle (649).
Possible ambiguity between the senses ‘X come again’ and ‘[X too] come’ can be avoided by using the alternative construction with ‘return’ in the ‘again’ sense.

19.1.2.3  dɔ́ʔɔ́ ‘again’ and its negation dɔ́ʔɔ́=rɛ̄ ‘no longer’

A -ATR form dɔ́ʔɔ́ is attested in positive clauses in text 2016_01 @ 00:12, 2016_02 @ 03:35, and in text 2016_04 @ 02:58. I have glossed it ‘again’ or ‘also’ but the nuances are hard to pin down. Unlike dɔ́ʔɔ́ ~ dɔ́ʔɔ́, this particle is adverbial, not limited to NP-final position.

‘Not again’ or ‘no longer’ can be expressed by clause-final dɔ́ʔɔ́=rɛ̄, i.e. ‘again’ plus the negative enclitic.

(650) cíí-ná-àn  cíé  wɔ̀rɔ́  dɔ́ʔɔ́=rɛ̀
breast-Nom-pl  can.Pfv  be.detached.Pfv  again=Neg
‘Breasts could no longer be taken off.’ (2016_04 @ 03:37)

Other instances of dɔ́ʔɔ́=rɛ̀ are in text 2016_04 @ 03:16 and @ 03:40.

19.1.2.4  Clause-final dòò

There is also a form dòò without glottal stop, whose relationship to dò̄̀ò̄ò ~ dò̄̀ò̄ò and to dɔ́ʔɔ́ is unclear. It is clause-final rather than NP-final in text 2016_02 @ 04:14 and text 2016_04 @ 00:16, @ 00:48, @ 02:03. However, it appears to be NP-final in one textual example: 2016_04 @ 03:10. Glossing is difficult.

19.1.3  ‘Only’ (kpèʔè- ~ kpèʔè-)

This element is added at the end of an NP to indicate that the predicate is true for this and no other referent. It takes the form kpèʔè after a numeral, and a slightly augmented form kpèʔè-n(ù) ~ kpèʔè-nù after other NPs. For a related sense ‘exactly’ see §8.5.3.

(651) a.  à  [jáaⁿ-táá  kpèʔè]  bílí  mā-ù
3SgHum  [twenty-ten only]  give.Pfv  1Sg-Indep
‘He/She gave me only 200 (currency units).’

b.  mā  [jâlsà-dù  kpèʔè-n]  jîé
1Sg  [Blédougou only-Indep]  see.Pfv
‘I saw Blédougou only.’
19.2 Preclausal or clause-initial discourse markers

19.2.1 Paragraph introducers

19.2.1.1 ‘Well, …’ (bon)

As a clause-initial discourse particle marking a shift in time or location, French bon occurs frequently in narrative texts. It is unstressed, sometimes almost inaudible on tape, and optionally followed by a slight pause. (652) occurred in the middle of a narrative, preceded by ‘(Hare) knew where a lion was lying.’

(652) bon, èë* táʔá cié [[cī dò] kūdòs], …
well, 3PlNonh go.Adjn arrive.Pfv [[thicket one] under], …
‘Well, they went and arrived under (=at) a thicket (dense forest), …’ (2016_02 @ 01:10)

19.2.1.2 è-ŷá sòrà ‘now (it happened that …’)

è-ŷá sòrà, usually abbreviated as yá sòrà, occurs preclusally in the sense ‘now it happened that …’, where English now is used as an unstressed clause-initial narrative-break marker (rather than as a time adverb). It contains è-ŷà (nonhuman 3Sg pronoun) and sòrà ‘do then’, which occurs elsewhere in ‘before …’ clauses (§15.4.4.1).

(653) [yá sòrà] [à dòʔò]
[3SgFoc do.then.Ipfv] [3SgHum too]
cié [kámē-l dò] ká
be.Past [young.man-Dim one] have
‘Now (it happened that) she furthermore had a young man (=fiancé).’ (2016_04 @ 00:29)

19.2.1.3 kàà-sòrà ‘now (it happened that …’)

This functions in the same way as yá sòrà and contains the same element sòrà, but the initial element is opaque. The form is said to occur in Jula as well.
friend! 1Pl 3SgNonhObj go.Imprt, it.happened.that, hare-Nom, è [jèré bòò lá?à] dàà-sò
3SgNonh [lion exit.VblN place] know(place).Pfv
‘(Hyena said:) “Friend, let’s go!” Now it happened that hare knew the lion’s exit place.’ (2016_02 @ 01:04)

19.2.1.4 \textit{wàláà} \textit{~ wàláà} ‘there it is!’

French \textit{voilà} in the form \textit{wàláà} \textit{~ wàláà} and variants, can be used to confirm an interlocutor’s comment that fits with what the speaker has been saying (cf. one use of English \textit{there you are}!). It can also be a simple hesitation marker or paragraph opener. In (655) it is one of three discourse markers, perhaps reflecting speaker hesitation before uttering a clarification of the preceding discourse.

(655) \textit{èn} \textit{bé =} [(èn] \textit{wàí],}
3PlNonh put.in.Pfv [3PlNonhRefl Custod], \textit{wàláà, bon, sisàn ci-nà dûlì yàlìī}
okay, well, now hare-Nom one take.Pfv
‘They (=hare and hyena) put (the lion cubs) in their custody (i.e. in sacks). There it is, well, now, hare took one (and hyena took the other).’ (2016_02 @ 01:15/01:24)

19.2.2 Clause-initial intensifiers

19.2.2.1 ‘Lo, …’ (jà?á)

This particle occurs clause-initially or preclusally, framing a surprising or dramatic event in a narrative. (656) is a textual example. Hyena had been told to do something else with the powdered salt so his action was surprising.

(656) \textit{è! jà?á sùrûkù kòdô-fùô mògëé}
hey! lo! hyena salt-powder suck.Pfv
‘Hey, lo! hyena sucked the powdered salt.’ (2016.02 @ 03:25)

19.2.2.2 ‘Even’ (âlì, fô)

Clause-initial \textit{âlì}, the local variant of a widespread regional form, means ‘even’. It usually has primary scope over the subject (657a). For VP or other non-subject scope, a different phrasing
including a distinct form like fô ‘all the way to, as far as’ (also clause-initial) must be used (657b).

(657) a. állì dí-kpèrè cié [[wálí mì] màà]
even child-small can.Ipfv [[work(n) Dem] do.Ipfv]
‘Even a small child can do this work.’

b. [mà nírā] nànù ké, [seⁿ dò] kùdù,
[1Sg face] be.sour.Pfv Past, [thing one] for
fô mà jímè
all.the.way.to 1Sg weep.Pfv
‘I was sad (“my face was sour”), because of something, to the point that I wept.’

19.2.3 Discourse-continuity markers

19.2.3.1 donc ‘so’

French donc is used somewhat like bon, but it is much less common in my texts. It appears to indicate continuity, more or less as in French. (658) follows a description of a situation, and tells us that the situation continued for a while.

(658) donc ààⁿ tû =ũ yàlàa, …
so 3PIHum stay.Adjn=Link thus, …
‘So they remained thus (=in that situation), ….’ (2016_04 @ 00:23)

This is background material and is followed by a new section in the narrative.

19.2.3.2 èmmè kòmì ‘so’

These two particles occur together in preclausal position. kòmì is probably French comme ‘as, like’. The following clause generally summarizes preceding discourse.

(659) èmmè kòmì ààⁿ cié gààⁿ bàà
so I like 3PIHum be.Past combat(n) wage.Ipfv
‘(They also waged war.) So, they used to wage war.’ (2016_01 @ 03:05) (< gààⁿ)

19.2.4 Adversative discourse markers

19.2.4.1 ‘But, …’ (mè)

Clause-initial mè (French mais) occurs several times in the texts. An example:
(660) \[ \text{[fóʔó-tèè} \quad \text{měʔè-nà-à-ní} = i,} \]
\[ \text{[gun-shoot.VblN} \quad \text{person-Nom-Pl-Nom]=it.is,} \]
\[ \text{mè} \ [àà^n] \ \text{dōʔò} \ \text{cié} \ \text{gàà^n} \ \text{bàà} \]
\[ \text{but} \ [3\text{PlHum} \ \text{too}] \ \text{be.Past} \ \text{war(n) wage.Ipfv} \]
‘They were hunters, but they also waged war (=were warriors).’ (2016_01 @ 02:56)

19.2.4.2 ‘Otherwise’ (nóò-té, yàbùgòréⁿ)

These clause-initial discourse elements are difficult to parse. The first is exemplified in (661). Decomposition into morphemes is difficult.

(661) \[ \text{wō-ní=i} \ \text{nóò-té} \ \text{mā} \ \text{cié} \ \text{wàá} \ \text{kūnú} \]
\[ 2\text{Sg-Indep}=it.is \ \text{otherwise} \ 1\text{Sg be.Past go.Ipfv village} \]
‘It’s you, otherwise I would have gone home.’

The second is exemplified in (662). The context is similar to that for nóò-té.

(662) \[ \text{zaķù} \ \text{mā} \ \text{sóʔèé} \]
\[ \text{Z} \ \text{1Sg catch.Pfv} \]
\[ \text{yàbùgòréⁿ} \ \text{mā} \ \text{cié} \ \text{bàkàri} \ \text{bàʔrá} \]
\[ \text{otherwise} \ 1\text{Sg be.Past B hit.Ipfv} \]
‘Zaki caught (=restrained) me, otherwise I would have hit Bakari.’

yàbùgòréⁿ can also function as clause-initial ‘anyway, …’, coming back to the main discourse theme after a digression. See 2016_01 @ 02:24. For bùgòrè ‘because’ see §17.5.2.

19.2.4.3 Self-correction àfʒ ‘or rather’

An example is (663).

(663) \[ \text{[(à)à^n} \ \text{wé} \ [g3l3 \ \text{tò}] \ \text{hèⁿ},} \]
\[ \text{[3\text{PlHumRefl} \ \text{bathe.Adjn} \ \text{[river in]} \ \text{oops!},} \]
\[ \ \text{àfʒ} \ n = \ \text{àà^n} \ \text{kú} \ \text{‘táʔá} \]
\[ \text{or.rather if} \ 3\text{PlHum begin go.Ipfv} \]
‘When they went to bathe in the river, oops! rather when they started out …’
(2016_04 @ 00:06)
19.3 Clause-final discourse-functional morphemes

19.3.1 ‘Now’ (sisàⁿ)

In narrative, sisàⁿ ‘now’ (also in Jula and perhaps a borrowing) is very common clause-finally. Its discourse function is to mark a slight temporal interval between the just described eventuality and a new event. Since it often looks forward to the next clause, it often has continuity intonation (terminal prolongation and M-tone), transcribed sisàⁿ.

(664) bon, èèⁿ [jèré dì-rá-àⁿ] séé jìé sisàⁿ;
well, 3PlNonh [lion child-Nom-Pl] lie.down.Pfv see.Pfv now,
è dè è!
3SgNonh say.Pfv hey!
‘Well, they saw the (two) lion cubs lying down now. He (=hare) said, “hey, …” ’
(2016_02 @ 01:15)

19.3.2 Emphatic dèʔ

Clause-final dèʔ is rather general emphatic. In (665), it indicates mild surprise.

(665) [wò nàyì] dì dèʔ, mon vieux
[2Sg tears] become.delicious.Pfv Emph, my old man
‘Man, your tears sure are tasty!’ (2016_02 @ 04:04)

In (666), there may be an admonitive element in addition to simple emphasis.

(666) mā = Ø [(wò sìbì] dò] ká dèʔ
1Sg=Ipfv [2Sg meat] with want.Stat Emph
‘I sure want (to eat) a piece of your flesh!’ (2016_01 @ 04:29)

19.4 Greetings

Several Jula greetings are in use. An example is ânì sògɔ mà ‘good morning’ and its reply âm bàà. In some other cases there is a slight difference in pronunciation between Jula and Jalkunan. A greeting for a person at work or in the fields is ânì cē, a slight prosodic variation on Jula ânì cé→. An arriving visitor or returning traveler is greeted with è dà’zè ‘welcome!’.

An extended greeting sequence occurs at the beginning of text 2016_02. The examples below were elicited to supplement that.

Departing travelers are sent off with a blessing for a safe return. Such formulae are somewhat difficult to parse; see §10.5.3.2. The subject is dâ ‘God’, here /dâ/ before vv-Contraction. In (667a), the 2Sg object is archaic è rather than wô as usual in imprecations.
In (667b) the 2Pl object ūn is regular. ‘Put you in’ is understood as meaning ‘bring you back (here)’.

(667) a. álé = ūn pē só
    God 2Sg good put.in
    ‘May God put you-Sg (back) in well!’

b. álé = (ūn) pē só
    God 2Sg good put.in
    ‘May God put you-Pl (back) in well!’

An alternative blessing, not necessarily presupposing a return, is (668).

(668) álá cálá nūʔūⁿ-yá
    God road make.good.Imprt
    ‘May God make the road good (=safe)!’

Some wishes expressed during condolence visits to the bereaved survivors of a deceased person are in (669).

(669) a. álá hín = á-yá
    God relieve.Imprt Hum-3Sg
    ‘May God relieve him/her.’

b. álá [kúté-rí má] kûmà
    God [behind on] cool.Imprt
    ‘May God cool (=be mild to) what follows (=the survivors)!’

Good wishes for life and health during the next year, like (670), are given on major religious holidays.

(670) álá pē-wè bílí mūʔū-nú
    God next.year give.Imprt 1Pl-Indep
    ‘May God give us (all) next year!’
I recorded seven texts from three speakers in October 2017. I have so far transcribed and translated texts 01, 02, and 04. The first is an account of the settlement of Blédougou. The second is an animal tale, and the third is a tale about proto-humans.

**Text 2016_01: History**

narrator: Traore Soungalo (S) with Traore Wamara (W)

00:02 W: *má = Ø kɔ̀ɔ̀ [mā wò náká]*

00:02 W: 1Sg=Ipfv want.Ipfv [1Sg 2Sg ask.Ipfv

*[[jàlsà-dù sèlè cògō] mà]],

*[[Blédougou sit.VblN manner] on]],

*[[jàlsà-dù sèlè [sèlè-cògō mi]],

*Blédougou sit.Pfv [sit.VblN-manner Rel]],

*má = Ø kɔ̀ɔ̀ [dē wō tɔ̃tɔ̃ [mā mā]]*

1Sg=Ipfv want.Ipfv [that 2Sg say.Imprt [1Sg Dat]]

W: ‘I want to ask you-Sg about the manner of settling of Blédougou. The way (=how) Blédougou was settled, I want you-Sg to tell (it) to me.’

00:12 S: *[jàlì-kú dù] dɔ̃ʔè kè,*

S: [Jalkunan in] also tagQ,

W: *[jàlì-kú dù]*

W: [Jalkunan in]

S: ‘In Jalkunan (language) too?’

W: ‘(Yes,) in Jalkunan.

*[kè tag question §13.2.1.4]*

00:14 S: *[[jàlsà-dù sèlè sèlè cògō yá mi] = yà],*

S: *[[Blédougou sit.Pfv sit.Vbl manner ?? Rel]=Q*

*jàl-à-à cié [fòʔō-tè̃ meʔē-nà-à] kù°*

Jali-Nom-Pl be.Past [powder-shoot.VblN person-Nom-Pl] Cop,

S: ‘The way Blédougou was settled? The Jali people were hunters (“powder-shooters”).

00:21 S: *jàl-à-à° bɔ̀ mândé,*

S: Jali-Nom-Pl exit.Pfv Mande,

*[[àà a bélé = ] [àà a wà kāŋgā°],

3PlHum pass.Adjn] [3PlHum go.Adjn K],
S: ‘The Jali people left (=came from) Mande. They proceeded to go to Kankan. [bédé ‘exit’, here shortened because nonfinal in clause; Mande refers to the area in southern Mali and northern Guinea-Conakry where the medieval Mande Empire was loosely centered]

00:28 S: [ààⁿ dòʔó] cié
S: [3PIHum also] be.Past

gààⁿ — [kèlè-máṣá-rá-àⁿ] kúⁿ,
fight(n) — [fight(n)-king-Nom-Pl] Cop,
ààⁿ bálú [(à)àⁿ kú₃ʳ₃] mà,
3PIHum return.Adjn [3PIHumRefl behind] on],
S: ‘They were also warrior kings. They turned around and went back.’ [<Jula kèlè-máṣá ‘warrior king’]

00:33 S: [ààⁿ sá], [ààⁿ sá ‘bélé’]
S: [3PIHum come.Adjn], [3PIHum come.Adjn pass]

dàzà [(à)àⁿ sáʔá kóròwáří-wààngóló],
3PIHum go.Adjn [3PIHum sit.down.Adjn Côte d’Ivoire-Ouangolo],
S: ‘They came, they came and they kept going and they settled at Côte d’Ivoire-Ouangolo.’

[Ouangolodougou, or Ouangolo for short, denotes a pair of communities separated (widely) by the Burkina-Côte d’Ivoire border, so the country names are used as compound initials to specify which one]

00:40 S: jàlsà-dù dupàŋín-né = è, jàl-á-à-nù,
S: Blédougou land-Nom=it.is, Jali-Nom-Pl-Nom,

dàjn xé ké fōʔō-ʒè mèʔ-ńâ-ńâ = yì,
3PIHum exit.Pfv as [powder-shoot.VblN person-Nom-Pl-Nom]=it.is,
dàj sì fênéñi = jà ndè,
3PIHum come.Pfv become.many=Link there.Def,
S: ‘It’s Blédougou’s land. They left (=came from) (there). The Jali (people), as they were hunters, they came and multiplied there.’

[dùʔàŋinì ‘country’, here “possessed”]

00:47 S: [ààⁿ bèlè] [ààⁿ sá dàmààná],
S: [3PIHum pass.Adjn] [3PIHum come.Adjn D],

dàjn sì cié dàmààná,
3PIHum come.Adjn arrive.Adjn D,
dó-dóⁿ bò = jà ndè, [ààⁿ sá],
certain-Pl exit.Pfv=Link there.Def, [3PIHum come.Adjn],
[ààⁿ sá = ] [ààⁿ sáʔá jàlsà-dù],
3PIHum come.Adjn [3PIHum sit.Adjn Blédougou],
S: ‘They moved on and came to Damana. When they (had) arrived in Damana, some (of them) left there, they came, they came and sat (=settled) in Blédougou.’
[Damana, large village SE of Blédougou near Côte d'Ivoire border]

00:59 S: **bon, ñà jálkù-rò,**
S: well 1Pl Jalkunan-Nom,

\[ mà?à = \emptyset \ ̣′nì \ mà?à \ jàlsà-du \]
1Pl 3SgNonObj name(v).Pfv Blédougou

S: ‘Well, (in) our Jalkunan (language), we call it (=Blédougou village) jalsadu.’
[ñà reduced from \màʔù à]

01:04 S: **jàl-á-à-a**, jàl-á-à a néni kéé nàà,
S: tssetse-Nom-Pl, tssetse-Nom-Pl become.many.Pfv Past here,
[wò kòsò] àa dé jàlsà-du,
[3SgFoc because] 3PlHum say.Pfv Blédougou,

[jàl-á-à a sà] dò,
[tsetse-Nom-Pl house] in,
S: ‘Tse-tse flies, There were lots of tse-tse flies here. That’s why they said (=called the village) jalsadu, (contracted from) “in the house (=village) of the tse-tse flies’.’

[jàlà ‘tse-tse fly’; Past ké → kéé before demonstrative adverb nàà, can be transcribed ké = ã nàà with encliticized linker]

01:11 S: **bon, jòʔó-kú-ród, à-ma a dé béré-du-gù,**
S: well, Jula-language-Nom, Hum-3Pl say.Pfv stick-village,
[mèʔo kpè-rà-a a] àa jàmùli,
[person white-Nom-Pl] 3SgObj change.Pfv,
B: ‘Well, in Jula (language), it’s they (=Jula people) [focus] who say (=call the village) béré-du-gù (“wooden.stick-village”). The white people changed it.’

[à-ma à human 3Pl focused pronoun §13.1.1]

01:18 S: \a a ní màʔa a, Blédougou,
S: 3PlHum 3SgNonObj say.Adjn, B,

nóôté [è tòʔóni béré-du-gù],
otherwise [3SgNonh be.named B],
jàl-kù-ròj, jálsà-du, [jàl-á-à a sà] dò,
Jalkunan-Nom, J, [tssetse-Nom-Pl house] in,
S: ‘(And) they called it Blédougou. Otherwise, it was (originally) named béré-du-gù.
In Jalkunan (language), jálsà-du, (from) “in the house (=village) of the tse-tse flies’.’

01:28 S: \jàlsà-du [sèʔé kú-rod] nè,
S: Blédougou [sit.Vbl matter-Nom] here,
\mí jálsà-du sèʔé, dràmànù-gbé,
Rel Blédougou establish.Pfv, DG,
à-wò jálsà-du sèʔé,
Hum-3Sg Blédougou establish.Pfv,
There’s the (manner of) Blédougou’s settling. The one who established Blédougou, (he was) Dramanu Gbe. It was he [focus] who established Blédougou. He (then) came and gave birth to (=had a child) Doore.’

W: èmmè kómi dramànù-gbè dôdrè bóloë,
S: so like DG D give.birth.Pfv,

01:42
S: dôdrè dè, [dramànù-gbè dì-kàmà-nà] = ∅
W: ‘So it’s like Dramanu Gbe gave birth to (=had a son) Dore. Dramanu Gbe’s son was (named) with (=by) Doore.’

S: ‘(He was called) with Doore. Dramanu Gbe’s son was (named) with Doore.’

01:57
S: dôdrè dì-kàmà-nàá, cê-wò dè,
W: here for expected human à-wò
S: D child-male-Nom, Tch with,
Tch child-male-Nom, Nonh-3Sg [S with],
S: Doore’s son, (he was named) with Tcho’ongou. Tcho’ongou’s son, (he was named) with Sibiri. Sibiri’s son (was named) with Kuguli.

S: Doore’s son, (he was named) with Tcho’ongou. Tcho’ongou’s son, (he was named) with Sibiri. Sibiri’s son (was named) with Kuguli.

02:11
S: kuguli dì-kàmà-náá, è-wò [sèédù dè],
S: K child-male-Nom, Nonh-3Sg [S with],
1Pl Senoufo.language 3SgHum Z
mê à tòõóni sèédù
but 3Sg be.named.Pfv Seydou
S: ‘Kuguli’s son, (he was named) with Seydou. We, in Senoufo language he (was called) Zample, but he was (really) called Seydou.’

S: ‘Kuguli’s son, (he was named) with Seydou. We, in Senoufo language he (was called) Zample, but he was (really) called Seydou.’

02:20
S: wáláá, kuguli dì-kàmà dôdr, S: so.there, K child-male too,
[è-wò dôdrò] [bâjârâ dè],
[Nonh-3Sg too] [B with],
à-wò dé-kpè₉ kââtò
Hum-3Sg die.Pfv now,
S: ‘So there. Kuguli’s son too (=his other son), he too (was named) with Badiara. It was he (=Badiara) [focus] who died recently.’

[My assistant clarifies: Badiara was the son of Kuguli the elder son of Sibiri, while Seydou was son of Baba the younger son of Sibiri, i.e. Seydou and Badiara were paternal cousins]

02:29 S: sòlómání, [mèlé mi] = Ø [jàl-sà dù sà-màà] kùⁿ ì,  
S: S, [person Rel]=be [Blédougou house-chief] Cop today,  
è-wó [sòlómáñ dé],  
Nonh-3Sg [S with],  
S: ‘(As for) Suleyman, the person who is the village chief today, he is (named) with Suleyman.  
[jàl-sà ‘village chief’]

02:34 S: wáláā, mī-iº jàlsà-dù sèléé,  
S: so.there, Rel Pl Blédougou establish.Pfv,  
àº bèlé, è-wó ñè,  
3PIHum pass.Adjn, Nonh-3Sg here,  
yàbûgôrêº nàŋkō?rósààdù, jàl-á-à-n = Ø ñè,  
anyway N, Jal-Nom-Pl-Nom=be there.Def,  
S: ‘So there. The ones who established Blédougou, they have passed (away), that [focus] is it. Anyway, at Niankorodougou, Jali people are present.’  
[Niankorodougou is 14 km south of Blédougou]

02:44 S: à-màà tô?ô ‘kéé surôjí-gbè,  
S: Hum-3Pl name name(v).Pfv SG,  
à-màà tô?ô kèé surôjí-gbè, nàŋkō?rósààrè,  
Hum-3Pl name call.lpv SG, N,  
S: ‘They [focus] call(ed) him Surojigi Gbe. They call(ed) his name Surojigi Gbe, (at) Niankorodougou.’  
[cf. à mǎà tô?ô kè ‘their name was called’]

02:50 S: jàl-á-à-nù mè à-mààº kónténì  
S: Jali-Nom-Pl-Nom but Hum-3PlFoc count.Pfv nàŋkō?rósààrè déé-dè,  
Niankorodougou there.Def-there.Def,  
‘The Jali people, however, they are counted (=considered to be) (from) Niankorodougou there.’  
[kónténì < French compter, in Jalkunan kά ‘count; consider’]

02:56 S: [jàlsà-dù sèlé-kùdà-rê] = Ø [mí ñè],  
S: [Blédougou establish.VblN-reason-Nom]=be [Dem with],  
è-wó ñè [fôlô-tèe mèlé-nà-à-nî] = ì,  
Nonh-3Sg here [gun-shoot.VblN person-Nom-Pl-Nom]=it.is,
mè [ààⁿ  dòʔò] cié  gààⁿ  bàà,
but  [3PlHum too]  be.Past  war(n)  wage.Ipfv,
S: ‘The explanation (reason) of Blédougou’s establishment is with this. That [focus]
is it, they were hunters, but they also waged war (=were warriors).’
[kúd5 ‘reason, explanation’, gààⁿ ‘combat (n)’; ‘hunter’ is literally ‘gun-shooter’ so
it easily transitions to ‘warrior’]

03:05  W: èmmè  kómi  ààⁿ  cié  gààⁿ  bàà,
W: so like  3PlHum be.Past combat(n) wage.Ipfv,
S: wàláà, kélè-másáw, gààⁿ-másá-rà-å-ñ,
S: so there, war(n)-king, war(n)-king-Nom-Pl-Nom,
fò́ʔò-tèè  mè́-nà-å-ñ
gun-shoot.VblN person-Nom-Pl-Nom
W: fò́ʔò-tèè  mè́-nà-å-ñ
W: gun-shoot.VblN person-Nom-Pl-Nom
W: ‘So, they used to wage war.’
S: ‘That’s it. Warrior kings, warrior kings, (and) hunters.’
W: ‘Hunters.’
[kélè-másáw ‘war king’ is Jula, Jalkunan equivalent is gààⁿ-másá]

03:16  W: [ààⁿ  dòʔò] cié  gààⁿ  màà,
W: [3PlHum too] be.Past war(n) do.Ipfv,
S: wàláà
S: so there
W: [dòówèè  dòʔò]=Ø  dè  ò5ò5=rè?
W: [nothing again]=be there.Def again=Neg
W: ‘They also made war.’
S: ‘That’s it.’
W: ‘There’s nothing more.’

03:20  S: dòówèè, [jálsà-dù  séʔé-kúd5  bùʔú] nè,
S: nothing, [Blédougou establish.VblN-reason all] there,
mè jálsà-dùû, [màrà  mí  kúrr  bùʔú-ná]
but Blédougou, [commune Dem oldest all-Nom]
jálsà-dù  kúrr  bigi-ná,
Blédougou oldest all-Nom,
S: ‘Nothing. There (you have) all the explanation of the establishment of Blédougou.
But Blédougou is the oldest of all (villages) of this commune. Blédougou is the oldest of
all.’
[A commune is an administrative divisions including several villages; kúrr with
unusual final trill (but note variant kùrá below) seems to be an expressive adverbial]

03:27  W: jálsá  kùrá  [màrà  mí  bùʔú-ná]
W: Blédougou oldest [commune Dem all-Nom]
W: ‘Blédougou is the oldest (village) in this whole commune.’
S: ‘The oldest of all (of the commune).’

[jálsà variant of jálsà-dù]
The name of the owner of the Jali territory (in Ouangolo) was Fa. The name of the owner of the Jali territory (in Ouangolo) was Fa.'

W: ‘Fa.’

S: ‘But (he was) a child (=native) of Jali. Fa came (=went) and died, but Bema is in his tracks (=has taken his place).’

W: ‘Fa.’

S: ‘Fa.’

W: ‘Sí for sé ‘came’; bëmá (name); nùù ‘tracks, trail’ and hence ‘place, position’}

W: ‘Bëmá is.’

W: ‘In his tracks.’

W: ‘In his tracks.’

[sa for sé ‘came’]
W: [fäà dí-ká♠ä-ná] —
W: [F child-male-Nom]
S: bë♠ä dë
S: B there.Def
W: bë♠ä dë
W: B there.Def
W: ‘Eh, a child (=native) of Jali, so as—’
S: ‘Jali—. He’s Fa’s son.’
W. ‘Fa’s son ….’
S: ‘… is Bema there.’
W: ‘… is Bema there.’

04:13 W: wà-ngoló
W: W
S: wà-ngoló, kóròwáári, [jàl dù?ùpinë] = è,
S: W, Côte d’Ivoire, [Jali territory]=it.is,
W: ‘Ouangolo (village).’
S: ‘Ouangolo, (in) Côte d’Ivoire, it’s Jali territory.’

04:21 W: èmmè kó♠ūi, [jàlsâ-dû sëʔé cógò bùʔũ] = Ø —
W: so like, [Blédougou sit manner all]=be —
S: [è bùʔũ] = Ø nē,
S: [3SgNonh all]=be there,
W: èmmè kó♠ūi jálsâ-dû méé
W: so like Blédougou be.made.Pfv
kó♠ūi è kûrû [lâmînî mí sâá fềe”]
like 3SgNonh oldest [surroundings Dem house many]
S: kûrr bùʔũ-nû, jálâ kûrr bùʔũ-nû,
oldest all-Pl, Jali oldest all-Pl,
W: ‘So the entire manner of Blédougou’s establishment is—’
S: ‘It’s all there.’
W: ‘So like Blédougou was made, like it’s the oldest (village) of many (=all) the villages of the surrounding area.’
S: ‘The oldest of all. The oldest of all Jali (country).’

04:31 S: nē = è bɔ [jàl-á-â” nā], wà?râ-râ-â—
S: if 2Sg exit.Antec [Jali-Nom-Pl ethnicity] Wara-Nom-Pl-Nom
W: wà?râ-râ-â—
W: Wara-Nom-Pl-Nom
S: wà?râ-râ-â—, nàcɔ̀r-r-ɔ̀-â—,
S: Wara-Nom-Pl-Nom, Natiooro-Nom-Pl-Nom,
S: ‘If you-Sg go beyond the Jali ethnicity, the Wara people.’
W: ‘Wara people.’
S: ‘The Wara people (and) the Natiooro people.’
[wáŋrá, nàc̄rá]

04:38  S: [mɛʔéⁿ mì-i] sà dëńá mùʔù-nù,
S: [person Rel-Pl] Fut follow 1Pl-Nom,
è-wó = Ø [[kùmáʔání mेʔé-nà-áⁿ] dē],
Nonh-3Sg=be [[Konadougou person-Nom-Pl] with],
W: kùmáʔání mеʔé-nà-áⁿ
W: Konadougou person-Nom-Pl-Nom
S: ‘The people who come after us, that [focus] is (with) the people of Konadougou.
W: ‘The people of Konadougou.’

04:44  S: [má kɔ̀nì] mì só [jàlsà-ðù kú-rɔ̀]
S: [1Sg Topic] Rel know.Pfv [Blédougou matter-Nom]
è-wó = Ø nè
Non-3Sg=be there
S: ‘As for me, what I know about the matter of Blédougou, that [focus] is it.’
Text 2016_02: Tale of hyena, hare, and lion

narrator: Traore Be (B), with Traore Wamara (W)

00:00  W: àní sỳỳò mà
        W: Good morning [< Jula]
B:  ámb àà
B: [reply]
W: kùnù-ì-ɛ̀-ɛ́-à-ń = Ø òò
W: village-person-Nom-Pl=be be where?
B: [ààⁿ bùʔú] = Ø = ě dè
B: [3PlHum all]=be=Link there.Def
W: kpé niíⁿ ké = ě dè
W: what? 2Pl have=Link there.Def
B: [ààⁿ bùʔú] = Ø = ě dè
B: [3PlHum all]=be=Link there.Def
W: kùnù-méʔé-nà-à-ń = Ø òò
W: village-person-Nom-Pl-Nom=be be.where?
B: [ààⁿ bùʔú] = Ø = ě dè
B: [3PlHum all]=be=Link there.Def
W: dí-rá-à-ń = Ø òò
W: child-Nom-Pl-Nom=be be.where?
B: [ààⁿ bùʔú] = Ø = ě dè
B: [3PlHum all]=be=Link there.Def
W: jnáá-nà-à-ń = Ø òò
W: woman-Nom-Pl-Nom=be be.where?
B: [ààⁿ bùʔú] = Ø = ě dè
B: [3PlHum all]=be=Link there.Def
W: dí-rá-à-ń = Ø òò
W: child-Nom-Pl-Nom=be be.where?
B: [ààⁿ bùʔú] = Ø = ě dè
B: [3PlHum all]=be=Link there.Def
W: ‘Good morning.’
B: [reply]
W: ‘Where are the people of the village (=family)?’
B: ‘They are all there.’
W: ‘What (trouble) has (=has afflicted) you-Pl there?’
B: ‘They are all there.’
W: ‘Where are the children?’
B: ‘They are all there.’
W: ‘Where are the women?’
B: ‘They are all there.’
W: ‘Where are the children?’
B: ‘They are all there.’

[the opening greetings are in Jula (green); kpé nii ken dė contains 2Pl ēö with unusual nasal onset (cf. third-person objects with initial n); kā ‘have’ modified to ke=ē before dė ‘there’]

00:12  B: kpē=Ø=ǹ dė
B: what?=be=Link there.Def
W: sīni=nē?
W: anything=Neg
B: [kidà gbɔ] =Ø dɔ̩
B: [old.man] =be be.where?
W: á=Ø=ǹ dė
W: 3Sg=be=Link there.Def
B: [nàà kùdɔ̩] bùʔù-ù
B: [woman old] all-Pl
W: á=Ø=ǹ dė
W: 3Sgbe=Link there.Def
B: ‘What (problem) is there?’
W: ‘Nothing is there?’
B: ‘And the old man (=your father)?’
W: ‘He is there.’
B: ‘And all the old women (=your mother)?’
W: ‘She is there.’

00:18  W: sɔ́ʔɔ́n ˓n ˓n ˓n
W: morning-Nom
B: sɔ́ʔɔ́n ˓kibéréè, sùn dė= rê?
B: morning-Nom greeting, anything there=Neg
W: ánì-ké tibè-rá, entrada
W: thanks greeting-Nom,
  ˓  mùʔùⁿ jémé, ʃoglu
God 1Pl help.Imprt,
  ˓  mùʔùⁿ sàbàbù ˓nà, ʃoglu
God 1Pl cause make.good.Imprt,
  ˓  mùʔùⁿ gérìyèʔè fèeⁿ ʃoglu
God 1Pl luck untie.Imprt
W: ‘(What news) in the morning?’
B: ‘Morning greetings. There is nothing.’
W: ‘Thanks for the greetings. May God help us, may God keep us on the right track, may God untie (=release) our luck.’

[fàni-ké < Jula: kibéréè ‘(morning) greeting’; sàbàbù ‘cause, reason’ and gérìyèʔè ‘luck’ are tone-raised by mùʔùⁿ as possessor §6.2.2.1; transitive imprecations use the imperative stem §10.5.3.2]
00:28 W: 'There’s no trouble. I would like you to tell a tale for me, as I have not heard a tale for a long time. I want you to tell a story of wild animals.'

W: 'There’s no trouble. I would like you to tell a tale for me, as I have not heard a tale for a long time. I want you to tell a story of wild animals.'

[komí < French comme ]

00:38 B: 'I have understood. Shall I begin? Well, the story that I will tell, (it’s a tale of) hyena, along with hare. They went hunting. They saw a hole.'

[klén ‘hunting’ or more generally ‘going around in the bush’; yálá ‘hole’; specific indefinite dò introducing a new discourse referent §6.5.2]

00:57 B: ‘Well, hyena, hyena and hare. They went hunting. They were hunting. Well, they went and saw a hole.’

[bon, cîn dè] [sùrúgú mà], 2Sg=Ipfv can enter.Ipfv here
súrúkú  dè,  ë!  d3?5-cié,

hyena  say.Pfv,  eh!  younger.brother,
mà = Ø  sà  cié  ‘s35  [ïyàlì  ‘mi’  ìt] = rẹ?,

1Sg=1Sg Fut can.enter.Ipfv  [hole  this]  in]=Neg,

B: ‘Well, hare said to hyena, “This hole, can you enter (it) here?” Hyena said, “Younger  brother,  I  won’t  be  able  to  enter  (=fit  into)  this  hole.” ’

[/s35  nàà/  →  sóò  nàà  ‘here’  with  +ATR  before  demonstrative  adverb;  d3?5-cié
vocative  of  dò?ò  ‘younger  brother’  §4.1.1.3]

01:04  B:  nàà!  múùú”  wà,  kàà-sàrò.

B: friend! 1Pl go.Imprt, it.happened.that,

cì-náà,  ë  jèrè —
hare-Nom,  3SgNonh  lion—  [false  start]

è  [jèrè  bóò  là?à]  dàà-sà,
3SgNonh  [lion  exit.VblN  place]  know(place).Pfv,

B: (Hyena:) “Friend, let’s go!” Now it happened that hare, [false  start  omitted]  he
knew  the  lion’s  exit  place  (=entrance  to  lion’s  den).’

[ nàà!  vocative  of  nòò  ‘friend’  §4.1.1.3;  kàà-sàrò  §19.2.1.3]

01:10  B:  bon,  ëò”  tâò”  cié  [cif  dò]  kúd5j],

B:  well,  3PlNonh  go.Adjn  arrive.Pfv  [[thicket  one]  under],

èò”  tâò”  s35  [cif  mì]  ðùùj,
3PlNonh  go.Adjn  enter.Adjn  [[thicket  Dem]  in],
èò”  [jèrè  dì-rá-à”]  séé  ’jí,
3PlNonh  [lion  child-Nom-Pl]  lie.down.VblN  see.Adjn,

B: “Well, they went and arrived under (=at) a thicket (dense forest). They went into
that thicket. They saw the lion cubs lying down.’

01:15  B:  bon,  ëò”  [jèrè  dì-rá-à”]  séé  jié  sìsàù”,

B:  well,  3PlNonh  [lion  child-Nom-Pl]  lie.down.Pfv  see.Pfv  now,
è  dè  ë!,  múùú”  [jèrè  dì-rá-à”]  yááì = rë = ë”,
3SgNonh  say.Pfv  hey!,  1Pl  [lion  child-Nom-Pl]  take.Ipfv=Neg=Q,
èò” = Ø  [jèrè  dì-rá-à”]  yááì  sìsà”,
3PlNonh=Ipfv  [lion  child-Nom-Pl]  take.Pfv  now,
èò”  bë =  [(èò”  wà],
3PlNonh  put.in.Pfv  [3PlNonhRefl  Custod],

B: ‘Well, they saw the (two) lion cubs lying down now. He (=hare) said, “hey, shall
we  not  take  the  lion  cubs?”  They  took  the  lion  cubs  now,  they  put  (the  cubs)  in  their
custody  (i.e.  in  sacks).’

[ bë”  ‘put’  (perfective);  custodial  postposition  wà  ~  wá  ‘in  the  custody  of  (in  a  sack  or
pocket)’  §8.4.2]

01:24  B:  wálàà,  bon,  sìsà”  ci-nà  dáli  yàlùì,

B: there.it.is!,  well,  now  hare-Nom  one  take.Pfv,
‘There it is, well, now hare took one and hyena took one (=the other). They went away then.’

B: ‘Now they set off hunting. Well, they went and encountered (=met with) the lion.’

[Hunters use wọ́s-ọ́s ‘So-and-so’ (plural wọ́s-ọ́s-nù ~ wọ́s-ọ́s-ná, §4.1.1.4) as a euphemism for the name of whatever animal they have killed; è=rÈ=e{n negative interrogative as hortative §13.2.1.3; mù?ù=n=Ø ‘kpá=n reduced from mù?ù=nì=n ‘kpá ‘let’s kill them-Nohuman!’, 1Pl n as second subject in same-subject adjoined clause §15.2.1.3]

‘Shall we not kill the so-and-sos? Let’s kill (them), otherwise—. Let’s kill and put (them) in our custody (=in sacks)!”’

[‘hand’, ‘put in’; ci= < cié ‘pour into’, i.e. ‘put’ when the object is a
bunch or mass of grains or other small objects like peanuts; nāá mì 'mine' (reflexive), cf. níí mì 'yours' (reflexive)

01:49 B: bon, sùrùkú wǒ nánámá,
    B: well, hyena 2Sg idiot,
    [wǒ dò́?ó] = ∅ 'bù́lú sísáà',
    [2Sg also]=Ipfv return.Ipfv [now,
    [ě mi] wù] tèè,
    [2SgRefl Poss] head] shatter.Pfv,
    é ∅ bè = [ě wù] [jū fá tò = ò] dè,
    3SgNonh 3SgObj put.Pfv [3SgNonhRefl Custod [pocket in=Link] there,
    B: ‘Well, hyena, you idiot (=gullible one). You too go back now, (you) have shattered the head of yours (=your lion cub).’ He (=hyena) put it in his pocket there.’
    [quotation is addressed by the narrator to hyena as character in the story, bè=é < /bɛ̌ è wù/ , tɔ̀ → tòò before dè ]

01:54 B: èè" kú wáá,
    B: 3PlNonh begin go.Ipfv,
    èè" tá?á kíé sísáà”,
    3PlNonh go.Adjn arrive.Pfv now,
    èè" tá?á wò́lòkó [jɛ̀ rɛ́ dɛ̀ rɛ́jì ɛ́ ɛ̀]
    3PlNonh go.Adjn encounter [lion with],
    B: ‘They went (=continued on) then. They went and arrived now, they went and encountered the lion.’

01:58 B: èè" tá?á [jèré jiéé],
    B: 3PlNonh go.Adjn [lion see.Pfv],
    é jèré = èè" jáá yàlà,
    Hey! lion 3PlNon frighten.Adjn take.Adjn,
    é kòr jèré, è bò mì,
    Hey elder.brother lion, 3SgNonh exit(v).Pfv where?
    mù?ù" bà [kléí tò̀rɔ́],
    1Pl exit.Pfv [hunt(n) Purp],
    B: ‘They went and they saw the lion. Hey, the lion frightened them. (Hare said:) “Hey elder brother lion, where are you coming from? We have gone out to hunt.’

02:05 B: mùā = ∅ bò mì,
    B: 2Pl=Ipfv exit(v).Pfv where?
    kòmì m = ∅ sá [wɔ̀ dì-rá-à” jié] as 1Pl=Ipfv come.Adjn [2Sg child-Nom-Pl see.Pfv]
    àà” kú jiímáà,
    3PlHum begin weep.Ipfv,
    [wɔ̀ tô] mù?ù" nìí” yálí,
    [3SgFoc in] 1Pl 3PlNonhObj take.Pfv,
B: ‘(Lion:) “Where have you come from?” (Hare:) “We came and saw your cubs, they were weeping. That [focus]’s why we took (them).”’

[<jiìmà ‘weep’ (Ipfv)]

02:08 B: mùʔú°, 1Pl=Ipfv Fut 3PlHum give.Ipfv Nonh-3SgObj, wàlà mì éë° [kù pè] mè [mà kë°].
there! oh! 2Pl [thing good] do.Pfv [1Sg Benef]
èë° bò, 3PlNonh take.out.Impr,
B: ‘(Hare:) “We will give them to him (=you).” (Lion:) “Oh, you–Pl have done something good for me. Take-2Sg them out!”

[‘give’ with postverbal object denoting the recipient; cubs are here treated pronominally as though human; bòl = í-yà < /bíle i-yà/; abstract kù instead of concrete së° ‘thing’ in kù pè; ëë° bò is addressed to hare (not hare and hyena), compare ëë° ëë° bò pronounced [ëë(ː)yò] addressed to two persons]

02:12 B: bon, [ci-né = [è mì] bóó] well, [hare-Nom = 3SgNonh] Rel take.out.Pfv
[∅ bàlì],
[3SgNonh stand.Pfv],
è-yà ò bòl = [[è kpè-rë] mà], 3SgNonh 3SgNonhRefLf stand.Pfv [[3SgNonhRefLf foot-Nom] on],
B: ‘Well, the one (=cub) that hare took out stood up. It stood on its feet.’

[boó ∅ < /böë ò/: è-yà ò bòl variant of pseudo-reflexive è ní bòl ‘it stood’, cf. nonhuman 3Pl ëë°-yà ëë° bòl (§10.1.1.3); /bàlì ò/ contracts as bòl = è; [è kpè-rë] mà with optional nominal suffix before postposition]

02:16 B: bon, sûrükú-rò [è miî] bòò, with, hyena-Nom = 3SgNonhRefLf Poss] take.out.Pfv,
è = ∅ bòl — è cì =
3SgNonh=Ipfv stand.Pfv — 3SgNonh be.able.Pfv
[ì bòlì [è kpè-rë] mà] = në?,
[[3SgNonh stand.Pfv [3SgNonhRefLf foot-Nom] on]] = Neg,
[è wú] tèë
[3SgNonh head] be.shattered
B: ‘Well, hyena took his (lion cub) out. It stood—. It couldn’t stand on its feet. Its head was shattered (crushed).’

02:19 B: ë dè ày!, nà [à mànà], hey!, ah!, well, hyena-Nom=Ipfv Fut=3SgNonh see.Ipfv,
B: ‘He (=lion) said, “Hey, friend, how is it? (=what’s up?). Hey, ah!” Well, hyena was considering (how to escape), (but) there was no way out (way to escape).’

[à mänà ‘what’s up?’ §13.2.5; ‘will see it’ in the sense ‘considered (what to do)’]

02:27 B: súrúkú-rò = Ø commencer è fidi bò,  
B: hyena-Nom=Ipfv begin 3SgNonh run.Adjn exit.Adjn.Defoc,
jér-rá = Ø kpà” [súrúkú kpà-nà],  
lion-Nom=Ipfv follow.Adjn [hyena goal],  
B: ‘Hyena began to run away. Lion followed his tracks.’

‘begin’ probably adjoined verb after subject with imperfective enclitic, likewise ‘follow’ in the second clause; kpà-nà §8.4.3

02:30 B: bon cìn dè [súrúkú mà],  
B: well hare say.Pfv [hyena Dat],  
nàà mà [yálà mi] dúdůl wō-nū dé?,  
friend 1Sg [hole Rel] show 2Sg-Indep Emph,  
[kè-wò lālâ] lè dè?,  
[Nonh-3Sg place] look.at.Imprt Emph,  
B: ‘Well, hare said to hyena: “friend, the hole that I showed you, you should look at it (carefully).”’

02:34 B: nàà mà [yálà mi] dúdůl wō-nū,  
B: friend 1Sg [hole Rel] show 2Sg-Indep,  
[kè-wò lālâ] lè dè?,  
[Nonh-3Sg place] look.at.Imprt Emph,  
B: ‘(Hare, repeating:) “friend, the hole that I showed you, you should look at it (carefully).”’

02:36 B: bon sísà”,  
B: well now,  
súrúkú-rò = Ø tālà [yálà mi] jì sísà”,  
hyena-Nom go.Ipfv [hole Dem] see.Adjn now,  
è sò [yálà mì] tò,  
3SgNonh enter.Pfv [[hole Dem] in],  
è sò sísà” [yálà mì] tò,  
3SgNonh enter.Pfv now [[hole Dem] in],  
B: ‘Well, now, hyena went and saw that hole now. He went into that hole. He went into that hole now.’

02:40 B: [jèr-rá = Ø tīʔ=] [í bāl dāā],  
B: [lion-Nom=Ipfv go.Adjn] [3SgNonh stand.Adjn mouth],
B: `The lion went and stopped at the edge (of the hole).’ Well, who (=which one) of the two of them (lion and hare) would dig up that hole? They didn’t find anyone (to dig).’

[adjoined verb (variant of tā̀ ‘go’) after subject with imperfective enclitic; The ‘who?’ question is the narrator’s wondering, not a quotation]

02:46  B: bon kàrà lè, [dùgù-dù]-[jìyë-rà],
B: well, elder.brother warthog, [the.bush-In]-[pig-Nom],
wò sé klé tǎrà bóó dè,
2Sg come.Pfv walk.around go exit(v) there,
B: `Well, big brother warthog, you came walking around and you went and appeared (=came out) there.’

02:50  B: è dè é, kàrà lè,
B: 3SgNonh say.Pfv hey!, elder.brother warthog, sè nà-mì-nè,
come.Imptr here,
còw sùrúkú sò [yálā mì-nà]
oh! hyena enter.Pfv [hole Dem-Nom]
sì = i sìⁿ [mā k３],
come.Imptr 3SgNonh dig [1Sg give],
B: `He (=lion) said, “hey!, elder brother warthog! Come here! Oh, hyena has gone into this hole. Come and dig him out to give (him) to me!”’
[warthog is a good digger; < /sè ˈvǐ ]

02:56  B: bon, [dùgù-dù]-[jìyë-rà] sè = [∅ = wò má] sìsàⁿ,
B: well, [the.bush-In]-[pig-Nom] come.Pfv [Nonh-3SgFoc on] now,
è kú [yálā mì] sinà,
3SgNonh begin [hole Dem] dig.Ipfv,
B: `Well, thereupon [focus] warthog came now. He began digging that hole.’

02:59  B: è-wò = ∅ [yálā mì] sini-yà sìsàⁿ,
B: Nonh-3SgFoc=Ipfv [hole Dem] dig-Prog now
bon, ci-ná = ∅ sì = i jìëë,
well, hare-Nom=Ipfv Fut=3SgNonh see.Ipfv,
[dùgù-dù]-[jìyë-rà] = ∅ sà cíèt [sùrúkú mà],
[the.bush-In]-[pig-Nom]=Ipfv Fut arrive.Ipfv [hyena with],
B: ‘It was he [focus] who was digging up that hole now. Well, hare was about to see him (=hyena). Warthog was about to reach hyena.’

03:04 B: ë bùlú sisâ",
B: 3SgNonh return.Adjn now,
ë dé [käró lè]
3SgNonh say.Pfv [elder.brother warthog]
bó-dè bó-dè, mā nā lè tɔ⁵,
get.away! get.away! get.away!, 1Sg 3SgHumObj look.at.Imprt first,
B: ‘He (=hare) turned around now. He said, “elder brother warthog, get away from there! Let me look at him first!”’

[ bó-dè specialized contraction of bó dè ‘go out/away from there!’; lè ‘look at’ (imperative after +3Sg)]

03:09 B: ë ò à watà sà kàrâ sisâ",
B: 3SgNonh 3SgRefl bend.over do.finally now,
ë sûríkú lè [yàlā tɔ⁵]
3SgNonh hyena look.at.Pfv [hole in]
e kòò-fóʔó bil = i-yà,
3SgNonh.3SgObj salt-powder give.Pfv Nonh-3SgObj,
B: ‘He (=hare) bent over eventually. He looked at hyena in the hole. He (=hare) gave him (=hyena) some powdered salt.’

[màà-sàá ‘bend over’ includes sàá ‘come’; < /bílì è-yà/]}

03:13 B: ë kòò-fóʔó bil = i-yàá,
B: 3SgNonh salt-powder give.Pfv Nonh-3Sg,
ë dé = [ë mà] sisâ” [kòò-fóʔó mí-ñà] nè,
3SgNonh say.Pfv [3SgNonh Dat] now [salt-powder Dem-Nom] there,
B: ‘When he had given him the powdered salt, he (=hare) said to him (=hyena) now, “Here’s the powdered salt.”’

[presentative ‘here’s X’, §4.4.3]

03:16 B: nè, ní kàrâ lè
B: here’s, if elder.brother warthog
sì=i wù sɔ̃ [wàʔàtí mi-ñà],
Fut=3SgNonh head put.in.Ipfv [time Rel-Nom],
e = ò kòò-fóʔó fiéli [nîl-là-à” tɔ⁵],
3SgNonh=Ipfv salt-powder toss [eye-Nom-Pl in],
B: ‘(Hare:) “Here it is. When elder brother warthog puts his head (in the hole), you (=hyena) must toss powdered salt in (warthog’s) eyes!”’

[fiéli < Jula ]

03:20 B: bon, ë bóó bàl, kàrâ járà —
B: well, 3SgNonh exit(v) stand.Pfv, elder.brother lion—,
B: ‘Well, he (=hare) stood aside. Elder brother lion— (correction) elder brother warthog moved over and began digging that hole, buguri! buguri! buguri! (sound of digging)’

03:25 B: é! jáʔá sůrúkú kòd-ʔoʔó můgée, B: hey! lo! hyena salt-powder suck.Pfv, bon, é jìè [é=∅ ni sín-yá] well, 3SgNonh.3SgObj see.Pfv [3SgNonh=Ipfv 3SgNonhObj dig-Prog] [é=∅ ni sín-yá] [3SgNonh=Ipfv 3SgNonhObj dig-Prog] [é=∅ ni sín-yá], [3SgNonh=Ipfv 3SgNonhObj dig-Prog], B: ‘Hey, lo! hyena sucked the powdered salt. He (=hare) saw him (=warthog) digging it, digging it, digging it.’

03:31 B: [lip smack] ci-ná sí=i jìè, B: [lip smack] hare-Nom Fut=3SgNonhObj see.Ipfv, mā n̥ŋ̥-n̥ k̥, à w̥mí múgée, 1Sg friend Top, 3SgHum Dem suck.Pfv, ‘Tsk! Hare considered what to do. (Hare, to himself:) “My comrade (=hyena) has sucked that (=salt).”

03:35 B: é tɔn̥ [bèle d̥iʔ] sísà”, B: 3SgNonh.3SgRefl approach [pass again] now è tǎʔá dò b̥̥li= iyà, 3SgNonh go.Adj one give.Ipfv 3SgNonh [yálá tọ̣̣] dè [hole in] there B: ‘He (=hare) approached (the hole) again now. He went and gave some (more) to him (=hyena).

[’approach’ is a pseudo-reflexive verb, cf. Spanish acercarse; yálá tò ‘in the hole’, prolonged before dè ‘there’]

03:39 B: bon, sísà” [kòd lè dòl̥] commencer, B: well, now [elder.brother warthog too] begin, [è kú síná] [è kú síná], [3SgNonh begin dig.Ipfv] [3SgNonh begin dig.Ipfv], B: ‘Well, now elder brother warthog too began. He was digging, he was digging.’
B: "Well, ah!, hyena considered what to do. He took out the powdered salt. He put (it) in lion’s—oh, hyena, he sprayed (it) into elder brother warthog’s eyes, (into) warthog’s eyes now."

B: ‘Well, lion said (to warthog), “bring it (=your eyes), so I may blow on it and look at it.” ’

B: ‘He (=lion) blew into pig’s (=warthog’s) eyes, poof! The salt fell out into his eye(s), into lion’s eye(s), into lion’s mouth.’

B: ‘Oh! hey!, elder.brother warthog.

B: ‘My old man, mon vieux,’

B: ‘Ouch! Something has fallen into my eye! Something has fallen into my eyes.”'
B: ‘(Lion said:) “oh, hey! Elder brother warthog! Man, your tears sure are tasty!”

04:08  B:  \texttt{bon,  dòʔó  kìⁿ,  kìⁿ  déē,}
B:  \texttt{well,  younger.brother  hare,  hare  say.Pfv,  ēē!  kɔ̀rɔ̀  lē,  ēē!  jérê,  hey!  elder.brother  warthod,  hey!  lion,}
\texttt{wō  nánámá  kùⁿ  ŋà,}
2Sg  idiot  Cop  no?,
B: ‘Well, younger brother hare, hare said: “Hey, elder brother warthog! Hey, lion! You (=lion) are an idiot, aren’t you?”’

04:14  B:  \texttt{[mìʔíⁿ  ñàyĩ]  dì  kúⁿ  ñīⁿ,}
B:  \texttt{[person  tears]  become.delicious.Pfv  Cop  oh!,  [è  sibí]  căʔá  dòò,  [3SgNonh  meat]  all.the.more  too,  [è  sibí]  dì  dè?  3SgNonh  meat  become.delicious.Pfv  Emph}
B: ‘(Hare said:) “(If) someone’s (=an animal’s) tears are delicious, its meat all the more so, its meat is (all the more) delicious!” ’
\texttt{[/ɗũ;  \textit{capula  kùⁿ}  used here as a kind of connector between two clauses;  căʔá  dòò  ‘all the more, a fortiori’  ]}

04:17  B:  \texttt{áàⁿ,  bon,  kù-r̥=∅  bùlú-yà  sísàⁿ,}
B:  \texttt{ah,  well,  thing-Nom=Ipfv  return-Prog  now,  jérê  [syëe  mà]  sísàⁿ,  lion  [pig  on]  now,}
B: ‘Ah, well, the situation was turning around (=being inverted) now, on lion—(correction:) on pig (=warthog) now.’

04:22  B:  \texttt{[dòó  cĩⁿ]  bùlú,}
B:  \texttt{[younger.brother  hare]  return.Pfv,  ē=∅  wàà  [jérê  kêⁿ],  \texttt{3SgNonh=3SgNonh  go.Ipfv  [lion  chez],  [kùr̥  lè]  sibí]  dì  [elder.brother  warthog]  meat  become.delicious.Pfv  cógó-yá  mi-nà  equivalent to cógó mi  ]}
B: 3SgNonh  go.Pfv [Nonh-3SgFoc on] now,  
èè³ bùlà, è dè øl, kôrò lèè,  
3PlNonh return.Pfv, 3SgNonh say.Pfv ah!, elder.brother warthog,  
mà = 0 [wô sibì] dô] ká dè?,  
1Sg=lpfv [[2Sg meat] one] want.Stat Emph,  
B: ‘Thereupon [focus] they went now. They went back (to the hole). He (=lion) said,  
“Ah! Elder brother warthog, I sure want (to eat) a piece of your flesh!”

B: 3PlNonh knife take.out.Pfv now,  
èè³ = 0 [syèè wôróbù] dô] béè,  
3SgNonh=lpfv [[pig thigh flesh] one] cut.Pfv,  
B: ‘They (=lion and hare) took out a knife then. They cut a (piece of) flesh out of the warthog’s thigh.’  
[‘flesh’ usually sibì-bù” with ‘meat’ as initial, but here in compound with the more specific body-part ‘thigh’]

B: 3PlNonh  Nonh-3SgObj cut.Adjn now,  
è (è-)yà bègè sìsàã,  
3SgNonh.3SgObj give.Pfv [younger.brother hare-Nom],  
[é sidà],  
3SgNonh 3SgObj roast.Imprt],  
B: ‘They cut it now. He (=lion) gave it to younger brother hare for him (=hare) to roast it.’  
[è-yà/ for the usual ní nonhuman 3Sg preverbal object ]

B: 3SgNonh salt-powder take.out.Adjn,  
è kôdô-fôô bỳ,  
3SgNonh 3SgObj sprinkle.grains.Pfv [3SgNonh on],  
[è bil = i-yà],  
B: ‘He (=hare) took out the powdered salt. He sprinkled it (=salt) on it (=flesh), and he gave it to him (=lion).’

B: 3SgNonh  say.Pfv ooh! my.old.man, oh!,  
á [kôrò lè]  
B: ‘He (=lion) said, mon vieux, ỳà,  
3SgNonh say.Pfv ooh! my.old.man, oh!,  
akwó sísà n,  
B: Thereupon [focus] they went now. They went back (to the hole). He (=lion) said,  
“Ah! Elder brother warthog, I sure want (to eat) a piece of your flesh!”

B: ’Thereupon [focus] they went now. They went back (to the hole). He (=lion) said,  
“Ah! Elder brother warthog, I sure want (to eat) a piece of your flesh!”

B: ’Thereupon [focus] they went now. They went back (to the hole). He (=lion) said,  
“Ah! Elder brother warthog, I sure want (to eat) a piece of your flesh!”
B: ‘Lion devoured it (=meat). He said “ooh, my old man, oh, ah elder brother warthog, your meat (itself) is delicious!”’

[< *wō sībī* ‘your meat/flesh’, *dí]*

04:51 B: *éč⁰= Ø [nì wò̀n̩̣],*

B: 3PlNonh=be [3SgNonh still.on],

[kò̀r̥ lè] sì=i jìàà,

[elder.brother warthog] Fut=3SgNonh see.Ipfv,

[kù mì-nàà, é=Ø sà lábān= [ì gbòlòkò],

matter Dem-Nom, 3SgNonh=Ipfv Fut end.up.Ipfv [3SgNonh on.top.of]

B: ‘They were (talking) about it. Elder brother warthog considered it, that matter (=situation). It would end up (landing) on him.’

[wò̀n̩̣ variant of wò̀nu, lábānà < Jula lábān, gbòlòkò = gbòlòkò ‘on’]

04:54 B: *wàbá̱v, é fìdī,*

B: whoosh!, 3SgNonh run.Adjn.Defoc,

[jèr-re = é⁰ s= [é kpá-ŋò]]

lion-Nom= 3SgNonhRefl go.Pfv [3SgNonh for(goal)]

[s= [é kpá-ŋò]] [s= [é kpá-ŋò]]

[go.Pfv [3SgNonh for(goal)] [go.Pfv [3SgNonh for(goal)]]

B: ‘Whoosh! He (=warthog) ran away. Lion pursued him, pursued him, pursued him.’

[é fìdī adjoined form, for perfective è fìdī ‘it ran’, è H-toned by special Final Tone-Raising; /sè [è kpá-ŋò]/ as a complex treated as a pseudo-reflexive verb, jèr-re = è⁰ nasalized variant of jèr-re = è]

04:59 B: *cì-nà=Ø bùlí [Ø-wò má] sísāà,*

B: hare-Nom=Ipfv return.Adjn [Nonh-3SgFoc on] now,

è dè [sàràkú màà], nàà, nàà,

3SgNonh say.Pfv [hyena on], friend!, friend! bò, bò, bò, bò,

exit.Imprt, exit.Imprt, exit.Imprt, exit.Imprt,

B: ‘Thereupon [focus] hare (who initially accompanied lion on the pursuit of warthog) went back now. He said to hyena: “friend, friend! Come out! Come out!”’

[adjoined verb with imperfective subject enclitic; cf. cì⁰ bùlí(i) ‘hare returned’ ]

05:02 B: *sàràkú bó= [Ø-wò má] sísāà, kò̀r̥ —*

B: hyena exit.Pfv [Nonh-3SgFoc on] now, [false start]

èé⁰ fìdī, èé⁰ wà,


B: ‘Thereupon [focus] Hyena came out now. Elder brother—. They (=hyena and hare) ran, they went (away).’

[bò ‘exited’; èé⁰ fìdī and èé⁰ wà are defocalized adjoined verbs]
05:05 B: èdà³ cié³ cál-à.
B: 3PlNonh arrive.Pfv road-Nom,
è dè naà³ [má³ kpé³ tɔʔɔj³ [wɔ̣³ mā]].
3SgNonh say.Pfv friend! [1Sg what? say.Pfv [2Sg on]].
B: ‘They reached (a point on) the road. He (=hare) said: “friend, what did I say to you-Sg?”’
\[tɔʔɔj\ for tɔʔẹ́ (perfective)\]

05:07 B: nàà, è cié³ tɔʔɔj³ =rɛ̄ ɔ́ w, csw;
B: friend!, 3SgNonh be.able.Pfv be.said.Ipfv=Neg oh!,
má³ dé³ [yállá³ mí³ dò?òyéé].
1Sg say.Pfv [[hole Dem] become.small.Pfv],
jàʔà má = Ø³ ‘cié³ tɔj³ [sɔsɔyɔj³ [yállá³ mí³ tɔ]].
lo! 1Sg=Ipfv can.Ipfv [enter.Ipfv [[hole Dem] in]],
B: ‘(Hyena said:) “friend, it could not be said, oh! I said that that hole is small. Lo, I was able to go into that hole.”’

05:11 B: á³ má³ mì³ jîéeé,
B: ah! 1Sg Rel see.Pfv,
má³ Ø³ bè = [è-wö³ láʔá³ tɔ],
1Sg 3SgObj put.down.Pfv [[Nonh-3Sg place] in],
[è-wö³ láʔá-rà³ nè³]
[Nonh-3Sg place-Nom] there
B: ‘Ah! What I saw, I have put (it) down in its place. There is its place.’
\[reduced from mà ní bè [è-wö … ]; variant of the standard tale ending is ‘I picked it up, I have put it (back) down’\]
Text 2016_04: A brief history of breasts

narrator: Traore Lassina (L) with Traore Wamara (W)

00:00 L: wálàà má = ∅ sà mí bàà
L so.there lSg=Ipfv Fut Dem put.down.Imprt

[[déáá-má míʔ-nà-à] mà],
[old.times person-Nom-Pl-Nom] on],
L: ‘I will put down (=tell) this (story) about old-time people.’

00:03 L: dáilá-mā-nà, kàà-lì yāⁿ
L: old.times-Nom, young.woman-Dimin-Nom-Pl

cié ‘táʔ = [(à)àⁿ wé [gɔ̀l tɔ]],
be.Past go.Ipfv [3PIHumRefl bath.Adjn [river in]],
L: ‘In the old days, (adolescent) girls used to go and bathe in the river.’

00:06 L: [né = áàⁿ táʔā]
L: [if 3PIHum go.Antec]

[(à)àⁿ wé [gɔ̀l tɔ] hēⁿ,
[3PIHumRefl bath.Adjn [river in] oops!,
afā n = áàⁿ kū ‘táʔā
or.rather if 3PIHum begin go.Ipfv
[áàⁿ = (áàⁿ) wée tɔnɔⁿ]
[3PIHum 3PIHumRefl bath.Adjn Purp]
L: ‘When they went to bathe in the river, oops! rather when they started out in order
to bathe, …’
/[nī áàⁿ]; afā (< Jula) in self-corrections; wée ‘bathe’ → wée ]

00:10 L: áàⁿ cí gòl-dáá-rá,
L: 3PIHum arrive.Adjn river-mouth-Nom,
áàⁿ = [áàⁿ cíí-nà-ā²] wāʔr =
3PIHum [3PIHumPoss breast-Nom-Pl take.off.Pfv
[áàⁿ sā],
[3PIHum set.out.to.dry.Adjn],
L: ‘They would then arrive at the river bank and take their breasts off and set them
out in the sun to dry.’

00:12 L: áàⁿ = ∅ sərɔ̀ [áàⁿ jәʔɔ̀ [yf ṣù]],
L: 3PIHum=Ipfv do.then.Ipfv [3PIHum descend.Adjn [water in]],
áàⁿ nāⁿ tímì [áàⁿ wē]
3PIHum 3PIHumReflObj do.well.Pfv [3PIHum bath.Adjn]
áàⁿ bọ [∅ kàʔrə] sīsāⁿ,
3PIHum exit.Pfv [3PIHum break.Adjn] now,
They would (then) proceed to go down into the water. They bathed well. Then they finally came out (of the water).

\[s\text{èr} \text{ do then} \text{ in} \text{ before ...} \text{ clause paired with another clause, §15.4.4.1; kà\text{èr} \text{ break} \text{ adjoined to another verb means} \text{ do eventually} \text{ with no paired clause} \text{ §15.2.2.4}]

00:16 L: \[n = \text{àà}^n \text{ bò \text{ dòò},}\]
L: if 3PIHum exit.Antec also,
\[\text{[àà}^n \text{ dò?ò] =} \text{Ø \text{ sà \text{ cií-ná-à}^n \text{ wè \text{ [èè}^n \text{ dànhà}},}\]
\[\text{[3PIHum too]}=\text{Ipfv Fut breast-Nom-Pl wash.Ipfv \text{ [3PINonh apart]}\]
L: ‘When they came out, they also washed the breasts separately.’

00:19 L: \[\text{àà}^n \text{ nèè}^n \text{ nòöří \text{ [ìì}^n \text{núú] tò].}\]
L: 3PIHum 3PINonhObj put.back [[3PINonh place] in],
\[\text{[àà}^n = \text{Ø \text{ sòò} \text{ [àà}^n \text{ sà \text{ [kélë \text{ mà}]},}\]
3PIHum=Ipfv do.then.Ipfv [3PIHum come.Adj [courtyard on]],
L: ‘They put them (=breasts) on in their place, before they came home.’
\[nòöří \text{ ‘affix, post (e.g. on wall)}\]

00:23 L: \[\text{donc \text{ àà}^n \text{ tū = ú \text{ yààlàà},}\]
L: so 3PIHum stay.Adjn=Link thus,
\[\text{[nàà \text{ kùdò \text{ dò] cié = é \text{ dè,}\]
[woman old one] be.Past=Link there.Def,
\[\text{à-mà \text{ cié \text{ [[kàà-li \text{ dò] kpá-mà]},}\]
3SgHum be.Past [[young.woman-Dimin one] goal]
\[\text{ā = Ø \text{ nà \text{ dèn-dènà},}\]
3Sg=Ipfv 3SgHumObj stalk.Ipfv,
L: ‘So, they remained thus (=in that situation). There was an old woman there. She was after a (certain) girl. She was stalking her.’
\[\text{[tòó \text{ → tūú before yààlàà ‘thus’; à-mà instead of à for human 3Sg subject; cié ‘was/were’ lengthened and +ATR before dè ‘there’; dèn-dènà ‘stalk (one’s prey)’, lexicalized reduplication of dènà ‘follow’}\]

00:29 L: \[\text{[yà \text{ sòò} \text{ kàà-li \text{ mí \text{ dò?òö]},}\]
L: [now do.then.Ipfv] [young.woman-Dim Dem too],
\[\text{[yà \text{ sòò} \text{ [á \text{ dò?òö] cié \text{ [kàà-li \text{ dò] kà},}\]
[now do.then.Ipfv] [3SgHum too] be.Past [young.man-Dim one] have,
L: ‘Now (it happened that) this girl furthermore, now (it happened that) she furthermore had a young man (=fiancé).’
\[\text{(è-)yà sòò ‘now (it happened that) as preclausal discourse marker}\]

00:33 L: \[\text{[à \text{ cií-ná-à}^n \text{ pèè},}\]
L: 3SgHum breast-Nom-Pl be.good.Pfv
\[\text{èè}^n \text{ báli \text{ [bàli \text{ cògò-rà}],}\]
3PIHum stand.Pfv [stand manner-Nom]
L: ‘Her breasts were beautiful, they stood the right way (=didn’t sag).’

L: ààⁿ wëè ([ààⁿ cìí-ná-àⁿ] kpò-ŋɔ́ sìsàⁿ)

L: 3PlHum go.Pfv ([3PlHum breast-Nom-Pl] goal) now

3PlHum remain.Pfv [water bathe.VblN-Nom] with,

[ŋà̂ kú̂ dô] goâl ná ààⁿ kpɔ́-ɲɔ̀ ná̂ sísàⁿ

L: ‘They (= women) went after (=looking for) their breasts now. They kept bathing. The old woman too left there (=the village).

00:39 L: wó=Æ sɔ̀ɔ̀mìʔ ná=Æ kú̂ mìʔíⁿ dènëná

L: 2Sg=Ipfv know.Ipfv person-Nom=Ipfv begin person stalk.Ipfv

à kú [mèʔèⁿ kpà-mà] nááni,

3SgHum begin [person goal] already,

L: ‘You-Sg know that (if) someone is stalking someone, (if) he/she is already stalking the person …’

[nááni ~ nááni ‘already’]

00:44 L: wó=Ø sàð miʔiː-nà=Ø kú miʔiːⁿ dennëmà

L: 2Sg=Ipfv know.Ipfv

[á=Ø nà — ] [á=Ø nà — ]

[3SgHum=Ipfv 3SgHumObj — ] [3SgHum=Ipfv 3SgHumObj — ]

á=Ø [fèlè bùʔù] lájëni bègà

3SgHum=Ipfv [method all] pile.up cut.Ipfv

pour que á=Ø màà [cògò-yá mi]

so.that 3Sg=Ipfv be.done.Ipfv [manner Rel]

à ná jì,

3SgHum 3SgHumObj see.Imprt,

L: ‘You-Sg know that he/she will accumulate and cut (=use) any methods, in order to find a/the way (for him/her) to get him/her.’

[lájëñí < Jula, cf. Jalkunan cèé-ɲùʔùmá ‘pile up’]

00:48 L: ààⁿ tú= [Ø-yà kòmò] dòò,

L: 3PlHum stay.Pfv [Nonh-3G still.on] too,

à téʔé jì

3SgHum go.Pfv see.Adjn

[miʔiː-nàⁿ [yí dù] kàbàⁿ nááni dòò]

[Dem-Nom-Pl [water in] already already too]

L: ‘They were still like that (=in that situation). She (=old woman) went and saw that those (women) were already in the water.’

[bènì ~ bènì static < bàà ‘put down’]
L: ‘The breasts were (=had been) set down outside (of the water). She picked out the breasts of the young woman. She took them out.’

[bééni stative < bàà ‘put down’ §11.2.4.2; occasional nonhuman 3Pl preverbal object è-yà-à, see discussion following (104) in §4.3.1.3]

L: ‘She (=old woman) took off her own (breasts), and she laid them down in the place of the young woman’s (breasts). She brought the girl’s breasts to the courtyard (=to her home).’

[‘co-wives’ here used loosely to mean ‘(woman’s) companions’ cf. námùʔà ‘comrade, peer’]

L: ‘She (=the girl) didn’t find hers. She found the old woman’s (breasts) put down where her own (breasts) had been put down.’
[\textbf{X nàà}] tò variant of [\textbf{X nùú}] tò ‘in the place of X’

01:09 L: \(\tilde{a} = \text{ (à)à}^n \) yàli,
L: 3SgHum 3PIObj take.Pfv,
\(\text{à } s\tilde{a}^n \) nùú \(\text{nùú-} \)ri
3SgHum accept.Pfv 3PlNonhObj affix
[[[à mî] \text{nùú-ri}] \text{nùú-nà}=nè]\ 
[[[3Sg Poss] \text{affix.VblN}] \text{place-Nom}]=\text{Neg}
\(\text{à } s=\) \(\text{[èè dé] } \text{[kélè mà]}\)
3SgHum come.Pfv [3PlNonh with] [courtyard on,
L: ‘She picked them (=breasts) up. She was unwilling to attach them in the place for attaching her own (breasts). She brought them into the courtyard (=to her home).’
[\text{could also be phrased} \{\text{à wó} \} \text{mì=nùù} \text{with logophoric 3Sg; negative} \text{=nè} \text{with scope over entire clause including ‘accept’;} \text{< [à sè] [èè dé]}]

01:12 L: \(\text{à sà=}\)
L: [3SgHum come.Adjn]
\(\text{à } \tilde{sì}=\text{i}^n \) dölô \(\text{kànéé-là} \-\)
[3SgHum Fut=3PlNonh show.Ipfv young.man-Dim-Nom]
L: ‘She came and was going to show them to the young man (=fiancé).’

01:14 L: \(\text{à } \text{dé } \tilde{a}!\)
L: 3SgHum say ah!
\([\text{mùù}^n \text{ kònî} \text{ ‘tèîé } \text{fî} \text{ [yí dà]}\]
[1Pl Topic] go.Pfv today [water in]
\([\text{mùù}^n=\text{Ø} \text{ ‘tá=} \text{[àn wéé]}\]
[1Pl=Ipfv go.Ipfv] [1PlRefl bathe.Ipfv]
L: ‘She said: “ah! (As for) us, we went to the water today. We (regularly) go (there) to bathe.”’

01:17 L: \(\text{è } \text{táîá } \text{‘cfé, wó=}\text{Ø } \text{sàð}\)
L: 1Pl go.Adjn arrive.Adjn 2Sg=Ipfv know.Ipfv
\(\text{mùù}^n=\text{Ø } \text{déélë}\)
1Pl=Ipfv be.accustomed=Ipfv
\(k\tilde{a}=\text{ [àn cù-ná-à]} \) \(b\tilde{s}\),
begin [1PlRefl breast-Nom-Pl] take.out.Adjn,
\(àá=\text{Ø } \text{sòrë=} \text{[àn tá}= \text{[(à)à}^n \text{ wé}]\]
1Pl=Ipfv do.then.Ipfv [1Pl go.Adjn [1PlRefl bathe.Adjn]
L: ‘(Girl:) We arrived (there). You-Sg know that we are accustomed to taking off our breasts before we go (into the water) to bathe.’
[\text{/kú àà/}]

01:22 L: \(\text{nì } \text{mùù}^n \) \(\text{[nàà wéé]} \) \(\text{dá-ká}^n,\)
L: if 1Pl [1PlRefl bathe.VblN] finish.Antec,
When we had finished bathing, we proceeded to come to wash our breasts separately.

We were then going to take them afterwards. We put them (=breasts) on in their place.

I came. Everyone (else) saw (=found) theirs. I didn’t see (=find) mine.

But what I found in the place of my own, that is it.

He (=young man) said, “it’s no problem. We’ll take a walk, to the house of the village chiefs.”
[cìé 'speak'; [à ná-màà — ] is a false start]

01:38 L: à dè 3nʔɔ̀m, L: 3SgHum say.Pfv yes!,
slääà yèlëní, àá=n ɔ́ 3PIHum=3SgNonh weèè
daytime day.break.Pfv, 3PIHum=3SgNonh go.Pfv
[[sàà dààlú] màj, màà-ná-àn làà-rà,
[[house first] on], person-Nom-Pl place-Nom,
L: '(Girl:) “Yes!” Day broke. They went to the first house (=neighborhood), the place
of the people (=where people were).’

01:43 L: ààⁿ tàà kí=cì=yà dè
L: 3PIHum go.Adjn arrive.Adjn=Link there.Def
cîndá 'mí-nà, [neighborhood Dem-Nom],
[ààⁿ bèlè] [ààⁿ sà] [sàà-màà kë 'n]],
[3PIHum pass.Adjn] [3PIHum enter.Adjn [house-owner chez]],
L: ‘They went and arrived there, (in) that neighborhood. They went on and entered
the house of the neighborhood chief.’
[The village was divided into neighborhoods (quartiers), each with its own chief]

01:46 L: ààⁿ sà [sàà-màà kë'],
L: 3PIHum enter.Adjn [house-owner chez],
ààⁿ jàà t5ʔ5 [màà jàà],
3PIHum problem tell.Adjn [owner in.presence],
L: ‘When they entered the house of the chief, they explained the problem.’

01:48 L: [à màà]
L: [3SgHum owner]
[nà mèloh-káà bùʔù] këëi,
[3SgHumRefPoss person-Nom-Pl] all call.Pfv,
è-yá sàrì, [càl-má dòʔò] tàà-kí mé kë,
Nonh-3Sg do.then, [husband too] go.Adjn Rel Past,
á=Ø sàli-fëèé yàlál = bòʔá,
3Sg=lpfv guitar-calabash take.lpfv hold.Adjn,
L: ‘The chief called all his people. When the husband too went, he took a guitar with
him.’
[cf. 3Pl subject àà=Ø sàli-fëèé yàlál = [(à)àn bòʔá], bòʔá ‘hold’ used only in
adjunction to ‘take’ etc.]

01:53 L: à tèʔè cìé kàʔrà sísàª,
L: 3SgHum go.Pfv arrive..Adjn do.finally now,
[á=Ø sìgi këë], [à kú sàlí bàʔrà],
[3SgHum=lpfv song sing.lpfv], [3SgHum begin guitar beat.lpfv]
L: ‘Eventually he arrived now. He began singing, he began playing the guitar.’

01:57  L:  mèʔè-ná-àⁿ=∅  sàà
L:  person-Nom-Pl  come.Ipfv
[ààⁿ  tɔ́ɔ̀]  [(à)àⁿ  kú  dòó  màà]
[3PlHum  stay.Adjn]  [3PlHum  begin  dance(n)  do.Ipfv]

L:  person-Nom-Pl  come.Ipfv
[ààⁿ  tɔ́ɔ̀]  [(à)àⁿ  kú  cií-ná-àⁿ  contrôler],
[3PlHum  stay.Adjn]  [3PlHum  begin  breast-Nom-Pl  check]
L:  ‘The people were coming. They (=the people) kept dancing. They (=girl and young man) were checking their (=the women’s) breasts.’

01:59  L:  né=  ààⁿ  jì  [mí  ‘ká],
L:  if  3PlHum  see.Antec  [Rel  have],
ààⁿ=∅  nì  dàʔà,
3Pl=Ipfv  3SgNonhObj  take.away.Ipfv,
L:  ‘In case they saw (it) on the one who had (it), they would take it away.’

02:03  L:  ààⁿ  táá  cié  premièrement,
L:  3PlHum  go(?)  arrive.Pfv  first,
ààⁿ  ná-màà  kéèì  dòó,
3PlHum  HumObj-3PlFoc  call.Pfv  also,
L:  ‘They (girl and boy) arrived for the first time. It was them (=dancers) [focus] that they (girl and boy) called.’
[tàà  ~  táá  now  an  auxiliary  used  with  ‘arrive’  §15.1.1.4,  see  also  02:38  below]

02:06  L:  à-màà  sè  sisàⁿ;
L:  Hum-3Pl  come.Pfv  now,
ààⁿ  sigí  commencer,
3PlHum  song  begin,
L:  ‘It was they (villagers) [focus] who came now. They (=girl and boy) began the song.’

02:10  L:  à  dè
L:  3SgHum  say.Pfv
kó  nnérí  wéè  friend  hey!
ńká  yégé-yégé  túnúnà  my  breasts  be.lost
kó  nnérí  wéè  friend  hey!
ńká  yégé-yégé  túnúnà  my  breasts  be.lost
L: ‘She said (=sang) [song]

“Hey friend,
My breasts are lost.
Hey friend,
My breasts are lost.”

[song (green type) is in a kind of archaic Jula]

02:15 L: è-yáá-sɔ̀rɔ̀ cíí-ná
L: it.happened.that breast-Nom
[daárãmá mĩl̩-nà-à”] = Ø cíí këè [kò yégé-yégé]
[old.times person-Nom-Pl]=Ipfv breast call.Ipfv [ breast]
L: ‘It happens that breast, the people of old called breast “ko yege-yege.” ’

02:18 L: kò nnéri wèè
 friend hey!
yká yégé-yégé túmúná
my breasts be.lost
kò nnéri wèè
 friend hey!
yká yégé-yégé túmúná
my breasts be.lost
L: ‘She said (=sang)

“Hey friend,
My breasts are lost.
Hey friend,
My breasts are lost.”

[the song is in a kind of Jula with some Jalkunan features]

02:22 L: nè tu” yégká
1Sg Past have
yégé-yégé blà [kò daá-rà]
breasts put.down [pond edge-Nom]
jàñá yká yégé-yégé túmúná
lo! my breasts be.lost
L: ‘(She sang:)

“I had (them).
I put my breast(s) down on the edge of the pond
Lo, my breasts are lost.”

02:26 L: cégkùrù cégkùrù
cégkùrù cégkùrù
cégkùrù cégkùrù
L: ‘(She sang:) “cegekuru cegekuru” (repeated)’

02:30 L: há! [(è-)yà mè?è-nâ-à” bù?= ]
L: ha! [Nonh-3Sg person-Nom-Pl all]
á = (à)â” pèm-pè?rà [dòó mà] kàrà-sâ”,
3PIHum 3PIHumRefI be.energetic [dance(n) do.Adjn] only,
L: ‘Ha! All of the people (on the other side), they were energetically dancing.’
[pèm-pè?rà reflexive verb ‘be energetically occupied (in an activity)’, followed by verbal noun or imperfective clause, especially ‘dance’ or ‘do farming’ (no intransitive examples elicitable)]

02:33 L: [[à dò?ó] là]
L: [[3SgHum too] look.Pfv]
[àà” = Æ jìà dè = ré?],
[3PIHum 3PIObj see.Pfv there.Def=Neg],
[[àà” dò?ó] bélè] [àà” = Æ wàà kíná],
[[3PIHum too] pass.Adjn] [3PIHum=lpfv go.Adjn ahead],
L: ‘She looked again. They didn’t see (them) there. They went on ahead.’

02:38 L: [[àà” dò?ó] tâá cié,]
L: [3Pl too] go(?) arrive.Pfv,
àà” = Æ sál sâà-mâà-ná,
3PIHum 3SgObj inform.Pfv house-owner-Nom,
L: ‘They again arrived (there). They explained it to (=informed) the chief.’
[tâá ~ tâá (§15.1.1.4), see 02:03 above; preverbal object of sâlì is 3SgNonh in abstract sense ‘it’]

02:40 L: [[à-mâà dò?ó] mè?è-nâ-à” bà]
L: [[Hum-3PIFoc too] person-Nom-Pl commission.Adjn]
[àà” = Æ tì?à [kâlâ mì?ì” bù?ù] mà],
3PIHum 3SgObj tell.Ipfv [[neighborhood person all] on]
‘He (=chief) also commissioned the people. They (girl and boy) told it to all the people of the neighborhood.’

02:42 L: [[àà” bù?ù dò?ó] ‘bɔ?],
L: [[3PIHum all too] exit.Adjn],
[àà” dò?ó] sá cié, à dè,
3PIHum too] come.Adjn arrive.Adjn, 3SgHum say.Pfv,
‘They (=people) all left then. They (girl and boy) came (there) again. She said (=sang):’
L: 'She said (=sang)
“Hey friend,
My breasts are lost.
Hey friend,
My breasts are lost.”

[the song is in a kind of Jula with some Jalkunan features]

L: ‘(She sang:)
“I had (them).
I put my breast(s) down on the edge of the pond
Lo, my breasts are lost.”

[this repetition used màyè dè? instead of túnúná ‘become lost’ ]

L: ‘(She sang:)
“cegekuru cegekuru” (repeated)

L: ‘Well, they didn’t find them there either. They went on ahead.’
[blè ‘pass’ probably transitive adjoined blè ~ blè here, compare intransitive adjoined blè]
03:00  L:  [ààⁿ tāʔā cíí=yà dè] 
        3PlHum  go.Adjn arrive.Adjn=Link  there.Def 
ààⁿ  sigí  commencer  därīŋ, 

03:04  L:  jāʔ = à = Ø = ñ dè, 
        Lo!  3SgHum=be=Link  there.Def, 
        sàà-màá  dè  áy!,  à-mí  dòò, 
        house-owner  say.Pfv  hey!,  Hum-Dem  be.where?, 
        L:  '(Then) lo!, there she was. The chief said, “hey! where is she?”' 

03:07  L:  [à  kùńfì]  [klél  méè  dè] 
        3SgHum  Topic  [courtyard  on  there] 
ààⁿ  ná  kẹ́ẹí, 
        3PlHum  3SgHumObj  call.Pfv 
        L:  '(The people said:) “As for her, she is in the courtyard.” They called her.’ 

03:09  L:  [[sàà-màá  yèʔnà]  láʔá] 
        [[house-owner  self]  get.up.Adjn] 
        [Ø  wā = [à  kpá-mà]] 
        [3SgHum  go.Adjn  [3SgHum  goal] 
        L:  ‘The chief himself got up and went for (=to find) her.’ 

03:10  L:  [ààⁿ  dòò]  wō  kẹ́ẹ 
        3PlHum  also]  2Sg  call.Pfv 
        kələgọ  ciéé, 
        talk(n)  speak.Imprt, 
        L:  ‘(Chief:) “They have called for you-Sg. Speak!” 

03:12  L:  [mèʔẹ’n  bùʔù  sá]  [wō  tú=ū  dè], 
        [person  ll  come.Adjn]  [2Sg  stay.Adjn=Link  there.Def] 
        wọ́túmáfẹ̀  è  sí  wō  ká  kè, 
        guilty.one  3SgNonh  Q  2Sg  have  tagQ,
L: ‘(Chief:) “Everybody (else) came (but) you stayed there. (You) look guilty, You-
Sg must have it (=the pair of breasts), don’t you?”

[tɔ́ plus dè ; wɔtùmàfɛ́ said to be a Jula expression identifying the guilty party; sí in
emphatic question with tag kɛ̀, §15.1.1.5]

03:14 L: [dɔŋ?dɔŋ?] ɛ́ (à-)wò ká=rɛ́?] L: [unh-unh! 3SgNonh (Hum-)3Sg have=Neg
[fà-wò=Ø sàà] [Hum-3Sg=Ipfv come.Ipfv]
L: ‘(Old woman:) “Unh-unh! I don’t have it. I am coming.” ’
[logophoric à-wò ]

03:17 L: à sè káʔrá sisàⁿ, L: 3SgHum come.Pfv do.finally.Adjn now,
à sè tɔ́rɔ́ káʔrá 3SgHum come.Pfv while do.finally.Adjn
non doó bèɛnĩ-yà rég,
no! dance(n) be.put.Stat-Prog, Prog,
L: ‘She eventually came (=arrived). While she was belatedly coming (=arriving), no!
The dance was in progress (here).’
[bèɛnĩ-yà progressive of stative of bàà ‘put down’; tɔ́rɔ́ ‘while’ implies a spatial
separation of this event and the other one, cf. English meanwhile (§15.4.5); rég not
otherwise attested but seems to be associated with ‘be put’]

03:20 L: à commencer [dɔó dè] cɛ́lifòòrù L: 3SgHum begin [dance(n) with] middle.of.way
à kú [séé dè],
3SgHum begin.Ipfv [come.VblN with],
lɔ̀ à cii-ná-à flé [à kinà],
until 3SgHum breast-Nom-Pl throw.Ipfv [3Sg in.front.of],
L: ‘She began dancing on the way as she was coming, so much so that her breasts
were thrown in front of her.’
[flé ~ filé ‘throw (them)’]

03:25 L: [kàà-l dɔó] ká=yè dè pɛ́w! L: [young.woman-Dim too] leave.Adjn=Link there.Def totally
[à tu dɔó-rà káʔrá sisàⁿ] [3SgHum remain.Pfv dance(n)-Nom do.finally.Adjn now]
[kàà-là mùnù= [a pɔskɔ̀r-ɔ́] yɛ́w!],
[young.woman-Dim veer.Adjn] [3Sg face-Nom] Emph!,
L: ‘The girl left it (=said nothing) entirely. She continued dancing. The girl (while
dancing) moved over directly in front of her (=old woman).’
[cf. ká=yè nàà ‘left here’]
03:29

L: [á = [∅ cií-ná-áⁿ] sámá = ]
L: [3SgHum [3SgHum breast-Nom-Pl] pull.Adjn]
[(á)áⁿ bó] [[(é)é nuú] tɔ̃],
[3PlNonh take.out.Adjn] [[3PlNonh place] in],
[á [∅ míí-ná-áⁿ] bl = á-y = [è dè]
[3SgHum [3SgHum Poss-Nom-Pl] give.Adjn Hum-3Sg [Link there.Def]
L: ‘She pulled off her (=old woman’s) breasts from their place (on the old woman).’
[< /sámá] [èè bɔ́]
;
[< /bìlì à-yà [è dè]
03:33

L: à bùʔù [cál —
L: 3SgHum and husband —
[kámélé mà-nà =] (à)áⁿ nuúⁿ yál =
[yû yû] [3PlNonh take.Adjn]
[(à)áⁿ sá [kélé mà]],
[3PlHum come.Adjn [courtyard on]],
L: ‘She and (the) husband— (or rather) (she and) the young man took each other (=rode) and came into the courtyard (=home).’
[< yâlî]
03:37

L: ë-wò mé sàábú kùⁿ nè,
L: Nonh-3Sg do.Pfv reason Cop there,
cií-ná-áⁿ cíé w5ír3 d5í = rɛ̄,
[3PlHum can be.detached.Adjn]
L: ‘That [focus] is what caused (that) breasts could not be taken off any longer.’
[ sàábú variant of sàbàbú ‘reason, cause’ ]
03:40

L: cií-ná-áⁿ k3lí [[(è-)wò sùʔuⁿ] tɔ̃]
L: breast-Nom-pl be.stuck [[Nonh-3Sg day] in]
èé cíé w5ír3 d5í = rɛ̄,
[3PlNonh can be.removed.Adjn again=Neg,
L: ‘Breasts were (permanently) attached, on that day. They could not be taken off thereafter.’
[k3lí < French (se) coller ‘be firmly attached, be glued’ via Jula, cf. Jalkunan nɔírɔ̂]
03:42

L: né = é ci ké w5ír3
L: if 3SgNonh can Past be.removed.Adjn
mɛ̀-nà-áⁿ cíé tɔ̃ = [3ⁿ kú
person-Nom-Pl be.Past stay.lpvf [3PlHum begin
[[mɛ̀-nà-áⁿ cíí-ná-áⁿ] j5ⁿ]
[person-Nom-Pl breast-Nom-Pl] steal.Adjn]
L: ‘If it (=breasts) could (still) be taken off, people would constantly steal (other) people’s breasts.’
[counterfactual conditional using past-time morphemes §16.4]
The place around which I saw (=found) this (tale), I have put it (back) down there.

[standard tale ending]
Appendix: Jalkunan versus Jeri (Jeli Kuo)

Jeri (Kuo) ~ Jeli (Kuo) is spoken by members of a leatherworker caste of Mande origin in several villages or quartiers in the vicinity of Korhogo, a large city in north central Côte d’Ivoire. The zone is dominated by ethnic Senoufo.

Literature on Jeri of Côte d’Ivoire is as follows. Kastenholz (1991-MS), eventually published as Kastenholz (2001), provides a word-list and background comments, growing out of a wider dialectal survey. Tröbs (1998) is only substantial grammatical work; see also Tröbs (2013) on an issue involving postpositions. Literature on Jeri ethnicity includes Frank (1995) and Launey (1995).

After writing this grammar I received a copy of Tröbs (1998), kindly mailed to me in West Africa by Valentin Vydrine. A brief perusal of this book is sufficient to show that Jalkunan and Jeli are far from being mutually intelligible dialects of a single language. Tröbs states that Jeli has two tone levels (1998: 73). Jalkunan has three levels.

Consider, to start with, the primary forms of pronouns in the two varieties, used in all core morphosyntactic functions. Jeli data from Tröbs (1998: 112-113).

(i) Pronouns

<table>
<thead>
<tr>
<th></th>
<th>Jeli</th>
<th>Jalkunan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Sg</td>
<td>nà</td>
<td>má</td>
</tr>
<tr>
<td>2Sg</td>
<td>í</td>
<td>wô</td>
</tr>
<tr>
<td>3Sg</td>
<td>i</td>
<td>à (human)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>è (nonhuman)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ná (human object)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ní (nonhuman object)</td>
</tr>
<tr>
<td>1Pl</td>
<td>à</td>
<td>mú?ùⁿ</td>
</tr>
<tr>
<td>2Pl</td>
<td>ò</td>
<td>èëⁿ</td>
</tr>
<tr>
<td>3Pl</td>
<td>ní</td>
<td>ààⁿ (human)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>èèⁿ (nonhuman0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>nàⁿ (human object)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>nîⁿ (nonhuman object)</td>
</tr>
</tbody>
</table>

Including Jalkunan reflexive possessor and pseudo-possessor pronominals would bring the two languages closer. However, the huge differences in pronominal forms in core nonreflexive functions (subject, object, possessor, complement of postposition) would suffice to exclude mutual intelligibility, even though many lexical items are cognate.
Some additional function-to-function correspondences are presented in (ii). One can identify some cognates, but there are again too many differences to suggest same-language status.

(ii) Other grammatical morphemes

<table>
<thead>
<tr>
<th>Jeli</th>
<th>Jalkunan</th>
</tr>
</thead>
<tbody>
<tr>
<td>nominal suffix</td>
<td>—</td>
</tr>
<tr>
<td>genitive (alienable):</td>
<td></td>
</tr>
<tr>
<td>animate</td>
<td>-ra ~ -na</td>
</tr>
<tr>
<td>inanimate</td>
<td>-ka</td>
</tr>
<tr>
<td>default possessum</td>
<td>nu</td>
</tr>
<tr>
<td>plural of noun</td>
<td>-ni</td>
</tr>
<tr>
<td>‘this’</td>
<td>me</td>
</tr>
<tr>
<td>‘that (definite)’</td>
<td>wo</td>
</tr>
<tr>
<td>3Sg logophoric</td>
<td>—</td>
</tr>
<tr>
<td>definite</td>
<td>-o</td>
</tr>
<tr>
<td>focus (NP)</td>
<td>NP si</td>
</tr>
<tr>
<td>focus (pronoun)</td>
<td>Pron ta</td>
</tr>
<tr>
<td>relative marker</td>
<td>mì, plural mi-ni</td>
</tr>
<tr>
<td>‘in’</td>
<td>tɔŋ</td>
</tr>
<tr>
<td>‘on’</td>
<td>ma</td>
</tr>
<tr>
<td>benefactive</td>
<td>suŋ</td>
</tr>
<tr>
<td>perfective</td>
<td>(zero) VP</td>
</tr>
<tr>
<td>‘be (somewhere)’</td>
<td>-a</td>
</tr>
<tr>
<td>imperfective</td>
<td>-a VP</td>
</tr>
<tr>
<td>future</td>
<td>-a VP -ŋɔ̀</td>
</tr>
<tr>
<td>perfect</td>
<td>wa VP</td>
</tr>
<tr>
<td>‘keep VPing’</td>
<td>-a ri VP</td>
</tr>
<tr>
<td>past (time shift)</td>
<td>nbe</td>
</tr>
<tr>
<td>prohibitive</td>
<td>ma(sa) VP te</td>
</tr>
<tr>
<td>negative</td>
<td>te (Ipfv also ndɛ ) = rɛʔ</td>
</tr>
<tr>
<td>‘if’</td>
<td>ni Sbj sa = nɪ ...</td>
</tr>
</tbody>
</table>

- ra (and variants)
- -rà or -àà-nû
References cited


Abbreviations and symbols

Abbreviations

Adj  adjective
Adjn  adjoined (form of verb)
ATR  advanced tongue root (vowel feature)
Benef  benefactive postposition
C  consonant (in formulae like CvCv)
Comit  comitative (postposition)
Custod  custodial (postposition)
Def  (discourse-)definite (demonstrative)
Dem  demonstrative
Emph  emphatic (clause-final particle)
ExpPf  experiential perfect
Foc  focus
Fut  future
H  high (tone)
Hum  human
Ipfv  imperfective
Imprt  imperative
Indep  independent (pronoun)
L  a) low (tone)
  b) any sonorant (in formulae like CvL)
Link  linker
Loc  locative
Logo  logophoric
N  a) noun (in e.g. “N-Adj”)
  b) nasal consonant (in formulae like CvN)
(n)  noun, in interlinear glosses like ‘work(n)’
Neg  negative
Nom  nominal suffix (§6.1.2-3)
Nonh  nonhuman
NP  noun phrase
Num  numeral
O  object (in e.g. “S-infl-O-V.”)
Obj  object
Ord  ordinal
OV  transitive verb with preverbal object
Pf  perfect (in “experiential perfect”)
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pfv</td>
<td>perfective</td>
</tr>
<tr>
<td>Pl</td>
<td>plural</td>
</tr>
<tr>
<td>Poss</td>
<td>possessive, possessor</td>
</tr>
<tr>
<td>Postp</td>
<td>postposition</td>
</tr>
<tr>
<td>PP</td>
<td>postpositional phrase</td>
</tr>
<tr>
<td>Prog</td>
<td>progressive</td>
</tr>
<tr>
<td>Proh</td>
<td>prohibitive</td>
</tr>
<tr>
<td>Pron</td>
<td>pronoun</td>
</tr>
<tr>
<td>Purp</td>
<td>purposive</td>
</tr>
<tr>
<td>Q</td>
<td>question</td>
</tr>
<tr>
<td>Rdtp</td>
<td>reduplication</td>
</tr>
<tr>
<td>Recip</td>
<td>reciprocal</td>
</tr>
<tr>
<td>Refl</td>
<td>reflexive</td>
</tr>
<tr>
<td>S</td>
<td>subject (in e.g. “S-infl-O-V-“)</td>
</tr>
<tr>
<td>Sbj</td>
<td>subject (in “subject focus”)</td>
</tr>
<tr>
<td>Sg</td>
<td>singular</td>
</tr>
<tr>
<td>Stat</td>
<td>stative</td>
</tr>
<tr>
<td>Temp</td>
<td>temporal postposition (§8.3.3.9)</td>
</tr>
<tr>
<td>V</td>
<td>verb (in e.g. “S-infl-O-V-“)</td>
</tr>
<tr>
<td>Vv</td>
<td>vowel (in e.g. CvCv)</td>
</tr>
<tr>
<td>Vb</td>
<td>verb</td>
</tr>
<tr>
<td>(v)</td>
<td>verb, in interlinear glosses like ‘fight(v)’</td>
</tr>
<tr>
<td>VblN</td>
<td>verbal noun</td>
</tr>
<tr>
<td>VO</td>
<td>transitive verb with postverbal object</td>
</tr>
<tr>
<td>VP</td>
<td>verb phrase</td>
</tr>
</tbody>
</table>
Symbols

*  reconstructed
#  ungrammatical, unacceptable, unattested
á, à, ã, ă, î  tones on vowels (or syllables)
<…>  contour tones on one syllable, e.g. <HL> or <LH>
/…/  a) lexical tone melody, e.g. /LH/, /H/
b) underlying or lexical representation
{…}  a) tone overlay, e.g. {HL}, {H}, {L}
b) enclosing any set, e.g. {u a i}
[…]  a) phonetic (IPA) representation, e.g. [bûː]; or phrasal grouping
b) syntactic brackets
\  downstep
=  clitic boundary
→  prolongtion
Index

1. selected morphemes

à  a) human 3Sg pronoun, §3.3
   b) complementizer, §15.2.1.4, §17.2.1
á  a) human 3Sg subject pronoun à before imperfective enclitic, §10.3.2.1
   b) contraction of human 3Sg subject and 3Sg object, §3.3.1.3
áli  a) ‘even X’, §19.2.2.2
   b) ‘even if’, §16.2
áⁿ  1Sg reflexive possessor, §18.1.1
aaⁿ  a) ààⁿ, human 3Pl pronoun, §3.3
   b) ìàⁿ, 1Pl reflexive possessor, §18.1.1
bá  ‘over there’, §4.4.2.1, §11.2.3.3
bálà  a) ‘prevent’ or ‘cease’, §17.4.2-3
   b) ‘consent’, §17.4.4
bí  in prohibits, §10.5.1.1
   in negative hortatives, §10.5.2.2
blé  ‘pass’
   in comparatives, §12.1.1-2
bugóřé  ‘because’, §17.5.2
bùʔà ~ bùʔú  a) ‘all’ or ‘each’, §6.6.1-2
   b) ‘and’ conjunction, §7.1.1
búló  ‘return’
   ‘do again’ with adjoined clause, §15.2.2.2
càʔá dóò  ‘a fortiori’, §12.1.5
ciè  a) cié, ‘say, utter’, §3.3.1
   with onomatopoeias, §11.1.2.6
   b) cié ~ cié, ‘was/were’, §10.4
   in counterfactual, §16.4
   c) cié ~ cié, ‘be able to’, §17.3.1
dè  ‘there (definite)’, §4.4.2.1
   with linkers, §3.7.3, §11.2.3.2
dé  a) dé ~ dé, instrumental-comitative postposition (‘with’), §8.2.1
   in ‘X be with Y’ construction, §11.5.2.1
   b) dé ~ dé, ‘said’ (perfective positive only), §11.3.1
   combination with third person subject pronoun, §17.2.2
déʔ  clause-final emphatic, §19.3.2
dí  ‘child’
   in compounds, §5.1.5

408
**do**  
a) *dò*, specific indefinite after a noun, §6.5.2
b) *dò ~ dó*, comitative postposition, §8.2.2
   in ‘X be with Y’ construction, §11.5.2.2

**doo**  
a) *dóó*, ‘be where?’, §1.3.4
b) *dóó*, clause-final particle, §19.1.2.4

**dò?ò ~ dò?ó**  
‘also, too’ or ‘again’, §19.1.2

**dò?ì**  
‘a little’ or ‘a (little) while’, §8.5.2

**du**  
a) *dù ~ dú* postposition ‘in, inside of’, §8.3.3.2
   in compound initial, §5.1.8
b) *dú*, experiential perfect, §15.1.1.3

**dúlí**  
‘1’, §4.6.1.1, §3.6.1.1
   *dúlí kù* ‘be equal/same’, §12.2.1

**e**  
a) *é*, nonhuman 3Sg pronoun, §3.3
b) *é*, nonhuman 3Sg subject pronoun before imperfective enclitic or after
   Final Tone-Raising, §10.3.2.1

c) *é*, contraction of nonhuman 3Sg subject and 3Sg object, §3.3.1.3

d) 2Sg *ē ~ ī*
   as reflexive possessor, §18.1.1
   as reflexive postpositional complement, §18.1.1.2
   in imperative pseudo-reflexives (middles), §10.1.1.3
   as preverbal object in imprecations, §10.5.3.2

e) *é+M*, 2Sg subject of adjoined clause, §15.2.1.3

**ēēⁿ**  
2Pl pronoun, §3.3

**ēèⁿ**  
nonhuman 3Pl pronoun, §3.3

**=è ~ =ê**
   identificational ‘it is X’ enclitic, §11.2.1.1
   in ‘belong to’ predicates, §11.5.3.2

**fēēⁿ**  
‘a lot’, §8.5.2

**fō**  
‘it must be’, §17.1.4

**fò ñó ~ fò nb**  
‘be better’, §12.1.3

**fó ~ fō**  
a) *fó ~ fō*, ‘until/all the way to’, §7.3.5.2
b) *fō*, ‘must’, §17.1.4
c) *fō* ‘even’, §19.2.2.2

**füúlú**  
postposition ‘between’, §8.3.3.8

**füùrù**  
‘until, within (time span)’, §8.3.5.3

**gbš-nò**  
‘like, similar to’, §8.5.1

**glà ~ glá**  
postposition ‘next to’, §8.3.3.5

**/H+ = Ø/**

   **b) ‘be’ subject enclitic, §11.2.3.1**

**=i**  
identificational ‘it is X’ enclitic, §11.2.1.1

**=I(n**  
1Sg or 1Pl subject of adjoined clause, §15.2.1.3

**jámuñò**  
‘become, be transformed into’, §11.2.5.2
**kà ~ ká**  
(a) ‘want’ (see also kɔ́ɔ́ ~ kɔ̀ɔ̀), §11.2.6.2  
complements, §17.1.1  
past time, §10.4.3  
b) ‘have’, §11.5.1  

**kàà**  
‘leave, abandon’  
in clause adjunctions, §15.2.3.2  

**kàbá**  
‘already’, §8.5.6.8  

**kàbí**  
‘since’, §15.4.3  

**kàʔrà ~ kàʔrá**  
‘finally VP’, §15.2.2.4  

**ke**  
a) ké, past time, §10.4  
b) kè, approval tag question, §13.2.1.4  
c) kè ~ ké, perfective of ‘leave, abandon’, §10.4  

**kèⁿ ~ kéⁿ**  
postposition  
benefactive, §8.1.3  
‘chez’, §8.3.3.4  

**kìnà ~ kíná**  
postposition ‘in front of’, §8.3.3.6  

**kómì**  
‘as’, §15.5.2  

**kósöⁿ**  
‘because of’, §8.4.5  

**kɔ́ɔ́ ~ kɔ̀ɔ̀**  
‘want’, with clausal complement, §17.1.1  

**kòmí**  
‘as for’, §19.1.1  

**kpà**  
postposition in temporal expressions, §8.3.3.9  

**kpá-mà ~ kpá-mà**  
purposive postposition (goal), §8.4.3  

**kpá-ɲɔ̀ ~ kpá-ɲɔ̀**  
purposive postposition (goal), §8.4.3  

**kpé ~ kpé-è**  
‘what?’, §13.2.3  

**kpé-è ~ kpé-è-ńū ~ kpé-è-nū**  
‘exactly’, §8.5.3  

**kú**  
durative inceptive ‘begin’, §15.1.1.2  

**kúdù ~ kúdá**  
purposive-causal postposition (‘for’ or ‘because of’), §8.4.1  

**kùⁿ ~ kùⁿ**  
copula, in ‘X is Y’, §11.2.2.1-2  
in ‘belong to’ predicates, §11.5.3.1  

**kútò ~ kútò**  
postposition ‘under’, §8.3.4.2  

**-lì ~ -lì**  
diminutive suffix on nouns and pronouns, §4.2.1, §4.5.2  

**ma**  
a) mà, 1Sg pronoun, §3.3  

  *mà*, 1Sg imperfective subject  

  *mà*, 1Sg preverbal object pronoun after some subjects, §3.3.1.3  

b) mà ~ mà postposition  
  ‘on’, §8.3.3.3  
  for indirect object of ‘say’, §8.1.2  

c) -má- in two exemplar-type composite adjectives, §5.2.2  

d) ã-mà once for human 3Sg subject ã, end of §4.3.1.1  

e) mà ~ mà- prefix in numerals ‘7’ to ‘9’, §4.6.1.2, §6.4.2.2  

**maña**  
‘owner’, in compounds, §5.1.6
mää  a) 3Pl logophoric or focalized à-mää (human), è-mää (nonhuman), §13.1, §18.3
b) 2Pl pronoun mää, §4.3.1.7

mäʔa  ‘touch’ with postverbal object, §11.1.2.2
   as auxiliary with onomatopoeias, §11.1.2.5

mäʔaⁿ, mäʔa-ní  ‘who?’, §13.2.2
màná  ‘how?’, §13.2.5

mi  a) mi, default possessum, §6.2.4
   in predicates, §11.5.3.1-2
b) mí, demonstrative, §4.4.1.1
c) mi, relative marker, §14.2
d) mi, ‘where?’, §13.2.4
e) -mi- in instrumental compounds, §5.1.7
f) mi- prefix in numeral mi-iló ‘6’, §4.6.1.2

mií  demonstrative, §4.4.1.2
mi-iⁿ  plural relative marker, §14.2

miʔⁿ ~ mēʔⁿ  ‘person’
   in agentive compounds, §5.1.4

müʔaⁿ  1Pl pronoun, §3.3

n  a) = (in), 1Sg or 1Ok subject of adjoined clause, §15.2.1.3
b) =ň ~ =ň, linker before ‘here’ and ‘there’ in predicates, §11.2.3.2

na  a) ná, human 3Sg preverbal object, §4.3.1.3
b) -nà ~ -ná, nominal suffix, nasalized from -rå ~ -rå, §2.2.2.1, §4.1.1,
   §6.1.2
c) ná, after plural ethnicity name, §8.4.4

naa  a) nàà ‘here’, §4.4.2.1
   with linkers, §3.7.3, §11.2.3.2
b) nàāⁿ human 3Pl preverbal object, §4.3.1.3
c) nàāⁿ, 1Sg and 1Pl reflexive possessor of object, §18.1.1

náání  ‘already’, §8.5.6.8
   = nēʔ ~ = nēʔ  clause-final negative enclitic, nasalized from =rēʔ ~ =rēʔ, §10.2
   in negative copula ‘X is not Y’, §11.2.1.2

nēʔêkē  ‘a little’, §8.5.2

ni  a) ní, ‘if’, §16.1
b) -nì ~ -nì diminutive suffix on nouns and pronouns, nasalized from -lì
   ~ -lì, §4.2.1, §4.5.2
c) possible temporal morpheme in sání and yâní ‘by…, between now and
   …’ and náání ‘already’
d) ní, nonhuman 3Sg preverbal object, §4.3.1.3
e) ni or ní ~ ní as final syllable in derived stative verbs, §11.2.4.2,
   §15.1.1.2

nîi  a) perfective 2Sg pseudo-reflexive (middle), §10.1.1.3
b) perfective 2Sg reflexive possessor of preverbal object, §18.1.1
**niiⁿ**  
a) **niiⁿ**, nonhuman 3Pl preverbal object, §4.3.1.3  
b) **niiⁿ**, 2Sg and 2Pl reflexive possessor of preverbal object, §18.1.1  
c) **niiⁿ ~ niiⁿ**, 2Pl pseudo-reflexive, §10.1.1.3  

**-ñ ~ -ñ**  
nominal suffix, nasalized and rounding-assimilated from -rà ~ -rá,  
§2.2.2.1, §4.1.1, §6.1.2  

**-nù**  
plural nominal suffix, §6.1.3  

**-nà**  
ordinal suffix, §4.6.2.2  

**nàà**  
postposition, ‘in the presence of’, §8.3.3.7  

**nààê ~ nàâñè**  
‘proper, right’, §8.5.4.2  

**nààñí**  
‘(from now) until …’, §8.5.6.7  

**nù**  
‘which?’, §13.2.7  

**nùìùⁿ**  
reciprocal, §18.2.1  

**-rà ~ -rá**  
nominal suffix, §2.2.2.1, §4.1.1, §6.1.2  

**= rê? ~ = rê?**  
clause-final negative enclitic, §10.2.1  
in ‘it is not X’ construction, §11.2.1.2  

**= rê = êⁿ**  
negative imperfective interrogative as hortative, §13.2.1.3  

**-r̃ ~ -r̃**  
nominal suffix, rounding-assimilated from -rà ~ -rá, §2.2.2.1, §4.1.1, §6.1.2  

**sà**  
a) future tense, §10.3.2.3  
b) with imperative verb, §10.5.1.2  

**sàni**  
‘by …, between now and …’, §8.5.6.7  

**sí**  
in interrogatives, §15.1.1.5  

**sísàⁿ**  
‘now’, §19.3.1  

**sòló ~ sóló**  
‘how much?’ or ‘how many?’, §13.2.6  

**sò**  
‘know’, §11.2.6.1  
complements, §17.1.2  
past time, §10.4.3  

**sɔ́ɔ́**  
‘help’ (verb), §15.2.2.3  

**sɔ̀rɔ̀**  
‘do then’  
in ‘before …’ clauses, §15.4.4.1  
in ‘it happened that …’ constructions, §19.2.1.2-3  

**tàà ~ táá**  
auxiliary with ‘arrive’, §15.1.1.4  

**tɔ(ⁿ)**  
a) **tɔ ~ tɔ**, postposition ‘in’, §8.3.3.1  
in compound initial, §5.1.8  
b) **tɔ ~ tɔⁿ**, in deverbal adjectives, §4.5.3  
c) **tɔⁿ**, ‘first’ (adverb), §15.4.4.3  
d) **tɔ = ñē? ~ ñē?’ not yet’, §15.4.4.2  

**tɔsì**  
**tɔsì** ~ **tùù**, verb ‘stay, remain’, §11.2.5.1  
as continuative auxiliary ‘keep doing’, §15.1.1.2  

**tɔ̀ẽ**  
‘say (something)’, §3.3.1  

**tɔ̀rɔ̀ ~ tɔ̀nɔ̀**  
a) same-subject purposive clause, §17.5.1  
b) ‘while’, §15.4.5  

**tú**  
a) ‘along with’, §7.1.2  
b) ‘plus’ (quantify of time), §8.5.6.7  

412
túú see t55
wà quoted polar interrogative, §13.2.9.2
waa a) wàá ‘go’, §10.1.1.2
   b) wáá, ‘or’, §7.2
wálímà ‘or’, §7.2
wo a) wó
   wó = Ø, 2Sg imperfective subject
   wò, 2Sg preverbal object pronoun after some subjects, §3.3.1.3
c) wò, 3Sg logophoric or focalized à-wò (human), è-wò (nonhuman),
   often truncated to Ø-wò, §13.1, §18.3
d) wò, ‘whether (or not), clause-final §16.3
wònò ~ wónò ‘still on (a topic)’, §8.3.5.4
wò-řò ‘So-and-so’, §4.1.1.4
ya a) -yà ~ -yá, progressive suffix on verbs, §10.3.2.4
   b) yà polar (yes/no) interrogative, §13.2.1.1
c) à-yà (human) and è-yà (nonhuman) 3Sg postverbal objects, §4.3.1.6
yàndí ‘by …, between now and …’, §8.5.6.7
yèiřé ~ yeiřé reflexive, §18.1

2. grammatical terms

‘a fortiori’, §12.1.5
ablaut, §3.5
   verb stems, §10.1.2
abstractive nominal
deadjectival, §4.2.3
adjective, §4.5
   noun-adjective syntax, §6.3.1
types of adjective
diminutive, §4.5.2
   compound, §5.2.1
deverbal, with t5 ~ t5₈, §4.5.3
   ordinal, §4.6.2
   exemplars as adjectives, §5.2.2
tones of adjectives
   lexical melodies, §3.8.1.2, §6.3.1.2
   grammatical tones, §3.8.2.3
deadjectival abstractive nouns, §4.2.3
deadjectival verbs, §9.6
   adjectival predicate, §11.4
   in comparatives, §12.1
adjoined clause, §15.2
adverb, §8.5
postverbal, §11.2.3.4
postpositional phrases, §§8.1-4
manner, §8.5.5
spatiotemporal
demonstrative, §4.4.2
other spatial, §8.5.6.2
temporal, §§8.3.2, §8.5.6.1
adverbial clauses
adverbial relative clauses, §14.5.4
temporal adverbial clauses, §15.4
spatial adverbial clauses, §15.5.1
manner adverbial clause, §15.5.2
‘again’, §19.1.2.2
‘do again, redo’, §15.2.2.2
agentive, §§4.2.5, §5.1.4
alienable possession, §6.2.2
‘also’, §19.1.2.1
anaphora, chapter 18 (see also “pronouns”)
Apocope, §3.6.2.3
approximative, §4.4.2.2
‘arrive’
with unique auxiliary, §15.1.1.4
etymological connection to ‘was/were’ verb, §10.4
aspect
in verbal morphology, §10.3
auxiliary-like constructions, §15.1
ATR, §3.4
*augment*, see “linker”
bahuvrihi, §5.2.1
‘be’
tive/existential, §11.2.3
‘it is X’ (copula, identificational), §11.2.1-2
‘be (adjective)’, §11.4
‘because’
‘because of’, §§8.4.5, §8.4.1
clauses, §17.5.2
‘become’
‘become (something)’, §11.2.5.2
inchoative verb (deadjectival), §9.5
‘before ...’ clause, §15.4.4
benefactive, §8.1.3
‘can VP’, §17.3.1
*capability*, see ‘can VP’
causal, see ‘because’
causative, §9.2
‘child’
in compounds, §5.1.5
cliticization, §3.7
clusters (consonantal), §3.2.2
cognate nominal, §11.1.2.7
comitative, §8.2.2
comparatives, chapter 12
past-time forms, §10.4.5
complementizer (‘that’), §15.2.1.4, §17.1.2, §17.1.3.1, §17.2.1
compounds
nominal, §5.1
adjectival, §5.2
bahuvrihi, §5.2.1
incorporated objects, §9.6
verb-verb, §15.3
conjunction
of NPs, §7.1
conditionals, chapter 16
consonants, §3.2
coordination, chapter 7
copula, §11.2.2
counterfactual, §16.4
custodial postposition, §8.4.2
dative with ‘say’, §8.12
definiteness
definite marking absent, §6.5
specific indefinite, §6.5.2
defocalized verb, §13.1.4
diectic (see demonstrative)
demonstrative
pronoun, §4.4.1
adverb, §4.4.2
syntax in NP, §6.5.1
denasalization, §3.6.2.5
diminutive
nouns, §4.2.1
adjectives, §4.5.2
phonology, §3.6.1.4
diphthong, §3.3.5
discourse markers, §19.1-3
with pronouns, §4.3.1.6
disjunction (‘or’), §7.2
dissimilation
  tone dissimilation at boundary, §3.8.3.1
distributive
  ‘each’, §6.6.2
  numerals, §4.6.1.6
‘do’ (màà)
  default verbal-noun compound final, §5.1.2
  in instrumental relative compounds, §5.1.7
emphatic
  with demonstrative adverb, §4.4.2.2
  pronoun, §18.1.2.3
  clause-final particle, §19.3.2
enclitic, see “clitic”
epenthesis, §3.6.2.2
‘even’, §19.2.2.2
  ‘even if’, §16.2
exemplars, §5.2.2
existential, §11.2.3
experiential perfect, §15.1.1.3
  past-time, §10.4.10
expressives, §8.5.7
extent, §8.5.2
factitive (transitive deadjectival verb), §9.5
factive clause, §17.1.2, §17.1.3.1
Final Truncation, §3.6.3.1
Final Tone-Raising, §3.8.3.1
floating tones
  floating H as subject enclitic, §10.2.3.1
  floating L after certain nouns/adjectives, §3.8.3.4
  floating M, §15.2.1.3 (2Sg and 2Pl adjoined subjects)
Floating-L Docking, §3.8.3.4
focalization, chapter 13
  effect on form of verb, §13.1.4
fraction, §4.6.3
future, §10.3.2.3
  future-in-past, §10.4.7
  imperative verb after future particles, §10.5.1.2
greetings, §19.4
H-Leveling, §3.8.3.2
habitual (past), §10.4.6
‘happen’, §11.2.6
‘have’, §11.5.1-2
hortative, §10.5.2
  quoted, §10.5.3.4
imperative, §10.5.1
  denasalization of final vowel, §3.6.2.5
  quoted, §10.5.3.1
imperfective, §10.3.2
imprecation, §10.5.3.2, §19.4
inalienable possession, §6.2.2
inchoative verb, §9.5
instrumental, §8.2.1
interrogatives, §13.2
  quoted, §13.2.9
intonation, §3.9
‘it is’, §11.2.1
iteration, see “reduplication”
‘know’, §11.2.7.1
  past-time forms, §10.4.3
  with clausal complement, §17.1.2
Leftward H-Shift, §3.8.3.7
LH-to-L before nonlow tone, §3.8.3.6
linker, §3.7.3
locative postposition, §8.3
logophoric, §18.3
  forms of logophoric pronouns, §4.3.1.4
  syncretism of third person logophoric with second person, §4.3.1.7
M-Spreading, §3.8.3.3
manner
  manner adverb, §8.5.5
  manner adverbial clause, §15.5
metrical structure, §3.1.2
middle, §10.1.1.3
modal (see also “imperative,” “hortative”)
  obligation, §17.1.4
Monophthongization, §3.6.2.4
multi-verb constructions, chapter 15
n-Epenthesis, §3.6.3.2
Nasalization
  nasalyzed vowels, §3.3.2
  r-Nasalization, §3.6.1.3
denasalization, §3.6.2.5
negation, §10.2
  prohibitives, §10.5.1.1
  ‘not be’, §11.2.1.2, §11.2.2.2, §11.2.3.4
  negative interrogative, §13.2.1.2-3
  negation of clause adjunctions, §15.2.4
nominal suffix, §2.2.1, §4.1.1
syntax, §6.1.2-5
noun, §4.1-2
noun phrase, chapter 6
numeral, §4.6
syntax within NP, §6.4.1
in bahuvrihi compounds, §5.2.1.2
object, §11.1.2.1-4
lexicalized, §11.1.6-7
incorporated object in compound verbs, §9.6
pronouns, §4.3.1.3, §4.3.1.6
obligation, §17.1.4
‘only’, §19.1.3
onomatopoeia, §11.1.2.5
order
order of constituents in clauses, §2.5
order of elements within NP, §6.1
ordinal, §4.6.2
OV transitive verbs, §11.1.2.1
‘owner’
in compounds, §5.1.6
past, §10.4
perception verb
complements of, §17.1.3
perfect
experiential perfect, §15.1.1.3
past perfect, §10.4.9
perfective, §10.3.1
defocalized, §13.1.4
M-toned in subject relatives, §14.4
person, see pronouns
plural
plural suffix -ā́, §4.1.1
plural nominal suffix -nū, §4.1.1, §6.1.3
possession
possessed NPs, §6.2
reflexive possessor, §18.1.1
pronominal possessors, §4.3.1.2
possessive-type compounds, §5.1.2
custodial postposition, §8.4.2
possessive predicate, §11.5
past-time form, §10.4.4
possessor relative, §14.5.3
postposition, §8.1-4
  relativization on complement, §14.5.5
  in predicates, §11.5.2
  with conjoined NP, §7.1.2.2
  with reflexive, §18.1.1.2
  PP as compound initial, §5.1.8
present, §10.3.2.2
presentative, §4.4.3
progressive, §10.3.2.4
  past progressive, §10.4.8
prohibitive, §10.5.1.1
  quoted, §10.5.3.3
pronouns, §4.3
  cliticized, §3.7.1
  subject pronouns in adjoined clauses, §15.2.1.3
  reflexives, §18.1
pseudo-reflexive, §10.1.1.3
pseudo-transitive, §10.1.1.2
purposive
  purposive postpositions, §8.4.1, §8.4.3
  purposive clause, §17.5.1
quantification
  universal ‘all’, §6.6.1
  distributive ‘each’, §6.6.2
  extent, §8.5.2
quotative verb, §11.3
  quoted imperative and hortative, §10.5.3, §17.2.4
  quoted interrogative, §13.2.9
r-Deletion, §3.6.1.3
r-Lateralization, §3.6.1.1
r-Nasalization, §3.6.1.1
reciprocal, §18.2
reduplication
  lexically reduplicated noun stems, §4.2.6
  reduplicated verb stems, §10.1.3
  distributive numerals, §4.6.1.6
reflexive, §18.1
  pseudo-reflexive (middle) verbs, §10.1.1.3
relative clauses, chapter 14
  in spatiotemporal adverbial clauses, §15.4.1, §15.5.1-2
  instrumental relative compounds, §5.1.7
‘return’ plus adjoined clause, §15.2.2.2
‘say’, §11.3.1
similarity, §8.5.1
‘since ...’, §15.4.3
‘So-and-so’, §4.1.1.4

*spatial, see “adverb”*

specific indefinite, §6.5.2

stance verbs

  stative forms, §11.2.4.2

stative, §11.2

  past stative absent, §10.4.11

‘stay’, §11.2.5

  as continuative auxiliary, §15.1.1.2

subject, §11.1.1

syllables, §2.1.2

Syncope, §3.6.2.2

tag question, §13.2.1.4

*temporal, see “adverb”*

tone, §3.8

  +3Sg versus -3Sg, §3.8.3.5

  in compounds, §5.1.1-2

  possessed nouns, §6.2.2

  noun plus modifier, §6.3.1.1-2, §6.4.2

  tonal effects of negation, §10.2.3

  verb in subject focalization and subject relativization, §13.1.1, §14.4

topic, §19.1.1

  with focalized resumptive, §13.1.5

valency, §10.1.1

verb

  derivation, Chapter 9

  inflection, Chapter 10

verbal noun, §4.2.2

  in compounds, §5.1.3

  complements, §17.4

VO transitive verbs, §11.1.2.2

vocatives, §4.1.1.3

vowels, §3.3

VP complements, §17.3

**vv**-Contraction, /§3.6.2.1

‘want’, §11.2.7.2

  with clausal complement, §17.1.1

  past-time forms, §10.4.3

willy-nilly, §16.3

‘with’, §8.2, §7.1.2