

A Grammar of Jalkunan (Mande, Burkina Faso)

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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
1.1.1	Prost (1968).....	4
1.1.2	Our fieldwork.....	4
1.1.3	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	<i>h</i>	16
3.2.1.2	<i>ʔ</i>	16
3.2.1.3	<i>r</i> and <i>ʔr</i>	16
3.2.1.4	<i>ʔn</i>	17
3.2.1.5	<i>z</i>	17
3.2.1.6	<i>v</i>	17

3.2.1.7	<i>p</i> versus <i>kp</i>	17
3.2.1.8	Variation in intervocalic stop voicing (<i>k/g</i> and <i>t/d</i>)	18
3.2.1.9	<i>k/g</i> versus <i>c/j</i> before front vowel.....	18
3.2.2	Consonant clusters	19
3.2.2.1	Word- and morpheme-initial <i>CC</i> clusters	19
3.2.2.2	Medial geminated <i>CC</i> clusters	19
3.2.2.3	Medial non-geminate <i>CC</i> clusters	20
3.2.2.4	Word-final <i>CC</i> 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	<i>æ</i> and <i>oe</i> diphthongs	25
3.3.5.2	<i>ie</i> and <i>ia</i>	27
3.4	ATR and related issues	28
3.4.1	ATR Harmony	28
3.4.2	<i>e/i</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	<i>r</i> -Nasalization (<i>/nr/</i> → <i>nn</i> , <i>/Nv-r/</i> → <i>Nv-n</i>).....	31
3.6.1.2	<i>r</i> -Lateralization (<i>/lr/</i> → <i>ll</i>)	31
3.6.1.3	<i>r</i> -Deletion (<i>/lr/</i> → <i>l</i>).....	31
3.6.1.4	Deletion of intervocalic sonorants before diminutive <i>-li</i>	32
3.6.2	Processes affecting vowels	32
3.6.2.1	<i>vv</i> -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	<i>n</i> -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 monotonal 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’ (<i>wó-ró</i>).....	70
4.2	Derived nominals.....	70
4.2.1	Diminutive nouns with suffix <i>-lĩ</i> ~ <i>-nĩ</i>	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 (<i>X mĩ?ĩ-nà</i>).....	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 pronominals.....	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 <i>mǎã</i>	85
4.4	Determiners	86
4.4.1	Demonstratives	87
4.4.1.1	‘This/that’ (<i>mĩ</i>).....	87
4.4.1.2	‘This/that’ (<i>mĩ</i>) 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 <i>-lī</i> ~ <i>-nī</i>	91
4.5.3	Deverbal adjectives with <i>tó</i> ~ <i>tóⁿ</i>	92
4.6	Numerals	93
4.6.1	Cardinal numerals	93
4.6.1.1	‘1’ (<i>dúli</i>)	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’ (<i>dáálá</i>) and ‘last’ (<i>kùdóràmà-nà</i>)	99
4.6.2.2	Other ordinals (suffix <i>-pā-</i>)	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 <i>mí?ī-nà</i> ‘person’	105
5.1.5	Compounds with <i>dí</i> ‘child’ and <i>bōō</i> ‘fruit’	106
5.1.6	‘Owner of X’ compounds (<i>māā-nā</i>)	106
5.1.7	Instrumental relative compounds (‘drinking/bathing water’) (<i>-mī-</i>)	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 (<i>-ra</i> etc.)	112
6.1.3	Distribution of plural nominal suffix (<i>-nū</i>)	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 (<i>mì</i>)	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	NPs including 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 <i>mí</i>	140
6.5.2	Noun plus specific indefinite <i>dò</i> ‘one’	141
6.6	Universal and distributive quantifiers	142
6.6.1	Universal ‘all’ (<i>bù?ù ~ bú?ú</i>)	142
6.6.2	Distributive ‘each’	143
7	Coordination	144
7.1	NP coordination	144
7.1.1	NP conjunction (‘X and Y’) with <i>bù?ù ~ bú?ú</i>	144
7.1.2	<i>tú</i> ‘along with’	145
7.1.3	‘X and Y’ with a modifier or postposition	145
7.2	Disjunction (<i>wálimà, wáā</i>)	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 <i>mà ~ má</i> after ‘say’	149
8.1.3	Benefactive <i>kèⁿ ~ kéⁿ</i>	150
8.2	Instrumental and comitative	150
8.2.1	Instrumental-comitative <i>dè ~ dé</i>	150
8.2.2	Comitative <i>dò ~ dó</i>	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 <i>tò ~ tó</i> ‘in’	153
8.3.3.2	Locative <i>dù ~ dú</i> ‘in, inside of’	154
8.3.3.3	Locative <i>mà ~ má</i> ‘on’	155
8.3.3.4	<i>kɛⁿ ~ kɛⁿ</i> ‘chez’	156
8.3.3.5	<i>glà ~ glá</i> ‘next to’	156
8.3.3.6	<i>kinà ~ kíná</i> ‘in front of’	157
8.3.3.7	<i>ɲáà</i> ‘in the presence of’	158
8.3.3.8	<i>fúúlú</i> ‘between’	158
8.3.3.9	<i>kpà</i> in temporal expressions	159
8.3.4	Complex and multisyllabic spatial postpositions.....	159
8.3.4.1	<i>gbòlòkò ~ gbólókó</i> ‘over/above’ or ‘on top of’	159
8.3.4.2	<i>kùtò ~ kútó</i> ‘under’	160
8.3.4.3	<i>kùtóró mà ~ kútóró mà</i> ‘behind’	160
8.3.4.4	<i>cɛ̃ngò-rò ~ cɛ̃ngò-rò</i> ‘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	<i>fō ~ fɔ̃</i> ‘until/all the way to’	161
8.3.5.3	<i>fùùrù</i> ‘until, within (time span)’	162
8.3.5.4	<i>wò̀nò ~ wónó</i> ‘still on (a topic)’	162
8.4	Purposive and possessive postpositions	163
8.4.1	Purposive-causal ‘for, because of’ (<i>kùdù ~ kúdú</i>)	163
8.4.2	Custodial <i>wù ~ wú</i>	163
8.4.3	Goal postposition <i>kpǎ-mà ~ kpá-mà</i> or <i>kpǎ-ɲò ~ kpá-ɲò</i>	164
8.4.4	<i>ná</i> after plural ethnicity name	165
8.4.5	<i>kósòⁿ</i> ‘because of’	165
8.5	Other adverbs (or equivalents)	165
8.5.1	‘Like, similar to’ (<i>gbó-nò</i>)	165
8.5.2	Extent (‘a lot’, ‘a little’)	165
8.5.3	‘Exactly’ (<i>kpé?é-nū ~ kpè?è-nù</i>)	166
8.5.4	Evaluation	167
8.5.4.1	‘Well’ and ‘badly’	167
8.5.4.2	‘Proper, right, (socially) normal’ (<i>ɲàànéè ~ ɲáánéè</i>)	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’ (<i>télénà</i>)	169
8.5.6.4	‘Apart, separate’ (<i>dáná</i>)	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’ (<i>sáni</i> and <i>yàní ~ ɲàní</i>)	170

8.5.6.8	‘Already’ (<i>kàbáⁿ</i> , <i>nááni</i>)	171
8.5.7	Expressives	171
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’ (<i>wàá</i>)	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 = <i>rĒ?</i> (= <i>rĒ?</i> ~ = <i>rĒ?</i>)	191
10.2.2	Status of the glottal stop in negative = <i>rĒ?</i>	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+ = \emptyset / on subjects in the imperfective system.....	205
10.3.2.2	Present	209
10.3.2.3	Future (<i>sà</i>)	212
10.3.2.4	Progressive (<i>-yà</i> ~ <i>-yá</i>)	215
10.4	<i>ciè</i> ~ <i>cié</i> ‘was/were’ and past morpheme <i>ké</i>	218
10.4.1	Past-time form of copula construction with <i>ciè</i> ~ <i>cié</i>	219
10.4.2	Past-time form of locational ‘be (somewhere)’ with <i>ciè</i> ~ <i>cié</i>	219
10.4.3	Past-time forms of ‘know’ (<i>ké</i>) and ‘want’ (<i>ciè</i> ~ <i>cié</i>)	220
10.4.4	Past-time forms of possessive predicates with <i>ciè</i> ~ <i>cié</i>	220
10.4.5	Past-time forms of comparatives with <i>ké</i>	221
10.4.6	Past habitual (positive and negative) with <i>ciè</i> ~ <i>cié</i>	221
10.4.7	Future-in-past with <i>ciè</i> ~ <i>cié</i>	222
10.4.8	Past progressive (positive and negative) with <i>ciè</i> ~ <i>cié</i>	222

10.4.9	Past perfect (positive and negative) with <i>ké</i>	223
10.4.10	Past experiential perfect with <i>cìè ~ cíé</i>	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 <i>sà</i>	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 <i>bí</i>)	228
10.5.3	Quoted deontics (imperative and hortative)	229
10.5.3.1	Quoted imperative	229
10.5.3.2	Imprecations 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' ($=\hat{e}, =\bar{e}, =\acute{e}, =\bar{e}, =\grave{e}$)	240
11.2.1.2	'It is not X' ($=r\bar{E}?$)	242
11.2.2	Copula	243
11.2.2.1	Positive 'X is Y' ($k\grave{u}^n \sim k\acute{u}^n$)	243
11.2.2.2	Negative 'X is not Y' ($k\grave{u} = n\bar{e}?$, plural $k\acute{u} = n\bar{e}?$)	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 $=\acute{n} \sim =\grave{n}$	246
11.2.3.3	'X is over there' (<i>bá</i>)	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' (<i>tóó</i>)	250
11.2.5.2	'Become, be transformed into' (<i>jámúlò</i>)	251
11.2.5.3	'Happen'	251
11.2.6	Mental and emotional statives	252
11.2.6.1	'Know' (<i>sò</i> etc)	252
11.2.6.2	'Want, like' (<i>kà ~ ká</i>)	252
11.3	Quotative verb	253
11.3.1	'Say' (<i>tò?ò, cìè, dè ~ dé</i>)	253
11.4	Adjectival predicates	254
11.5	Possessive predicates	254
11.5.1	'Y be had by X' (<i>kà ~ ká</i>)	254
11.5.2	'X be with Y'	257
11.5.2.1	Predicate is PP including postposition <i>dè</i> 'with'	257
11.5.2.2	Predicate is comitative PP with <i>dò ~ dó</i>	257
11.5.3	'Y belong to X' predicates	257
11.5.3.1	<i>Y</i> = 'be' [<i>X mì</i>] <i>kùⁿ</i> 'belongs to X'	257
11.5.3.2	[<i>X mì-né</i>] = \emptyset = <i>è</i> '(it) is X's'	259
12	Comparatives.....	260
12.1	Asymmetrical comparatives	260
12.1.1	Adjectival verb plus <i>blé</i> '(sur)pass'	260
12.1.2	Nonadjectival verb plus <i>blé</i> '(sur)pass'	260
12.1.3	'Be better' (<i>fòⁿ ~ fòⁿ</i>)	261
12.1.4	'Best'	262
12.1.5	'A fortiori' (<i>cà?á dóò</i>)	262
12.2	Symmetrical comparatives	262
12.2.1	'Be equal, same' (<i>dúlí kùⁿ</i>)	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 (<i>yà</i>)	269
13.2.1.2	Negative polar interrogative	271
13.2.1.3	Negative imperfective interrogative = <i>rè = èⁿ</i> as hortative	271

13.2.1.4	Approval tag question (<i>kè</i>).....	272
13.2.2	‘Who?’ (<i>mā?āⁿ</i> , <i>mā?ā-nǐ</i>).....	272
13.2.3	‘What?’ (<i>kpé</i>), ‘with what?’, ‘why?’	273
13.2.4	‘Where?’ (<i>mì</i> , <i>dóò</i>)	274
13.2.5	‘How?’ (<i>màná</i>).....	275
13.2.6	‘How much/many?’ (<i>sòlò</i> ~ <i>sóló</i>)	275
13.2.7	‘Which?’ (<i>ɲɔ̀</i>).....	276
13.2.8	‘When?’ (<i>wá?átí ɲɔ̀-nɔ̀</i>).....	276
13.2.9	Quoted interrogative	277
13.2.9.1	Quoted content interrogative.....	277
13.2.9.2	Quoted polar interrogative (<i>wà</i>)	277
14	Relativization.....	278
14.1	Basics of relative clauses.....	278
14.2	Relative marker <i>mì</i>	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 <i>kú</i> ‘begin, set about’ plus imperfective	287
15.1.1.2	<i>tóó</i> (<i>túú</i>) ‘stay’ as continuative auxiliary (‘keep doing’).....	288
15.1.1.3	Experiential perfect ‘have ever’ (<i>dú</i>)	290
15.1.1.4	<i>tàà</i> ~ <i>táá</i> with ‘arrive’	291
15.1.1.5	<i>sí</i> 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 <i>à</i> ‘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	<i>búú</i> ‘return’ plus adjoined clause (‘do again’)	299
15.2.2.3	‘Help’ (<i>sóó</i>) plus adjoined clause	300

15.2.2.4	Adjoined <i>kà?rà</i> ~ <i>ká?rá</i> ‘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 <i>kàà</i> ‘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 (<i>kàbí</i>).....	307
15.4.4	Chronological reversal (‘before ...’ clauses).....	308
15.4.4.1	With <i>sàrò</i> ‘do then’	308
15.4.4.2	With <i>t̄ = n̄?</i> ‘not yet’	309
15.4.4.3	<i>t̄ⁿ</i> ‘first’ (adverb).....	309
15.4.5	<i>tóró</i> ~ <i>tónó</i> ‘while’	310
15.5	Spatial and manner adverbials.....	310
15.5.1	Spatial adverbial clause (‘where ...’)	310
15.5.2	Manner adverbial clause (<i>kómì</i> ‘as’)	310
16	Conditional constructions	312
16.1	Hypothetical conditional with <i>ní</i> ‘if’	312
16.1.1	Regular antecedent clause.....	312
16.1.2	Form of verb in antecedent clause	313
16.2	‘Even if ...’ (<i>áli</i>)	314
16.3	Willy-nilly disjunctive antecedents with <i>wò</i> (‘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’ (<i>kòò</i>) 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 (<i>f̄</i> ‘it must be’) with present or future clause	320
17.2	Quotative complements	320
17.2.1	<i>à</i> as quotative ‘that’ complementizer	321
17.2.2	Combination of <i>d̄</i> ~ <i>d̄</i> ‘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

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’ (<i>cíé</i>).....	328
17.3.1.1	<i>cíé</i> with imperfective VP complement for nonpast time.....	328
17.3.1.2	<i>cìé</i> ~ <i>cíé</i> 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’ (<i>bàlà</i>) plus PP complement	331
17.4.3	‘Cease’ (<i>bàlà</i>) plus preverbal verbal noun complement	332
17.4.4	‘Consent’ (<i>bàlà</i> or <i>sǎǎⁿ</i>) with postverbal verbal-noun complement.....	332
17.4.5	‘Forget’ (<i>jìnáà</i>) with postverbal verbal-noun complement	333
17.4.6	‘Be afraid to’ (<i>jóóⁿ</i>) with postverbal verbal-noun or future complement	333
17.4.7	‘Begin’ (<i>dàà-sǒǒ</i>) with preverbal verbal noun complement.....	333
17.4.8	‘Finish’ (<i>dà-kááⁿ</i> ~ <i>dá-⁴kááⁿ</i>) with verbal-noun subject or complement.....	334
17.5	Purposive and causal clauses.....	335
17.5.1	Same-subject purposive clause (<i>tóró</i> ~ <i>tónó</i>).....	335
17.5.2	Causal (‘because’) clause (<i>bùgǒrē</i>)	335
18	Anaphora	337
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 (<i>yé?ré</i> ~ <i>yé?ré</i>)	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 <i>yé?ré</i> ~ <i>yé?ré</i>	345
18.2	Reciprocal.....	346
18.2.1	Reciprocals (<i>jù?ùⁿ</i>).....	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	<i>kòní</i> ~ <i>kóní</i> ‘as for’ (topic)	351
19.1.2	‘Also’ and ‘again’	352

19.1.2.1	‘Also, too’ (<i>dò?ò</i> ~ <i>dó?ó</i>)	352
19.1.2.2	‘Again’ (<i>dò?ó</i> ~ <i>dó?ó</i>)	353
19.1.2.3	<i>dó?ó</i> ‘again’ and its negation <i>dó?ó = rē?</i> ‘no longer’	354
19.1.2.4	Clause-final <i>dóò</i>	354
19.1.3	‘Only’ (<i>kpè?è-</i> ~ <i>kpé?é-</i>)	354
19.2	Preclausal or clause-initial discourse markers	355
19.2.1	Paragraph introducers	355
19.2.1.1	‘Well, ...’ (<i>bon</i>)	355
19.2.1.2	<i>è-yá sòrò</i> ‘now (it happened that ...)’	355
19.2.1.3	<i>kàà-sòrò</i> ‘now (it happened that ...)’	355
19.2.1.4	<i>wálàà</i> ~ <i>wàláà</i> ‘there it is!’	356
19.2.2	Clause-initial intensifiers	356
19.2.2.1	‘Lo, ...’ (<i>jà?á</i>)	356
19.2.2.2	‘Even’ (<i>áì, fō</i>)	356
19.2.3	Discourse-continuity markers	357
19.2.3.1	<i>donc</i> ‘so’	357
19.2.3.2	<i>èmmè kómi</i> ‘so’	357
19.2.4	Adversative discourse markers	357
19.2.4.1	‘But, ...’ (<i>mè</i>)	357
19.2.4.2	‘Otherwise’ (<i>nóò-té, yàbùgórēⁿ</i>)	358
19.2.4.3	Self-correction <i>àfō</i> ‘or rather’	358
19.3	Clause-final discourse-functional morphemes	359
19.3.1	‘Now’ (<i>sísàⁿ</i>)	359
19.3.2	Emphatic <i>dē?</i>	359
19.4	Greetings	359
Texts	361	
Text 2016_01: History	361	
Text 2016_02: Tale of hyena, hare, and lion	371	
Text 2016_04: A brief history of breasts	387	
Appendix: Jalkunan versus Jeri (Jeli Kuo)	402	
References cited	404	
Abbreviations and symbols	405	
Abbreviations	405	
Symbols	407	
Index	408	
1. selected morphemes	408	
2. grammatical terms	413	

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	
	central-SW	
	Jogo-Jeri	Jalkunan
	Manding	Jula, Bolon, Marka, Sininkere
	northwestern	
	Samogo	Dzuungo, Seenku, <i>Bankagooma</i> , <i>Jowulu</i> , <i>Duungooma</i>
	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 *jâl* (plural *jâl-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
	<i>quartiers</i>			
a.	Blédougou	<i>jâlsà-dù</i>		
	Soba	<i>gbéⁿsé-dù</i>	10 33.164	05 16.409
	Fanora	<i>fǒnò</i>	10 34.270	05 15.760
	Kokora	<i>lò-fǒnò</i>	10 33.572	05 15.892
b.	Kinkinkan	<i>kèⁿ-kéⁿ-káàⁿ</i>	10 35.057	05 15.413

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 *jèl(è)* (suffixed forms *jèl-lá* singular and *jèl-lá-à-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 (Natioro- and Jula-speaking) between Timba and Sindou, and at Sindou (the provincial capital). The *jèl-lá-à-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 *jàl* (suffixed *jàl-á* singular and *jàl-á-à-nū* plural). Blédougou village is called *jàlsà-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 *jàlsà-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 *jálá*) who, the story goes, were there to “welcome” the first settlers; see text 2016_01 @ 01:04. The language itself is called *jàlikùⁿ* (suffixed *jàlikù-ná*), less often without nasalization *jàlikù* (suffixed *jàlikù-ró*).

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 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 *ʔ*.

There are seven vowel qualities with two high vowels $\{i\ u\}$, four mid-height vowels including an ATR opposition $\{e\ o\}$ versus $\{e\ \text{ɔ}\}$, and a low vowel *a*. ATR harmony is evident in some combinations, for example negative enclitic $=r\bar{e}\text{ʔ} \sim =r\bar{e}\text{ʔ}$, 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, possessives, 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 *dè* ~ *dé* ‘with’ is L-toned in 3Sg *à dè* ‘with him/her’ and in *dí dè* ‘with a/the child’, but H-toned in 3Pl *èè" dé* ‘with them (nonhuman)’ and in *dí-rá-à" dé* ‘with (the) children’.

The four M-toned pronominals (1Sg *mā*, 2Sg *wō*, 2Pl *ēēʷ*, 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 *vv*-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* ~ *-rɔ* and the negative enclitic *=rēʷ* ~ *=rēʷʷ*.

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. *ŋg*→*ŋ*.

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 interlinears 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 *mè?èⁿ* (variant *mì?ìⁿ*) ‘person’, with nominal suffix *mè?è-ná* from */mè?èⁿ-rá/*. The bare form *mè?èⁿ* (tonal variant *mè?éⁿ* in some contexts by tone sandhi) is required when the noun functions as possessor, object, or postpositional complement. Suffixed *mè?è-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 *mè?è-ná-àⁿ* ‘people’, becoming *mè?è-ná-à-nū* 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, *jí-ná* ‘tooth’ is lexically H-toned. It has possessed forms like *mā jí-nā* ‘my tooth’, *à jí-ná* ‘his/her tooth’, and *mù?ùⁿ jí-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

category	basic	reflexive possessor (§18.1.1)
1Sg	<i>mā</i>	<i>āⁿ</i>
2Sg	<i>wō</i>	<i>ē ~ ī</i>
1Pl	<i>mù?ùⁿ</i>	<i>āāⁿ</i>
2Pl	<i>ēēⁿ</i>	<i>ēēⁿ ~ īīⁿ</i>
3SgHum	<i>à</i>	<i>à (or àⁿ)</i>
3SgNonh	<i>è</i>	<i>è ~ ì</i>
3PlHum	<i>ààⁿ</i>	<i>ààⁿ</i>
3PlNonh	<i>èèⁿ</i>	<i>èèⁿ ~ ììⁿ</i>

The other well-documented Mande language with a roughly similar distinction in third person pronouns is Jowulu (or Jɔ) 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 *kí*, and 3NonhPl *yìrì* (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 *yìrì*, Jalkunan *èèⁿ*).

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 *kìnà ~ kíná ~ kīnā* ‘in front of’ in *sàá kìnà* (</sàà kìnà/) ‘in front of the house’, *sàà-rá-àⁿ kíná* ‘in front of the houses’, and *mā kīnā* ‘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 $=r\bar{e}ʔ \sim =r\bar{e}ʔ$. 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* ~ *séé* 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	<i>sèé</i> ~ <i>séé</i>	<i>sàní</i> ~ <i>sání</i>
subject-focus perfective	<i>sēē</i>	(n. a.)
imperfective	<i>sáá</i>	<i>sàná</i> ~ <i>sáná</i>
progressive (positive)	<i>sé-yá</i>	<i>sàní-yá</i> ~ <i>sání-yá</i>
progressive (negative)	<i>sè-yá</i> ~ <i>sé-yá</i>	<i>sàní-yá</i> ~ <i>sání-yá</i>
b. deontic inflection		
imperative	<i>sā</i>	<i>sǎⁿ</i> ~ <i>sáⁿ</i>
c. subordinated forms		
adjoined	<i>sá</i>	<i>sàⁿ</i>
adjoined (defocalized)	<i>sà</i>	<i>sàⁿ</i>
in ‘if’ clause	<i>sā</i>	<i>sǎⁿ</i> ~ <i>sáⁿ</i>
quoted imperative	<i>sā</i>	<i>sǎⁿ</i> ~ <i>sáⁿ</i>
d. nominalization		
verbal noun (suffixed)	<i>séé</i> (<i>séé-rá</i>)	<i>sàní</i> (<i>sàn-ná</i>)

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.

(6)	composition	label
	a. S-infl-V	intransitive
	S-infl-V-O	intransitive plus postverbal “object” (VO transitive)
	S-infl-V-PP	intransitive plus postpositional phrase
	b. S-infl-O-V	ordinary transitive (OV transitive)
	S-infl-O-V-O	ditransitive (‘give’ etc.)
	c. S-infl-3SgNonh-V	pseudo-transitive (‘go’)
	S-infl-RefIO-V	pseudo-reflexive (middle)

The sequences S-infl-V and S-infl-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, “-infl-“ in (6), that can precede the VP (V... or OV...) are these: the imperfective subject enclitic /H+ = \emptyset / (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 *bí*. There is no pre-VP inflectional marker in perfectives.

Negation, not shown in (6) above, is a clause-final enclitic =*rĒ?*. Prohibitives (negative imperatives) have both a pre-VP inflectional particle *bí* and clause-final =*rĒ?*. 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.	<i>zàkî</i>	<i>séé</i>		type
		Z	come.Pfv		
		‘Zaki came.’			perfective intransitive
	b.	<i>zàkî</i>	<i>sé</i>	<i>[yí</i>	<i>dè]</i>
		Z	come.Pfv	[water	with]
		‘Zaki brought (the) water.’			perfective intransitive + PP
	c.	<i>zàkî</i>	<i>bá?ri</i>	<i>tàgà-rá</i>	
		Z	touch.Pfv	sheep-Nom	
		‘Zaki touched a/the sheep-Sg.’			perfective VO transitive
	d.	<i>bákàrí = \emptyset</i>	<i>sà</i>	<i>sáá</i>	
		B=Ipfv	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. *zàkî* *mā* *báʔrí(ì)* type
Z 1Sg hit.Pfv
‘Zaki hit me.’ perfective OV transitive
- b. *zàkî* *yí* *bílí* *mā-ñ*
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 *wáá*, 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 *yéʔré* 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).’
(< /tägà-rá è/) perfective pseudo-transitive
- b. *zàkî* [*ná*] *yèʔré* *bàʔrí*
Z [3SgHumRefl self] hit.Pfv
‘Zakii hit himself.’ perfective true reflexive
- c. *zàkî* *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. *à-wò* *sēē = rē?*
 Hum-3SgFoc come.Pfv.SbjFoc=Neg
 ‘It wasn’t he-or-she [focus] who came.’
- b. *à* *sèè = rē?*
 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 *mí* ‘this’). An example is (11).

- (11) [*wó = ∅* [*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. Contractions 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* *jà?àⁿ*] [*yí* *dù*]
 [3SgHum fall.Pfv] [3SgHum descend.Adjn] [water in]
 ‘He/She fell down into the water.’ (</à bǝ à jà?àⁿ/)

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 syncope 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) *bìlí* ~ *bə̀lí* ~ *blǐ* ‘gave’
bèlé ~ *bə̀lé* ~ *blě* ‘passed’

Words like *flā* ‘2’, *glàŋù* ‘nightjar’, *kláá* ‘ring (on finger)’, and *slāā* ‘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 syncope. 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 *nm*, *ll*, and *rr* after Syncope (and assimilation of suffixal *r* to *n* or *l*).

- (14) noun suffixed gloss
- a. *búlú* *búl-lá* ‘caterpillar, grub’
 būtūnī *būtūn-nā* ‘fist’

- | | | | |
|----|---------------|-----------------|---------------|
| b. | <i>b̀̀ǹ̀</i> | <i>b̀̀n-ná</i> | ‘kite (hawk)’ |
| | <i>f́́é</i> | <i>f́́n-ná</i> | ‘mushroom’ |
| c. | <i>kānā</i> | <i>kān-nā</i> | ‘red’ |
| | <i>sàmàrà</i> | <i>sàmàr-rá</i> | ‘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* ~ *fúnnà* ‘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

	1	2	3	4	5	6	7	8	9
labial	<i>p</i>	<i>b</i>	<i>m</i>	<i>f</i>	<i>v</i>		<i>w</i>		
alveolar	<i>t</i>	<i>d</i>	<i>n</i>	<i>s</i>	<i>z</i>	<i>l</i>	<i>r</i>		
glottalized							<i>ʔr</i>		
alveopalatal	<i>c</i>	<i>j</i>	<i>ɲ</i>				<i>y</i>		
velar	<i>k</i>	<i>g</i>	<i>ŋ</i>						
labial velar	<i>kp</i>	<i>gb</i>	<i>ŋm</i>						
laryngeal								<i>ʔ</i>	<i>h</i>

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 [ɾʔ]
 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: *búʔúⁿ* ‘liver’, *dóʔō* ‘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’, *zéʔènĕ* ‘wild date tree (*Balanites*)’, *bòʔòkááⁿ* ‘tall grass spp. (*Hyperthelia*, *Diheteropogon*)’, and *nínààⁿ-tùʔùgú* ‘praying mantis’. Aspectual alternations such as imperfective *dàʔà* and E-stem perfective *dĕʔĕ* for the verb ‘let go, set free’ show that this vocalic harmonization is systematic at least for verbs. Exceptions are *wòʔùl-dí(-rà)* ‘mid-sized honey bee sp.’ and *jíʔénáá* ‘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 *mùʔùⁿ* 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 *rāābā* ‘Wednesday’, a borrowing (ultimately Arabic). They do not occur word-finally, except in words like *máʔr* ‘mango’ when apocopated from *máʔrù*.

r does occur occasionally as first member of medial *CC* clusters, followed by an obstruent: *bàrkár* ‘herb sp. (*Leucas*)’, *màrfǎ* ‘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 [rʔ] 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 /ʔvr/ 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. *Cvʔv-rà* syncompating to *Cvʔ-rà* [Cvrʔà]. Examples of non-syncompation are *dĕʔĕ-rá* ‘cream of millet’ and *jóʔó-rá* ‘Jula person’.

Examples of *ʔr* [r'] are the nouns *gúmàʔrà* ‘palm-frond bed’, *nókòʔrà* ‘face’, *bóʔrò* ‘loam’, *wóʔrò* ‘thigh’, *fáʔrā* ‘cave’, *kóʔrō* ‘night’, *yèʔrè* ‘nééré tree’ (*Parkia*), *máʔr̄* ~ *máʔrù* ‘mango’, and the verbs *kàʔrà* ‘break, snap’, *béʔrē* ‘yam (*Dioscorea*)’, *jòʔrà* ‘jump’, *bàʔrà* ‘hit’, *tòʔrà* ‘sell’, *nòʔrà* ‘affix’, *sèʔrà* ‘sweep’, *sònsóʔrà* ‘squat’, and *kòʔrìyáà* ‘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 (*kàʔrì* ‘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, *sóʔn̄* ‘shrew (*Crocidura*)’, with suffix *sóʔn̄-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: *záʔàmé* ‘rice cooked with sauce in it’, *zéʔèné* ‘wild date tree (*Balanites*)’. There are several examples of *z* intervocally, but they too are flora-fauna or other cultural items: *sìzò* ‘scissors’ (< French), *táábìzòḡó* ‘Abdim’s stork’, *séⁿzé* ‘waterbuck’ (also in Jula), *kòʔⁿzìⁿ* ‘fruit of tree sp. (*Annona*)’. Prost already noted that medial *s* is sometimes pronounced *z*. I have observed this in the semi-reduplicative verb *sòⁿsòⁿʔrà* ‘squat’, often pronounced *sòⁿzòⁿʔrà*.

3.2.1.6 *v*

v is uncommon initially and unattested medially. My examples of word-initial *v* are flora-fauna terms: *vìlāⁿ* ‘fat mouse (*Steatomys*)’, *vègè-kùⁿ*, one of two synonyms for ‘wild grape tree (*Lannea*)’, *vóó* ‘large arthropod sp. (wind spider?)’, *vòòⁿ-vòòⁿ* ‘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 *péḡ* ‘chili pepper’, *pándàl* ‘pants’, *pòsón* ‘poison’ (< French), *pítòl* ‘bulbul (bird)’, and *pòtò-pòtò* ‘jatropha (tree)’. Medial *p* occurs in *álà-pèrèñ-káⁿ* ‘thunder’, *tápétí*

‘plastic sandals’ (local French *tapète*), *kápòn* ‘daba (hoe) for light chopping’, and *sīpītī* ‘Saturday’ (< Arabic).

Labial velar *kp* (a unit phoneme) is common word-initially in native vocabulary: *kpáá* ‘die’, *kpóóló* ‘time(s)’, *kpō* ‘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 intervocalically 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 *dàkòò* ‘catch (something thrown)’, the voiceless *k* is consistent. I suspect this is because it is treated as a compound *dà-kòò*, 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 *tòtó* ‘giant pouched rat’ and *tété* ‘tick’, I have only heard *t* medially. However, apparently reduplicated *kùkù* ~ *kùgù* ‘stone’ does show *k* ~ *g* variation medially.

Other verbs showing intervocalic *k* ~ *g* (cited here in the imperfective +3Sg) are *mùkò* ~ *mùgò* ‘shape into a ball’, *nàkà* ~ *nàgà* ‘ask (question)’, *còkò* ~ *cògò* ‘peck’, *sòkò* ~ *sògò* ‘pick up (on ground)’, *wùkò* ~ *wùgò* ‘flip over’, *yèkà* ~ *yègà* ‘stone-grind’, and *lèkè-lékà* ~ *lègè-légà* ‘tickle’. *bègà* (or *bègè*) ‘cut, slice’ was almost always heard with *g* but a *k* variant was recorded once. Adjective: *bákúní* ~ *bágúní* ‘short’ (apparently a frozen compound, cf. synonym *gúní* ‘short’). Nouns: *dùkù* ~ *dùgù* ‘the bush (outback)’, *díkíní* ~ *dígíní* ‘man’.

Verbs with intervocalic *t* ~ *d* are *dùtòlò* ~ *dùdòlò* ‘show’ and *dùtòʔónó* ~ *dùdòʔónó* ‘shut (door, eyes)’. Adjectives: *wútō* ~ *wúdō* ‘new’, *kútō* ~ *kúdō* ‘old’, *kítā* ~ *kídā* ‘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 *kɛ*, *cɛ*, *kiɛ*, and *ciɛ*, or between *gɛ*, *jɛ*, *giɛ*, and *jiɛ*, and likewise with other front vowels *i* and *e*. In other words, *k* is partially palatalized before front vowels, and *i* in *Ciɛ* 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 *CI* 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 *CI*
noun or numeral
flā ‘two’
klāā ‘mouse’
glàŋù ‘nightjar (bird)’
compound final
táá-blà?à-blá?á ‘firefly’
- b. initial *Cy*
noun
fyèè ‘wind (n)’
- c. initial *Cr*
noun
bràà-kùⁿ ‘fromager tree’ (*Ceiba*)

In cases like *bèlé* ~ *bèlé* ~ *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: *kònnìgì* ‘glue tree (*Cordia*)’, *tònnòl* ‘tiger-beetle larva’, and *nàmùnná* ‘stirring-stick’.

nn, *ll*, and *rr* occur in nouns at the suffixal boundary.

- | (18) | stem | with suffix | gloss |
|------|---------------|-----------------|----------|
| | <i>sàfàlì</i> | <i>sàfàl-lá</i> | ‘donkey’ |
| | <i>sàmàrà</i> | <i>sàmàr-rá</i> | ‘shoes’ |
| | <i>sánū</i> | <i>sáñ-nà</i> | ‘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): *sùkār* ‘sugar’, *bèr(è)fán* ‘blanket’, *jén* ‘ax’, *kòl*

‘cotton’. These too have geminated sonorants in the suffixed form: *sùkār-rà*, *bèr(è)fán-nà*, *jén-ná*, *kǎl-là*.

3.2.2.3 Medial non-geminate *CC* clusters

kp, *gb*, *ŋm*, and *?r* are analysed here as unit consonants, not clusters.

Homorganic nasal plus voiced stop clusters are well-attested: *kám̀bà?rà* ‘Abyssinian roller (bird)’, *pándàl* ‘pants’, *bà̀lànjú́rú* ‘amaranth’, *sā̀ngé* ‘mosquito net’, *sè̀ngbáá* ‘bamboo’. However, these could also be interpreted as nasalized vowel plus stop. For example, *f̀m-bèè* ‘fun’ contains *f̀m* ‘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).

(19)	cluster	example	gloss
	a. <i>Cl</i>		
	<i>ml</i>	<i>kámléwòtóólū</i>	‘galago (mammal)’
	<i>fl</i>	<i>màfláni-kíí</i>	‘tree spp. (<i>Parinari</i> , <i>Maranthes</i>)’
	b. <i>Cy</i>		
	<i>fy</i>	<i>tàfyél</i>	‘square fan’
	c. <i>lC</i>		
	<i>lm</i>	<i>sàlmátàànkéé</i>	‘thrush (bird)’
	<i>ln</i>	<i>b̀òln-á</i>	‘hitching post for goat’ (suffixed form)
	<i>lk</i>	<i>báلكُúⁿ</i>	‘tree sp. (<i>Khaya</i>)’
	<i>lw</i>	<i>d̀òlwááíí</i>	‘ground-dwelling termite’
	d. <i>rC</i> and <i>?rC</i>		
	<i>rf</i>	<i>màrfá</i>	‘gun’
	<i>rt</i>	<i>kórtòò gbó?ó</i>	‘paper wasp sp.’
	<i>rn</i>	<i>cérná</i>	‘cricket’
	<i>rw</i>	<i>jérwòtó</i>	‘snail’
	<i>?rc</i>	<i>bā?rcēē</i>	‘fight (n)’
	e. <i>NC</i> with voiceless stop or affricate		
	<i>ŋkp</i>	<i>cííŋkpèrì-kúⁿ</i>	‘tree sp. (<i>Entada</i>)’
	<i>ŋk</i>	<i>gbéŋká-kúⁿ</i>	‘tree sp. (<i>Bridelia</i>)’
	<i>nc</i>	<i>bèlèncíⁿ</i>	‘uncle’ (synonym <i>bé</i>)

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 *bðln* ‘hitching post’ before modifiers or verbs: *bðlìn flā* ‘two hitching posts’, *mā bðlīn jìé* ‘I saw a hitching post’. The *n* is not noticeably syllabic. The suffixed form is *bðln-á*.

3.3 Vowels

The inventory is (20), omitting tones.

(20)	oral		nasal
	u	uu	u ⁿ uu ⁿ
	o	oo	o ⁿ oo ⁿ
	ɔ	ɔɔ	ɔ ⁿ ɔɔ ⁿ
	a	aa	a ⁿ aa ⁿ
	ɛ	ɛɛ	ɛ ⁿ ɛɛ ⁿ
	e	ee	e ⁿ ee ⁿ
	i	ii	i ⁿ ii ⁿ

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

<i>dí</i>	‘child’
<i>kpɔ̄</i>	‘foot’
<i>bé</i>	‘uncle’ (synonym <i>bèlèncí^m</i>)

pronouns

<i>mā</i>	1Sg proclitic
<i>wō</i>	2Sg proclitic

adjectives

<i>gbó</i>	‘big’
<i>jé</i>	‘good’

numerals

<i>flā</i>	‘2’ (in some contexts <i>flāā</i> , see comments after (125))
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verbs

<i>sð ~ sɔ̄</i>	‘know’ (perfective)
<i>sā</i>	‘come’ (imperative)

b. *Cvv* monosyllabics

nouns

<i>kóō</i>	‘back (body)’
<i>fěē</i>	‘calabash’
<i>lóó</i>	‘mask’
<i>gbíí</i>	‘boil (on skin)’

adjectives

<i>táā</i>	‘hot’
<i>kpěē</i>	‘white’

numerals

<i>táá</i>	‘ten’
------------	-------

verbs

<i>bàà</i>	‘fall’ (imperfective)
<i>sàà ~ sáá</i>	‘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

<i>jààgbè</i>	‘courage’
<i>b̀̀̀ró</i>	‘sack’
<i>báárá</i>	‘work (n)’ (synonym <i>wááí</i>)

numerals

<i>sóóló</i>	‘5’
<i>búúlí</i>	‘thousand’

verbs

<i>m̀̀lí ~ mílí</i>	‘think’ (perfective; also variants with <i>r</i> for <i>l</i>)
<i>f̀̀ní ~ f́́ní</i>	‘untie’ (perfective)
<i>m̀̀à-s̀̀é ~ máá-séé</i>	‘bow, bend over’ (perfective)

b. *CvCvv*

nouns

<i>dáá̀̀</i>	‘civet (mammal)’
<i>jà̀̀gbáá</i>	‘cat’ (and other variants)

verbs

<i>m̀̀ní ~ múní</i>	‘crawl’ (perfective)
<i>ǹ̀néé ~ ń́néé</i>	‘taste’ (perfective)

c. *CvCvvCv*

nouns

<i>tùbààbù</i>	‘white person’
<i>lìmààmí</i>	‘imam’

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.

(23) a. *Cv* monosyllabics

nouns

<i>séⁿ</i>	‘thing’
<i>tóⁿ</i>	‘arrow’

demonstratives

<i>mí</i>	‘this’
-----------	--------

verbs

<i>kpááⁿ</i>	‘die’ (imperfective)
<i>běⁿ ~ bēⁿ</i>	‘draw (water)’ (imperative)
<i>kìⁿ</i>	‘fly away; jump’ (imperative)

b. *Cvv* monosyllabics

nouns

<i>cííⁿ</i>	‘breast’
<i>gbáāⁿ</i>	‘shoulder’
<i>kwéēⁿ</i>	‘crops’
<i>dòòⁿ</i>	‘dance (n)’ (variant <i>dòò</i>)
<i>kùùⁿ</i>	‘penis’

pronouns

<i>ēēⁿ</i>	2Pl proclitic
<i>ààⁿ</i>	human 3Pl proclitic

verbs

<i>jòòⁿ ~ jóóⁿ</i>	‘steal’ (imperfective)
<i>jóóⁿ</i>	‘fear’ (imperfective)
<i>kpààⁿ ~ kpááⁿ</i>	‘kill’ (imperfective)

In nonmonosyllabics, 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*
cíⁿ-yí ‘milk’ (compound “breast-water”)
- verbs*
fùⁿvúnó ‘sprinkle (grains)’ (imperfective)
- b. final long nasalized vowel or diphthong
- nouns*
jàngbááⁿ ‘cat’ (variants include *jàŋmááⁿ*)
- verbs*
dòóⁿ ~ dóóⁿ ‘step on’ (imperfective)
kìàⁿ ~ kíáⁿ ‘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*
cíⁿwù ‘termitary’
- b. final short nasalized vowel
- nouns*
dúléⁿ ‘fishing apparatus’
búʔúⁿ ‘liver’
gbíríⁿ ‘wilderness’
gbāájéⁿ ‘tea’
fààndáⁿ ‘pauper’
sàà-bíⁿ ‘roof’
[for verbs see just below]

Several verb stems have morphologically regular alternations between *Cvⁿv* (e.g. imperfective) and *Cvⁿ* (e.g. imperative).

- | (26) | imperfective
+3Sg | imperative
+3Sg | gloss |
|------|-----------------------|-------------------------|-----------|
| | <i>dòⁿ</i> | <i>dóⁿ</i> | ‘chew’ |
| | <i>gbènà</i> | <i>gběⁿ</i> | ‘throw’ |
| | <i>jàʔánà</i> | <i>jàʔáⁿ</i> | ‘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 *Nv* or *Nvv* syllable, where *N* is a nasal consonant, is treated as nasalized in the phonology. This is especially relevant to *n* ~ *r* alternations in nominal suffix *-ra* and in negative enclitic *=rĒ?*, 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 *gbènà* ‘throw’ as *gbèⁿ* plus *nàⁿ*. Examples with fully nasalized final *Nvv* syllable include *kūmēē* [kūmē:ⁿ] ‘food’ and *mòmóē* [mòⁿmóⁿēⁿ] ‘carried on back’ (perfective +3Sg).

Stems ending in *Nv?v* are likewise treated as ending in a nasalized vowel, thereby triggering *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 *Nv* and *Nvv* syllables the vocalic nasalization is automatic. Examples are the pronoun *mù?ùⁿ* ‘we’, noun *bìná?áⁿ* ‘herb sp. (*Ceratotheca*)’ with suffixed form *bìná?á-ná*, and verb *kòmá?àⁿ* ‘knead, stir’ with negation *kòmá?à = nĒ?*.

3.3.3 Initial vowels

Initial vowels *a* and *e* occur in pronominals (2Pl *ēēⁿ*, human 3Pl *ààⁿ*, human 3Sg *à*, nonhuman 3Pl *èèⁿ*, nonhuman 3Sg *è*). 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 *vv*-Contraction.

- | | | |
|------|-------------------------------------|----------------------------------|
| (27) | <i>álā</i> | ‘God’ |
| | <i>àlà^màⁿ</i> | ‘fine (n)’ |
| | <i>ìkájèⁿ</i> | ‘shrub sp. (<i>Alchornea</i>)’ |
| | <i>òòlú</i> | ‘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 *œ* and *oe* diphthongs

The diphthong *œ* occurs in verbs ending in *ɔɔ* that add a mid-height front vowel *ɛ* in the perfective. However, in medial position this diphthong is trimmed back to *ɔ*. For example, ‘enter’ is cited as imperfective *sɔɔ*. Its perfective form *sðé* ~ *sóé* occurs clause-finally, but is

usually trimmed to *sò* ~ *só* clause-medially. More problematically, this perfective is heard with long but monophthongized vowel before the negative enclitic: *sòò = rē?* ~ *sóó = rē?*. It is optionally shifted to +ATR in this negative form, hence variants *sòò = rē?* ~ *sóó = rē?*. *Còò* verbs that have tones in the imperfective, and nonmonosyllabic *CòCòò* 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 than *oe*, and even clause-finally it monophthongizes sporadically as *ee*.

The other vowel quality, not already {*e* *ɛ*}, in verbs with E-stem perfectives is the low vowel *a*. The expected diphthong #*ae* 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 *úà* or *éà* in the imperfective and therefore in *úí* or *éí* in the I-stem perfective.

(28)	imperfective +3Sg ~ -3Sg	perfective +3Sg ~ -3Sg	PfvNeg +3Sg	gloss
a. perfective ends in <i>oe</i> diphthong				
	<i>optional shift to +ATR in perfective negative</i>			
	<i>sóó</i>	<i>sòè ~ sóé</i>	<i>sòò = rē?</i> ~ <i>sòò = rē?</i>	‘enter’
	<i>bóó</i>	<i>bòè ~ bóé</i>	<i>bòò = rē?</i> ~ <i>bòò = rē?</i>	‘exit’
	<i>kòò ~ kóó</i>	<i>kòè ~ kóé</i>	<i>kòò = rē?</i> ~ <i>kòò = rē?</i>	‘count’
	<i>sòò ~ sóó</i>	<i>sòè ~ sóé</i>	<i>sòò = rē?</i> ~ <i>sòò = rē?</i>	‘put (sth) in’
	<i>shift to +ATR in perfective negative not attested</i>			
	<i>mòò ~ móó</i>	<i>mòè ~ móé</i>	<i>mòó = rē?</i>	‘rub, wipe’
	<i>jòòⁿ ~ jóóⁿ</i>	<i>jòèⁿ ~ jóéⁿ</i>	<i>jòó = nē?</i>	‘steal’
	<i>dòòⁿ ~ dóóⁿ</i>	<i>dòèⁿ ~ dóéⁿ</i>	<i>dòó = nē?</i>	‘step on’
	<i>mòmóò ~ mómóó</i>	<i>mòmóè ~ mómóé</i>	<i>mòmóó = nē?</i>	‘carry on back’
b. perfective ends in <i>oe</i>				
	<i>tòò</i>	<i>tòlòè ~ tólé</i> (+3Sg also <i>tòléè</i>)	<i>tòlòè = rē?</i>	‘point at’
	<i>bóó</i>	<i>bòlòè ~ bóólé</i>	<i>bòló = rē?</i>	‘be born’
	<i>kòrróò ~ kórróó</i>	<i>kòrróè ~ kórróé</i>	<i>kòrró = rē?</i>	‘drag’

c. perfective ends in $\epsilon\epsilon$

<i>kpááⁿ</i>	<i>kpèéⁿ ~ kpééⁿ</i>	<i>kpèè = nē?</i> <i>~ kpèè = nē?</i>	‘die’
<i>bàà</i>	<i>bèé ~ béé</i>	<i>bèè = rē?</i> <i>~ bèè = rē?</i>	‘fall’
<i>tá?á</i>	<i>tè?é ~ té?é</i>	<i>tè?è = rē?</i> <i>~ tè?è = rē?</i>	‘go’
<i>dó-‘sáá</i>	<i>dò-séé ~ dó-séé</i>	<i>dò-séé = rē?</i> <i>~ dò-séé = rē?</i>	‘add’

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

<i>búló</i>	<i>bùlí ~ búlī</i>	<i>bùlí = rē?</i>	‘return, go back’
<i>dùtòlò ~ dútóló</i>	<i>dùtòlí ~ dútòlī</i>	<i>dùtòlí = rē?</i>	‘point at’
<i>fààmúà ~ fáámúá</i>	<i>fààmúī ~ fáámúī</i>	<i>fààmúī = rē?</i>	‘understand’
<i>gbèngbéà ~ gbéngbéà</i>	<i>gbèngbéī ~ gbéngbéī</i>	<i>gbèngbéī = rē?</i>	‘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

<i>jìè ~ jíé</i>	<i>jìè ~ jíé</i>	<i>jìè = rē?</i>	‘see’
(imperfective also <i>jìà ~ jíá</i>)			
<i>fìè ~ fíé</i>	<i>fìè ~ fíé</i>	<i>fìè = rē?</i>	‘blow’
<i>cìè ~ cíé</i>	<i>cìè ~ cíé</i>	<i>cìè = rē?</i>	‘arrive’

b. *ie* in imperfective, I-stem in perfective

<i>mìè ~ míé</i>	<i>mĩ ~ miĩ</i>	<i>mĩ = nē?</i>	‘drink’
<i>ɲìè ~ ɲíé</i>	<i>ɲĩ ~ ɲiĩ</i>	<i>ɲĩ = nē?</i>	‘spend night’
<i>nìà ~ níà</i>	<i>nĩ ~ niĩ</i>	<i>nĩ = nē?</i>	‘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, *tòlólé* ‘rotted’ and *bàḡé* ‘exited’ are perfective forms of verbs, ending in the perfective stem-final *e* or *ɛ*, the choice based on ATR value of the rest of the stem.

ATR Harmony is also central to the variation between =*rɛʔ* and =*rēʔ* variants of the all-purpose clause-final negative enclitic (§10.2), and that between =*ē* and =*ē̄* 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 {*ɛ ɔ a*}
 +ATR {*e o i u*}

For example, the negative enclitic takes the form =*rɛʔ* 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=rɛʔ* ‘It will not come.’
 b. *é Ø kíí=nēʔ* ‘It did not fly.’
 bí=í gùⁿ=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
- | | | | | |
|-----------|------------|------------|--------------|-------------|
| <i>dě</i> | <i>dêé</i> | <i>dèè</i> | <i>dè-yá</i> | ‘heat (sb)’ |
| <i>mò</i> | <i>mòé</i> | <i>mò</i> | <i>mò-yá</i> | ‘rub’ |

Cεε and *Coo* 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 *ɛ*, and in some cases an original vowel of this type has spread its -ATR quality leftward.

(33)	imperative +3Sg	perfective +3Sg	imperfective +3Sg	gloss
	shift to -ATR in imperfective			
	<i>wě</i>	<i>wě̄</i>	<i>wèè</i>	‘bathe (sb)’
	<i>dàkó</i>	<i>dàkó̄</i>	<i>dàkóò</i>	‘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	
	<i>è</i>	<i>ì</i>	nonhuman 3Sg
	<i>ē</i>	<i>ī</i>	2Sg (in some contexts, e.g. reflexive)
	<i>èèⁿ</i>	<i>ììⁿ</i>	nonhuman 3Pl
	<i>ēēⁿ</i>	<i>īīⁿ</i>	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. | <i>sí = ì</i> | nonhuman 3Sg |
| b. | <i>sì = ì</i> | 2Sg (pseudo-reflexive) |
| c. | <i>sí = ìⁿ</i> | nonhuman 3Pl |
| d. | <i>sà ééⁿ</i>
<i>sì = ìⁿ</i> | 2Pl (object)
pseudo-reflexive |

Somewhat similar contractions occur in two-clause adjunction constructions, see §15.2.1.3 below.

The verb ‘go’ (perfective *tèʔé* ~ *téʔé*, imperfective *táʔá*) has a variant form *tíʔí* 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 *u* for expected +ATR *o*, see *túú* from *tóó* ‘stay’ in (426).

- (36) a. *[jèr-rá=∅ tíʔ=] [í bǎl dāā]*
 [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 tíʔ=] [í bàà fō→ —]*
 [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 ε*}, 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 *ε* (E-stem) form one subset of perfectives, the choice between *e* and *ε* depending on ATR-harmonic class (37a). Perfectives with final *i* (I-stem) are a second subset (37b).

(37)	imperfective	perfective +3Sg	gloss
a.	<i>nìnáà</i>	<i>nìné</i>	‘forget’
	<i>wàá</i>	<i>wěē</i>	‘go’
	<i>dàʔà</i>	<i>dèʔé(ē)</i>	‘escape’
b.	<i>búló</i>	<i>bùlí</i>	‘return’
	<i>díbé</i>	<i>dibí</i>	‘be extinguished’

3.6 Segmental phonological rules

3.6.1 Processes affecting consonants

3.6.1.1 *r*-Nasalization (/nr/ → nn, /Nv-r/ → Nv-n)

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

r-Nasalization applies to nominal suffix *-ra* ~ *-rɔ* (tone variable) and to negative enclitic *=re?* ~ *=rɛ?*.

- (38) a. *kàr-mū?ūⁿ* ‘holy man’, with nominal suffix *kàr-mū?ū = nā*
b. *jàā-nà = ∅* ‘it’s a woman’, negated as *jàā-nà = ∅ = nē?*

Counterexamples are rare cases like the noun *céngò* ~ *céngò* ‘middle’, where *ng* is in the process of simplifying to *ŋ* via *ng*. In principle, *r*-Nasalization of the nominal suffix should apply after variant *céngò* but not after variant *céngò*, whose oral stop *g* should prevent nasalization from spreading rightward. However, the actual forms are *céngò-rɔ* ~ *céngò-rɔ* without nasalization of the suffix (§8.3.4.4).

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

3.6.1.2 *r*-Lateralization (/lr/ → ll)

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

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

For a different way to avoid *lr* clusters, the following section.

3.6.1.3 *r*-Deletion (/lr/ → l)

There are also some nouns ending in *lv* (*v* = any short vowel) after which the nominal suffix has the form *-a* ~ *-ɔ* (tone depends on noun stem) replacing the stem-final vowel. For

example, *yálā* ‘hole, pit’ has suffixed form *yál-à* for expected #*yálā-rà*. *yálā* and *yál-à* differ only in tone. A near-homonym *yálá* ‘bone’ with /H/ melody is homophonous to its own suffixed form *yál-á*, though my hyphen distinguishes them orthographically. *kàkàlà* ‘grass sp. (*Loudetia*)’ has suffixed form *kàkàl-á* since nouns with /L/ melody have an H-toned suffix, but unsuffixed *kàkàlà* becomes *kàkàlá* 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 *ɔ* 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, /lr/ 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 *-lī*

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 *-lī* or variant. The resulting vowel cluster contracts. An example is *kà?rà* ‘unmarried young woman (about 18-25)’, diminutive *kàà-lī* ‘girl (to adolescence)’. There are additional minor phonological idiosyncrasies 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*, *-rá*, *-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 *ɔ* instead of *a*. All of these variants combine with plural *-àⁿ* to result in *-rà-àⁿ*, *-rá-àⁿ*, *-nà-àⁿ*, *-ná-àⁿ* or, with rounded vowel, *-rɔ-ɔⁿ*, *-rɔ-ɔⁿ*, *-nɔ-ɔⁿ*, *-nɔ-ɔⁿ*.

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	\bar{a}^n
1Pl	$\bar{a}\bar{a}^n$
2Sg	\bar{e}

b. multiple functions (nonreflexive)

2Pl	$\bar{e}\bar{e}^n$	
3SgHum	\hat{a} (~ \hat{a}^n)	except object $n\acute{a}$
3SgNonh	\hat{e}	except object $n\acute{i}$
3PlHum	$\hat{a}\hat{a}^n$	except object $n\acute{a}\hat{a}^n$
3PlNonh	$\hat{e}\hat{e}^n$	except object $n\acute{i}\hat{a}^n$

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 (\hat{a} , \hat{e} , 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 \hat{a} (§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. $C\acute{v}\hat{v}$ from / $C\hat{v}\hat{v}$ /), or an expected H-tone shifts to the left (e.g. $C\acute{v}\hat{v}$ from / $C\hat{v}\acute{v}$ /). 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. / $C\hat{v}C\hat{v}C\hat{v}$ / → $C\hat{v}C\acute{v}C\hat{v}$ (§3.8.3.1). In the aberrant / $C\hat{v}\acute{v}$ / → $C\acute{v}\hat{v}$ 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	<i>sà + ēēⁿ</i>	→ <i>sà (é)éⁿ</i>
	b.	3SgHum	<i>sà + à</i>	→ <i>sá = à</i>
		3SgNonh	<i>sà + è</i>	→ <i>sí = ì</i>
		3PIHum	<i>sà + ààⁿ</i>	→ <i>sá = à(à)ⁿ</i>
		3PINonh	<i>sà + èèⁿ</i>	→ <i>sí = ì(i)ⁿ</i>

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 e a*} (including nasalized *aⁿ*). 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 <i>à</i>	+3SgNonh <i>è</i>	gloss
	a. monosyllabic verb			
	<i>kpāⁿ</i>	<i>kpāⁿ = àⁿ</i>	<i>kpēⁿ = èⁿ</i>	‘die’ (imperative)
	<i>sō</i>	<i>sō = ò</i>	<i>sō = ò</i>	‘enter’ (imperative)
	<i>bèé</i>	<i>bá = à</i>	<i>bé = è</i>	‘fall’ (perfective +3Sg)
	<i>sèé</i>	<i>sá = à</i>	<i>sé = è</i>	‘come/bring’ (perfective +3Sg)
	<i>wě</i>	<i>wé = è</i>	<i>wé = è</i>	‘bathe’ (imperative)
	b. nonmonosyllabic verb			
	<i>tìgè</i>	<i>tìg = èè</i>	<i>tìg = ìì</i>	‘pound’ (imperfective +3Sg)
	<i>nìné</i>	<i>nín = èè</i>	<i>nín = ìì</i>	‘forget’ (perfective +3Sg)
	<i>bēlē</i>	<i>bēl = èè</i>	<i>bēl = èè</i>	‘pass’ (imperative)
	<i>tìgí</i>	<i>tìg = éè</i>	<i>tìg = ìì</i>	‘pound’ (imperative +3Sg)
	<i>bùgú</i>	<i>bùg = óò</i>	<i>bùg = óò</i>	‘butcher’ (imperative +3Sg)
	<i>búló</i>	<i>búl = òò</i>	<i>búl = òò</i>	‘return’ (imperfective)
			(~ <i>búl = ù</i>)	
	<i>dàkó</i>	<i>dàk = óò</i>	<i>dàk = óò</i>	‘catch’ (imperative +3Sg)

The distinction between *a* (as in human 3Sg *à*) and *e/i* (as in nonhuman 3Sg *è/ì*) as second vowel is expressed in the contracted vowel as -ATR {*ɛ ɔ 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, *bèé*, *sèé*, and *wě* in (41a) plus *nìné* in (41b) shift the H-tone to the

leftmost mora in the contracted combinations. However, the bisyllabic imperatives in (41b) do not shift.

For *Caʔa* and *Ceʔe* verb stems, as with imperfective/perfective forms of *táʔá* ‘go’ and *dàʔà* ‘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 *Caʔa* or *Ceʔe* versus *Ceʔe* or *Ciʔi* (42).

(42)	verb	+3SgHum à	+3SgNonh è	gloss
	<i>táʔá</i>	<i>táʔ=à</i>	<i>téʔ=è</i>	‘go’ (imperfective)
	<i>tèʔé</i>	<i>téʔ=è</i>	<i>téʔ=è ~ tíʔ=ì</i>	‘go’ (perfective +3Sg)

In verbs whose full stem shape is trisyllabic *CvCvnn*, the truncated imperative is *CvCvⁿ* 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 *jàʔánà* ‘descend’ and *sìdánà* ‘ascend’ (43).

(43)	verb	+3SgHum à	+3SgNonh è	gloss
	<i>jàʔáⁿ</i>	<i>jàʔàn=á</i>	<i>jàʔàn=í</i>	‘descend’ (imperative)
	<i>sìdáⁿ</i>	<i>sìdàn=á</i>	<i>sìdàn=í</i>	‘ascend’ (imperative)

The encliticized vowel in *jàʔàn=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).

(44)	<i>jàʔàn=</i>	<i>[í/á</i>	<i>dè]</i>
	descend.Imprt	[3SgNonh/3SgHum	with]
	‘Go down with it/with him-or-her!’		

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, *dí* ‘child’ combines with the nominal suffix as *dí-rá*, which is often heard as *[dírá]* 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 *flā* ‘2’ and the second word in *fóʔó glān* ‘flour from roasted millet grains’, among other examples. A brief schwa is sometimes heard, as in *[fɔ̃lā]*. One could argue that it is epenthetic, but in syllable-by-syllable pronunciation my assistant sometimes syllabifies as *fɪ.lā*.

A similar example is *fìlí* ~ *fflí* ‘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 [f̀əlí]. In the monotonal variant *fflí*, which follows a -3Sg object, there is no clear schwa: [flí].

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 (*jìé* ‘saw’ with a -3Sg subject such as 1Sg). The second environment flattens an HM noun to HH (§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 *?r* is not a cluster and does allow Apocope (45d), most obviously with ‘mango’ but also in the suffixed form of ‘soil’ (< /bó?rǒ-rǒ/ by Apocope and *r*-Deletion).

(45)	suffixed	‘two __s’	‘(I) saw __’	gloss
	a. medial obstruent			
	<i>fūgū-rā</i>	<i>fūgū</i>	<i>fūgú</i>	‘blind person’
	<i>sìbì-rá</i>	<i>sìbì</i>	<i>sìbí</i>	‘meat’
	b. medial glottal			
	<i>mì?ì-ná</i>	<i>mì?ìⁿ</i>	<i>mì?ìⁿ</i>	‘person’ (~ <i>mè?èⁿ</i>)
	c. medial cluster			
	<i>fúrnó-rà</i>	<i>fúrnó</i>	<i>fúrnó</i>	‘burner’

d. *?r* is not a cluster

<i>má?r-rá</i>	<i>má?r</i>	<i>má?r</i> ~ <i>má?rù</i>	‘mango’
<i>bó?r-ó</i>	<i>bó?r</i>	<i>bó?r</i>	‘soil’

Some *CvLv* stems with medial sonorant *L* do not apocope in any position (46a-c) in my current data. It is difficult to determine whether Apocope has applied with *Cvyi* 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

<i>dínē-nà</i>	<i>díné</i>	<i>dínē</i>	‘religion, Islam’
<i>dòṅò-ná</i>	<i>dòṅò</i>	<i>dòṅó</i>	‘termitary’
<i>dùnù-nò</i>	<i>dùnù</i>	<i>dùnù</i>	‘cylindrical tomtom’
<i>jéné-nà</i>	<i>jéné</i>	<i>jéné</i>	‘shed, stall’
<i>jínā-nà</i>	<i>jíná</i>	<i>jínā</i>	‘devil, djinn’
<i>kúnō-nà</i>	<i>kúnó</i>	<i>kúnō</i>	‘wooden bowl’
<i>níní-nà</i>	<i>níní</i>	<i>níní</i>	‘tongue’
<i>nōnó-nò</i>	<i>nōnó</i>	<i>nōnó</i>	‘milk’
<i>sónō-nò</i>	<i>sónó</i>	<i>sónō</i>	‘maize’
~ <i>sōn-nò</i>			

ŋ

<i>bíṅí-nà</i>	<i>bíṅí</i>	<i>bíṅí</i>	‘granary’
<i>céṅò-rò</i>	<i>céṅò</i>	<i>céṅò</i>	‘middle’
<i>kàṅá-nà</i>	<i>kàṅá</i>	<i>kàṅá</i>	‘froth, foam’
<i>kpàṅà-ná</i>	<i>kpàṅà</i>	<i>kpàṅá</i>	‘soap’
<i>kpēṅū-nō</i>	<i>kpēṅū</i>	<i>kpēṅú</i>	‘dike’
<i>lōṅá-nà</i>	<i>lōṅá</i>	<i>lōṅá</i>	‘hourglass tomtom’
<i>nòṅò-nó</i>	<i>nòṅò</i>	<i>nòṅó</i>	‘friend’ or ‘side’
<i>tòṅò-nó</i>	<i>tòṅò</i>	<i>tòṅó</i>	‘cauldron’

m

<i>bòmò-rá</i>	<i>bòmò</i>	<i>bòmó</i>	‘stomach’
<i>jàmù-nà</i>	<i>jàmù</i>	<i>jàmú</i>	‘surname’
<i>jèmé-nà</i>	<i>jèmé</i>	<i>jèmé</i>	‘tall basket’
<i>jōmé-nà</i>	<i>jōmé</i>	<i>jōmé</i>	‘bag’
<i>lāmó-rà</i>	<i>lāmó</i>	<i>lāmó</i>	‘tax’ (< Fr. <i>l’impôt</i>)
<i>sōmé-nà</i>	<i>sōmé</i>	<i>sōmé</i>	‘marrow’
<i>tàmà-ná</i>	<i>tàmà</i>	<i>tàmá</i>	‘spear’

b. medial semivowel

<i>síyá-rà</i>	<i>síyá</i>	<i>síyá</i>	‘type, sort’
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c. medial liquid

<i>l</i>				
<i>fīlā-rà</i>	<i>fīlā</i>	<i>fīlá</i>		‘Pullo, Fulbe person’
<i>mēlós-nò</i>	<i>mēlósⁿ</i>	<i>mēlósⁿ</i>		‘watermelon’
<i>yūlō-nā</i>	<i>yūlōⁿ</i>	<i>yūlōⁿ</i>		‘couscous steamer’
<i>r</i>				
<i>gbírī-nà</i>	<i>gbíríⁿ</i>	<i>gbíríⁿ</i>		‘wilderness’

d. doubtful cases (homorganic *yi*, *wu*)

<i>yi</i>				
<i>nàyí-rà</i>	<i>nàyí</i>	<i>nàyí</i>		‘tears (n)’
<i>sóyí-ná</i>	<i>sóyíⁿ</i>	<i>sóyíⁿ</i>		‘strap’
<i>gàyì-rá</i>	<i>gàyì</i>	<i>gàyí</i>		‘gravel’
<i>kōyī-rā</i>	<i>kōyī</i>	<i>kōyí</i>		‘belly’
<i>wu</i>				
<i>cíⁿwù-ró</i>	<i>cíⁿwù</i>	<i>cíⁿwù</i>		‘low termitary’

In *bòmò-rá* ‘stomach’ and *lámó-rà* ‘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/ó* or *CvL-La/ó* in the suffixed form, rather than trisyllabic *CvLv-ra/ó*, 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/ó* and geminated *CvL-La/ó* 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 *ból* as compound initial from *bóló* ‘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

<i>bél-á</i>	<i>bélé ~ bél</i>	<i>bélé</i>	‘medication’
<i>ból-ó</i>	<i>ból</i>	<i>bóló</i>	‘hand’
<i>cál-à</i>	<i>cél</i>	<i>cálā</i>	‘road’
<i>jùl-ó</i>	<i>jùl</i>	<i>jùló</i>	‘leaf’
<i>kól-ó</i>	<i>kól</i>	<i>kóló</i>	‘hill, mountain’
<i>kpòl-ó</i>	<i>kpòl</i>	<i>kpòló</i>	‘skin’
<i>sòl-ó</i>	<i>sòl</i>	<i>sòló</i>	‘gear’
<i>tál-á</i>	<i>tál</i>	<i>tálá</i>	‘sun’
<i>tól-ò</i>	<i>tól</i>	<i>tóló</i>	‘ear’
<i>wàl-á</i>	<i>wàlā</i>	<i>wàlá</i>	‘urine’
<i>wál-à</i>	<i>wál ~ wálá</i>	<i>wálā</i>	‘noise’ or ‘shout’

wùl-á	wùl	wùlá	‘dog’
yál-á	yál	yálá	‘egg’ or ‘bone’
yál-à	yál	yálā	‘hole’

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

búl-lá	búl	búlú	‘grub’
dál-lá	dál	dálí	‘jar’
jél-lá	jél	jélé	‘cowry’
kél-lá	kél	kélé	‘courtyard’
nīl-là	nīl	nīlí	‘eyes’
pél-là	pél	pélé	‘chili pepper’
súl-lá	súl	súlú	‘shade’
túl-lá	túl	túlú	‘metal’
wál-lá	wál	wálí	‘work (n)’ (synonym <i>báará</i>)

no Apocope before ‘two’, /l-r/ realized as l

bál-á ⁿ	bálá ⁿ	bálá ⁿ	‘balafon (xylophone)’
kál-á	kálá	kálá	‘neighborhood, home’

no Apocope before ‘two’, /l-r/ cluster realized as ll

bàl-lá ⁿ	bàlà ⁿ	bàlá ⁿ	‘Senoufo person’
~ bàl-ná			
tél-lá	télé	télé	‘oil’
wèl-lá	wèlè	wèlé	‘scales; bark’
yèl-là	yélé	yélé	‘thorn’

b. medial n

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

sáñ-nà	sán	sánū	‘gold’
tàn-ná	tàn	tàná	‘totem’

no Apocope before ‘two’, /n-r/ cluster realized as nn

kpén-ná	kpéné	kpéné	‘shin’
kún-ná	kúnú	kúnú	‘village’
mùn-ná	mùnù	mùnú	‘rice (crop)’

c. medial m

no Apocope before ‘two’

nóm̄-nà	nóm	nómī	‘skullcap’
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d. medial r

Apocope before ‘two’

sér-rà	sér	sérī ~ sér̄	‘prayer’
wár-rà	wár	wárī	‘money’

no Apocope before ‘two’

màr-rá	màrà	màrá	‘chronic malaria’
sár-rà	sará	sará	‘tobacco’
wór-rà	wóró	wórō	‘kola nut’

e. medial *ʔr*

Apocope before 'two' and sometimes 'see', /ʔr-r/ realized as ʔrr

<i>fáʔr-à</i>	<i>fáʔr</i>	<i>fáʔrā</i>	‘cave’
<i>kàʔr-á</i>	<i>kàʔr</i>	<i>kàʔrá</i>	‘unmarried woman’
<i>máʔr-á</i>	<i>máʔr</i>	<i>máʔr</i>	‘mango’ (variant)
	~ <i>máʔrù</i>	~ <i>máʔrù</i>	
<i>sèʔr-á</i>	<i>sèʔr</i>	<i>sèʔré</i>	‘porridge woman’

no Apocope before 'two', /ʔr-r/ realized as ʔr

<i>wóʔr-ó</i>	<i>wóʔr</i>	<i>wóʔr</i>	‘thigh’
<i>béʔr-à</i>	<i>béʔr</i>	<i>béʔré</i>	‘yam’ (<i>Dioscorea</i>)
<i>kóʔr-à</i>	<i>kóʔr</i>	<i>kóʔr</i>	‘night’ (suffixed form implies /kóʔr ⁿ /)
<i>bàʔr-á</i>	<i>bàʔr</i>	<i>bàʔrá</i>	‘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
	<i>jén-ná</i>	<i>jén</i>	<i>jén</i>	‘ax’
	<i>būl-là</i>	<i>būl</i>	<i>būl</i>	‘inheritance’
	<i>sɔl-là</i>	<i>sɔl</i>	<i>sɔl</i>	‘weeding daba’
	<i>kɔl-là</i>	<i>kɔl</i>	<i>kɔl</i>	‘cotton (crop)’
	<i>tòn-ó</i>	<i>tòn</i>	<i>tòn</i>	‘heap’

3.6.2.4 Monophthongization

Monophthongization as a synchronic process applies most clearly in verbs of the monosyllabic diphthongal shape *Cɔɛ*. These are perfective verb stems like *bðé ~ bóé* ‘exited’, when they are followed by a negative enclitic. The result in this case is *bðò = rēʔ ~ bóó = rēʔ* ‘did not exit’, or variants *bòò = rēʔ ~ bóó = rēʔ* with optional shift to +ATR vocalism.

Exactly how to formulate Monophthongization is not transparent. One obvious possibility is to take the bivocalic form *bðé* 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 *ɛ* is clipped, and the resulting /bð/ is then lengthened. A possible argument in favor of the clipping analysis is that the H-tone on *é* in *bðé* is also absent from the negative form. One might then compare ‘exit’ (49a) with other verbs (49b-c).

(49)	positive	negative	gloss
a.	<i>à bðé</i>	<i>à bðð = rē?</i> (~ <i>à bðò = rē?</i>)	‘he/she did (not) exit’
b.	<i>é kǐíⁿ</i>	<i>é kǐí = nē?</i>	‘it did (not) fly’
c.	<i>è gǔⁿ</i>	<i>bí = í gù = nē?</i>	‘(don’t) shorten it!’

One could argue that the final moras of ‘exit’ (49a) and ‘fly’ (49b), along with their tones, are clipped before the negative clitic, leaving /bð/ and /kǐ/, and that these are lengthened to *bðð* and *kǐí*. Since *é kǐí = nē?* demonstrates that a *Cv̄v̄* form is possible on the surface before the negative clitic, it is not obvious why *bðé* 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 *Cv̄* 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 *bðé ~ bðé* ‘exited’ versus negative *bðð = rē? ~ bðó = rē?* 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 *sðé ~ séé* ‘came’ is related to imperfective *sáá* in the same way as perfective *bðé ~ bðé* ‘exited’ is related to imperfective *bðó*, so an underlying /sae/ is plausible. Realization of /ae/ as *ee* 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 *dðnð*, imperative *dðⁿ* ‘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)Cvⁿ* (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.

(50)	Pfv +3Sg	Ipfv +3Sg	Imprt +3Sg	gloss
	<i>kòní</i>	<i>kònò</i>	<i>kǒ</i>	‘enlarge’
	<i>sèbé</i>	<i>sèbéna</i>	<i>sèbé</i>	‘write’ (< Jula)
	<i>làʔání</i>	<i>làʔanáà</i>	<i>làʔá</i>	‘lift with effort’
	<i>sìdání</i>	<i>sìdàna</i>	<i>sìdá</i>	‘burn’
	<i>kùlónì</i>	<i>kùlónò</i>	<i>kùló</i>	‘tie’
	<i>gìlénì</i>	<i>gìlénà</i>	<i>gìlé</i>	‘hang up’

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		
	<i>dèè</i>	<i>dě</i>	‘heat (sth)’
	<i>bòò</i>	<i>bō</i>	‘take out’
	<i>bàà</i>	<i>bǎ</i>	‘put down’
	<i>kpààⁿ</i>	<i>kpǎⁿ</i>	‘kill’
	<i>nènéeè</i>	<i>nèné</i>	‘taste (sth)’
	<i>dò?òyáà</i>	<i>dò?òyá</i>	‘shrink (sth)’
	b. final <i>Nv</i> versus zero		
	<i>kòò</i>	<i>kō</i>	‘expand (sth)’
	<i>bènà</i>	<i>běⁿ</i>	‘draw water’
	<i>kànà</i>	<i>kǎⁿ</i>	‘ruin (sth)’
	<i>gbà?àlánà</i>	<i>gbà?àlá</i>	‘become thin; dry off’
	c. final high vowel		
	<i>jìè</i>	<i>jǐ</i>	‘see; get’
	<i>bàlà</i>	<i>bàlì</i>	‘stop’ or ‘consent’
	<i>tùwôⁿ</i>	<i>tǔⁿ</i>	‘apply hide covering’
	<i>bìè</i>	<i>bìlì</i>	‘give’

The examples in (51a) have a final long vowel in the imperfective 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 *kpǒ* ‘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. *sàá* *kòn =* [*á* *kèⁿ*]
house expand.Imprt [3SgHum Benef]
‘Expand-2Sg the house for him/her!’ (*sàà* ; /*kǒn à*/ ?)
- b. *klāá* *kpàⁿ =* [*á* *kèⁿ*]
mouse kill.Imprt [3SgHum Benef]
‘Kill-2Sg the mouse for him/her!’
- c. *è* *tùⁿ =* [*á* *kèⁿ*]
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 *kòn 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).

(53)	category	subject etc.	object after pronominal subject
	3SgHum	à	ná
	3SgNonh	è	ní
	3PlHum	àà ⁿ	náà ⁿ
	3PlNonh	èè ⁿ	nî ⁿ

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=îⁿ*.

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=í* 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 *à*, and nonhuman 3Pl *èèⁿ*, 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) [Pron₁ Vb₁] [Pron₂ Vb₂]

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 *vv*-contraction) of Pron₂ to Vb₁, across the syntactic brackets. Disregarding the syntactic brackets, the result is (55), where = indicates enclisis (contraction).

(55) Pron₁ Vb₁=Pron₂ Vb₂

This segmental enclisis occurs in all combinations of the type ...X [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).

- (56) input: ...X] [Pron+T Y...
output: ...X=Pron^TY...

An example is (57). The floating LH-tones associated with human 3Sg *à* as possessor are realized on the possessum to its right. However, /*à*/ itself contracts with /*wèé*/, a clause-medial variant of perfective *wěé* ‘go’.

- (57) *mā* *ní* *wèé*= [[\emptyset *sàá*] *mà*]
 wèé [[*à*+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 *à*, human 3Pl *ààⁿ*, nonhuman 3Sg *è*, nonhuman 3Pl *èèⁿ*. 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 *ēēⁿ* is vocalic, while other categories have consonant-initial forms in nonreflexive contexts (1Sg *mā*, 2Sg *wō*, 1Pl *mù?ùⁿ*). However, as reflexives within a clause and 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. =*rĒ?* (i.e. =*rē?* ~ =*rē?*) negative (clause-final)
b. =*Ē* (i.e. =*ē* ~ =*ē*) ‘it is’ (identificational)
c. [H+= \emptyset] (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 $/v_1v_2/ \rightarrow v_1-n-v_2$, 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 *bá* ‘over there’. In predicate function (‘be here/there’), a linking enclitic $=\acute{n} \sim =\grave{n}$ appears on the subject, following the regular ‘be’ enclitic $/H+=\emptyset/$ which consists of an H-tone. The spatial adverb is usually clause-final, followed if at all only by sentence enclitics like negative $=n\bar{E}?$. 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. *zàkî=∅=ṅ* *nàà / dè*
 Zaki=be=Link here / there.Def
 ‘Zaki is present here/there-Definite.’
- b. *tàgà-ré=∅=ṅ* *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 $=n\bar{E}?$. Preceding verbs and most other elements undergo a terminal modification. The final *e* in perfective *Cve* 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.	<i>sā</i>	<i>sé=é</i> <i>nàà</i>	‘Come here!’
	<i>à sèé</i>	<i>à sé=é</i> <i>nàà</i>	‘He/she came here.’
	<i>mā séé</i>	<i>mā sé=é</i> <i>nàà</i>	‘I came here.’
	<i>má=∅ sà sáá</i>	<i>má=∅ sé=é</i> <i>nàà</i>	‘I will come here.’
	<i>má=∅ sé-yá</i>	<i>má=∅ sé-yé=é</i> <i>nàà</i>	‘I am coming here.’
b.	<i>bō</i>	<i>bó=ó</i> <i>nàà</i>	‘Exit (=leave) here!’
	<i>à bòé</i>	<i>à bó=ó</i> <i>nàà</i>	‘He/She exited here.’
	<i>mā bóé</i>	<i>mā bó=ó</i> <i>nàà</i>	‘I exited here.’
	<i>má=∅ sà bóó</i>	<i>má=∅ bó=ó</i> <i>nàà</i>	‘I will exit here.’

c.	<i>bà</i>	<i>bé = é nàà</i>	‘Fall here!’
	<i>à bèé</i>	<i>à bé = é nàà</i>	‘He/She fell here.’
	<i>mā bée</i>	<i>mā bé = é nàà</i>	‘I fell here.’
	<i>má = ∅ sà bàà</i>	<i>má = ∅ sà bé = é nàà</i>	‘I will fall here.’
d.	<i>fidí</i>	<i>fidí nàà</i>	‘Run here!’
	<i>à fidí</i>	<i>à fídí nàà</i>	‘He/She ran here.’
	<i>mā fídí</i>	<i>mā fídí nàà</i>	‘I ran here.’
	<i>má = ∅ sà fidéè</i>	<i>má = ∅ sà fídí nàà</i>	‘I will run here.’
e.	<i>sídáⁿ</i>	<i>sìdàn nàà</i>	‘Ascend here!’
	<i>à sìdání</i>	<i>à sìdān nàà</i>	‘He/She ascended here.’
	<i>mā sìdání</i>	<i>mā sìdān nàà</i>	‘I ascended here.’
	<i>má = ∅ sà sìdànà</i>	<i>má = ∅ sìdān nàà</i>	‘I will ascend here.’

In the first item in (60e), *sìdān nàà*, I do not take the final nasal on the verb as a linker =*n*. Rather, imperative truncation from /*sìdana*/ to *sídaⁿ* 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 =*n̄* on postverbal singular nouns like ‘a/the sheep-Sg’.

(61)	final element	with adverb	gloss of final element
a.	<i>... tàgà-rá</i>	<i>... tàgà-ré = n̄ nàà</i>	‘a/the sheep-Sg’
	<i>... tàgà-rá-à-n̄</i>	<i>... tàgà-rá-à-ń nàà</i>	‘(the) sheep-Pl’
	<i>... jǎā-nà</i>	<i>... jǎā-nè = è nàà</i>	‘(a/the) woman’
	<i>... jǎā-nà-à-n̄</i>	<i>... jǎā-nà-à-ń nàà</i>	‘(the) women’
	<i>... mā-n̄</i>	<i>... mā-n̄ nàà</i>	‘me’ (postverbal)
	<i>... à-yà</i>	<i>... à-yé = é nàà</i>	‘him/her’ (postverbal)
b.	<i>... [à dè]</i>	<i>... [à dé = é] nàà</i>	‘with him/her’
	<i>... [ààⁿ dé]</i>	<i>... [ààⁿ dé = é] nàà</i>	‘with them’
	<i>... [à mà]</i>	<i>... [à mé = é] nàà</i>	‘on him/her’
	<i>... [ààⁿ má]</i>	<i>... [ààⁿ mé = é] nàà</i>	‘on them’
	<i>... [è tò]</i>	<i>... [è tó = ó] nàà</i>	‘in it’
	<i>... [èèⁿ tó]</i>	<i>... [èèⁿ tó = ó] nàà</i>	‘in them’
	<i>... [è dù]</i>	<i>... [è dú = ú] nàà</i>	‘in it’
	<i>... [èèⁿ dú]</i>	<i>... [èèⁿ dú = ú] nàà</i>	‘in them’

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

Clause-final past marker *ké* (§10.4), the negative enclitic =*rĒ?*, 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 *ε* in *Cvε* 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[id], 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. /C̣ṿC̣ṿ/ → C̣ṿC̣. Tone patterns like C̣ṿṿC̣ṿ rather than #C̣ṿṿC̣ṿ show that monomoraic final C̣ṿ 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).

(62)	\acute{x}	H
	\grave{x}	L
	\bar{x}	M
	\hat{x}	HL
	\check{x}	LH
	\tilde{x}	HM
	\hat{x}	MH

There are no ML- or LM-toned syllables.

My use of \tilde{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 $\acute{a}\acute{a}$ (H), $\grave{a}\grave{a}$ (L), or $\bar{a}\bar{a}$ (M); as bitonal $\hat{a}\hat{a}$ (HL), $\acute{a}\bar{a}$ (HM), $\grave{a}\acute{a}$ (LH), and $\tilde{a}\hat{a}$ (MH); and as tritonal $\hat{a}\hat{a}$ or equivalently $\check{a}\hat{a}$ (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 $\acute{a}n$, $\grave{a}n$, and $\bar{a}n$, but contour-toned $\hat{a}\hat{n}$, $\check{a}\hat{n}$, and so forth. The letter *l* does not lend itself to accents typographically, so a contour tone must be indicated on the vowel: $\hat{a}l$, $\check{a}l$, $\tilde{a}l$, $\hat{a}l$.

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/ ⇒ /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)/	<i>bù</i>	<i>bù-ró</i>	‘excrement’
		<i>sàà</i>	<i>sàà-rá</i>	‘house’
		<i>bò?ò</i>	<i>bò?ò-rá</i>	‘ashes’
		<i>jòlòkò</i>	<i>jòlòkò-ró</i>	‘chain’
	/HL/ ⇒ /HL(H)/	<i>kápòn</i>	<i>kápòn-ná</i>	‘daba (type)’
		<i>ɲókò?rò</i>	<i>ɲókò?r-ó</i>	‘face’
		<i>kpásù?ùⁿ</i>	<i>kpásù?ù-ná</i>	‘week’
		<i>kókóbà?à</i>	<i>kókóbà?à-rá</i>	‘leper’
	/LHL/ ⇒ /LHL(H)/	<i>mìsírì</i>	<i>mìsírì-rá</i>	‘mosque’
		<i>tòólò</i>	<i>tòólò-ró</i>	‘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)/	<i>jū</i>	<i>jū-rō</i>	‘millet’
		<i>gbāā</i>	<i>gbāā-rā</i>	‘stick’
		<i>bā?ā</i>	<i>bā?ā-rā</i>	‘porridge’
		<i>kòlòkò</i>	<i>kòlòkò-rō</i>	‘talk (n)’
		<i>tūlūkānā</i>	<i>tūlūkān-nā</i>	‘gold’
		<i>dūnīpā</i>	<i>dūnīpā-nā</i>	‘world’
	b. stem ending in falling ...HM-tone (stem must be at least bimoraic)			
	/HM/ ⇒ /HM(L)/	<i>fēē</i>	<i>fēē-rà</i>	‘calabash’
		<i>būl</i>	<i>būl-là</i>	‘inheritance’
		<i>bú?ūⁿ</i>	<i>bú?ū-nà</i>	‘liver’
		<i>bé?rē</i>	<i>bé?r-à</i>	‘yam’
		<i>múúlí</i>	<i>múúl-là</i>	‘ridge in field’
		<i>níná?āⁿ</i>	<i>níná?ā-nà</i>	‘scorpion’

/LHM(L)/ ⇒ /MHM(L)/, in two subgroups:

<i>CvVCv</i>	<i>bèéni</i>	<i>bèéni-nà</i>	‘sesame’
	see comment below	~ <i>bèén-nā</i>	
	<i>tòólõ</i>	<i>tòólõ-rà</i>	‘okra’
	see comment below	~ <i>tòól-lā</i>	
<i>longer</i>	<i>jàbálā</i>	<i>jàbálā-rà</i>	‘white cowpea’
		~ <i>jàbāl-lā</i>	
	<i>sùkār</i>	<i>sùkār-rà</i>	‘sugar’
	<i>bàné?ē</i>	<i>bàné?ē-rà</i>	‘fatigue’
	<i>nà?áli</i>	<i>nà?āl-là</i>	‘grain of sand’
/MHM/ ⇒ /MHM(L)/	<i>jāṅgbálā</i>	<i>jāṅgbál-à</i>	‘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-Cv* and syncopated *CvVC-Cv*, the latter showing that the fall from H to M is audible in the coda to the long first syllable. Unsyncopated *CvVCv-Cv* is correct (*bèéni-nà*, *tòólõ-rà*). However, my assistant preferred syncopated *CvVC-Cv* for these relatively short stems, thus *bèén-nā* for expected #*bèéni-nà* and *tòól-lā*, with the unlinked M-tone shifted to the right rather than to the left, for expected #*tòól-là* 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 /*CvLv*/. The stems in (65b) have L-toned suffix. Some of them are 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.

(65)	melody	stem	with suffix	gloss
	a. stem with final H-tone, plus H-toned suffix			
	/H(H)/	<i>dí</i>	<i>dí-rá</i>	‘child’
		<i>náá</i>	<i>náá-ná</i>	‘sauce’
		<i>kól</i>	<i>kól-ó</i>	‘agama lizard’
		<i>jó?ó</i>	<i>jó?ó-rá</i>	‘Jula (person)’
	/LH(H)/ (stems are <i>CvVCvCv</i> or syncopated <i>CvVCvC</i> with final sonorant)	<i>sìná?áⁿ</i>	<i>sìná?á-ná</i>	‘roselle’
		<i>màkár</i>	<i>màkár-rá</i>	‘pity (n)’

b. stem with final H-tone, plus L-toned suffix

/H(L)/	<i>jíⁿ</i>	<i>jí-nà</i>	‘market’
	<i>bé</i>	<i>bé-rà</i>	‘uncle’
	<i>kpésé</i>	<i>kpésé-rà</i>	‘chewstick’
	<i>wáátí</i>	<i>wáátí-rà</i>	‘time’
	<i>hééré</i>	<i>hééré-rà</i>	‘well-being’
	<i>fóróbó</i>	<i>fóróbó-rò</i>	‘ox’
/LH(L)/ (these stems end in a single H-toned <i>Cv</i> syllable)	<i>pòsón</i>	<i>pòsón-nò</i>	‘poison (n)’
	<i>dò?òró</i>	<i>dò?òró-rò</i>	‘heat’
	<i>ɲò?òmé</i>	<i>ɲò?òmé-nà</i>	‘camel’
/MH/ ⇒ /MH(L)	<i>jūfá</i>	<i>jūfá-rà</i>	‘pocket’
	<i>sīzó</i>	<i>sīzó-rà</i>	‘scissors’
	<i>gbātá</i>	<i>gbātá-rà</i>	‘shed’
	<i>gbāājéⁿ</i>	<i>gbāājé-nà</i>	‘tea’
	<i>nāṅgó</i>	<i>nāṅgó-rà</i>	‘garden’
	<i>ɲāmākú</i>	<i>ɲāmākú-rò</i>	‘ginger’
/LMH/ ⇒ /LMH(L)	<i>kòlòsí</i>	<i>kòlòsí-rà</i>	‘rosary’
	<i>bòyākí</i>	<i>bòyākí-rà</i>	‘guava’
/HLH/ ⇒ /HLH(L)	<i>dáṅkùtò</i>	<i>dáṅkùtò-rò</i>	‘nape’
	<i>gbélèmá</i>	<i>gbélèmá-nà</i>	‘cassava’

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

(66)	type	gloss	isolation	‘two _’s’	‘I saw _’
	/H(H)/	‘breast’	<i>cíí-ná</i>	<i>cííⁿ flā</i>	<i>mā cííⁿ jìé</i>
	/M/ ⇒ /M(M)/	‘hair’	<i>cīí-nā</i>	<i>cīíⁿ flā</i>	<i>mā cīíⁿ jìé</i>
	/L/ ⇒ /L(H)/	‘village’	<i>sàà-rá</i>	<i>sàà flā</i>	<i>mā sàà jìé</i>

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)	type	gloss	isolation	‘two _’s’	‘I saw _’
	/H(H)/	‘breast’	<i>cíí-ná</i>	<i>cííⁿ flā</i>	<i>mā cííⁿ jìé</i>
	/H(L)/	‘wall’	<i>kógó-rò</i>	<i>kógó flà</i>	<i>mā kógó jìé</i>
	/HM/ ⇒ /HM(L)/	‘calabash’	<i>fēē-rà</i>	<i>fēē flà</i>	<i>mā fēē jìé</i>

/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

from /H(L)/ by its stepwise descending pitch in the isolation form. This distinction cannot be made when the stem is monomoraic *Cṽ-*, hence suffixed *Cṽ-Cṽ*. The stem is too short to allow stepwise descending pitch to be audible; there are no #*CṽCṽ* words in Jalkunan. An example is *jí^m* ‘market’, suffixed form *jí-nà*. This stem could theoretically either be /H(L)/ or /HM/ ⇒ /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 *dúli* ‘1’ is /HL/. *wà?à* ‘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 *bà?rà* after a +3Sg NP and *bá?rá* 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 *búlu* ‘return’ have /H/ melodies, while *bàà* ‘fall’ and *sènà* ‘sprout’ have /L/ melody.

Some stems have a contoured tone, typically /LHL/, as with *sìdánà* ‘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 *sìdání* and -3Sg *sídání*. In -3Sg *sídání*, 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 *tùnúnà* and -3Sg *túnúnà*, 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)

melody	syllable sequence	example (Ipfv)
a. monosyllabics		
/L/	L	<i>bàà</i> ‘fall’
/H/	H	<i>sóó</i> ‘enter’
b. bisyllabics		
/L/	L.L	<i>kàná</i> ‘be ruined’
/LHL/	L.<HL>	<i>fídéé</i> ‘run’
/HL/	H.L	<i>gbógò</i> ‘(dog) bark’
/H/	H.H	<i>díbé</i> ‘be extinguished’
c. trisyllabics		
/L/	L.L.L	[absent]
/LHL/	L.H.L	<i>jà?ánà</i> ‘descend’
/HL/	H.H.L	<i>téléná</i> ‘go straight’
/H/	H.H.H	<i>lá?ánáá</i> ‘wake up’
d. quadrisyllabics (uncommon)		
/L/	L.L.L.L	[absent]
/LHL/	L.L.H.L	<i>gbà?àláá</i> ‘dry off; become thin’
/HL/	H.H.H.L	<i>ná?ámíá</i> ‘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)

melody	syllable sequence		example (Ipfv)
	+3Sg	-3Sg	
a. monosyllabics			
/@/	L	H	<i>bàà</i> ~ <i>báá</i> ‘put down’
/@HL/	<LHL>	<HL>	<i>kòò</i> ~ <i>kóó</i> ‘count’
b. bisyllabics			
/@/	L.L	H.H	<i>bà?rà</i> ~ <i>bá?rá</i> ‘hit’
/@HL/	L.<HL>	H.<HL>	<i>dèrèè</i> ~ <i>dérèè</i> ‘squeeze’
c. trisyllabics			
/@/	L.L.L	H.H.H	<i>dùtòlà</i> ~ <i>dútóló</i> ‘point at’
/@HL/	L.H.L	H.H.L	<i>gílénà</i> ~ <i>gíléná</i> ‘hang up’
/@H/	L.L.H	H.H.H	<i>wòlò-báá</i> ~ <i>wóló-báá</i> ‘pick out’
d. quadrisyllabics (uncommon)			
/@/	L.L.L.L	H.H.H.H	[absent]
/@HL/	L.L.H.L	H.H.H.L	<i>fírikíè</i> ~ <i>fírikíé</i> ‘hobble (animal)’
"	L.H.H.L	H.H.H.L	<i>dùtò?ónò</i> ~ <i>dútò?ónò</i> ‘cover with blanket’
/@H/	L.L.L.H	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* ~ *báá* ‘put down’, versus *sóó* ‘enter’ and transitive *sòò* ~ *sóó* ‘put in’. Bisyllabic examples: *kànà* ‘be ruined’ and transitive *kànà* ~ *káná* ‘ruin’, *díbé* ‘be extinguished’ and transitive *díbè* ~ *díbé* ‘extinguish’. A trisyllabic example is *lá?ánáá* ‘get up’ and transitive *là?ànàà* ~ *lá?ánáá* ‘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 (LL#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 *mù?ùⁿ* (1Pl), *ēēⁿ* (2Pl), *ààⁿ* (human 3Pl) and *èèⁿ* (nonhuman 3Pl), which become *mù?úⁿ*, *ēéⁿ*, *ááⁿ*, 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 *à-wò* (human) and *è-wò* (nonhuman) do undergo it, though not consistently. Monomoraic nouns like *wù* ‘head’ do undergo it: *mā wǔ jǐé* ‘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 *jù?úⁿ gbò?ò-rá* ‘black wrap (garment)’ from L-toned *jù?ùⁿ* ‘wrap (n)’, see (188) in §6.3.1.1. The only L-initial numerals are forms with *wà?à* ‘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*)*v̄* morpheme is raised to (*C*)*v̄* before an L-tone regardless of the tones of preceding words. See the discussion of human 3Sg *á* and 1Sg *má* for expected *à* and *mā* in negative present-tense examples in (326b,d) and (327a), and (complicated by *vv*-Contraction) that of *sá=à* and *sí=ì* (future plus third-person object) in (352c-d).

The expanded version of Final Tone-Raising operates, for example, when future *sà* contracts with an immediately following third person pronominal (functioning either as preverbal object, or as possessor of a preverbal object), as in /*sà à*/ → *sá=à* (human 3Sg object) and /*sà è*/ → *sí=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 *náà* and 3Sg *ná* in perfective clauses (§3.6.3.2, §4.3.1.3). 3Pl object *náà* 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 *á* and *é* as subjects of some negative clauses (§10.2.3), as with human 3Sg *á* in (516a) in §15.1.1.3.

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 $mù?ú^n = \emptyset$, 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 ($tāñ \rightarrow tñ-nà$ ‘deep basket’, $wārī \rightarrow wā-rà$ ‘money’, $būgū \rightarrow būgū-rà$ ‘Fulbe hut’).

HM#L → HH#L is probably operative in noun-adjective combinations, e.g. $kú-rú^n$ ‘boat’ in $kú-rú^n gbò?ò-rá$ ‘black boat’, $kú-rú^n kàn-nà$ ‘red boat’, and $kú-rú^n gbò-rá$ ‘big boat’, see §6.3.1.1. It is also probably operative in similar noun-numeral combinations, e.g. $kú-rú^n flā$ ‘two boats’ and $kú-rú^n sòòlò$ ‘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 $gbò?ò-rá$ ‘black’) in the examples just given have non-low tones: $kān-nā$, $gbó-rà$, $flā$, and $sóóló$.

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 $fídí$ (HH) before M- and L-tone (71b-c), as suggested in (70) above.

- (71) a. $mā$ $fídī$ $sísà^n$
 1Sg run.Pfv now
 ‘I ran now.’
- b. $mā$ $fídí$ $[kālā$ $là?à-rá]$
 1Sg run.Pfv [neighborhood place-Nom]
 ‘I ran to the neighborhood.’
- c. $mā$ $fídí$ $nàà$
 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 *mā _ jîé*.

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			
	<i>dāā</i>	<i>dāā-rā</i>	‘mouth’
	<i>fīlī</i>	<i>fīl-lā</i>	‘dust’
	<i>kōŋōlī</i>	<i>kōŋōl-lā</i>	‘bohor reedbuck’
	<i>kānā</i>	<i>kān-nā</i>	‘red’
b. H-toned noun or adjective			
	<i>suffix is H-toned, /H/ melody</i>		
	<i>nígí</i>	<i>nígí-rá</i>	‘leech’
	<i>súmáá</i>	<i>súmáá-ná</i>	‘long’
	<i>suffix is L-toned, /H(L)/ melody</i>		
	<i>kpésé (+L)</i>	<i>kpésé-rà</i>	‘chewstick’
	<i>gbé (+L)</i>	<i>gbé-rà</i>	‘fresh’
c. L-toned noun or adjective			
	<i>kpìì</i>	<i>kpìì-rá</i>	‘baobab leaves’
	<i>gbò?ò</i>	<i>gbò?ò-rá</i>	‘black’
d. contour-toned noun or adjective			
	<i>mìsírì</i>	<i>mìsírì-rá</i>	‘mosque’
	<i>nó?òsí (+L)</i>	<i>nó?òsí-rà</i>	‘chameleon’
	<i>kúmā (+L)</i>	<i>kúmā-nà</i>	‘cold’ (adjective)

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 $/\bar{x} y/ \rightarrow / \bar{x} \bar{y}/$, 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 (*-rá* etc.) after some H-toned stems and all stems whose final syllable is L-toned. It appears in L-toned form (*-rà* 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 /-rà/, 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 *kpì-rá* and *gbò?ò-rá* in (72c) and *misírì-rá* in (72d). The formulae would be /#x̣ y/ → #x̣ ȳ (H-Spreading) with # here indicating stem onset to exclude contour-toned stems, and /...x̣ ȳ/ → ...x̣ ȳ (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 *kpésé-rà* and *gbé-rà* 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 *wō*, and 2Pl *ēēⁿ*). Some of these are listed and exemplified in (73).

(73) M-Spreading involving M-toned pronominal

	gloss	comparisons
a. PPs (§8.1-3)		
	<i>mā kēⁿ</i> ‘for me’	<i>mù?ùⁿ kēⁿ</i> ‘for us’ <i>à kēⁿ</i> ‘for him/her’
b. inalienable possession (§6.2.2)		
	<i>mā kōyì-rā</i> ‘my belly’	<i>mù?ùⁿ kōyì-rá</i> ‘our belly’ <i>à kōyì-rá</i> ‘his/her belly’ <i>mā kòⁿ-nó</i> ‘my honey’ (alienable)
c. negative perfective verbs (§10.3.1.1)		
	<i>mā bēē = rē?</i> ‘I didn’t fall’	<i>mā bée</i> ‘I fell’ <i>mù?ùⁿ bée = rē?</i> ‘we didn’t fall’ <i>à bēē = rē?</i> ‘he/she didn’t fall’
d. negative future verbs (§10.3.2.3)		
	<i>mā sā sáá = rē?</i> ‘I won’t come’	<i>mù?ùⁿ sá sáá = rē?</i> ‘we won’t come’ <i>má = ∅ sà sáá</i> ‘I will come’
e. positive plural imperative (§10.5.1.1)		
	<i>ēēⁿ fīdī</i> ‘run!-2Pl’	<i>fīdī</i> ‘run!-2Sg’ <i>ēēⁿ bí fīdì = rē?</i> ‘don’t-2Pl run!’
f. <i>kú</i> auxiliary (§15.1.1.1)		
	<i>mā kū jímàà</i> ‘I begin to weep’	<i>mù?ùⁿ kú jímàà</i> ‘we begin to weep’ <i>à kú jímàà</i> ‘he/she begins to weep’

g. perfective pseudo-reflexive (middle) (§10.1.1.3)

<i>mā nā̄ⁿ séʔē</i>	‘I sat’	<i>mùʔúⁿ nààⁿ séʔē</i>	‘we sat’
		<i>à ná sèʔé</i>	‘he/she sat’
		<i>mā ná bàʔrí</i>	‘I hit-Past him/her’
		<i>mā sé(é)</i>	‘I came’

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 *kpésé kàn-nà* ‘red chewstick’. Compare this with a lexically H-toned adjective *súmáá* ‘long’: suffixed *súmáá-ná*, noun-adjective *kpésé sùmàà-ná* ‘long chewstick’. *kān-nā* drops as a whole to *kàn-nà*, and therefore remains tonally flat. When *súmáá-ná* drops, only the stem is affected (*sùmàà*), 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.	<i>yíʔé</i>	‘fish’	<i>yíʔé-rá</i>	<i>yíʔé kān-nā</i>	<i>yíʔé ‘súmáá-nā</i>
	<i>gbāā</i>	‘stick’	<i>gbāā-rā</i>	<i>gbāā kān-nā</i>	<i>gbāā súmáá-nā</i>
	<i>jùʔùⁿ</i>	‘wrap (n)’	<i>jùʔù-ná</i>	<i>jùʔùⁿ kān-nā</i>	<i>jùʔùⁿ súmáá-ná</i>

- b. *kpésé* ‘chewstick’ *kpésé-rà* *kpésé kàn-nà* *kpésé sùmàà-nà*
kúrūⁿ ‘boat’ *kúrú-nà* *kúrúⁿ kàn-nà* *kúrúⁿ sùmàà-nà*
tòfá ‘boat’ *tòfá-rà* *tòfá kàn-nà* *tòfá sùmàà-nà*
mōtó ‘motorcycle’ *mōtó-rà* *mōtó kàn-nà* *mōtó 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
	a. -3Sg, followed by H-tone (or lexical tone)	
	plural NPs	1Pl, 3Pl (human and nonhuman)
	personal names	1Sg, 2Sg (if no M-Spreading)
	NPs ending in <i>dò</i> ‘one’	3Sg logophoric/focalized <i>-wò</i>
	NPs ending in relative <i>mì</i>	<i>kpé</i> ‘what?’
	some WH-interrogative words	
	reciprocal <i>jù?ùⁿ</i>	
	b. +3Sg, followed by L-tone	
	regular singular NPs	3Sg (human and nonhuman)
	reflexive <i>yé?ré</i>	

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

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 *běé* and -3Sg *běé*. A subset of that paradigm, showing the behavior of 1Sg and 2Sg, is reproduced here as (77).

- (77) a. -3Sg
mā béé ‘I fell’
wō béé ‘you-Sg fell’
mù?ùⁿ béé ‘we fell’
ēēⁿ béé ‘you-Pl fell’
ààⁿ béé ‘they (human) fell’
- b. +3Sg
à bēé ‘he/she fell’

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 (*bá?rī* ‘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. *bà?rī* ‘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 *bá?rī*, the same tonal form used after plural objects in (78b). 3Sg human object *ná* and regular singular NPs are followed by L-initial *bà?rī* (78c). For fuller data and analysis see especially §4.3.1.3.

- (78) a. *wō mà bá?rī* ‘You-Sg hit-Past me.’
à mā bá?rī ‘He/She hit-Past me.’
mā wò bá?rī ‘I hit-Past you-Sg.’
à wō bá?rī ‘He/She hit-Past you-Sg.’
- b. *ēēⁿ mù?ùⁿ bá?rī* ‘You-Pl hit-Past us.’
à dí-rá-àⁿ bá?rī ‘He/She hit-Past the children.’
- c. *mā ná bà?rī* ‘I hit-Past him/her.’
à ná bà?rī ‘He/She hit-Past him/her.’
mù?ùⁿ dí bà?rī ‘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 bá?rì*
 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 *yí?é* ‘fish’ drops its first syllable after a +3Sg word, becoming *yí?é* (80a). /L/-melody *wùlà* ‘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 yí?é/ wùlá dǎní*
 child fish / dog eat.meat.Pfv
 ‘A/The child ate a/the fish-Sg/dog.’
- b. *dí-rá-à" yí?é/ wùlá dǎní*
 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 categorially 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 *mè* ‘did’ (82a). It arguably affects +3Sg *dè* ‘said’ (82b) if we derive it from /dǐ/.

- (82) a. *ēēⁿ* [kú jè] *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* *dè* *é!*
 3SgHum say.Pfv hey!
 ‘He said, “hey!”’ (2016_02 @ 01:15)

This process occurs frequently to monosyllabic stems before negative enclitic =*rĒ?*, sometimes along with the shift to +ATR. For example, *à sĕĕ* ‘he/she came’ is negated as *à sĕĕ = rĒ?* (+ATR variant *à sĕĕ = rĒ?*) ‘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 bùlí = rĒ?* ‘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, *á = ∅ fidĕĕ* ‘he/she runs’ is negated as *á = ∅ fidĕĕ = rĒ?* ‘he/she doesn’t run’. Similarly, *mā náàⁿ náǵi* ‘I asked them’ is negated as *mā náàⁿ náǵi = rĒ?* ‘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 bálí* ‘he/she accepted’ combines with nonhuman 3Sg postverbal object pronoun *ì-yà* 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=* *ì-yà*
 /*bálí*/
 3SgHum accept.Pfv Nonh-3Sg
 ‘He/She agreed to/accepted it (proposal or invitation).’
- b. *ààⁿ* *bál=* *ì-yà*
 /*bálí*/
 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 fídí* ‘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* *fíd=]* [*ì* *só]*
 [3SgNonh **run.Pfv**] [3SgNonh enter.Adjn]
 ‘It (=animal) ran in.’ (< /è fídí/ plus /è só/)

Again this results in surface neutralization of the tonal distinction between +3Sg and -3Sg tonal forms of verbs (*è fídí* ‘it ran’ versus *èèⁿ fídí* ‘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 *kúdó* (-3Sg tonal form) to *kúdóó* at the end of the first intonation group. Postposition *dù* (+3Sg tonal form) shifts to *dūū* (i.e. phonetic [dùúū]) 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.

- (85) B: *bon*, *èèⁿ* *tá?á* *cíé* *[[cí* *dò]* *kúdóó*,
 B: well, 3PlNonh go.Adjn arrive.Pfv [[thicket one] **under**],
èèⁿ *tá?á* *sóó* *[[cí* *‘mí]* *dūū*,
 3PlNonh go.Adjn enter.Adjn [[thicket Dem] **in**],
èèⁿ *[jèré* *dì-rá-àⁿ]* *séé* *‘jí*,
 3plNonh [lion child-Nom-Pl] lie.down.VbIN 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 *jámúli(í)* ~ *jámúli(í)* ‘change’, where the M-toned prolongation is shown in parentheses. The prolongation is absent when negative enclitic *=rĒ?* is added: +3Sg *jámúli=rĒ?* and -3Sg *jámúli=rĒ?* ‘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 interlinears). 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 Syncope 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 *dà?àl-lá* ‘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 *kùdò-rá* ~ *kùdò-rɔ* ‘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 *-nū* is added to *-àⁿ*, but only in specific syntactic positions. Thus *dí-rá* ‘child’, plural *dí-rá-àⁿ* or *dí-rá-à-nū* ‘children’ depending on syntactic position. *dí-rá-à-nū* may be apocopated to *dí-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 *jìé* ‘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). *jíé* ‘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’	<i>dí-rá</i>	<i>dí</i>	<i>dí</i>	<i>dí-rá-à-nū</i>
	‘water’	<i>yí-rá</i>	<i>yí</i>	<i>yí</i>	<i>yí-rá-à-nū</i>
	‘father’	<i>jéⁿ-ná</i>	<i>jéⁿ</i>	<i>jéⁿ</i>	<i>jéⁿ-ná-à-nū</i>
b. M-M < /M/					
	‘stick’	<i>gbāā-rā</i>	<i>gbāā</i>	<i>gbāá</i>	<i>gbāā-rā-à-nū</i>
	‘belly’	<i>kōyī-rā</i>	<i>kōyī</i>	<i>kōyí</i>	<i>kōyī-rā-à-nū</i>
	‘foot’	<i>kpō-rō</i>	<i>kpō</i>	<i>kpō</i>	<i>kpō-rō-ò-nū</i>
	‘millet’	<i>jū-rō</i>	<i>jū</i>	<i>jū</i>	<i>jū-rō-ò-nū</i>
	‘hand’	<i>bōl-ō</i>	<i>bōl</i>	<i>bōlō</i>	<i>bōl-ō-ò-nū</i>
c. L-H < /L/					
	‘head’	<i>wù-ró</i>	<i>wù</i>	<i>wǔ</i>	<i>wù-ró-ò-nū</i>
	‘sheep’	<i>tàgà-rá</i>	<i>tàgà</i>	<i>tàgá</i>	<i>tàgà-rá-à-nū</i>
	‘bull’	<i>yìgì-rá</i>	<i>yìgì</i>	<i>yìgí</i>	<i>yìgè-rá-à-nū</i>
	‘goat’	<i>bàà-rá</i>	<i>bàà</i>	<i>bàá</i>	<i>bàà-rá-à-nū</i>
	‘stone’	<i>kùgù-rá</i>	<i>kùgù</i>	<i>kùgú</i>	<i>kùgù-rá-à-nū</i>
	‘house’	<i>sàà-rá</i>	<i>sàà</i>	<i>sàá</i>	<i>sàà-rá-à-nū</i>
	‘dog’	<i>wùl-á</i>	<i>wùl</i>	<i>wùlá</i>	<i>wùl-á-à-nū</i>
	‘mat’	<i>dà?àl-lá</i>	<i>dà?àl(i)</i>	<i>dà?àlí</i>	<i>dà?àl-lá-à-nū</i>

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).

(87)	gloss	suffixed	modified	‘saw X’	plural
a.	HM-L < /HM/				
	‘maize’	<i>sónḡ-nḡ</i>	<i>sónó</i>	<i>sónḡ</i>	<i>sónḡ-nḡ-ḡ-nū</i>
		~ <i>sónḡ-nḡ</i> (syncopated)			
	‘woman’	<i>ɲáā-nà</i>	<i>ɲáá</i>	<i>ɲáā</i>	<i>ɲáā-nà-à-nū</i>
	‘mother’	<i>nī-nà</i>	<i>níí</i>	<i>nīí</i>	<i>nīí-nà-à-nū</i>
b.	H-L < /H(L)/				
	‘road’	<i>cál-à</i>	<i>cél</i>	<i>cál-à</i>	<i>cál-à-à-nū</i>
c.	MH-L < /MH/				
	‘shed, stall’	<i>gbā́tá-rà</i>	<i>gbā́tá</i>	<i>gbā́tá</i>	<i>gbā́tá-rà-à-nū</i>
d.	LHM-L < /LHM/				
	‘mirror’	<i>dùbāl-là</i>	<i>dùbál</i>	<i>dùbāl</i>	<i>dùbāl-là-à-nū</i>
e.	MHM-L < /MHM/				
	‘man’	<i>díkíḡ-nà</i>	<i>díkíní</i>	<i>díkíní</i>	<i>díkíḡ-nà-à-nū</i>
			~ <i>díkín</i>	~ <i>díkíḡ</i>	(<i>k</i> ~ <i>g</i> in all forms)
f.	LH-L < /LH(L)/				
	‘wonder (n)’	<i>bàrrá-rà</i>	<i>bàrrá</i>	<i>bàrrá</i>	<i>bàrrá-rà-à-nū</i>
g.	HL-H < /HL/				
	‘hornbill’	<i>tákḡḡ-rá</i>	<i>tákḡḡ</i>	<i>tákḡḡ</i>	<i>tákḡḡ-rá-à-nū</i>
h.	LHL-H < /LHL/				
	‘tree sp.’	<i>ìkájè-ná</i>	<i>ìkájěⁿ</i>	<i>ìkájěⁿ</i>	<i>ìkájè-ná-à-nū</i>
	(<i>Alchornea</i>)				
i.	LH-H < /LH(H)/				
	‘vulture’	<i>yààfóó-rá</i>	<i>yààfóó</i>	<i>yààfóó</i>	<i>yààfóó-rá-à-nū</i>

4.1.1.3 Vocatives

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
	<i>nòŋò</i>	<i>nàà</i>	‘(my) friend!’
	<i>jéⁿ</i>	<i>bàá</i>	‘Dad!’
	<i>níí ~ néé</i>	<i>náà</i>	‘Mom!’
	<i>gūūⁿ</i>	<i>kàr-cíé</i>	‘elder brother!’
	<i>dó?ó</i>	<i>dó?ó-cíé</i>	‘younger brother!’

Plurals do not seem to be in use, but my assistant did accept *nàà-nū* ‘friends!’ as vocative.

4.1.1.4 ‘So-and-so’ (*wó-ró*)

‘So-and-so’ forms (French *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 *wó-ró* or unsuffixed *wó* ‘So-and-so’, plural *wó-ró-nū* ~ *wó-ró-ñ*. 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 *-lī* ~ *-nī*

A number of nouns have a diminutive derivation with suffix *-lī* ~ *-lì*, nasalizing to *-nī* ~ *-nì* after a nasal syllable (*Nv*, *Cvⁿ*). 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 *kpúú-lī* ‘toe’ is probably analogical to that of *búú-lī* ‘finger’, but a sound-symbolic preference for long high vowels in diminutives may also be at work, as more clearly in *wíí-lī* ‘puppy’. 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
a.	<i>gbāā</i>	‘stick, wood’	<i>gbáá-lī</i>	‘twig’
	<i>mò</i>	‘rope’	<i>mòó-nī</i>	‘rope’
	<i>jèné</i>	‘shed, booth’	<i>jèē-nī</i>	‘small shed/booth’
b.	<i>bóló</i>	‘hand’	<i>búú-lī</i>	‘finger’
	<i>kpó</i>	‘foot’	<i>kpúú-lī</i>	‘toe’

- | | | | | |
|----|---------------|---------------------|-----------------|-------------------------|
| c. | <i>kāmélē</i> | ‘adult man’ (25-40) | <i>káméé-li</i> | ‘young man’ (to age 20) |
| | <i>díkíní</i> | ‘man’ | <i>díkíí-ní</i> | ‘young boy’ (to age 10) |
| | <i>kàʔrà</i> | ‘unmarried woman’ | <i>kàà-li</i> | ‘girl’ (to adolescence) |
| d. | <i>wùl</i> | ‘dog’ | <i>wíí-li</i> | ‘puppy’ |
| | <i>tèʔè</i> | ‘chicken’ | <i>tìʔí-li</i> | ‘chick’ |
| | <i>tàgà</i> | ‘sheep’ | <i>tàgà-li</i> | ‘lamb’ |
| e. | <i>kòò</i> | ‘Natiro person’ | <i>kòò-li</i> | ‘Wara person’ |

The Natiro 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 Natiro are immediately neighbors of Jali people (§1.2.1), while Wara are farther away. Loanwords based on French “Natiro” 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-li* ‘twig’ plus nominal suffix is *gbáá-l-là*, plural *gbáá-l-là-à* and with final nominal suffix *gbáá-l-là-à-nū*.

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, *díkááli* ‘young girl’ resembles *díkíí-ní* ‘young boy’ in (89c) above. The possible cases in (90b) are more speculative.

- | | | |
|------|----------------|---|
| (90) | noun | gloss |
| a. | <i>díkááli</i> | ‘young girl’ |
| | <i>jímíli</i> | ‘ant’ |
| | <i>kóólí</i> | ‘kidney’ |
| | <i>dūūnī</i> | ‘wide-mouthed gourd’ |
| | <i>cèŋáli</i> | ‘star’ |
| | <i>nàʔáli</i> | ‘grain of sand’ |
| | <i>bèéní</i> | ‘fonio (grain)’ |
| | <i>tàfyéli</i> | ‘square palm-leaf fan’ |
| | <i>wàʔáli</i> | ‘stool’ |
| | <i>dàʔàli</i> | ‘mat’ |
| | <i>màʔàli</i> | ‘knife’ |
| b. | <i>fìlání</i> | ‘twin’ |
| | <i>múúli</i> | ‘ridge in plowed field’ |
| | <i>sàfàli</i> | ‘donkey’ |
| | <i>tùmùli</i> | ‘shea-tree caterpillar’ (also <i>tùmùlù</i>) |

The *i* ~ *ì* 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
	<i>búú-lì</i>	<i>búú-l-là</i>	<i>mā búú-l jìé</i>	<i>búúflà</i>	‘finger’
			~ <i>mā búú-lì jìé</i>		

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)
- PP complement of *bàlà* ‘prevent (from)’ with postposition *mà* ‘on’ (§17.4.2);
 - preverbal NP object of *bàlà* ‘cease (doing)’ (§17.4.3);
 - postverbal NP complement of *bàlà* or *sǝǝ*ⁿ ‘consent (to)’ (§17.4.4);
 - postverbal NP complement of *jìnáà* ‘forget (to do)’ (§17.4.5);
 - postverbal NP complement of *jǝǝ*ⁿ ‘be afraid (to do)’ (§17.4.6);
 - preverbal NP complement of *dàà-sǝǝ*ⁿ ‘begin’ (§17.4.7);
 - preverbal or postverbal NP complement of *dá-káá*ⁿ ‘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

VblN		Pfv	Ipfv	Imprt	gloss
bare	suffixed	+3Sg	+3Sg	+3Sg	
a. intransitive					
<i>fìdì</i>	<i>fìdì-rá</i>	<i>fìdí</i>	<i>fìdéè</i>	<i>fìdí</i>	‘run’
<i>sénì</i>	<i>sénì-nà</i>	<i>sèní</i>	<i>sèná</i>	<i>sē</i> ⁿ	‘sprout’
<i>wálì</i>	<i>wálì-là</i>	<i>wàlí</i>	<i>wàlá</i>	<i>wālì</i>	‘shout’
<i>sìdánì</i>	<i>sìdánì-nà</i>	<i>sìdánì</i>	<i>sìdánà</i>	<i>sìdá</i> ⁿ	‘ascend’
<i>jàʔánì</i>	<i>jàʔánì-nà</i>	<i>jàʔánì</i>	<i>jàʔánà</i>	<i>jàʔá</i> ⁿ	‘descend’
<i>bànéʔē</i> ⁿ	<i>bànéʔē-nà</i>	<i>bànéʔē</i> ⁿ	<i>bànáʔà</i> ⁿ	<i>bànéʔē</i> ⁿ	‘get tired’

b. transitive (including pseudo-reflexive ‘sit’)

<i>sèʔè</i>	<i>sèʔè-rá</i>	<i>sèʔé</i>	<i>sàʔà</i>	<i>(ē) s̄áʔā</i>	‘sit’
<i>tìgì</i>	<i>tìgì-rá</i>	<i>tìgí</i>	<i>tìgè</i>	<i>tìgí</i>	‘pound in mortar’
<i>tòʔrì</i>	<i>tòʔrì-rá</i>	<i>tòʔrì</i>	<i>tòʔrò</i>	<i>tòʔrì</i>	‘sell’
<i>kùlónì</i>	<i>kùlónì-nà</i>	<i>kùlónì</i>	<i>kùlónò</i>	<i>kùlò</i>	‘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 vocally to their perfectives. Note, however, the shift to +ATR *e* from *ɛ* 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 transitives, the verbal noun is L-toned.

(94) Monosyllabic verbal nouns

Vb N		Pfv	Ipfv	Imprt	gloss
bare	suffixed	+3Sg	+3Sg	+3Sg	
<i>séé</i>	<i>séé-rá</i>	<i>sèé</i>	<i>sáá</i>	<i>sā</i>	‘come’
<i>bóó</i>	<i>bóó-rá</i>	<i>bòé</i>	<i>bóó</i>	<i>bō</i>	‘exit (v)’
<i>bèè</i>	<i>bèè-rá</i>	<i>bèé</i>	<i>bàà</i>	<i>bà</i>	‘fall’
<i>mèè</i>	<i>mèè-rá</i>	<i>mèé</i>	<i>màà</i>	<i>mǎ</i>	‘do’
<i>sòò</i>	<i>sòò-rá</i>	<i>sòíí</i>	<i>sòò</i>	<i>sǒ</i>	‘wait for’

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).

(95)	VbIN	with suffix	gloss		inchoative	
					Pfv +3Sg	Ipfv
a.	<i>sòḡⁿ-bèè</i>	<i>sòḡⁿ-bèè-rá</i>	‘length, height’	<i>súmáá</i>	<i>sòḡⁿ-bèé</i>	<i>sòḡⁿ-bàà</i>
	<i>tòò-bèè</i>	<i>tòò-bèè-rá</i>	‘depth’	—	<i>tòò-bèé</i>	<i>tòò-bàà</i>
b.	<i>kóní</i>	<i>kón-ná</i>	‘size, bigness’	(<i>gbó</i>)	<i>kòní</i>	<i>kónó</i>
	<i>kānā</i>	<i>kān-nā</i>	‘redness’	<i>kānā</i>	<i>kànàní</i>	<i>kánná</i> (<i>< káníná</i>)

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 mí?i-nà*)

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

- (96) a. *kléní* ‘hunt (n), hunting (n)’
 b. *klén mí?i-nà* ‘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). *kùkù* ~ *kùgù* ‘stone’ is especially shaky because of the voicing variation in the medial stop, whereas all three *t_t* 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’
nōnó ‘milk’
tòtó ‘giant pouched rat’ (*Cricetomys*)
tūtú ‘puff adder’ (*Bitis*)
tété ‘tick’
sūⁿsūⁿ ‘spur-winged goose’
bíbí ‘winged termite’
búⁿbúⁿ ‘red kapok tree’
gíⁿgíⁿ ‘eagle-owl’
- b. *sèsèlè* ‘tree sp.’ (*Cassia*)
lélébē ‘pot-scraper’
kàkàlà ‘awned grass sp.’ (*Loudetia simplex*)
sésègélē ‘awned grass sp.’ (*Loudetia togoensis*)
- c. *kááⁿ-kààⁿ* ‘pied crow’
pòtò-pòtò ‘jatropha tree’
kìlì-kìlì ‘piapiac (bird)’
ηmέέ-ηmèè ‘spur-winged lapwing’
mén-mén ‘weaver ant’ (*Oecophylla*)
vòòⁿ-vòòⁿ ‘mud-dauber wasp’
- d. *mà?á-mà?àni* ‘bug in maize flowers’

A different reduplicative pattern is seen in the village name *kèⁿ-kéⁿ-káàⁿ* ‘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. *dóóñ-pòpòrò* ‘thorny tree (*Flacourtia*)’
- b. *méné-méné-jèⁿ* ‘bush sp. (*Cochlospermum*)’
táá-blà?à-blà?á ‘firefly’ (cf. *tāā* ‘fire’)

A possible case of reduplication with a vocalic change is the initial in *nínàà-tù?ùgú* ‘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, *kèⁿ-kéⁿ-káàⁿ*, 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	
<i>1st/2nd</i>	
1Sg	<i>mā</i>
2Sg	<i>wō</i>
<i>3rd</i>	
3SgHum	<i>à</i>
3SgNonh	<i>è</i>
b. plural	
1Pl	<i>mù?ùⁿ</i>
2Pl	<i>ēēⁿ</i>
3PlHum	<i>ààⁿ</i>
3PlNonh	<i>èèⁿ</i>

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 $mù?ù^n$, $\bar{e}\bar{e}^n$, $\grave{a}\acute{a}^n$, and $\grave{e}\grave{e}^n$.

There is one puzzling textual example of human 3Sg $\grave{a}-m\grave{a}$ instead of the usual \grave{a} , in subject function; see text 2016_04 @ 00:23. Nonhuman 3Sg $\grave{e}-y\grave{a}$, 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

	possessor	$wùr\grave{a}t\grave{a}-r\acute{o}$ ‘sickle’	$j\acute{e}-n\acute{a}$ ‘father’
a. singular			
1st/2nd			
1Sg	$m\bar{a}$	$m\bar{a} wùr\grave{a}t\grave{a}-r\acute{o}$	$m\bar{a} j\bar{e}-n\bar{a}$
2Sg	$w\bar{o}$	$w\bar{o} wùr\grave{a}t\grave{a}-r\acute{o}$	$w\bar{o} j\bar{e}-n\bar{a}$
3rd			
3SgHum	\grave{a}	$\grave{a} wùr\grave{a}t\grave{a}-r\acute{o}$	$\grave{a} j\grave{e}-n\acute{a}$
3SgNonh	\grave{e}	$\grave{e} wùr\grave{a}t\grave{a}-r\acute{o}$	$\grave{e} j\grave{e}-n\acute{a}$
b. plural			
1Pl	$mù?ù^n$	$mù?ù^n wùr\grave{a}t\grave{a}-r\acute{o}$	$mù?ù^n j\acute{e}-n\acute{a}$
2Pl	$\bar{e}\bar{e}^n$	$\bar{e}\bar{e}^n wùr\grave{a}t\grave{a}-r\acute{o}$	$\bar{e}\bar{e}^n j\bar{e}-n\bar{a}$
3PlHum	$\grave{a}\acute{a}^n$	$\grave{a}\acute{a}^n wùr\grave{a}t\grave{a}-r\acute{o}$	$\grave{a}\acute{a}^n j\acute{e}-n\acute{a}$
3PlNonh	$\grave{e}\grave{e}^n$	$\grave{e}\grave{e}^n wùr\grave{a}t\grave{a}-r\acute{o}$	$\grave{e}\grave{e}^n j\grave{e}-n\acute{a}$

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 *yé?ré* ~ *yé?ré*, see §18.1.2. Reduced reflexive objects, not including *yé?ré* ~ *yé?ré*, 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

1st/2nd

1Sg *mā bā?rī* ‘Hit-2Sg me!’

2Sg —

3rd

3SgHum *à bā?rī* ‘Hit-2Sg him/her!’

3SgNonh *è bā?rī* ‘Hit-2Sg it!’

b. plural

1Pl *mù?ùⁿ bā?rī* ‘Hit-2Sg us!’

2Pl —

3PlHum *ààⁿ bā?rī* ‘Hit-2Sg them (human)!’

3PlNonh *èèⁿ bā?rī* ‘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 *ēēⁿ*, 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+ = ∅/ enclitic (present, progressive), by future particle *sà*, or by prohibitive particle *bí*. 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)

	‘X hit me’	‘X hit you-Sg’
a. pronominal subjects		
<i>object L-toned</i>		
1Sg	—	<i>mā wò bá?rī</i>
2Sg	<i>wō mà bá?rī</i>	—
2Pl	<i>ēéⁿ mà bá?rī</i>	—
<i>object M-toned</i>		
3SgHum	<i>à mā bá?rī</i>	<i>à wō bá?rī</i>
3SgNonh	<i>è mā bá?rī</i>	<i>è wō bá?rī</i>
1Pl	—	<i>mù?ùⁿ wō bá?rī</i>
3PlHum	<i>ààⁿ mā bá?rī</i>	<i>ààⁿ wō bá?rī</i>
3PlNonh	<i>èèⁿ mā bá?rī</i>	<i>èèⁿ wō bá?rī</i>
b. nonpronominal subjects (< <i>mè?èⁿ, fūgū, jó?ó, sáléⁿ, ɲó?ðmé</i>)		
‘person’	<i>mè?è-ná mà bá?rī</i> ~ <i>mè?éⁿ mà bá?rī</i>	<i>mè?è-ná wò bá?rī</i> ~ <i>mè?éⁿ wò bá?rī</i>
‘blind one’	<i>fūgū-rá mà bá?rī</i> ~ <i>fūgú mà bá?rī</i>	<i>fūgū-rá wò bá?rī</i> ~ <i>fūgú wò bá?rī</i>
‘Jula person’	<i>jó?ó-rá mà bá?rī</i> ~ <i>jó?ó mà bá?rī</i>	<i>jó?ó-rá wò bá?rī</i> ~ <i>jó?ó wò bá?rī</i>
‘labeo fish’	<i>sálé-ná mà bá?rī</i> ~ <i>sáléⁿ mà bá?rī</i>	<i>sálé-ná wò bá?rī</i> ~ <i>sáléⁿ wò bá?rī</i>
‘camel’	<i>ɲó?ðmé-nà mà bá?rī</i> ~ <i>ɲó?ðmé mà bá?rī</i>	<i>ɲó?ðmé-nà wò bá?rī</i> ~ <i>ɲó?ðmé wò bá?rī</i>

A historically interesting alternative 2Sg preverbal object pronominal *ē* occurs instead of *wō* in formulaic imprecations, as in *álé = ē ɲé sò* ‘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* ~ *ì*), 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 *nà* and *nì* 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* ∅ optionally substitutes for either *à ná* (human object) or *à ní* (nonhuman object). Similarly, for nonhuman 3Sg subject, *é* ∅ optionally replaces either *è ná* (human object) or *è ní* (nonhuman object). One could attempt to account for *á* ∅ phonologically, by vv-Contraction from /à à/ and from /à è/, and to account for *é* ∅ by vv-Contraction from /è à/ 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* ∅ rather than expected *é* ∅ or perhaps *í* ∅ as output of /à è/, compare /sà è/ → *sí=ì* (future plus nonhuman 3Sg). The H-tones in *á* ∅ and *é* ∅ 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 Cṽ.../ → /à á Cṽ.../ (Final Tone-Raising) → /á Cṽ.../ (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/o* of the nominal suffix contracts with nonhuman 3Sg *è* ~ *ì* 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

	‘ __ hit him/her’	‘ __ hit it’
a. pronominal subjects		
1Sg	<i>mā ná bà?rí</i>	<i>mā ní bà?rí</i>
2Sg	<i>wō ná bà?rí</i>	<i>wō ní bà?rí</i>
3SgHum	<i>à ná bà?rí</i> ~ <i>á ∅ bà?rí</i>	<i>à ní bà?rí</i> ~ <i>á ∅ bà?rí</i>
3SgNonh	<i>è ná bà?rí</i> ~ <i>é ∅ bà?rí</i>	<i>è ní bà?rí</i> ~ <i>é ∅ bà?rí</i>
1Pl	<i>mù?ùⁿ ná bà?rí</i>	<i>mù?ùⁿ ní bà?rí</i>
2Pl	<i>ēēⁿ ná bà?rí</i>	<i>ēēⁿ ní bà?rí</i>
3PlHum	<i>ààⁿ ná bà?rí</i>	<i>ààⁿ ní bà?rí</i>
3PlNonh	<i>èèⁿ ná bà?rí</i>	<i>èèⁿ ní bà?rí</i>

b. nonpronominal subjects

‘person’	<i>mèʔèⁿ-ná = à bàʔrí</i>	<i>mèʔèⁿ-né = è bàʔrí</i>
‘blind one’	<i>fūgū-rā = à bàʔrí</i>	<i>fūgū-rē = è bàʔrí</i>
‘Jula person’	<i>jóʔó-rá = à bàʔrí</i>	<i>jóʔó-ré = è bàʔrí</i>

3Sg preverbal object forms *à* and *è* have optional nasalized variants *àⁿ* and *èⁿ ~ ìⁿ* 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.	<i>á</i>	<i>∅</i>	<i>bàʔrí</i>
		3SgHum	3SgObj	hit.Pfv
		‘He-or-she hit-Past him-or-her/it.’		
	b.	<i>à</i>	<i>ná</i>	<i>bàʔrí</i>
		3SgHum	3SgHumObj	hit.Pfv
		‘He-or-she hit-Past him-or-her.’		
	c.	<i>à</i>	<i>ní</i>	<i>bàʔrí</i>
		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 *ì-yà* and 3Pl *ì-yǎ-āⁿ* in preverbal object position. Singular *ì-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 *ì-yǎ-āⁿ* 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-yǎ-āⁿ*. 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-)yǎ-āⁿ* are in (105). Perhaps the closest comparison is to uncommon pseudo-reflexive variants, nonhuman 3Sg *è-yàá* and nonhuman 3Pl *èèⁿ-yàà níⁿ*, see discussion following (307) in §10.1.1.3.

(105)	a.	<i>èéⁿ</i>	<i>(è-)yà</i>	<i>bègè</i>	<i>sísàāⁿ</i>
		3PlNonh	(Nonh-)3SgObj	cut.Pfv	now
		‘They cut-Past it now.’ (2016_02 @ 04:39)			
	b.	<i>á</i>	<i>∅-yǎ-āⁿ</i>	<i>bó</i>	<i>dóò</i>
		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 pronominal 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 *áàⁿ* < /à ààⁿ/. The *n* does not occur with 3Pl object *ēēⁿ* ~ *èèⁿ*, making it easier to distinguish 2Pl from nonhuman 3Pl.

(106) Plural object pronouns after various subjects

	‘ __ hit us’	‘ __ hit you-Pl’	‘ __ hit them’ (human/nonhuman)
a. pronominal subjects			
1Sg	—	<i>mā ēēⁿ bá?rī</i>	<i>mā náàⁿ/nîⁿ bá?rī</i>
2Sg	<i>wō mù?ùⁿ bá?rī</i>	—	<i>wō náàⁿ/nîⁿ bá?rī</i>
3SgHum	<i>à mù?ùⁿ bá?rī</i>	<i>à èèⁿ bá?rī</i>	<i>à náàⁿ/nîⁿ bá?rī</i> <i>á (à) àⁿ bá?rī</i>
3SgNonh	<i>è mù?ùⁿ bá?rī</i>	<i>è èèⁿ bá?rī</i>	<i>è náàⁿ/nîⁿ bá?rī</i>
1Pl	—	<i>mù?ùⁿ ēēⁿ bá?rī</i>	<i>mù?ùⁿ náàⁿ/nîⁿ bá?rī</i>
2Pl	<i>ēēⁿ mù?ùⁿ bá?rī</i>	—	<i>ēēⁿ náàⁿ/nîⁿ bá?rī</i>
3PlHum	<i>ààⁿ mú?úⁿ bá?rī</i>	<i>ààⁿ ēēⁿ bá?rī</i>	<i>ààⁿ náàⁿ/nîⁿ bá?rī</i>
3PlNonh	<i>èèⁿ mú?úⁿ bá?rī</i>	<i>èèⁿ ēēⁿ bá?rī</i>	<i>èèⁿ náàⁿ/nîⁿ bá?rī</i>
b. nonpronominal subjects			
‘person’	<i>mè?èⁿ-ná ...</i>		
	<i>... mù?ùⁿ bá?rī</i>	<i>... ēēⁿ bá?rī</i>	<i>... ààⁿ/èèⁿ bá?rī</i>
‘blind one’	<i>fūgū-rā ...</i>		
	<i>... mù?ùⁿ bá?rī</i>	<i>... ēēⁿ bá?rī</i>	<i>... ààⁿ/èèⁿ bá?rī</i>
‘Jula person’	<i>jó?ó-rá ...</i>		
	<i>... mù?ùⁿ bá?rī</i>	<i>... ēēⁿ bá?rī</i>	<i>... ààⁿ/èèⁿ bá?rī</i>

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 *ēēⁿ* is expanded as *nīīⁿ*, with the same initial *n* and the same vowel raising as in nonhuman 3Pl object *nîⁿ*.

- (107) *kpé* *nīīⁿ* *kéē* *dè*
 what? 2PlObj affect.Pfv there.Def
 ‘What (trouble) has (afflicted) you-Pl there? (< *ká* 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-ñ* and 2Sg *wō-ñ*, 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-n̄*, 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-ń ~ àà-nú* is just the regular human 3Pl proclitic *ààⁿ* plus the independent pronominal suffix *-nú*. By contrast, the human 3Pl logophoric is *à-mǎǎ*, which has its own independent form *à-mǎǎ-n̄*. Likewise nonhuman 3Pl independent *èè-ń ~ èè-nú*, logophoric *è-mǎǎ*, and independent logophoric *è-mǎǎ-n̄*.

(108) Independent and logophoric pronouns

	isolation	‘it’s ___’
a. 1st/2nd		
1Sg	<i>mā-n̄ ~ mā-nū</i>	<i>mā-ńí = ∅ = ì</i>
2Sg	<i>wō-n̄ ~ wō-nū</i>	<i>wō-ńí = ∅ = ì</i>
1Pl	<i>mùʔú-ń ~ mùʔú-nú</i>	<i>mùʔúⁿ-ńí = ∅ = ì</i>
2Pl	<i>ēē-n̄ ~ ēē-nū</i>	<i>ēēⁿ-ńí = ∅ = ì</i>
2Pl	<i>mǎǎ-n̄ ~ mǎǎ-nū</i>	<i>mǎǎ-ńí = ∅ = ì</i>
b. 3Sg		
<i>3SgHum</i>		
Logo	<i>à-wò</i>	
Indep	<i>à-wò-n ~ à-wò-nù</i>	<i>à-wò-ńí = ∅ = ì</i>
Logo Indep	[= Indep]	
<i>3SgNonh</i>		
Logo	<i>è-wò</i>	
Indep	<i>è-wò-n ~ è-wò-nù</i>	<i>è-wò-ńí = ∅ = ì</i>
Logo Indep	[= Indep]	
c. 3Pl		
<i>3PlHum</i>		
Logo	<i>à-mǎǎ</i>	
Indep	<i>àà-ń ~ àà-nú</i>	<i>àà-ńí = ∅ = ì</i>
LogoIndep	<i>à-mǎǎ-n̄ ~ à-mǎǎ-nū</i>	<i>à-mǎǎ-ńí = ∅ = ì</i>
<i>3PlNonh</i>		
Logo	<i>è-mǎǎ</i>	
Indep	<i>èè-ń ~ èè-nú</i>	<i>èè-ńí = ∅ = ì</i>
LogoIndep	<i>è-mǎǎ-n̄ ~ è-mǎǎ-nū</i>	<i>è-mǎǎ-ńí = ∅ = ì</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		
<i>M-toned pronoun</i>		
1Sg	<i>mā dō?ō</i>	<i>mā kōnī</i>
2Sg	<i>wō dō?ō</i>	<i>wō kōnī</i>
2Pl	<i>ēēⁿ dō?ō</i>	<i>ēēⁿ kōnī</i>
<i>M-final pronoun</i>		
2Pl	<i>mǎā dō?ō</i>	<i>mǎā kōnī</i>
<i>other</i>		
1Pl	<i>mù?ùⁿ dó?ó</i>	<i>mù?ùⁿ kóní</i>
b. simple third person		
<i>{LH} on particle</i>		
3SgHum	<i>à dō?ó</i>	<i>à kóní</i>
3SgNonh	<i>è dō?ó</i>	<i>è kóní</i>
<i>{H} on particle</i>		
3PlHum	<i>ààⁿ dó?ó</i>	<i>ààⁿ kóní</i>
3PlNonh	<i>èèⁿ dó?ó</i>	<i>èèⁿ kóní</i>
c. independent/logophoric third person		
<i>{H} on particle</i>		
3SgHum	<i>à-wò dó?ó</i>	<i>à-wò kóní</i>
3SgNonh	<i>è-wò dó?ó</i>	<i>è-wò kóní</i>
<i>M-Spreading into particle</i>		
3PlHum	<i>à-mǎā dō?ō</i>	<i>à-mǎā kōnī</i>
3PlNonh	<i>è-mǎā dō?ō</i>	<i>è-mǎā kōnī</i>

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 *bá?rá* or *mà?à* ‘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* *bàʔí* *dí-rá*
 3SgHum touch.Pfv child-Nom
 ‘He/She touched the child.’ (< *bàʔrí*)
- b. *à* *bàʔí* *mā-ñ*
 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 (111 a-b) is usually not syllabic (*-nū* etc.) clause-finally.

(111) Postverbal object pronouns

a. M-toned pronominal

- 1Sg *mā-ñ*
 2Sg *wō-ñ*
 2Pl *ēē-ñ*

b. other plural pronominal

- 1Pl *mùʔⁿú-ń*
 3PlHum *àà-ń ~ àà-nú*
 3PlNonh *èè-ń ~ èè-nú*

c. special 3Sg forms

- 3SgHum *à-yà*
 3SgNonh *ì-yà* (< /è-yà/)

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 *mā-n = nēʔ* in (367c).

4.3.1.7 2Pl function of *mǎā*

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

The presumably etymologically related form *mǎā*, without a vocalic prefix, can optionally replace 2Pl *ēēⁿ* in any function (e.g. subject, object, possessor, postpositional complement). This replacement is moderately common in my assistant’s speech in elicited utterances as

well as natural speech. *mǎā* ends in M-tone and is treated like M-toned pronouns (including 2Pl *ēēⁿ*) with respect to its tonal effect on following words (2d-e).

- (112) a. *mǎā* *séé*
 2Pl come.Pfv
 ‘You-Pl came.’
- b. *zàkî* *mǎā* *bá?rî*
 Z 2Pl hit.Pfv
 ‘Zaki hit you-Pl.’
- c. *mǎā = ∅* *sà* *sáá*
 2Pl=Ipfv Fut come.Ipfv
 ‘You-Pl will come.’
- d. *mǎā* *kōnî*
 2Pl Topic
 ‘as for you-Pl, ...’
- e. *mǎā* *dō?ō*
 2Pl too
 ‘you-Pl too’
- f. *àáⁿ* *tàgá* *bílí* *mǎā-ñ*
 3PlHum sheep give.Pfv 2Pl-Indep
 ‘They gave a sheep to you-Pl.’

The relationship between unprefixed variant 2Pl *mǎā* and prefixed logophoric or focalized 3Pl *à-mǎā* (human) and *è-mǎā* (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 *ē*, 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 *yí?é* ‘fish’.

- (113) a. *sàà mí-nà* ‘this house’
gbāā mí-nà ‘this stick’
yí?é mí-nà ‘this fish’
- b. *sàà mí-nà-à-nū* ‘these houses’
gbāā mí-nà-à-nū ‘these sticks’
yí?é mí-nà-à-nū ‘these fish’

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

An alternative demonstrative form *mìí* 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 *mìí* is *mìí-īⁿ*, with a nasalized plural ending similar to plural suffix *-àⁿ* and variants for nouns. (Compare plural relative *mì-īⁿ*, §14.2).

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

- (114) unmarked distant
- a. *sàá mìí nè* *sàá mìí ‘bá* ‘that house’
gbāá mìí nè *gbāá mìí ‘bá* ‘that stick’
yí?é mìí nè *yí?é mìí ‘bá* ‘that fish’
- b. *sàá mìí-īⁿ nè* *sàá mìí-īⁿ bá* ‘those houses’
gbāá mìí-īⁿ nè *gbāá mìí-īⁿ bá* ‘these sticks’
yí?é mìí-īⁿ nè *yí?é mìí-īⁿ 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*.

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

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 =*ń*, as in *zàkń=Ø=ń 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).

(116)	regular	with <i>dè</i> or <i>nàà</i>	gloss
	<i>sā</i>	<i>sé=é nàà</i>	‘Come here!’
	<i>ē wǎ</i>	<i>ē wè=é dè</i>	‘Go there!’
	<i>à bùlǐ</i>	<i>à búl=ú dè</i>	‘He/She went back there’
	<i>ààⁿ búlǐ</i>	<i>ààⁿ búl=ú dè</i>	‘They went back there.’

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 *là?à* ‘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* *[[là?à* *mí]* *tò]*
 3SgHum fall.Pfv [[**place** **Dem**] **in**]
 ‘He/She fell right here.’
- b. *à* *bè* *[[là?à* *mí]* *gìlé* *nàà]*
 3SgHum fall.Pfv [[**place** Dem] **near** here]
 ‘He/She fell (somewhere) around here.’
- c. *[[là?à* *mí* *ǎʷ]* *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 $X = \emptyset n\grave{e}$ ‘here’s X!’ or ‘there’s X!’ Here /H+ = \emptyset / is the locational ‘be’ enclitic and *n\grave{e}* is a semantically weak ‘there’ (default spatial adverb).

- (118) a. *zàkíí = \emptyset* *n\grave{e}*
 Z=be there
 ‘Here’s/There’s Zaki.’
- b. *[dí* *kpé?r-à-áʷ] = \emptyset* *n\grave{e}*
 [child small-Nom-Pl]=be there
 ‘Here’s the young child!’

Pronominal forms include *má = \emptyset n\grave{e}* ‘here I am’, *á = \emptyset n\grave{e}* ‘here/there he/she is!’, and *àáʷ = \emptyset n\grave{e}* ‘here/there they are!’

The final *n\grave{e}* may combine with a progressive verb, such as ‘be coming’ and ‘be sleeping’. In this case I gloss /H+ = \emptyset / as imperfective (=Ipfv), as usual before present, future, and progressive verbs, but there is no real difference between locational ‘be’ and the imperfective enclitic.

- (119) a. *zàkî̃*=∅ *sé-yá* *nè*
 Z=Ipfv come-Prog there
 ‘Here comes Zaki!’
- b. *mùʔú̃*ⁿ=∅ *sé-yá* *nè*
 Z=Ipfv come-Prog there
 ‘Here we come!’
- c. *á*=∅ *nĩ* *bè-yá* *nè*
 3SgHum=Ipfv sleep(n) fall-Prog there
 ‘There he is, sleeping!’ (French *le voilà qui dort!*)

French counterparts *voici X* and *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. *zàkî̃* *lé*
 Z look.Imprt
 ‘Look-2Sg at Zaki (over there)!’
- b. *dí* *lě*
 child look.Imprt
 ‘Look-2Sg at the child (over there)!’
- c. *dí-rá-à̃*ⁿ *lé*
 child-Nom-pl 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 *-à̃*ⁿ and variants, and in favorable syntactic contexts its own nominal suffix *-nū̃*, 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)	semantic type	adjective	suffixes	gloss
a.	color	<i>gbò?ò</i>	<i>gbò?ò-rá</i>	‘black’
		<i>kānā</i>	<i>kān-nā</i>	‘red’
		<i>kpēē</i>	<i>kpēē-rā</i>	‘white’
b.	dimension	<i>gbó</i>	<i>gbó-rà</i>	‘big’
		<i>kpé?rē</i>	<i>kpé?r-à</i>	‘small’
		<i>gbá?áá</i>	<i>gbá?áá-rà</i>	‘thin’
		<i>súmáá</i>	<i>súmáá-ná</i>	‘long’
		<i>gúnī</i>	<i>gúnī-nà</i>	‘short’
			~ <i>gūñ-nà</i>	
		<i>bákúñī</i>	<i>bákúñī-nà</i>	‘short’
			~ <i>bákúñ-nà</i>	
c.	temperature	<i>táā</i>	<i>táā-rà</i>	‘hot’
		<i>kúmā</i>	<i>kúmā-nà</i>	‘cold’
d.	evaluation	<i>ɲé</i>	<i>ɲé-nà</i>	‘good’
		<i>kítā</i>	<i>kítā-rà</i>	‘bad’ (<i>t ~ d</i>)
e.	state	<i>gbé</i>	<i>gbé-rà</i>	‘fresh’
		<i>kútō</i>	<i>kútō-rò</i>	‘old’ (<i>t ~ d</i>)
		<i>wútō</i>	<i>wútō-rò</i>	‘new’ (<i>t ~ d</i>)
f.	miscellaneous	<i>wéé</i>	<i>wéé-rà</i>	‘other’

4.5.2 Diminutive adjectives with *-lī* ~ *-nī*

The *-lī* suffix (nasalized variant *-nī*) that forms nominal diminutives (§4.2.1) is also productive with basic adjectives. The adjective *kpíí-lī* ‘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. *kāā-nī* ‘red-Diminutive’ < *kānā* ‘red’
diminutive adjective M-toned
- | | | |
|-------------------------|---------------------|--|
| <i>màʔá-màʔà kāā-nī</i> | (unattested) | ‘red bishop (bird)’ |
| <i>wáʔrá kāā-nī</i> | <i>wáʔrà</i> ‘hawk’ | ‘buzzard’ |
| <i>tòlù kāā-nī</i> | <i>tòlù</i> ‘bat’ | ‘fruit bat sp. (<i>Micropteropus</i>)’ |
| <i>jáá kāā-nī</i> | <i>jáá</i> ‘duiker’ | ‘red-flanked duiker’ |
- diminutive adjective L-toned*
- | | | |
|--------------------|---------------------|-------------|
| <i>tòʔr kàā-nú</i> | <i>tòʔrò</i> ‘frog’ | ‘reed frog’ |
|--------------------|---------------------|-------------|
- diminutive adjective H-toned*
- | | | |
|-----------------------|----------------------|-----------------------|
| <i>jì mílí káá-ní</i> | <i>jì mílí</i> ‘ant’ | ‘small brown ant sp.’ |
|-----------------------|----------------------|-----------------------|
- b. *kpēē-lī* ‘white-Diminutive’ < *kpēē* ‘white’
diminutive adjective M-toned
- | | | |
|--------------------|---------------------|---------------|
| <i>jáá kpēē-lī</i> | <i>jáá</i> ‘duiker’ | ‘bush duiker’ |
|--------------------|---------------------|---------------|
- c. *gbōʔō-lū* ‘black-Diminutive’ < *gbòʔò* ‘black’
diminutive adjective M-toned
- | | | |
|---------------------|---------------------|------------------------|
| <i>jáá gbōʔō-lū</i> | <i>jáá</i> ‘duiker’ | ‘yellow-backed duiker’ |
|---------------------|---------------------|------------------------|

It is also possible for a lexicalized diminutive noun to take a nondiminutive adjective, as in *gbáá-lì kānā* ‘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 *tó* ~ *tóⁿ*

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

- (123) verb (Ipfv) after *séⁿ* (+L) ‘thing’ gloss
- a. modifying form of verb ends in *i* (or zero after Syncope)
- | | | |
|-------------------------|--------------------------------------|----------------|
| <i>bàʔàláà</i> | <i>bàʔàlán</i> <i>tó-ró</i> | ‘skinny’ |
| <i>díá, jàà</i> | <i>dì</i> <i>tó-ró</i> | ‘sweet’ |
| <i>féénà</i> | <i>fèèni</i> <i>tó-ró</i> | ‘full’ |
| <i>kónó</i> | <i>kòn</i> <i>tó-ró</i> | ‘fat; wide’ |
| <i>nóʔòⁿ</i> | <i>nùʔùⁿ</i> <i>tó-ró</i> | ‘smooth; soft’ |
| <i>ṅùṅò</i> | <i>ṅùni</i> <i>tó-ró</i> | ‘sour’ |

<i>ní?énáá</i>	<i>nì?èn(i) tó-ró</i>	‘wet’
<i>tòlò</i>	<i>tòl-tó-ró</i>	‘rotten’

b. modifying form of verb ends in *ee*

<i>cáá</i>	<i>cèè tó-ró</i>	‘ripe (and hard)’
<i>dèè</i>	<i>dèè tó-ró</i>	‘hot’
<i>gbàà</i>	<i>gbèè tó-ró</i>	‘hard; difficult’
<i>fyèpéè</i>	<i>fyèpéé ‘tó-ró</i>	‘weak; lightweight’
<i>jùgúyáà</i>	<i>jùgúyéé ‘tó-ró</i>	‘nasty’
<i>compositive verbs with -bàà</i>		
<i>fò?ò-bàà</i>	<i>fò?ò-bèè tó-ró</i>	‘distant’
<i>kùdò-bàà</i>	<i>kùdò-bèè tó-ró</i>	‘heavy’
<i>nèè-bàà</i>	<i>nèè-bèè tó-ró</i>	‘bitter’
<i>tòò-bàà</i>	<i>tòò-bèè tó-ró</i>	‘deep’

c. modifying form of verb ends in low or back vowel

<i>mòò</i>	<i>mòò tó-ró</i>	‘cooked’
<i>kà?áá</i>	<i>kà?à tó-ró</i>	‘coarse’

The vocalism of the forms of the verb before *tó-ró* 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: (*yí?é/yìgì*) *kú-dó-béé tó-ró* ‘(fish/cow) heavy’, etc. Nouns of /M/ melody spread the M-tone into the modifying form: *klāā kūdō-bēē tō-rō* ‘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’ gloss suffixed singular

<i>wùl dúli</i>	‘one dog’	<i>wùl-á</i>
<i>kùkù dúli</i>	‘one stone’	<i>kùkù-rá</i>
<i>gbāā dúli</i>	‘one stick’	<i>gbāā-rā</i>
<i>dí dúli</i>	‘one child’	<i>dí-rá</i>

In counting (‘1, 2, 3, ...’) ‘1’ is *dúúli* with long vowel.

For *dúlí kùⁿ* ‘be equal/same’, i.e. numeral *dúli* plus copula *kùⁿ*, 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’	<i>flā</i>	/M/ (for <i>flāā</i> see comments below)
‘3’	<i>sīgbō</i>	/M/
‘4’	<i>nāānī</i>	/M/
‘5’	<i>sóóló</i>	/H/
‘6’	<i>mī-īlō</i>	/M-MM/
‘7’	<i>mà-álā</i>	/L-HL/
‘8’	<i>mà-sīgbō</i>	/L-H/
‘9’	<i>má-nānì</i>	/H-ML/
‘10’	<i>táá</i>	/H/

A long-voweled variant *flāā* ‘2’ occurs in NP-internal position. This occurs a) before the nominal suffix as in the bahuvrihi 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).

táá ‘10’ may have recently had a nasalized vowel, to judge by its distributive reduplication *táá-náá*, see (134) below.

When these numerals are added to a noun (or adjective), the *mà-* 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’	<i>kùgù flā</i>	
‘3’	<i>kùgù sīgbō</i>	
‘4’	<i>kùgù nāānī</i>	
‘5’	<i>kùgù sóóló</i>	
‘6’	<i>kùgù mī-īlō</i>	
‘7’	<i>kùgù má-álā</i>	yes
‘8’	<i>kùgù má-sīgbō</i>	yes
‘9’	<i>kùgù má-nānì</i>	
‘10’	<i>kùgù tāā</i>	

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

(127)	gloss	‘stick’	tone change
	‘2’	<i>gbāā flā</i>	
	‘3’	<i>gbāā sīgbō</i>	
	‘4’	<i>gbāā nāānī</i>	
	‘5’	<i>gbāā sōólō</i>	
	‘6’	<i>gbāā mī-īlō</i>	
	‘7’	<i>gbāā má-álā</i>	yes
	‘8’	<i>gbāā má-sīgbō</i>	yes
	‘9’	<i>gbāā má-nānī</i>	
	‘10’	<i>gbāā tāā</i>	

Combinations with /H/-melody noun *yí?é* ‘fish’ (suffixed *yí?é-rā*) are in (128).

(128)	gloss	‘fish’	tone change
	‘2’	<i>yí?é flā</i>	
	‘3’	<i>yí?é sīgbō</i>	
	‘4’	<i>yí?é nāānī</i>	
	‘5’	<i>yí?é sóóló</i>	
	‘6’	<i>yí?é mī-īlō</i>	
	‘7’	<i>yí?é má-álā</i>	yes
	‘8’	<i>yí?é má-sīgbō</i>	yes
	‘9’	<i>yí?é má-nānī</i>	
	‘10’	<i>yí?é tāā</i>	

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 *náá* ‘woman’ (suffixed *náá-nà*), whose lexical melody is /HM/. *náá* itself becomes *náá* before L-tone, see H-Leveling (§3.8.3.2).

(129)	gloss	‘woman’	tone change
	‘2’	<i>náá flà</i>	yes
	‘3’	<i>náá sīgbò</i>	yes
	‘4’	<i>náá nàànì</i>	yes
	‘5’	<i>náá sòòlò</i>	yes
	‘6’	<i>náá mī-ìlò</i>	yes
	‘7’	<i>náá mà-àlà</i>	yes
	‘8’	<i>náá mà-sīgbò</i>	yes

‘9’	<i>ɲáá má-nāni</i>	
‘10’	<i>ɲáá tàà</i>	yes

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 *ɲáá má* ‘20’ taking the compound initial forms *ɲén-* (in ‘30’) and *ɲááⁿ-* (elsewhere) before single-digit numerals. Odd-numbered decimals above ‘20’ add *-í-tàà* (after *flā* ‘2’ and *sīgbō* ‘3’) or *-tàà* (after higher decimals), cf. *táá* ‘10’. *-tàà* 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 *-tàà* in the decimal terms is L-toned and therefore triggers Final Tone-Raising of preceding L- and M-toned stems (‘130’, ‘170’), likely also *-í* in *-í-tàà* (‘50’, ‘70’). H tones following *ɲááⁿ* are phonetically downstepped, but in *ɲááⁿ-sóóló-tàà* ‘110’ the middle stem *-sóóló-* is still higher-pitched than *-tàà*, and in *ɲááⁿ-má-álà* ‘140’ *má-á* is higher-pitched than *là*, so I do not attribute the lowered pitch of e.g. *-sóóló-* to Floating-L Shift triggered by *ɲááⁿ*.

(130)	gloss	form
	‘10’	<i>táá</i>
	‘20’	<i>ɲáá má</i>
	‘30’	<i>ɲén-tàà</i>
	‘40’	<i>ɲááⁿ-flā</i>
	‘50’	<i>ɲááⁿ-flā-í-tàà</i>
	‘60’	<i>ɲááⁿ-sīgbō</i>
	‘70’	<i>ɲááⁿ-sīgbō-í-tàà</i>
	‘80’	<i>ɲááⁿ-nāānī</i>
	‘90’	<i>ɲááⁿ-nāānī-tàà</i>
	‘100’	<i>ɲááⁿ-sóóló</i>
	‘110’	<i>ɲááⁿ-sóóló-tàà</i>
	‘120’	<i>ɲááⁿ-mī-īlō</i>
	‘130’	<i>ɲááⁿ-mī-īlō-tàà</i>
	‘140’	<i>ɲááⁿ-má-álà</i>
	‘150’	<i>ɲááⁿ-má-álà-tàà</i>
	‘160’	<i>ɲááⁿ-má-sīgbō</i>
	‘170’	<i>ɲááⁿ-má-sīgbō-í-tàà</i>
	‘180’	<i>ɲááⁿ-má-nāni</i>
	‘190’	<i>ɲááⁿ-má-nāni-tàà</i>
	‘200’	<i>ɲááⁿ-táá</i>

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 *-rā* (i.e. as in /*tāā-rā*/), raised to *-rá* before the single-digit term (131), which is dropped to {L}.

(131)	gloss	‘10 plus ...’	digit
	‘11’	<i>tāā-rá dùlì</i>	<i>dúlì</i>
	‘12’	<i>tāā-rá flà</i>	<i>flā</i>
	‘13’	<i>tāā-rá sìgbò</i>	<i>sìgbō</i>
	‘14’	<i>tāā-rá nààni</i>	<i>nāāní</i>
	‘15’	<i>tāā-rá sòòlò</i>	<i>sóóló</i>
	‘16’	<i>tāā-rá mì-ilò</i>	<i>mī-ilō</i>
	‘17’	<i>tāā-rá mà-àlà</i>	<i>mà-álà</i>
	‘18’	<i>tāā-rá mà-sìgbò</i>	<i>mà-sìgbó</i>
	‘19’	<i>tāā-rá mà-nàni</i>	<i>má-nāni</i>

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’	<i>jálámà tú dùlì</i>	<i>jáāⁿ-sìgbō-í-tàà tú dùlì</i>	<i>dúlì</i>
	‘22/32’	<i>jálámà tú flà</i>	<i>jáāⁿ-sìgbō-í-tàà tú flà</i>	<i>flā</i>
	‘23/33’	<i>jálámà tú sìgbò</i>	<i>jáāⁿ-sìgbō-í-tàà tú sìgbò</i>	<i>sìgbō</i>
	‘24/34’	<i>jálámà tú nààni</i>	<i>jáāⁿ-sìgbō-í-tàà tú nààni</i>	<i>nāāní</i>
	‘25/35’	<i>jálámà tú sòòlò</i>	<i>jáāⁿ-sìgbō-í-tàà tú sòòlò</i>	<i>sóóló</i>
	‘26/36’	<i>jálámà tú mì-ilò</i>	<i>jáāⁿ-sìgbō-í-tàà tú mì-ilò</i>	<i>mī-ilō</i>
	‘27/37’	<i>jálámà tú mà-àlà</i>	<i>jáāⁿ-sìgbō-í-tàà tú mà-àlà</i>	<i>mà-álà</i>
	‘28/38’	<i>jálámà tú mà-sìgbò</i>	<i>jáāⁿ-sìgbō-í-tàà tú mà-sìgbò</i>	<i>mà-sìgbō</i>
	‘29/39’	<i>jálámà tú mà-nàni</i>	<i>jáāⁿ-sìgbō-í-tàà tú mà-nàni</i>	<i>má-nāni</i>

4.6.1.4 ‘Thousand’

‘Thousand’ is either *wà?à* or *búúli*, the latter also meaning ‘finger’. For ‘1000’, the numeral ‘1’ is added to the ‘thousand’ term. After *wà?à*, 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 *wà?á* (left data column). After *búúli*, ‘2’ and ‘3’ are tone-dropped but others are not.

(133)	gloss	with <i>wà?à</i>	with <i>búúli</i> ‘finger’
	‘1000’	<i>wà?à dúlì</i>	<i>búúli dúlì</i>
	‘2000’	<i>wà?á flà</i>	<i>búúli flà</i>
	‘3000’	<i>wà?á sìgbò</i>	<i>búúli sìgbò</i>

‘4000’	<i>wàʔá nààni</i>	<i>búúli nāāni</i>
‘5000’	<i>wàʔá sòòlò</i>	<i>búúli sóóló</i>
‘6000’	<i>wàʔá mì-ìlò</i>	<i>búúli mì-ìlò</i>
‘7000’	<i>wàʔá mà-álà</i>	<i>búúli mà-álà</i>
‘8000’	<i>wàʔá mà-sìgbō</i>	<i>búúli mà-sìgbō</i>
‘9000’	<i>wàʔá má-nāni</i>	<i>búúli má-nāni</i>
‘10,000’	<i>wàʔá tàà</i>	<i>búúli tāā</i>

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 *wári* (suffixed *wáŕ-rà*). 100 FCFA is expressed as *wáŕ jàlāmà* ‘20 money units’

There is also a special term *kùmól* for the unit equivalent to 2000 FCFA’. To specify exactly ‘2000 francs’, the phrasing is *kùmól dúli* with *dúli* ‘1’. *kùmól 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 basic 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 *mìʔi* ‘person’, as in *mìʔi flā-flā* ‘two people at a time’. Forms that begin with L-tone in isolation begin with H-tone after *mìʔi*.

(134) numeral	gloss	distributive	
		isolation	after <i>mìʔi</i> ‘person’
<i>dúli</i>	‘1’	<i>dú-dúli</i>	<i>dú-dúli</i>
<i>flā</i>	‘2’	<i>flà-flā</i>	<i>flá-flā</i>
<i>sìgbō</i>	‘3’	<i>sìgbò-sìgbō</i>	<i>sìgbó-sìgbō</i>
<i>nāāni</i>	‘4’	<i>ná-nāāni</i>	<i>ná-nāāni</i>
<i>sóóló</i>	‘5’	<i>só-sóóló</i>	<i>só-sóóló</i>
<i>mì-ìlò</i>	‘6’	<i>mì-mì-ìlò</i>	<i>mí-mì-ìlò</i>
<i>mà-álà</i>	‘7’	<i>mà-má-álà</i>	<i>má-má-álā</i>
<i>mà-sìgbō</i>	‘8’	<i>mà-sìgbō-mà-sìgbō</i>	<i>má-sìgbo-má-sìgbō</i>
<i>má-nāni</i>	‘9’	<i>má-nāni-má-nāni</i>	<i>má-nāni-má-nāni</i>
<i>táá</i>	‘10’	<i>táá = nāā</i>	<i>táá-nāā</i>

The irregular consonantism in *táá-nàà* ‘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 *miʔiⁿ* ‘person’ even though this is redundant.

- (135) *miʔi-ná-àⁿ* *sé* [*miʔiⁿ* *flá-flā*]
 person-Nom-Pl come.Pfv [person two-two]
 ‘The people came two by two (two at a time).’

dú-dūli ‘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’ (*kùdóròmà-nà*)

‘First’ as modifying adjective (not adverb) is *dáálá*, with nominal suffix *dáálá-rá*, obscurely related to *dūli* ‘1’. Examples are *séⁿ dààlà-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 *-nā-*)

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 *-nà-* is L-toned, so the suffix is H-toned *-ná*. Interlinear gloss is “-Ord”.

- (136) form gloss
- a. single-digit numeral
- | | |
|-----------------------|-----------|
| <i>flā-nā-nā</i> | ‘second’ |
| <i>sīgbō-nā-nā</i> | ‘third’ |
| <i>náání-nā-nā</i> | ‘fourth’ |
| <i>sóóló-nā-nā</i> | ‘fifth’ |
| <i>mì-ìlò-nà-ná</i> | ‘sixth’ |
| <i>mà-álà-nā-nā</i> | ‘seventh’ |
| <i>mà-sīgbō-nā-nā</i> | ‘eighth’ |
| <i>má-nàni-nā-nā</i> | ‘ninth’ |
| <i>táá-nā-nā</i> | ‘tenth’ |
- b. decimal
- | | |
|---------------------|-------------|
| <i>jálámà-nā-nā</i> | ‘twentieth’ |
|---------------------|-------------|

c. decimal plus single-digit numeral
tāā-rá d̀̀li-jā-nā ‘eleventh’

d. hundred
jāāⁿ-sóóló-jā-nā ‘hundredth’

4.6.3 Fractions and portions

The noun *g̀̀n* (with nominal suffix *g̀̀-nó*) 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 *bɔ̃lɔ̃* ‘hand’ as initial are in (137). The regular compound initial is *bɔ̃l* 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 *bɔ̃l-ɔ̃* ‘hand’

compound	gloss	final
a. noun-noun with recognizable final		
<i>final already /HM/ toned</i>		
<i>bɔ̃l-kláā-rà</i>	‘ring (on finger)’	<i>kláā-rà</i> ‘ring’
<i>bɔ̃l-kóō-rà</i>	‘back of hand’	<i>kóō-rà</i> ‘back’
<i>final becomes HM toned</i>		
<i>bɔ̃l-cī-nà</i>	‘hair on hand’	<i>cī-nā</i> ‘hair’
<i>bɔ̃l-bī-nà</i>	‘elbow’	<i>bī-ná</i> ‘rump (in butchery)’
		cf. <i>kpɔ̃-bī-nà</i> ‘ankle’

b. noun plus verbal noun

bōl-dégē-rà ‘menstruation’ *dègà* ‘not fit, be unable to enter’

c. noun plus final not attested as simple noun

bōl-sābārā-rà ‘palm (with fingers)’ cf. *kpɔ̄-sābārā-rà* ‘sole’

d. archaic initial, cf. diminutive *búū-1* (*búú-lī*), final LH-toned

búlú-jìn-ná ‘fingernail’ cf. *kpúlí-jìn-ná* ‘toenail’
(variant *búlí-jìn-ná*)

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. *kàà-yí?ē-rà* ‘spiny eel (*Mastacembelus*)’ *kàà-rá* ‘snake’
yí?é-rá ‘fish’
- b. *cì-kāā-rà* ‘snake sp. (*Psammophis*)’ (? *cì-rá* ‘borassus palm’)
kàà-rá ‘snake’
- c. *kùgù-sāā-rà* ‘stone house’ *kùgù-rá* ‘stone, rock’ (medial *k ~ g*)
sàà-rá ‘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, *sàà-rá* ‘house’ combines with *dāā-rā* ‘mouth’ to form *sàà dāà-rá* ‘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’

compound	gloss	final
a. noun-noun with recognizable final		
<i>final already /LH/-toned</i>		
<i>jū-fī-ná</i>	‘millet flowers’	<i>fī-ná</i> ‘flower’
<i>jū-jùl-ɔ̄</i>	‘millet leaf’	<i>jùl-ɔ̄</i> ‘leaf’
<i>jū-jàmà-ná</i>	‘millet root’	<i>jàmà-ná</i> ‘root’

final becomes LH

<i>jū-dì-rá</i>	‘grain of millet’	<i>dí-rá</i>	‘child’
(variant: <i>jú-dí-rà</i>)			
<i>jū-gbàà-rá</i>	‘millet stem or head’	<i>gbāā-rā</i>	‘stick, wood’
<i>jū-yì-rá</i>	‘millet sap (juice)’	<i>yí-rá</i>	‘water’
<i>jū-bùl-lá</i>	‘millet grub’	<i>búl-lá</i>	‘grub’

b. noun plus compound final unattested as simple noun

<i>jū-kū-nō</i>	‘millet plant’	(cpd. final only)
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Most of the compounds of ‘millet’ have LH-toned final (139a), respecting the {L(H)} overlay associated with preceding +3Sg words. The exception is *jū-kū-nō* (variant *jū-kū-nā*) in (139b), where the M-tone of *jū* 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 *kù-nō* 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 *cà?àcí-rà* ‘peanut’

compound	gloss	final
a. noun-noun with recognizable final		
<i>final already /LH/-toned</i>		
<i>cà?àcí-bà-ná</i>	‘peanut greens’	cf. <i>bà-ná</i> ‘palm frond’
<i>cà?àcí-tò-ró</i>	‘peanut shell (pod)’	<i>tò-ró</i> ‘shell’
<i>final becomes LH</i>		
<i>cà?àcí-nàà-ná</i>	‘peanut sauce’	<i>náá-ná</i> ‘sauce’
b. noun plus compound final unattested as simple noun		
<i>cà?àcí-kù-ná</i>	‘peanut plant’	(cpd. final only)

The next set (141) has *álā* ‘sky; God’ (suffixed *ál-là*) 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’

compound	gloss	final
a. noun-noun with recognizable final		
<i>final already LH</i>		
<i>álá-jðð-ró</i>	‘vine (<i>Cassytha</i>)’	<i>jðð-ró</i> ‘fishnet’
<i>álá-kpòl-ó</i>	‘sky’	<i>kpòl-ó</i> ‘skin’
<i>álá-yìgì-rá</i>	‘cloud’	<i>yìgì-rá</i> ‘cow’
<i>álá-mà?àl-lá</i>	‘rainbow’	<i>mà?àl-lá</i> ‘knife’
b. noun-verb-noun		
<i>álá-pèrén-ká-nà</i>	‘thunder (n)’	<i>pèrénà</i> ‘make noise’, <i>káⁿ</i> ‘voice’
<i>álá-mà?à-ká-nà</i>	‘thunder (n)’	<i>mà?à-káⁿ</i> ‘speak-voice’
c. final obscure or unattested separately		
<i>álá-mì?ì-mì?ìl-á</i>	‘velvet mite’	(? <i>mì?ìⁿ</i> ‘person’)
<i>álá-tì?íl-lá</i>	‘helmet-shrike (bird)’	(unattested)

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 is 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.	<i>mùù-mèè</i>	<i>mùù-mèè-ná</i>	‘farm work’ (“field-doing”)
	<i>dòò-mèè</i>	<i>dòò-mèè-ná</i>	‘dancing’ (“dance-doing”)
	<i>tígí-méé</i>	<i>tígí-méé-rá</i>	‘pounding (grain in mortar)’ (“pounding-doing”)
	<i>bén-méé</i>	<i>bén-méé-rá</i>	‘drawing water (at well)’ (“drawing-doing”)
b.	<i>sígí-séé</i>	<i>sígí-séé-rá</i>	‘singing’ (“song-singing”)
	<i>fó?ó-téé</i>	<i>fó?ó-téé-rá</i>	‘rifle-shooting’ (includes ‘hunting’)
	<i>sàà-sèè</i>	<i>sàà-sèè-rá</i>	‘construction’ (“house-building”)
	<i>yí?é-só?ó</i>	<i>yí?é-só?ó-rá</i>	‘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 *mí?í-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): *mí?íⁿ*, suffixed *mí?í-nà* (143a). Uncompounded ‘person’ is *mí?íⁿ ~ mɛ̀?èⁿ* 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.	<i>fó?ó-tēē mí?í-nà</i>	‘rifle-shooter’	<i>tèè</i> ‘shoot’
	<i>tùlù-bà?rì mí?í-nà</i>	‘iron-beater, blacksmith’	<i>bà?rà</i> ‘hit’
	<i>gbàà-bègè mí?í-nà</i>	‘woodworker’	<i>bègè</i> ‘cut’
	<i>só?ó-tò?rì mí?í-nà</i>	‘woodseller’	<i>tò?rò</i> ‘sell’
	<i>gùn-tìgì mí?í-nà</i>	‘mortar-pounder’	<i>tìgè</i> ‘pound’
	<i>yí-bèn mí?í-nà</i>	‘water draw-er’	<i>bènà</i> ‘draw water’
	<i>sìbì-kpèèⁿ mí?í-nà</i>	‘meat-killer (hunter)’	<i>kpààⁿ</i> ‘kill’
	<i>kpòl-tùùⁿ mí?í-nà</i>	‘leatherworker’	<i>tùwòⁿ</i> ‘apply hide’
b.	<i>sígí-séé mí?í-nà</i>	‘song-singer’	<i>sàà</i> ‘sing; build’
	<i>sàà-sèè-mí?í-nà</i>	‘house-builder’	<i>sàà</i> ‘sing; build’
c.	<i>ɲù?úⁿ-sòlì mí?í-nà</i>	‘clothes-sewer/-weaver’	<i>sòlò</i> ‘weave; sew’
	<i>wù-sòlì mí?í-nà</i>	‘hair-braider’	<i>sòlò</i> ‘weave; sew’
d.	<i>dòò-mèè mí?í-nà</i>	‘dancer’	<i>màà</i> ‘do’
	<i>mùù-mèè mí?í-nà</i>	‘farmer’	<i>màà</i> ‘do’ (= ‘cultivate’)
	<i>tó?rí-mēē mí?í-nà</i>	‘seller’	<i>màà</i> ‘do’
	<i>sàni-mèè mí?í-nà</i>	‘buyer’	<i>màà</i> ‘do’

These decriptive agentives, e.g. ‘iron-beater’ = ‘blacksmith’, are distinct from caste names like *tòⁿ* ‘member of blacksmith caste’, *jèlè* ‘member of potter caste’, and *fònò* ‘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 *wùl dì-rá* ‘puppy’.

For trees, ‘(large) fruit’ is *bōō*, and this is often compounded: *máʔr bōò-ró* ‘mango fruit’, *bòyākí bōò-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. | <i>dāā-kíʔ</i> ‘beard’ | <i>dāā-kíʔ māā-nā</i> ‘bearded one’ |
| | | <i>tàbàl</i> ‘table, stand’ | <i>tàbàl māā-nā</i> ‘stand seller’ |
| | | <i>màrfǎ</i> ‘rifle’ | <i>màrfǎ māā-nā</i> ‘riflesman’ |
| | | <i>kōyī</i> ‘belly’ | <i>kōyī māā-nā</i> ‘potbellied or pregnant one’ |
| | b. | <i>jègì</i> ‘hump’ | <i>jègì màà-ná</i> ‘hunchback’ |
| | | <i>gòyì</i> ‘money’ | <i>gòyì màà-ná</i> ‘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 *yí* ‘water’ and *télé* ‘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. | <i>yí míí-mī-nà</i> ‘drinking water’ | <i>mìè</i> ‘drink’ (Pfv <i>mǐ</i>) |
| | | <i>yí wéé-mī-nà</i> ‘water for bathing’ | <i>wèè</i> ‘bathe’ |
| | b. | <i>télé kúní-mī-nà</i> ‘eating (cooking) oil’ | <i>kùnò</i> ‘eat (meal)’ |
| | | <i>télé móó-mī-nà</i> ‘body oil’ | <i>mòò</i> ‘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 *màà* ‘do’) and relative marker *mì*.

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.	<i>[gòl-tò]-kláá</i>	‘shaggy swamp rat’	“[river-in]-mouse”
	<i>[sàà-tò]-tóólū</i>	‘insectivorous bat’	“[house-in]-bat”
	<i>[kòyí-tò]-tɛⁿ</i>	‘stomach ulcer’	“[belly-in]-wound”
b.	<i>[mùù-dù]-káāⁿ</i>	‘grass sp. (<i>Microchloa</i>)’	“[field-in]-grass”
	<i>[fídí-dū]-kpá</i>	‘false zaban’	“[thicket-in]-zaban”
	<i>[cífí-dù]-címíílí</i>	‘brown babbler’	“[dense.foliage-in]-sparrow”
	<i>[dùgù-dù]-tólóká</i>	‘wild fig’	“[the.bush-in]-fig.tree”
	<i>[dùgù-dù]-dándálí</i>	‘wild yam’	“[the.bush-in]-yam”
	<i>[yí-dù]-níná?áⁿ</i>	‘water scorpion (insect)’	“[water-in]-scorpion”

Final Tone-Raising fails to apply within the PP. Independently, ‘in the bush’ is *dùgù dù* and ‘in the field’ is *mùù tò*, while ‘in/at the house’ is *sàá tò* and ‘in/at the river’ is *gòlò tò*. 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 *[cífí-dù]-címíílí* ‘brown babbler’ < *címíílí* ‘sparrow’ and in *[dùgù-dù]-tólóká* ‘wild fig’ < *tòlóká* ‘fig tree’. Another example: L-toned *wùl* ‘dog’ becomes HM-toned in *[dùgù-dù]-wúlā* ‘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 *tó* ~ *tóⁿ*.

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 *jāngbálā* ‘tail’ requires a following L-toned ‘black’.

- (147) *tàgà* *wú-gbòʔò-rà* / *jāngbálā-gbòʔò-rá*
 sheep head-black-Nom / tail-black-Nom
 ‘black-headed/black-tailed sheep’ (< *wù*, *gbòʔò*, *jāngbálā*)

Adjectival bahuvrihis that turned up in lexical elicitation are in (148). ‘Tail’ is *jāngbálā* 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 | | |
| | <i>wáʔrá kpòⁿ-kāā-nī</i> | ‘gabar goshawk’ | “hawk foot-red-Dim” |
| | <i>yíʔé jéⁿ-káná</i> | ‘characin (fish)’ | “fish tail-red” |
| | <i>jìbì jéⁿ-sùmàà</i> | ‘parakeet’ | “parrot tail-long” |
| | b. noun-adjective(-diminutive) bahuvrihi as independent noun | | |
| | <i>jéⁿ-kpēē-lī</i> | ‘white-tailed mongoose’ | “tail-white-Dim” |
| | <i>jéⁿ-sùmàà</i> | ‘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) *yìgì* *wú-flāā-rā* / *wú-sīgbōō-rā* / *wú-tāā-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).

(150)	after floating L	elsewhere	gloss
a.	<i>bìⁿ-kèèné-má(-nà)</i>	<i>bí^m-kééné-má(-nà)</i>	‘green’
b.	<i>bùlòrà-má(-nà)</i>	<i>búlórá-má(-nà)</i>	‘blue’
c.	<i>yèʔrè-fóʔó(-rá)</i>	<i>yéʔré-fóʔó(-rá)</i>	‘yellow’

‘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* (*kāāⁿ* ‘grass’, *gbé* ‘fresh’). There is another noun *bí^m* ‘grass, straw’, which is evidently the initial in *bìⁿ-kèèné-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 ‘nééré 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.	<i>sàà-rá</i> house-Nom ‘(a) house’	[n]
b.	<i>sàà-rá-à-nū</i> (~ <i>sàà-rá-à-ñ</i>) house-Nom-Pl-Nom ‘houses’	[n]
c.	<i>sàà</i> <i>ɲé-nà</i> house good-Nom ‘(a) good house’	[n-a]
d.	<i>sàà</i> <i>ɲé-nà-à-nū</i> (~ <i>ɲé-nà-à-ñ</i>) house good-Nom-Pl-Nom ‘good houses’	[n-a]
e.	<i>sàà</i> <i>dúli</i> house one ‘one house’	[n-num]
f.	<i>sàà</i> <i>sīgbō</i> house three ‘three houses’	[n-num]

- g. *sàà* *ɲé* *dúli* [n-a-num]
house good one
‘one good house’
- h. *sàà* *ɲé* *sìgbō* [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-ñ* (~ *mí-nà-à-nū*) [n-dem]
house Dem-Nom-Pl-Nom
‘these houses’
- c. *sàà* *ɲé* *mí-nà* [n-a-dem]
house good Dem-Nom
‘this good house’
- d. *sàà* *ɲé* *mí-nà-à-ñ* [n-a-dem]
house good Dem-Nom-Pl-Nom
‘these good houses’
- e. *sàà* *sìgbō* *mí-nà-à-ñ* [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 (153c) with numeral plus ‘all’ was difficult to elicit, except with a following verb.

- (153) a. *sàà-rá-āⁿ* *bú?ú-nū* [n-quant]
house-Nom-Pl all-Pl
‘all (of) the houses’
- b. *sàà* *ɲé-nā-àⁿ* *bú?ú-nū* [n-a-quant]
house good-Nom-Pl all-Pl
‘all (of the) good houses’

- c. *sàà* *sìgbō* *bú?ú-nū* [n-num-quant]
house three all-Pl
‘all three (of the) houses’
- d. *sàà* *sìgbō* *mí-nà-àⁿ* *bú?ú-nū* [n-num-dem-quant]
house three Dem-Nom-Pl all
‘all three of these 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. *sàà-ra*
house-Nom
‘(a/the) house’
- b. *sàà* *jíé-ná*
house big-Nom
‘(a/the) big house’
- c. *sàà* *mí-nà*
house Dem-Nom
‘this house’
- d. *sàà* *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
prepausal
independent function (citation form, preclausal topic)
postverbal object or adverb
“trapped” 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 attrited 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 its presence here is not subject to syntactic restrictions.

6.1.3 Distribution of plural nominal suffix (*-nū*)

The plural suffix *-àⁿ* is added to the noun plus the singular nominal suffix, forming suffix combinations like *-nà-àⁿ*, *-rà-àⁿ*, and *-rá-àⁿ* depending on the phonological form of the singular nominal suffix. The plural has its own nominal suffix *-nū* (~ *-ñ*), hence *-à-nū* in combinations like *-nà-à-nū*.

(156)	gloss	singular		plural	
		unsuffixed	suffixed	unsuffixed	suffixed
a.	‘woman’	<i>ɲáá</i>	<i>ɲáá-nà</i>	<i>ɲáá-nà-àⁿ</i>	<i>ɲáá-nà-à-nū</i> ~ <i>ɲáá-nà-à-ñ</i>
b.	‘sheep’	<i>tàgà</i>	<i>tàgà-rá</i>	<i>tàgà-rá-àⁿ</i>	<i>tàgà-rá-à-nū</i> ~ <i>tàgà-rá-à-ñ</i>

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-nà*) *tàgá* *jìé*
 woman (#woman-Nom) sheep see.Pfv
 ‘(A/The) woman saw a/the sheep.’
- b. *ɲáá-nà-áⁿ* (#*ɲáá-nà-à-nū*) *tàgá* *jìé*
 woman-Nom-Pl (#woman-Nom-Pl-Nom) sheep see.Pfv
 ‘(The) women saw a/the sheep.’
- (158) a. *ɲáá* (#*ɲáá-nà*) *sèé*
 woman (#woman-Nom) come.Pfv
 ‘(A/The) woman came.’
- b. *ɲáá-nà-àⁿ* (#*ɲáá-nà-à-nū*) *séé*
 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 *à* 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 *tàgà-rá-àⁿ* without its final nominal suffix, contracting with the

cliticized object pronoun =à as *tàgà-rá-āⁿ=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* *jíé*
 sheep-Nom= 3SgHum see.Pfv
 ‘The sheep-Sg saw him/her.’
- b. *tàgà-rá-āⁿ=* *àⁿ* *jíé*
 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* *jíé*
 sheep-Nom= 3PlHum see.Pfv
 The sheep-Sg saw them.’
- b. *tàgà-rá(-āⁿ)=* *ààⁿ* *jíé*
 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 suffixed nouns. 1Pl *ēēⁿ* 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* *jíé*
 sheep-Nom 1Sg / 2Sg see.Pfv
 ‘The sheep-Sg saw me/you-Sg.’
- b. *tàgà(-rá)* *ēēⁿ* *jíé*
 sheep-Nom 2Pl see.Pfv
 ‘The sheep-Sg saw you-Pl.’
- c. *tàgà-rá-àⁿ* *mā / wō* *jíé*
 sheep-Nom-Pl 1Sg / 2Sg see.Pfv
 ‘The sheep-Pl saw me/you-Sg.’

1Pl object *mù?ùⁿ*, 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* *mù?ùⁿ* *jíé*
 sheep / sheep-Nom 1Pl see.Pfv
 ‘The sheep-Sg saw us.’
- b. *tàgà-rá-àⁿ* *mù?ùⁿ* *jíé*
 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-āⁿ=Ø* *sà* *sā*
 sheep-Nom=Ipfv Fut come.Ipfv
 ‘The sheep-Sg will come.’
- c. *tàgà-rá=Ø* [*mùú* *dù*]
 sheep-Nom=be [field in]
 ‘The sheep-Sg is in the field.’
- d. *tàgà-rá-āⁿ=Ø* [*mùú* *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* *náā* (#*náā-nà*) *jié*
 1Sg woman (#woman-Nom) see.Pfv
 ‘I saw a/the woman.’
- b. *mā* *náā-nà-àⁿ* (#*náā-nà-à-nū*) *jié*
 1Sg woman-Nom-Pl (#woman-Nom-Pl-Nom) see.Pfv
 ‘I saw (the) women.’
- c. *mā* *wār* *bilí* *dí-rá* (#*dí*)
 1Sg money give.Pfv child-Nom
 ‘I gave the money to the child.’
- d. *mā* *wār* *bilí* *dí-rá-à-nū* (#*dí-rá-àⁿ*)
 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* [*náā* (#*náā-nà*)] *dè]*
 1Sg come.Pfv [woman (#woman-Nom) with]
 ‘I came with (=brought) a/the woman.’
- b. *mā* *sé* [*náā-nà-àⁿ* (#*náā-à-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. *náā* (#*náā-nà*) *bù?ù* *mā-n*
 woman (#woman-Nom) and 1Sg-Indep
 ‘(a/the) woman and me’

- b. *náā-nà-àⁿ* (#*náā-nà-à-nū*) *bú?ú* *mā-n*
 woman-Nom-Pl (#woman-Nom-Pl-Nom) and 1Sg-Indep
 ‘(the) women 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.

- (167) a. *náā* (#*náā-nà*) *tàgà-rá*
 woman (#woman-Nom) sheep-Nom
 ‘(a/the) woman’s sheep-Sg’
- b. *náā-nà-àⁿ* (#*náā-nà-à-nū*) *tàgà-rá*
 woman-Nom-Pl (#woman-Nom-Pl-Nom) sheep-Nom
 ‘(the) women’s sheep-Sg’

The discourse particle *dò?ò* ‘also, too’ likewise disallows nominal suffixes (168a-b).

- (168) a. *náā* (#*náā-nà*) *dò?ò*
 woman (#woman-Nom) also
 ‘(a/the) woman too’
- b. *náā-nà-àⁿ* (#*náā-nà-à-nū*) *dó?ó*
 woman-Nom-Pl (#woman-Nom-Pl-Nom) also
 ‘(the) women too’

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).

- (169) a. *ádámá* *sàà-rá* [poss-n]
 A house-Nom
 ‘Adama’s house’
- b. *wō* *sàà-rá-àⁿ* [poss-n]
 2Sg house-Nom-Pl
 ‘your-Sg houses’

(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). Alienable nouns 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

noun	gloss	‘my ___’	‘your-Sg ___’	‘your-Pl ___’
a. inalienables		M-Spreading	M-Spreading	M-Spreading
<i>wù-ró</i>	‘head’	<i>mā wū-ró</i>	<i>wō wū-ró</i>	<i>ēēⁿ wū-ró</i>
<i>ɲì-ná</i>	‘blood’	<i>mā ɲì-ná</i>	<i>wō ɲì-ná</i>	<i>ēēⁿ ɲì-ná</i>
<i>sò-nó</i>	‘heart’	<i>mā sò-nó</i>	<i>wō sò-nó</i>	<i>ēēⁿ sò-nó</i>
<i>nù?ù-nó</i>	‘intestine’	<i>mā nū?ū-nó</i>	<i>wō nū?ū-nó</i>	<i>ēēⁿ nū?ū-nó</i>
b. alienables		{L(H)}	{L(H)}	{L(H)}
<i>kò-nó</i>	‘bird’	<i>mā kò-nó</i>	<i>wō kò-nó</i>	<i>ēēⁿ kò-nó</i>
<i>gù-nó</i>	‘mortar’	<i>mā gù-nó</i>	<i>wō gù-nó</i>	<i>ēēⁿ gù-nó</i>
<i>mò-nó</i>	‘rope’	<i>mā mò-nó</i>	<i>wō mò-nó</i>	<i>ēēⁿ mò-nó</i>
<i>tù-ró</i>	‘millet cake’	<i>mā tù-ró</i>	<i>wō tù-ró</i>	<i>ēēⁿ tù-ró</i>
<i>tò?ò-rá</i>	‘pot, jar’	<i>mā tò?ò-rá</i>	<i>wō tò?ò-rá</i>	<i>ēēⁿ tò?ò-rá</i>
<i>ɲù?ù-nó</i>	‘wrap (n)’	<i>mā ɲù?ù-nó</i>	<i>wō ɲù?ù-nó</i>	<i>ēēⁿ ɲù?ù-nó</i>

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). Alienable nouns 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. *mù?ùⁿ* → *mù?úⁿ*.

(173) /L/-melody noun as possessum after other plural possessor pronouns

noun	gloss	‘our ___’	‘their ___’	
			human	nonhuman
a. inalienables		{H(H)}	{H(H)}	{H(H)}
<i>wù-ró</i>	‘head’	<i>mù?ùⁿ wú-ró</i>	<i>ààⁿ wú-ró</i>	<i>èèⁿ wú-ró</i>
<i>ɲì-ná</i>	‘blood’	<i>mù?ùⁿ ɲì-ná</i>	<i>ààⁿ ɲì-ná</i>	<i>èèⁿ ɲì-ná</i>
<i>sò-nó</i>	‘heart’	<i>mù?ùⁿ sò-nó</i>	<i>ààⁿ sò-nó</i>	<i>èèⁿ sò-nó</i>
<i>nù?ù-nó</i>	‘intestine’	<i>mù?ùⁿ ɲú?ú-nó</i>	<i>ààⁿ ɲú?ú-nó</i>	<i>èèⁿ ɲú?ú-nó</i>

b. alienables		{L(H)}	{L(H)}	{L(H)}
<i>k̀̀-nó</i>	‘bird’	<i>m̀̀ʔúⁿ k̀̀-nó</i>	<i>àáⁿ k̀̀-nó</i>	<i>èéⁿ k̀̀-nó</i>
<i>g̀̀-nó</i>	‘mortar’	<i>m̀̀ʔúⁿ g̀̀-nó</i>	<i>àáⁿ g̀̀-nó</i>	<i>èéⁿ g̀̀-nó</i>
<i>m̀̀-nó</i>	‘rope’	<i>m̀̀ʔúⁿ m̀̀-nó</i>	<i>àáⁿ m̀̀-nó</i>	<i>èéⁿ m̀̀-nó</i>
<i>t̀̀-ró</i>	‘millet cake’	<i>m̀̀ʔúⁿ t̀̀-ró</i>	<i>àáⁿ t̀̀-ró</i>	<i>èéⁿ t̀̀-ró</i>
<i>t̀̀ʔò-rá</i>	‘pot, jar’	<i>m̀̀ʔúⁿ t̀̀ʔò-rá</i>	<i>àáⁿ t̀̀ʔò-rá</i>	<i>èéⁿ t̀̀ʔò-rá</i>
<i>ɲ̀̀ʔù-nó</i>	‘wrap (n)’	<i>m̀̀ʔúⁿ ɲ̀̀ʔù-nó</i>	<i>àáⁿ ɲ̀̀ʔù-nó</i>	<i>èéⁿ ɲ̀̀ʔù-nó</i>

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

noun	gloss	‘his/her ___’	‘its ___’
a. inalienables		{L(H)}	{L(H)}
<i>ẁ̀-ró</i>	‘head’	<i>à ẁ̀-ró</i>	<i>è ẁ̀-ró</i>
<i>ɲ̀̀-ná</i>	‘blood’	<i>à ɲ̀̀-ná</i>	<i>è ɲ̀̀-ná</i>
<i>s̀̀-nó</i>	‘heart’	<i>à s̀̀-nó</i>	<i>è s̀̀-nó</i>
<i>ǹ̀ʔù-nó</i>	‘intestine’	<i>à ǹ̀ʔù-nó</i>	<i>è ǹ̀ʔù-nó</i>
b. alienables		{L(H)}	{L(H)}
<i>k̀̀-nó</i>	‘bird’	<i>à k̀̀-nó</i>	<i>è k̀̀-nó</i>
<i>g̀̀-nó</i>	‘mortar’	<i>à g̀̀-nó</i>	<i>è g̀̀-nó</i>
<i>m̀̀-nó</i>	‘rope’	<i>à m̀̀-nó</i>	<i>è m̀̀-nó</i>
<i>t̀̀-ró</i>	‘millet cake’	<i>à t̀̀-ró</i>	<i>è t̀̀-ró</i>
<i>t̀̀ʔò-rá</i>	‘pot, jar’	<i>à t̀̀ʔò-rá</i>	<i>è t̀̀ʔò-rá</i>
<i>ɲ̀̀ʔù-nó</i>	‘wrap (n)’	<i>à ɲ̀̀ʔù-nó</i>	<i>è ɲ̀̀ʔù-nó</i>

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 ẁ̀-ró* ‘his head’ appears as *à w̃* 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 w̃* 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

noun	gloss	‘my ___’	‘his/her ___’	‘our ___’
a. inalienables		M-Spreading	{L(H)}	{H(H)}
<i>kp̄-r̄</i>	‘leg’	<i>mā kp̄-r̄</i>	<i>à kp̄-r̄</i>	<i>mù?ùⁿ kp̄-r̄</i>
<i>k̄yī-r̄</i>	‘belly’	<i>mā k̄yī-r̄</i>	<i>à k̄yī-r̄</i>	<i>mù?ùⁿ k̄yī-r̄</i>
<i>ḡḡ-r̄</i>	‘chest’	<i>mā ḡḡ-r̄</i>	<i>à ḡḡ-r̄</i>	<i>mù?ùⁿ ḡḡ-r̄</i>
b. alienables		{L(L)}	{L(H)}	{L(L)}
<i>k̄-n̄</i>	‘honey’	<i>mā k̄-n̄</i>	<i>à k̄-n̄</i>	<i>mù?ùⁿ k̄-n̄</i>
<i>j̄-r̄</i>	‘millet’	<i>mā j̄-r̄</i>	<i>à j̄-r̄</i>	<i>mù?ùⁿ j̄-r̄</i>
<i>b̄?ā-r̄</i>	‘porridge’	<i>mā b̄?ā-r̄</i>	<i>à b̄?ā-r̄</i>	<i>mù?ùⁿ b̄?ā-r̄</i>
<i>k̄l̄k̄-r̄</i>	‘talk (n)’	<i>mā k̄l̄k̄-r̄</i>	<i>à k̄l̄k̄-r̄</i>	<i>mù?ùⁿ k̄l̄k̄-r̄</i>

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

noun	gloss	‘my ___’	‘his/her ___’	‘our ___’
a. inalienables		M-Spreading	{L(H)}	{H(H)}
<i>ɲí-ná</i>	‘tooth’	<i>mā ɲí-nā</i>	<i>à ɲì-ná</i>	<i>mù?ùⁿ ɲí-ná</i>
<i>sú-nó</i>	‘nose’	<i>mā sū-nō</i>	<i>à sù-nó</i>	<i>mù?ùⁿ sú-nó</i>
<i>jé-ná</i>	‘father’	<i>mā jē-nā</i>	<i>à jè-ná</i>	<i>mù?ùⁿ jé-ná</i>
<i>dí-rá</i>	‘child’	<i>mā dī-rā</i>	<i>à dī-rá</i>	<i>mù?ùⁿ dí-rá</i>
<i>tó?ó-rá</i>	‘name’	<i>mā tō?ō-rā</i>	<i>à tò?ò-rá</i>	<i>mù?ùⁿ tó?ó-rá</i>
b. alienables		{L(L)}	{L(H)}	{L(L)}
<i>yí-rá</i>	‘water’	<i>mā yì-rà</i>	<i>à yì-rá</i>	<i>mù?úⁿ yì-rà</i>
<i>bí-ná</i>	‘grass’	<i>mā bì-nà</i>	<i>à bì-ná</i>	<i>mù?úⁿ bì-nà</i>
<i>yí?é-rá</i>	‘fish’	<i>mā yì?è-rà</i>	<i>à yì?è-rá</i>	<i>mù?úⁿ yì?è-rà</i>

6.2.2.4 Contour-toned nouns as possessums

Inalienable nouns *bèlèncí(-nà)* ‘uncle’, *níní(-nà)* ‘tongue’, *bú?ū-nà* ‘liver’, representing /LLH/, /H(L)/, and /HM(L)/, follow only in part the script summarized in (170) above. 1Sg forms show M-Spreading through the stem but not into the suffix: *mā bēlēncī-nà* (variant *mā bèlèncí-nà*), *mā nīnī-nà*, but *mā bú?ū-nà*. Human 3Sg possessor: *à bèlèncí-nà*, *à níní-nà*, but *à bú?ū-nà*. -3Sg exemplified by 1Pl possessor: *mù?ùⁿ bēlēcí-nà*, *mù?ùⁿ níní-nà*, but *mù?ùⁿ bú?ū-nà*.

Alienable nouns checked were *bìrìkí(-rà)* ‘brick’, *síná?áⁿ(-nà)* ‘roselle’, *bíjì(-nà)* ‘granary’, *kápòn(-ná)* ‘daba’, *só?ō(-rò)* ‘firewood’, and *ikájè(-ná)* ‘tree sp. (*Alchornea*)’. My assistant kept lexical melodies rather than applying overlays: *mā/à/mù?úⁿ bìrìkí-rà* and so forth for the others.

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 jī-nā*

b. HH (inalienable only, -3Sg possessor)

‘our head’ *mùʔùⁿ wú-ró*

‘our tooth’ *mùʔùⁿ jí-ná*

c. LL (alienable only, -3Sg possessor)

‘my millet’ *mā jù-rò*

‘my fish’ *mā yìʔè-rà*

‘our millet’ *mùʔúⁿ jù-rò*

‘our fish’ *mùʔúⁿ yìʔè-rà*

d. LH

-3Sg, alienable only

‘my rope’ *mā mò-nó*

‘our rope’ *mùʔúⁿ mò-nó*

+3Sg, alienable or inalienable

‘his/her head’ *à wù-ró*

‘his/her tooth’ *à jí-ná*

‘his/her rope’ *à mò-nó*

‘his/her millet’ *à jù-ró*

‘his/her fish’ *à yìʔè-rá*

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).

(178) Poss-N-Adj combinations

- a. possessum M-toned by M-Spreading (*mā jī-nā* ‘my tooth’)
- | | | |
|-----------------------|------------------|----------------------|
| <i>mā jī gbò?ò-rā</i> | ‘my black tooth’ | <i>gbò?ò</i> ‘black’ |
| <i>mā jī kān-nā</i> | ‘my red tooth’ | <i>kānā</i> ‘red’ |
| <i>mā jī sūmāā-nā</i> | ‘my long tooth’ | <i>sūmāā</i> ‘long’ |
- b. possessum with {H(H)} overlay (*mù?ùⁿ jí-ná* ‘our tooth’)
- | | | |
|--------------------------------------|-------------------|----------------------|
| <i>mù?ùⁿ jí ‘gbò?ò-rá</i> | ‘our black tooth’ | <i>gbò?ò</i> ‘black’ |
| <i>mù?ùⁿ jí ‘kán-ná</i> | ‘our red tooth’ | <i>kānā</i> ‘red’ |
| <i>mù?ùⁿ jí ‘sūmāā-ná</i> | ‘our long tooth’ | <i>sūmāā</i> ‘long’ |
- c. possessum with {L(L)} overlay (*mù?úⁿ yì?è-rà* ‘our fish’)
- | | | |
|---------------------------------------|------------------|----------------------|
| <i>mù?úⁿ yì?è gbò?ò-rà</i> | ‘our black fish’ | <i>gbò?ò</i> ‘black’ |
| <i>mù?úⁿ yì?è kán-nà</i> | ‘our red fish’ | <i>kānā</i> ‘red’ |
| <i>mù?úⁿ yì?è sūmāā-nà</i> | ‘our long fish’ | <i>sūmāā</i> ‘long’ |
- d. possessum with {L(H)} overlay, -3Sg possessor (*mù?úⁿ m̀-ńó* ‘our rope’)
- | | | |
|-------------------------------------|------------------|----------------------|
| <i>mù?úⁿ m̀ gbò?ò-rá</i> | ‘our black rope’ | <i>gbò?ò</i> ‘black’ |
| <i>mù?úⁿ m̀ kán-nā</i> | ‘our red rope’ | <i>kānā</i> ‘red’ |
| <i>mù?úⁿ m̀ sūmāā-ná</i> | ‘our long rope’ | <i>sūmāā</i> ‘long’ |
- e. possessum with {L(H)} overlay, +3Sg possessor (*à yì?è-rá* ‘his/her fish’)
- | | | |
|------------------------|----------------------|----------------------|
| <i>à yì?è gbò?ò-rá</i> | ‘his/her black fish’ | <i>gbò?ò</i> ‘black’ |
| <i>à yì?è kán-nā</i> | ‘his/her red fish’ | <i>kānā</i> ‘red’ |
| <i>à yì?è sūmāā-ná</i> | ‘his/her long fish’ | <i>sūmāā</i> ‘long’ |

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 *-àⁿ* may itself be followed by a final nominal suffix *-ń ~ -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 jī-nā* ‘my tooth’)
- | | | |
|------------------------------|------------------|---------------------|
| <i>mā jī sīgbō-rā-à-ñ</i> | ‘my three teeth’ | <i>sīgbō</i> ‘3’ |
| <i>mā jī sōól-lā-à-ñ</i> | ‘my five teeth’ | <i>sōóló</i> ‘5’ |
| <i>mā jī mà-sīgbō-rā-à-ñ</i> | ‘my eight teeth’ | <i>mà-sīgbō</i> ‘8’ |
- b. possessum H-toned (*mù?ùⁿ jí-ná* ‘our tooth’)
- | | | |
|--|-------------------|---------------------|
| <i>mù?ùⁿ jí sīgbō-rā-à-ñ</i> | ‘our three teeth’ | <i>sīgbō</i> ‘3’ |
| <i>mù?ùⁿ jí ‘sōól-lá-à-ñ</i> | ‘our five teeth’ | <i>sōóló</i> ‘5’ |
| <i>mù?ùⁿ jí mà-sīgbō-rā-à-ñ</i> | ‘our eight teeth’ | <i>mà-sīgbō</i> ‘8’ |
- c. possessum L-toned (*mù?úⁿ yì?è-rà* ‘our fish’)
- | | | |
|--|------------------|---------------------|
| <i>mù?úⁿ yì?è sīgbō-rā-à-ñ</i> | ‘our three fish’ | <i>sīgbō</i> ‘3’ |
| <i>mù?úⁿ yì?è sōól-lá-à-ñ</i> | ‘our five fish’ | <i>sōóló</i> ‘5’ |
| <i>mù?úⁿ yì?è má-sīgbō-rā-à-ñ</i> | ‘our eight fish’ | <i>mà-sīgbō</i> ‘8’ |
- d. possessum LH-toned, -3Sg possessor (*mù?úⁿ m̀-ńó* ‘our rope’)
- | | | |
|--|-------------------|---------------------|
| <i>mù?úⁿ m̀ sīgbō-rā-à-ñ</i> | ‘our three ropes’ | <i>sīgbō</i> ‘3’ |
| <i>mù?úⁿ m̀ sōól-lá-à-ñ</i> | ‘our five ropes’ | <i>sōóló</i> ‘5’ |
| <i>mù?úⁿ m̀ má-sīgbō-rā-à-ñ</i> | ‘our eight ropes’ | <i>mà-sīgbō</i> ‘8’ |
- e. possessum LH-toned, +3Sg possessor (*à yì?è-rá* ‘his/her fish’)
- | | | |
|-------------------------------|----------------------|---------------------|
| <i>à yì?è sīgbō-rā-à-ñ</i> | ‘his/her three fish’ | <i>sīgbō</i> ‘3’ |
| <i>à yì?è sōól-lá-à-ñ</i> | ‘his/her five fish’ | <i>sōóló</i> ‘5’ |
| <i>à yì?è má-sīgbō-rā-à-ñ</i> | ‘his/her eight fish’ | <i>mà-sīgbō</i> ‘8’ |

For *sōóló*, alongside the apocopated *sōól-lá-à-ñ* there is an unreduced variant *sōóló-rá-à-ñ*.

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. *j̀ngbáá ẁ-ńó*
 cat head-Nom
 ‘the head of the cat’
- b. *mā j̀ngbáá-rà / bé-rà*
 1Sg cat-Nom / uncle-Nom
 ‘my cat/uncle’

- c. [mā jàŋbáā / bé] wù-ró
 [1Sg cat / uncle] head-Nom
 ‘the head of my cat/my uncle.’

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*)

	with suffix	without suffix
1Sg	<i>mā mì-nà</i>	<i>mā mǐ</i>
1Pl	<i>mùʔúⁿ mì-nà</i>	<i>mùʔúⁿ mǐ</i>
2Sg	<i>wō mì-nà</i>	<i>wō mǐ</i>
2Pl	<i>ēéⁿ mi-nà</i>	<i>ēéⁿ mǐ</i>
3SgHum	<i>à mì-ná</i>	<i>à mǐ</i>
3SgNonh	<i>è mì-ná</i>	<i>è mǐ</i>
3PlHum	<i>àáⁿ mì-nà</i>	<i>àáⁿ mǐ</i>
3PlNonh	<i>èéⁿ mì-nà</i>	<i>èéⁿ mǐ</i>

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 *dí mì-ná* ‘the child’s’, *dí-rá-àⁿ mǐ-nà* ‘the children’s’, *zàkî mǐ-nà* ‘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 [mǐ̃].

- (182) a. [mā mǐ] sèé
 [1Sg Poss] come.Pfv
 ‘Mine has come.’

- b. *[mā m̀-*n*=] é wěē*
 [1Sg Poss-Nom] 3SgNonhObj go.Pfv
 ‘Mine has gone (away).’ (variant *m̀-*n* = í wěē*)

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 [nā́ⁿ mǐ] d̀ní*
 1Sg [1SgRefl Poss] eat.meat.Pfv
 ‘I have eaten (=devoured) mine.’
- b. *bákàr = [áà mǐ] d̀ní*
 B [3SgHumRefl Poss] eat.meat.Pfv
 ‘Bakari has eaten (=devoured) his (own).’ (*/bákàrì à m̀ d̀ní/*)
- c. *mā [[nā́ⁿ mǐ] wǔ] těē*
 1Sg [[1SgRefl Poss] head] 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. *nā́-nà*
 woman-Nom
 ‘a/the woman’
- b. *nā́ ǹ-*ná**
 woman good-Nom
 ‘a/the good woman’
- c. *nā́ ǹ-*ná*-à-*nū**
 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)

<i>adj</i>	<i>noun</i>					
	/H(H)/	/M(M)/	/L(H)/	/H(L)/	/LH(L)/	/MH(L)/
/m(m)/	H m-m	M m-m	a) L m-m b) L l-h	H l-l	LH l-l	MH l-l
/l(h)/	H l-h	MH l-h	a) LH l-h b) L l-h	H l-h	LH l-h	MH l-h
/h(h)/	H ⁺ h-h	M h-h	L h-h			
/h(l)/	H h-l	M h-l	L h-l			
/hm(l)	H hm-l	M hm-l	L hm-l			
/hm(l)/inv				H hm-l	LH hm-l	MH hm-l

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)
- Before an adjective, /HM(L)/ merges with /H(L)/;
 - Nouns with associated {L} drop /m/ adjectives to l-l (so that even the suffix is L-toned);
 - The same nouns with associated (L) shift all other adjectives to /l-h/, except invariant /hm(l)/ adjectives which are unaffected
 - 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
	<i>kānā</i>	/m(m)/	<i>kān-nā</i>	‘red’
	<i>gbò?ò</i>	/l(h)/	<i>gbò?ò-rá</i>	‘black’
	<i>súmáá</i>	/h(h)/	<i>súmáá-ná</i>	‘long’
	<i>gbó</i>	/h(l)/	<i>gbó-rò</i>	‘big’
	<i>táā</i>	/hm(l)/	<i>táā-rà</i>	‘hot’
	<i>wúdō</i>	/hm(l)/-invariant	<i>wúdō-rò</i>	‘new’

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) *gbò?ò* ‘black’ (/l/ melody)

noun	N tones	with Adj	N-adj tones	gloss
<i>yí?é</i>	/H(H)/	<i>yí?é gbò?ò-rá</i>	H l-h	‘fish’
<i>gbāā</i>	/M(M)/	<i>gbāā gbò?ò-rá</i>	MH l-h	‘stick’
<i>ḡù?ùⁿ</i>	/L(H)/-a	<i>ḡù?ùⁿ gbò?ò-rá</i>	<u>LH</u> l-h	‘wrap (n)’
<i>mì?ìⁿ</i>	/L(H)/-b	<i>mì?ìⁿ gbò?ò-rá</i>	L l-h	‘person’
<i>kpésé</i>	/H(L) /	<i>kpésé gbò?ò-rá</i>	H l-h	‘chewstick’
<i>kúúⁿ</i>	/HM(L) /	<i>kúúⁿ gbò?ò-rá</i>	<u>H</u> l-h	‘boat’
<i>tòfá</i>	/LH(L)/	<i>tòfá gbò?ò-rá</i>	LH l-h	‘brick’
<i>mōtó</i>	/MH(L)/	<i>mōtó gbò?ò-rá</i>	MH l-h	‘motorcycle’

‘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).

(189) *kānā* ‘red’ (/m/ melody)

noun	N tones	with Adj	N-adj tones	gloss
a. adjective M-toned				
<i>yí?é</i>	/H(H)/	<i>yí?é kān-nā</i>	H m-m	‘fish’
<i>gbāā</i>	/M(M)/	<i>gbāā kān-nā</i>	M m-m	‘stick’
<i>ɲù?ùⁿ</i>	/L(H)/-a	<i>ɲù?ùⁿ kān-nā</i>	L m-m	‘wrap (n)’
b. adjective LH-toned (irregular)				
<i>mì?ìⁿ</i>	/LH/-b	<i>mì?ìⁿ kàn-ná</i>	L l-h	‘person’
c. adjective L-toned				
<i>kpésé</i>	/H(L)/	<i>kpésé kàn-nà</i>	H l-l	‘chewstick’
<i>kúúⁿ</i>	/HM(L)/	<i>kúúⁿ kàn-nà</i>	<u>H</u> l-l	‘boat’
<i>tòfá</i>	/LH(L)/	<i>tòfá kàn-nà</i>	LH l-l	‘brick’
<i>mōtó</i>	/MH(L)/	<i>mōtó kàn-nà</i>	MH l-l	‘motorcycle’

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 (*yí?é-rá*, *gbāā-rā*, *ɲù?ù-ná*). Those in (189c) have L-toned suffixes (*kpésé-rà*, *kúú-nà*, *tòfá-rà*, *mōtó-rà*). 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 morphotonological process (tonal ablaut) rather than simple floating L. By contrast, irregular ‘person’ in (189b) has suffixed form *mì?ì-ná*, with the same tones as suffixed *ɲù?ù-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 *gbó-rà* in (190a) and *gbò-rá* in (190b). ‘Hot’ is *tāā-rà* in (191a) and *tàà-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 *wúdō* ~ *wútō* ‘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) *gbó* ‘big’ (/h(l)/ melody) (suffixed *gbó-rà*, irregular variant *gbó-nà*)

noun	N tones	with Adj	N-adj tones	gloss
a. adjective h-l				
<i>yí?é</i>	/H(H)/	<i>yí?é gbó-rà</i>	H h-l	‘fish’
<i>gbāā</i>	/M(M)/	<i>gbāā gbó-rà</i>	M h-l	‘stick’
<i>ɲù?ùⁿ</i>	/L(H)/-a	<i>ɲù?ùⁿ gbó-rà</i>	L h-l	‘wrap (n)’
<i>mì?ìⁿ</i>	/L(H)/-b	<i>mì?ìⁿ gbó-rà</i>	L h-l	‘person’
b. adjective l-h				
<i>kpésé</i>	/H(L)/	<i>kpésé gbò-rá</i>	H l-h	‘chewstick’
<i>kúúⁿ</i>	/HM(L)/	<i>kúúⁿ gbò-rá</i>	<u>H</u> l-h	‘boat’
<i>tòfá</i>	/LH(L)/	<i>tòfá gbò-rá</i>	LH l-h	‘brick’
<i>mōtó</i>	/MH(L)/	<i>mōtó gbò-rá</i>	MH l-h	‘motorcycle’

(191) *tāā* ‘hot’ (/hm(l)/ melody)

noun	N tones	with Adj	N-adj tones	gloss
a. adjective hm-l				
<i>yí?é</i>	/H(H)/	<i>yí?é tāā-rà</i>	H hm-l	‘fish’
<i>gbāā</i>	/M(M)/	<i>gbāā tāā-rà</i>	M hm-l	‘stick’
<i>ɲù?ùⁿ</i>	/L(H)/-a	<i>ɲù?ùⁿ tāā-rà</i>	L hm-l	‘wrap (n)’
<i>mì?ìⁿ</i>	/L(H)/-b	<i>mì?ìⁿ tāā-rà</i>	L hm-l	‘person’
b. adjective l-h				
<i>kpésé</i>	/H(L)/	<i>kpésé tàà-rá</i>	H l-h	‘chewstick’
<i>kúúⁿ</i>	/HM(L)/	<i>kúúⁿ tàà-rá</i>	<u>H</u> l-h	‘boat’
<i>tòfá</i>	/LH(L)/	<i>tòfá tàà-rá</i>	LH l-h	‘brick’
<i>mōtó</i>	/MH(L)/	<i>mōtó tàà-rá</i>	MH l-h	‘motorcycle’

(192) *wútō* ~ *wúdō* ‘new’ (/hm(l)/-invariant melody)

noun	N tones	with Adj	N-adj tones	gloss
adjective hm-l (regardless of preceding noun type)				
<i>yí?é</i>	/H(H)/	<i>yí?é wútō-rò</i>	H hm-l	‘fish’
<i>gbāā</i>	/M(M)/	<i>gbāā wútō-rò</i>	M hm-l	‘stick’
<i>ɲù?ùⁿ</i>	/L(H)/-a	<i>ɲù?ùⁿ wútō-rò</i>	L hm-l	‘wrap (n)’
<i>mì?ìⁿ</i>	/L(H)/-b	<i>mì?ìⁿ wútō-rò</i>	L hm-l	‘person’
<i>kpésé</i>	/H(L)/	<i>kpésé wútō-rò</i>	H hm-l	‘chewstick’
<i>kúúⁿ</i>	/HM(L)/	<i>kúúⁿ wútō-rò</i>	<u>H</u> hm-l	‘boat’

<i>tòfá</i>	/LH(L)/	<i>tòfá wútɔ-rò</i>	LH hm-l	‘brick’
<i>mōtó</i>	/MH(L)/	<i>mōtó wútɔ-rò</i>	MH hm-l	‘motorcycle’

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 ⁺h, 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 *sùmàà-ná* in (193b) can be explained in the same way as l(h)-toned *gbò-rá* ‘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) *súmáá* ‘long’ (/h(h)/ melody)

noun	N tones	with Adj	N-adj tones	gloss
a. adjective h-h				
<i>yí?é</i>	/H(H)/	<i>yí?é ‘súmáá-ná</i>	H ⁺ h-h	‘fish’
<i>gbāā</i>	/M(M)/	<i>gbāā sùmáá-ná</i>	M h-h	‘stick’
<i>jù?ùⁿ</i>	/L(H)/-a	<i>jù?ùⁿ sùmáá-ná</i>	L h-h	‘wrap (n)’
<i>mì?ìⁿ</i>	/L(H)/=b	<i>mì?ìⁿ sùmáá-ná</i>	L h-h	‘person’
b. adjective l-h				
<i>kpésé</i>	/H(L)/	<i>kpésé sùmàà-ná</i>	H l-h	‘chewstick’
<i>kúrūⁿ</i>	/HM(L)/	<i>kúrūⁿ sùmàà-ná</i>	<u>H</u> l-h	‘boat’
<i>tòfá</i>	/LH(L)/	<i>tòfá sùmàà-ná</i>	LH l-h	‘brick’
<i>mōtó</i>	/MH(L)/	<i>mōtó sùmàà-ná</i>	MH l-h	‘motorcycle’

The downstepped H-tone in *yí?é ‘súmáá-ná* (193) sounds impressionistically like M-tone. However if ‘long fish’ were #*yí?é sūmāā-nā* with M-toned adjective, and therefore #*yí?é sūmāā* without the nominal suffix, its final syllable would be affected by Final Tone-Raising before an L-tone. Instead, *‘súmáá* in (194) has level pitch.

(194) *mā* [yí?é ‘súmáá] jìé
 1Sg [fish long] see.Pfv
 ‘I saw a/the long fish.’

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)/	<i>gbò?ò</i>	<i>gbò?ò-rá</i>	‘black’
b.	/m(m)/	<i>kānā</i>	<i>kān-nā</i>	‘red’
		<i>kpēē</i>	<i>kpēē-rā</i>	‘white’
c.	/h(l)/	<i>kú</i>	<i>kú-rò</i>	‘dead’
		<i>gbó</i>	<i>gbó-rà</i>	‘big’
		<i>gbé</i>	<i>gbé-rà</i>	‘fresh’
		<i>ɲé</i>	<i>ɲé-nà</i>	‘good’
		<i>ná</i>	<i>ná-nà</i>	‘foreign’
d.	/hm(l)/	<i>táā</i>	<i>táā-rà</i>	‘hot’
		<i>kúmā</i>	<i>kúmā-nà</i>	‘cold’
		<i>kítā</i>	<i>kítā-rà</i>	‘bad’ (<i>t ~ d</i>)
		<i>kútō</i>	<i>kútō-rò</i>	‘old’ (<i>t ~ d</i>)
		<i>gúnī</i>	<i>gúnī-nà</i>	‘short’
			~ <i>gūñ-nà</i>	
		<i>bákúnī</i>	<i>bákúnī-nà</i>	‘short’
			~ <i>bákúñ-nà</i>	
e.	/hm(l)/-invariant	<i>kpé?rē</i>	<i>kpé?r-à</i>	‘small’
		<i>wútō</i>	<i>wútō-rò</i>	‘new’ (<i>t ~ d</i>)
f.	/h(h)/	<i>ná</i>	<i>ná-ná</i>	‘foreign’
		<i>wéé</i>	<i>wéé-rá</i>	‘other’
		<i>dáálá</i>	<i>dáál-lá</i>	‘first’
		<i>súmáá</i>	<i>súmáá-ná</i>	‘long’
		<i>gbá?áálá</i>	<i>gbá?áálá-rá</i>	‘thin; dry’
			~ <i>gbá?áál-lá</i>	

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.	<i>kpésé</i>	<i>kpèè</i>	<i>súmáá-ná</i>	‘long white chewstick’
		<i>kpésé</i>	<i>gbò?ò</i>	<i>súmáá-ná</i>	‘long black chewstick’
		<i>kpésé</i>	<i>gbò?ò</i>	<i>gbó-rà</i>	‘big black chewstick’
		<i>kpésé</i>	<i>sùmàà</i>	<i>ɲé-nà</i>	‘good long chewstick’
		<i>kpésé</i>	<i>sùmàà</i>	<i>gbò?ò-rā</i>	‘black long chewstick’
		<i>kpésé</i>	<i>tàà</i>	<i>gbò?ò-rā</i>	‘black hot chewstick’
		<i>ɲù?ùⁿ</i>	<i>gbò?ò</i>	<i>gbó-rà</i>	‘big black wrap’
	b.	<i>yí?é</i>	<i>káná</i>	<i>‘súmáá-ná</i>	‘long red fish’
		<i>yí?é</i>	<i>káná</i>	<i>gbó-rà</i>	‘big red fish’
	c.	<i>ɲù?ùⁿ</i>	<i>súmáá</i>	<i>gbó-rà</i>	‘big long wrap’
		<i>ɲù?ùⁿ</i>	<i>súmáá</i>	<i>kān-nā</i>	‘red long wrap’
	d.	<i>ɲù?ùⁿ</i>	<i>táá</i>	<i>gbò-rá</i>	‘big hot wrap’
		<i>yí?é</i>	<i>táá</i>	<i>sùmàà-ná</i>	‘long hot fish’
	e.	<i>yí?é</i>	<i>‘súmáá</i>	<i>gbó-rà</i>	‘big long fish’
		<i>yí?é</i>	<i>‘súmáá</i>	<i>gbò?ò-rá</i>	‘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 *kpésé* ‘chewstick’, drop tones of any immediately following adjective. In this case, if the adjective itself elsewhere has a floating L (*táā* +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 *gbò?ò* 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-ná*.

No changes occur in (196c), where each word surfaces with its underlying tones.

In (196d), hm(l) *táā* 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), *súmáá* has been downstepped in the first stage. No further changes occur when the second adjective is added. That downstepped H *'súmáá* 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 *gbò?ò* '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 *bélé* 'pass' (197a-b). 'Become hot' (perfective *déé* ~ *déé*) shifts to +ATR *dèè* in (197a-b). This might have originated as an adjunction construction with nonhuman 3Sg *è* and 3Pl *èèⁿ* preceding 'pass', contracting as in /*déé è*/ → *dèè*. However, I did not hear a nasalized vowel in (197b), so an actual adjunction does not seem to be present (synchronically).

- (197) a. *yí* *dèè* *bélé*
 water become.hot.Pfv pass
 'The water is very hot.'
- b. *yí-rá-àⁿ* *déé* *bélé*
 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* *kūmēē-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-nū*. If an adjective follows the noun, the nominal suffix and the plural suffix are attached to the adjective: *dí jé-nà-àⁿ* or suffixed *dí jé-nà-à-nū* ‘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*) *dúli*
 child (#child-Nom) one
 ‘one child’
- b. *dí* (#*dí-rá-àⁿ*) *flā*
 child (#child-Nom-Pl) two
 ‘two children’
- c. *dí* *je* (#*je-nà-àⁿ*) *flā*
 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. *mù?úⁿ yì?è sīgbō-rā-à-n* ‘our three fish’, see (179c) above. In the partitive construction, the simple nominal suffix is usual, to judge by *àⁿ flāā-rā* ‘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’ (*wà?à*). In this section I use lowercase for numeral tones, as I did for adjectives in preceding sections. m-toned numerals are *flā* ‘2’, *sīgbō* ‘3’, and *nāānī* ‘4’. h-toned numerals are *sóóló* ‘5’ and *táá* ‘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: *yí?é-rá* ‘fish’, *gbāā-rā* ‘stick’, *jù?ù-ná* ‘wrap (n)’ (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’

noun	N tones	with Num	N-num tones	gloss
a. numeral M-toned				
<i>yí?é</i>	/H(H)/	<i>yí?é flā / sígbō / nāānī</i>	H m(m)	‘fish’
<i>gbāā</i>	/M(M)/	<i>gbāā flā / sígbō / nāānī</i>	M m(m)	‘stick’
<i>ɲù?ùⁿ</i>	/L(H)/	<i>ɲù?ùⁿ flā / sígbō / nāānī</i>	L m(m)	‘wrap (n)’
b. numeral L-toned				
<i>kpésé</i>	/H(L)/	<i>kpésé flā / sígbò / nààni</i>	H l	‘chewstick’
<i>kúruⁿ</i>	/HM(L)/	<i>kúruⁿ flā / sígbò / nààni</i>	<u>H</u> l	‘boat’
<i>tòfá</i>	/LH(L)/	<i>tòfá flā / sígbò / nààni</i>	LH l	‘brick’
<i>mōtó</i>	/MH(L)/	<i>mōtó flā / sígbò / nààni</i>	MH l	‘motorcycle’

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’

noun	N tones	with Num	N-num tones	gloss
a. numeral h-toned (sometimes downstepped)				
<i>yí?é</i>	/H(H)/	<i>yí?é ‘sóóló / ‘táá</i>	H m(m)	‘fish’
<i>gbāā</i>	/M(M)/	<i>gbāā sóóló / táá</i>	M m(m)	‘stick’
<i>ɲù?ùⁿ</i>	/L(H)/	<i>ɲù?ùⁿ sóóló / táá</i>	L h(h)	‘wrap (n)’
b. numeral l-toned				
<i>kpésé</i>	/H(L)/	<i>kpésé sòòlò / tàà</i>	H l(l)	‘chewstick’
<i>kúruⁿ</i>	/HM(L)/	<i>kúruⁿ sòòlò / tàà</i>	<u>H</u> l(l)	‘boat’
<i>tòfá</i>	/LH(L)/	<i>tòfá sòòlò / tàà</i>	LH l(l)	‘brick’
<i>mōtó</i>	/MH(L)/	<i>mōtó sòòlò / tàà</i>	MH l(l)	‘motorcycle’

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 *bālō* ‘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, *má-nānī* ‘9’, is unique in resisting tonal changes. ‘7’ and ‘8’ have *má-* drop to *mà-* after nouns associated with a floating L-tone (202b). ‘9’ usually does not; an exception is *tāā-rá mà-nānī*

‘19’ in (131) above. The remaining syllables, *-álà* for ‘7’ (irregularly related to *flā* ‘2’) and *-sìgbō* (identical to ‘3’), are invariant tonally.

(202) Nouns with bimorphemic numerals ‘7’ to ‘9’

noun	N tones	with Num	N-num tones	gloss
a. numeral begins with H-toned <i>má-</i>				
<i>yí?é</i>	/H(H)/	<i>yí?é má-álà</i>	H h1	‘fish’
		<i>yí?é má-sìgbō</i>	H hm	
		<i>yí?é má-nāni</i>	H hml	
<i>gbāā</i>	/M(M)/	<i>gbāā má-álà</i>	M h1	‘flour’
		<i>gbāā má-sìgbō</i>	M hm	
		<i>gbāā má-nāni</i>	M hml	
<i>ɲù?ùⁿ</i>	/L(H)/	<i>ɲù?ùⁿ má-álà</i>	L h1	‘wrap (n)’
		<i>ɲù?ùⁿ má-sìgbō</i>	L hm	
		<i>ɲù?ùⁿ má-nāni</i>	L hml	
b. numeral begins with L-toned <i>mà-</i> (‘7’, ‘8’) or H-toned <i>má-</i> (‘9’)				
<i>kpésé</i>	/H(L)/	<i>kpésé mà-álà</i>	H lhl	‘chewstick’
		<i>kpésé mà-sìgbō</i>	H lmm	
		<i>kpésé má-nāni</i>	H hml	
<i>kúúⁿ</i>	/HM(L)/	<i>kúúⁿ mà-álà</i>	<u>H</u> lhl	‘boat’
		<i>kúúⁿ mà-sìgbō</i>	<u>H</u> lmm	
		<i>kúúⁿ má-nāni</i>	<u>H</u> hml	
<i>tòfá</i>	/LH(L)/	<i>tòfá mà-álà</i>	LH lhl	‘brick’
		<i>tòfá mà-sìgbō</i>	LH lmm	
		<i>tòfá má-nāni</i>	LH hml	
<i>mōtó</i>	/MH(L)/	<i>mōtó mà-álà</i>	MH lhl	‘motorcycle’
		<i>mōtó mà-sìgbō</i>	MH lmm	
		<i>mōtó má-nāni</i>	MH hml	

mī-īlō ‘6’ is even more opaque, though etymologically it presumably consists of a variant of *mà-* ~ *má-* plus a variant of *dúli* ‘1’. Unlike ‘7’ to ‘9’, *mī-īlō* 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’

noun	N tones	with Num	N-num tones	gloss
a. entire numeral is M-toned				
<i>yí?é</i>	/H(H)/	<i>yí?é mī-īlō</i>	H m(m)	‘fish’
<i>gbāā</i>	/M(M)/	<i>gbāā mī-īlō</i>	M m(m)	‘flour’
<i>ɲù?ùⁿ</i>	/L(H)/	<i>ɲù?ùⁿ mī-īlō</i>	L mm	‘wrap (n)’

b. entire numeral is L-toned

<i>kpésé</i>	/H(L)/	<i>kpésé mì-ìlò</i>	H ll	‘chewstick’
<i>kúrúⁿ</i>	/HM(L)/	<i>kúrúⁿ mì-ìlò</i>	<u>H</u> ll	‘boat’
<i>tòfá</i>	/LH(L)/	<i>tòfá mì-ìlò</i>	LH ll	‘brick’
<i>mōtó</i>	/MH(L)/	<i>mōtó mì-ìlò</i>	MH ll	‘motorcycle’

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 *súmáá* ‘long’ becomes m-toned after an H(H)-toned noun like ‘fish’. An L-toned noun undergoes Final Tone-Raising before an L-tone (*ɲù?ùⁿ* → *ɲù?úⁿ*).

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 (*táā* ‘hot’), and the hm stem tones of *táā* flatten to h. m-toned *kpēē* ‘white’ and *kānā* ‘red’ are raised to h-toned before any numeral.

(204) a.	<i>kpésé</i>	<i>kpèè</i>	<i>sóóló</i>	‘five white chewsticks’ (< <i>kpēē</i>)
	<i>kpésé</i>	<i>tàà</i>	<i>sóóló</i>	‘five hot chewsticks’ (< <i>táā</i>)
	<i>ɲù?úⁿ</i>	<i>gbò?ò</i>	<i>sóóló</i>	‘five black wraps’
	<i>yí?é</i>	<i>kpéé</i>	<i>‘sóóló</i>	‘five white fish’ (< <i>kpēē</i>)
	<i>yí?é</i>	<i>táá</i>	<i>sòòlò</i>	‘five hot fish’ (< <i>táā</i>)
	<i>ɲù?ùⁿ</i>	<i>súmáá</i>	<i>‘sóóló</i>	‘five long wraps’
	<i>yí?é</i>	<i>‘súmáá</i>	<i>sóóló</i>	‘five long fish’
b.	<i>yí?é</i>	<i>káná</i>	<i>sīgbō</i>	‘three red fish’
	<i>kpésé</i>	<i>tàà</i>	<i>sīgbō</i>	‘three hot chewsticks’
	<i>yí?é</i>	<i>táá</i>	<i>sīgbò</i>	‘three hot fish’
	<i>ɲù?ùⁿ</i>	<i>súmáá</i>	<i>sīgbō</i>	‘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) a.	<i>wùlà</i>	<i>mí(-nà)</i>
	dog	Dem(-Nom)
	‘this/that dog’	

- b. *wùlà* *mí-nà-àⁿ(-nū)*
 dog Dem-Nom-Pl(-Nom)
 ‘these/those dogs’
- c. *dí* *‘mí(-nà)*
 child Dem(-Nom)
 ‘this/that child’
- d. *dí* *‘mí-nà-àⁿ(-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 *dúli* ‘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) *èèⁿ* *kú* *klé-nà,*
 3PINonh begin hunt(n)-Nom,
bon, *èèⁿ* *tá?á* [*yá!á* *dò*] *jíé*
 well, 3PINonh go.Adjn [hole **one**] see.Pfv
 ‘They (hare and hyena) were hunting. Well, they went and saw **a hole**.’ (< *yá!á*)
 (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*), *kùgù 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* *tá?á* *dò* *bílí=* *í-yà,*
 3SgNonh go.Adjn **one** give.Ipfv Nonh-3SgObj,
 [*yá!á* *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 *dó-òⁿ* ‘certain ones’. It is used in a set-partitioning context, as in ‘some stayed here, (while) some (others) left’.

- (208) *ààⁿ* *sá* *cíé* *dàmààná,*
 3PIHum come.Adjn arrive.Adjn D,
dó-ōⁿ *bó=yà* *dè,* [*ààⁿ* *sá*],
certain-PI exit.Pfv=Link there.Def, [3PIHum come.Adjn]
 ‘When they (had) arrived in Damana (village), some (of them) left there, they came ...’ (2016_01 00:47)

This plural *dó-ōⁿ* should be distinguished from the phonetically similar *dōō* that functions as an extended form of *dò* with a linker =*n̄*, before *nàà* ‘now’ or *dè* ‘there (definite)’ (209).

- (209) *ààⁿ* *wáŕ* *bílí* [*mè?éⁿ* *dōō*]=*n̄* *nàà*
 3PIHum money give.Pfv [person one]=Link here
 ‘They gave money to someone here.’

6.6 Universal and distributive quantifiers

bù?ù ~ *bú?ú* is discussed here as a quantifier. The same form is used as an ‘and’ conjunction (§7.1).

6.6.1 Universal ‘all’ (*bù?ù* ~ *bú?ú*)

This universal quantifier can be used with countable or mass NPs (210a-b). The tonal form is *bú?ú* except *bù?ù* after a +3Sg pronoun or NP, and *bū?ū* after an M-toned pronominal. With a countable NP, it may add a plural nominal suffix *-nú* (→ *-nū* after the M-toned variant) where syntactically allowed, including in isolation or clause-finally. With a mass NP, the suffixed form is *bù?ù-ná*, which appears to derive from an earlier nasalized form **bù?ùⁿ* ~ **bú?úⁿ*.

- (210) a. [*dí* *kpé?r-à-àⁿ* *bú?ú*] *wèé*
 [child small-Nom-Pl **all**] go.Pfv
 ‘All of the children have gone.’
- b. *kò-nó-ōⁿ* [*jū* *bù?ù*] *dóní*
 bird-Nom-Pl [millet **all**] devour.Pfv
 ‘The birds ate all the millet.’
- c. *à* *tàgá* *bílí* [*mù?ùⁿ* *bú?ú-nú*]
 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).

- (211) a. M-toned pronominal
ēēⁿ bũʔũ-nũ ‘all of you-Pl’
- b. +3Sg pronominal
è bũʔũ-nú ‘all of it (nonhuman)’
- c. other -3Sg pronominal
mũʔũⁿ búʔú-nú ‘all of us’
ààⁿ búʔú-nú ‘all of them (human)’
èèⁿ búʔú-nú ‘all of them (nonhuman)’

A variant *bìgì-ná* ‘entirety’ for *bũʔũ-ná* was recorded in a text (2016_01 @ 03:20).

6.6.2 Distributive ‘each’

bũʔũ ~ *búʔú* ‘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* *jàāⁿ-táá* *bìlí* [*dí* *kpéʔrē* *dù-dúli* *bũʔũ-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 *bù?ù* ~ *bú?ú*

The conjunctive particle is *bù?ù* ~ *bú?ú*, which is also the universal quantifier 'all' (§6.6.1 above). In careful pronunciation, *bù?ù* occurs after +3Sg NPs, and *bú?ú* after -3Sg NPs, except *bū?ū* by M-Spreading after an M-toned pronominal. In allegro speech, reduced pronunciations occur (e.g. *bù?*) 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 *-nū* (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), *tàgà* becomes *tàgá* before the L-toned *bù?ù* by Final Tone-Raising.

- (213) a. *díkín* *bù?ù* *ɲáá-nà*
 man and woman-Nom
 '(a/the) man and (a/the) woman' (cf. suffixed *díkín-nà*)
- b. *tàgá* *bù?ù* *bàà-rá*
 sheep and goat-Nom
 '(a/the) sheep and (a/the) goat' (cf. suffixed *tàgà-rá*, *bàà-rá*)
- c. *díkín-nà-àⁿ* *bú?ú* *ɲáá-nà-à-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.

- (214) a. *mā* *bū?ū* *wɔ̄-n̄*
 1Sg and 2Sg-Indep
 'me and you-Sg'
- b. *à* *bù?ù* *mā-n̄*
 3SgHum and 1Sg-Indep
 'he/she and me'

- c. *ààⁿ* *bú?ú* *mù?ú-nú*
 3PIHum and 1PI-Indep
 ‘they and us’
- d. *mù?ùⁿ* *bú?ú* *ēē-n(ū)*
 1PI and 2PI-Indep
 ‘we and you-Pl’
- e. *ámádù* *bú?ú* *mā-ñ*
 A and 1Sg
 ‘Amadou 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) *súrukú-rà,* *tú* *cɿⁿ* *dè*
 hyena-Nom, along.with hare there.Def
 ‘(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 *tóó* ‘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. [*ɲáá* *mí-nà-àⁿ*] *bú?ú* [*dīgín* *mí-nà-áⁿ*] = ∅
 [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. *[nāā gbò?ò-rá-àⁿ] bú?ú [díǵíní gbò?ò-rá-āⁿ]=Ø*
 [woman **black-Nom-Pl**] and [man **black-Nom-Pl**]=Ipfv
sí=í wàá
 Fut=3SgNonhObj go.Ipfv
 ‘The black women and (black) men will go.’

When the universal quantifier *bù?ù* ~ *bú?ú* 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.

- (217) *[[nāā-nà-àⁿ] bú?ú díǵíní bù?ù] sí=í wàá*
 [[woman-Nom-Pl and man] **all** Fut=3SgNonhObj go.Ipfv
 ‘All the women and men will go.’

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.

- (218) *[[mè?èⁿ mī-īlō] sí=í wàá]*
 [[person **six**] Fut=3SgNonhObj go.Ipfv
[[díǵín bù?ù nāā] dò]
 [[man and woman] **with**]
 ‘Six people will go, out of male(s) and female(s).’

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.

- (219) a. *[mā jéⁿ] bù?ù [āⁿ níí-nà]*
 [**1Sg** father] and [**1SgRefl** mother-Nom]
 ‘my father and (my) mother’
- b. *[zàkî jéⁿ] bù?ù [á nìí-ná]*
 [**Z** father] and [**3SgHumRefl** mother-Nom]
 ‘Zakî’s father and (his_x (own)) mother’
 (or: ‘Zakî’s father and his/her_y (someone else’s) mother’)

- c. *mā* *bū?ā =* [*āⁿ* *jé-ná*]
1Sg and [**1SgRefl** 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 tàgà-rá-àⁿ] bù?ù [*āⁿ* *bàà-rá-àⁿ]] ∅ wèé*
[[1Sg sheep-Nom-Pl] and [1SgRefl goat-Nom-Pl]] 3SgNonhObj go.Pfv
‘My sheep-Pl and (my) goats have gone away.’*
- b. *[mā tàgà-rá-àⁿ] bù?ù *báá-rá-àⁿ] ∅ wèé*
[1Sg sheep-Nom-Pl] and goat-Nom-Pl] 3SgNonhObj go.Pfv
‘My sheep-Pl and (my) goats have gone away.’*

Postpositions need not be repeated after each conjunct (221).

- (221) *à sè [[té bù?ù súkār] dè]*
3SgHum come.Pfv [tea and sugar] **with**
‘He/She brought tea and sugar.’ (< *sùkār*)

7.2 Disjunction (*wálimà*, *wāā*)

Disjunction (‘or’) is closely related to yes/no interrogation. *wálimà* ‘or’ occurs in paired two-sentence interrogatives, where the second sentence is disjunctive to the first.

- (222) *wō sà tá?áā,* *wálimà wō sà túū nàà*
2Sg Fut go.Ipfv, **or** 2Sg Fut stay.Ipfv here
‘Will you go, or will you stay?’ (*tóó* → *túū* before *nàà*)

When the disjuncts in an interrogative context are NPs, a disjunction *wāā* may be used.

- (223) *mā-ñ wāā zàkî*
1Sg-Indep **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.

- (224) a. *[[yíʔé b̀ùʔù síbí] d̀è] w̄ j̀òⁿ d̀ónó*
 [[fish **and** meat] with] 2Sg which? eat.Ipfv
 ‘Between fish and meat, what do you-Sg eat?’
- b. *[zàkî b̀ùʔù b̀ákàrì flāā d̀ò]*
 [Z **and** B two Comit]
[mìʔìⁿ dúlí] sí= í ẁáá
 [person one] Fut= 3SgNonhObj go
 ‘Between the two of Zaki and Bakari, one person will go.’

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 wāf bilí zàkí*
 1Sg money give.Pfv **Z**
 ‘I gave the money to Zaki.’
- b. *mā wāf bìlì wǝ-ñ*
 1Sg money give.Pfv **2Sg-Indep**
 ‘I gave you-Sg the money.’
- c. *mā sàá dùdòl [āⁿ jē-nā]*
 1Sg house show.Pfv [**1Sg father-Nom**]
 ‘I showed the house to my father.’

8.1.2 Dative *mà* ~ *má* after ‘say’

Dative postposition *mà* occurs with the indirect object of ‘say’ verbs.

- (226) a. *mā [n-í bù?ù] tǝfē [bákàrì mà]*
 1Sg [Obj-3SgNonh all] say.Pfv [B **Dat**]
 ‘I told it all (=everything) to Bakari.’

- b. *mā* *síní* *tòʔè* [*ɲáā* *mà*] = *nēʔ*
 1Sg anything say.Pfv [woman **Dat**] =Neg
 ‘I didn’t say anything to the woman.’ (< *síní*)
- c. *mā* *síní* *tòʔè* [*ɲáā-nà-àⁿ* *má*] = *nēʔ*
 1Sg anything say.Pfv [woman-Nom-Pl **Dat**] =Neg
 ‘I didn’t say anything to the women.’

For *mà* as a spatial postposition ‘on’, see §8.3.3.3.

8.1.3 Benefactive *kèⁿ* ~ *kéⁿ*

The complement of this postposition is an NP denoting the beneficiary of an action. The forms are *kèⁿ* after +3Sg, and *kéⁿ* after -3Sg except *kèⁿ* by M-Spreading after M-toned pronominal.

- (227) a. *wō* *sé* [*tē* *dè*] [*mā* *kèⁿ*]
 2Sg come.Pfv [tea with] [1Sg **Benef**]
 ‘You-Sg brought me some/the tea.’
- b. *mā* *bāārā* *mè-yá=* [*ámádú* *kèⁿ*]
 1Sg work(n) do-Prog [A **Benef**]
 ‘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 *dè* ~ *dé*

The form is *dè* after +3Sg, *dé* after -3Sg except *dē* after M-toned pronominal. In (228), the complement of *dè* ~ *dé* denotes an instrument.

- (228) a. *mùʔùⁿ* *gbāá* *bègé* [*jén* *dè*]
 1Pl wood cut.Pfv [ax **with**]
 ‘We chopped the wood with an ax.’ (*gbàà*)
- b. *mā* *kàá* *bàʔrà* [*kùkú* *dè*]
 1Sg snake hit.Ipfv [stone **with**]
 ‘I hit-Present the snake with a stone.’ (*kàà*, *kùkù*)

- c. *ààⁿ sósé [fàgá dè]*
 3Pl enter.Pfv [force **with**]
 ‘They entered by force.’ (= ‘They barged in.’) (*fàgà*)
- d. *tàgà-rá-àⁿ dé*
 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 *dè* ~ *dé* denoting the theme (the transported entity).

- (229) a. *sā [té dè]*
 come.Imprt [tea **with**]
 ‘Bring the tea!’
- b. *sīnì má sà tá?á [tàgá dè] 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 *dè* ~ *dé* 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 *dè* ~ *dé* denote temporary possession (custody), see §11.5.2.1.

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 bāārā mē-yá [zàkí dò]*
 1Sg work(n) do-Prog [Z **Comit**]
 ‘I work with Zaki.’ (< *bāārā*)
- b. *mā bāārā mē-yá [dí-rá-àⁿ dó]*
 1Sg work(n) do-Prog [child-Nom-Pl **Comit**]
 ‘I work with (the) children.’ (< *bāārā*)
- c. *bákàrí tē?è-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 *tò* ‘in’. The context is (static) locative in (231a), allative in (231b), and ablative in (231c).

- (231) a. *má* = \emptyset [*sàá* *tò*]
 1Sg=be [house in]
 ‘I am in the house.’ (< *sàà*)
- b. *mà* *só* [*sàá* *tò*]
 1Sg enter.Pfv [house in]
 ‘I went into the house.’ (< *sóé*, *sàà*)
- c. *mà* *bó* [*sàá* *tò*]
 1Sg exit.Pfv [house in]
 ‘I went out from the house.’ (< *bóé*, *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* *bāārā* *mă* *kùmàyèlémà-nà = nē?*
 1Sg work(n) do.Ipfv dry.season-Nom=Neg
 ‘I don’t work in (=during) the dry season.’ (*màà*)
- b. *zàkí* *bāārā* *mà* *kó?n̄-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* = ∅ *jàlsà-dù / bɔ̀bɔ̀*
 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* = ∅ *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 *tɔ̀* ~ *tɔ̀* ‘in’

This postposition places the moveable entity (trajector) inside a container or other bounded space.

- (235) a. *mā* *kɔ̀*ⁿ *sɔ̀* [*bɔ̀ðrɔ̀* *tɔ̀*]
 1Sg honey put.Pfv [sack **in**]
 ‘I put the honey in the sack.’ (*kɔ̀*ⁿ)
- b. *mā* *ní* *wě* *bààⁿfɔ̀rɔ̀* [*káár* *tɔ̀*]
 1Sg 3SgNonhObj go.Pfv B [bus **in**]
 ‘I went to Banfora by (=in the) bus.’ (*wě* < *wěē*)
- c. *má* = ∅ [*káálá* *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 nùú*] *tɔ̀* ‘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 *tɔ̀* occurs in text 2016_02 @ 02:05: *wó tɔ̀* ‘that’s why ...’ or perhaps ‘(it’s) in that (context) that ...’.

As with other monosyllabic postpositions, this one has L-toned form *tɔ̀* after a +3Sg NP or pronoun as illustrated above, and an H-toned form *tɔ́* after -3Sg NPs and pronouns.. Compare *bɔ̀ɔ̀rɔ́ tɔ̀* ‘in the sack’ in (235a) above with its plural in (236).

- (236) *bɔ̀ɔ̀-rɔ́-òʷ* *tɔ́*
sack-Nom-Pl **in**
‘in (the) sacks’

It is *tɔ́* 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) [*è* *sòʔóʃ*] *tɔ̀*
[3SgNonh day] **in**
‘on that day’

8.3.3.2 Locative *dù* ~ *dú* ‘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 |
|--------------------|---------------------------|-----------------|
| <i>kààʷ dù</i> | ‘in the bush (outback)’ | <i>kààʷ</i> |
| <i>mùú dù</i> | ‘in the field’ | <i>mùù</i> |
| <i>yí dù</i> | ‘in (the) water’ | <i>yí</i> |
| <i>yēgē-kūʷ dù</i> | ‘in the tree’ | <i>yēgē-kūʷ</i> |
| <i>sàá dù</i> | ‘in (the) house, at home’ | <i>sàà</i> |

sàá dù can also mean ‘traveling, on a trip’, as in (553a).

The -3Sg variant *dú* is uncommon but is exemplified by *mùù-ná-àʷ dú* ‘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 *yí dù* ‘in (the) water’, postposition *tɔ̀* ~ *tɔ́* occurs in contexts like ‘bathe in the river’, see *gòlɔ́ tɔ̀* ‘in(to) the river’ in text 2016_04 @ 00:03. ‘In (the) water’ with *dù* conceptualizes an unbounded mass of water that surrounds a trajector, as in describing the habitat of fish. ‘In(to) the river’ with *tɔ̀* is conceptualized as a bounded zone that one may

enter and exit. The opposition between *dù* ~ *dú* and *tò* ~ *tó* also occurs in compound initials; see (146a-b).

jàlsà-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 = ∅* [*dà?àlí* *mà*]
stone-Nom=be [mat **on**]
‘The stone is on the mat.’
- b. *zàkî* *sé?éni* [*kùgú* *mà*]
Z sit.Stat [stone **on**]
‘Zaki is sitting on a rock.’
- c. *sījāān-ná = ∅* [*sàà-gúⁿ* *mà*]
gecko-Nom=be [wall **on**]
‘The gecko is on the wall.’
- d. *kùkú* *bè* [*mā* *mā*]
stone fall.Pfv [1Sg **on**]
‘The stone fell on me.’ (< *bèé*)
- e. *kùkù-rá-àⁿ* *má*
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 *kèⁿ ~ kéⁿ* ‘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. *mù?úⁿ wà [zàkî kéⁿ]*
 1Pl go [Z **chez**]
 ‘Let’s go to Zaki’s place!’
- b. *[dí kpé?r-à-àⁿ] kéⁿ*
 [child young-Nom-Pl] **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 *glà ~ glá* ‘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/	<i>sàà</i>	‘house’	<i>sàá glà</i>	‘next to the house’
	/M/	<i>gbāā</i>	‘stick’	<i>gbāá glà</i>	‘next to the stick’
	/H/	<i>yí?é</i>	‘fish’	<i>yí?é glà</i>	‘next to the fish’

After a -3Sg NP the postposition is H-toned *glá*.

- (242) *gbāā-rá-àⁿ glá*
 stick-Nom-Pl **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. *mā glā* ‘next to me’
wō glā ‘next to you-Sg’
ēēⁿ glā ‘next to you-Pl’
- b. *mù?ùⁿ glá* ‘next to us’
ààⁿ glá ‘next to them (human)’
èèⁿ glá ‘next to them (nonhuman)’

- c. *à glà* ‘next to him/her’
 è glà ‘next to it’

Examples are in (244).

- (244) a. *bákàrí=∅* [*mā* *glā*]
 B=be [1Sg **next.to**]
 ‘Bakari is next to me.’
- b. *ē* *sā?ā* [*bákàrí* *glá*]
 2SgRefl sit.Imprt [B **next.to**]
 ‘Sit down next to Bakari!’ (‘sit’ is pseudo-transitive)

One could argue for a bisyllabic representation *gìlā*. If so, Syncope to *glà* is more or less automatic.

8.3.3.6 *kìnà* ~ *kíná* ‘in front of’

This is the literal ‘in front of’ postposition denoting a spatial relationship. *kìnà* follows +3Sg complements, *kíná* follows -3Sg, except that M-Spreading occurs after M-toned pronouns (1Sg *mā kìnā*, 2Sg *wō kìnā*, 2Pl *ēēⁿ kìnā*).

- (245) a. *má=∅* [*sàá* *kìnà*]
 1Sg=be [house **in.front.of**]
 ‘I am in front of the house.’
- b. *má=∅* [*náā-nà-àⁿ* *kíná*]
 1Sg=be [woman-Nom-Pl **in.front.of**]
 ‘I am in front of the women.’
- c. *ē* *sā?ā* [*mā* *kìnā*]
 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* *[kòlìⁿ* *kìnà]*
 3SgHum=be [well(n) **in.front.of]**
 ‘He/She is in front of the well.’ (*kòlìⁿ*)

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* *jóⁿ-yá* *[zàkî* *kìnà]*
 1Sg=Ipfv fear-Prog [Z **in.front.of]**
 ‘I am scared of Zaki.’

8.3.3.7 *ḡáà* ‘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’, *ḡáà* is used. Unlike normal postpositions, this one is invariant tonally.

- (248) *ááⁿ* *ḡàà* *tó?ó* *[màà* *ḡáà]*
 3PIHum 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. *[mā* *bū?ū* *wō]* *fúúlú*
 [1Sg and 2Sg] **between**
 ‘between you-Sg and me’
- b. *mù?ùⁿ* *fúúlú*
 1Pl **between**
 ‘between us’
- c. *[zàkí* *bù?ù* *bákàrì]* *fúúlú*
 [Z and B] **between**
 ‘between Zari and Bakari’

8.3.4.2 *kùtò* ~ *kútó* ‘under’

This postposition is *kùtò* after +3Sg complements, *kútó* after -3Sg, and *kūtō* after an M-toned pronoun (*mā kūtō* ‘under me’). It might contain locative *tò* ~ *tó* at least etymologically.

- (252) a. *kùgù-rá* = ∅ [*dà?àlí* *kùtò*]
stone-Nom=be [mat **under**]
‘The stone is under the mat.’ (< *dà?àlí*)
- b. *kùgù-rá-āⁿ* = ∅ [*dà?àl-lá-àⁿ* *kútó*]
stone-Nom-Pl=be [mat **under**]
‘The stones are under the mats.’

The sense ‘under’ can be stretched to ‘in (a dense or canopied forest)’, see (652).

8.3.4.3 *kùtóró mà* ~ *kútóró mà* ‘behind’

This is a complex postposition combining *mà* ‘on’ with a stem *kùtóró* after +3Sg complement, *kútóró* after -3Sg, and *kūtōrō* 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 *kóō* ‘back (of body)’ and to the final in *tàá-kùdù* ‘foundation (of house)’ are unclear.

- (253) a. *má* = ∅ [[*sàá* *kùtóró*] *mà*]
1Sg=be [[house **behind**] on]
‘I am in front of the house.’
- b. *má* = ∅ [[*náā-nà-àⁿ* *kútóró*] *mà*]
1Sg=be [[woman-Nom-Pl **behind**] on]
‘I am in front of the women.’
- c. *ē* *sā?ā* [[*mā* *kūtōrō*] *mà*]
2SgRefl sit.Imprt [[1Sg **behind**] on]
‘Sit down behind me!’

See also text 2016_01 @ 00:28. For the temporal sense ‘after’, see §8.3.5.1 below.

8.3.4.4 *cěngò-rò* ~ *céngò-rò* ‘in the middle of’

‘In the middle of X’ is expressed by a possessed form of the noun *cěngò* ~ *céngò* ‘middle’, ending in its nominal suffix, rather than 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 *cěngò-rò* ~ *céngò-rò* always has suffixal *r* rather than nasalized *n* in my data.

- (254) a. *cālā* *cèḥgò-rò*
road **middle**-Nom
‘in the middle of the road’
- b. *cāl-à-à"* *cèḥgò-rò*
road-Nom-Pl **middle**-Nom
‘in the middle(s) of the roads’

8.3.5 Temporal postpositions

In addition to the sections below, see also ‘on that day’ in (237) above, with *tò* ‘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. *sér* *kìnà*
prayer **in.front.of**
‘before the prayer’
- b. [*sér* *kùtóró*] *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 *fō* ~ *fō* ‘until/all the way to’

fō ~ *fō* 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* *bààⁿfōrò* [*fō* *jàlsà-dù*]
1Sg run.Pfv Ba [**until** Bl]
‘I ran from Banfora (city) all the way to Blédougou.’
- b. *mù?úⁿ* *sà* *wál* *màà* [*fō* *síní*]
1Pl Fut work(n) do.Ipfv [**until** tomorrow]
‘We’ll work until tomorrow.’

For a different function of *f5*, perhaps from French *il faut*, see §17.1.4.

8.3.5.3 *fùùrù* ‘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 *sàni* or *yàní*, continuing with an NP denoting a duration, and ending with *fùùrù*.

- (257) a. *mù?úⁿ sà kwéēⁿ bègé màà]*
 1Pl Prog crops cut do.Ipfv]
sàni [[yēé kpèn-dáā] fùùrù]
 from.now [[month end(v)-Nom] until]
 ‘We’ll harvest the crops within a month from now.’
- b. *má sí=ì wàá kúnú*
 1Sg Fut=3SgNonh go.Ipfv village
yàní [kpásò?ò flā] fùùrù
 from.now [week two] until
 ‘I will go to the village within two weeks.’

8.3.5.4 *wòndò ~ wónó* ‘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. *mù?úⁿ=∅ [ní wòndò]*
 1Pl=be [3SgNonh still.on]
 ‘We are still talking about it.’
- b. *mù?ùⁿ [ní wòndò]=nē?*
 1Pl [3SgNonh still.on]=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’ (*kùdù* ~ *kúdí*)

In (259a), ‘for money’ can be expressed by either the postposition *mà* ‘on’ or the dedicated purposive postposition *kùdù*. Only *kùdù* occurs in (259b), where ‘for God’ has the sense ‘without expectation of (earthly) reward’.

- (259) a. *mā wálí mē-yá [wár mà / kùdù]*
 1Sg work(n) do-Prog [money on / for]
 ‘I work for money.’
- b. *mā wāf̄ bìl = á-yà [álà kùdù]*
 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) *cà?àcí cí = [ì wùū]*
 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 *bèé* ~ *bèé* ‘put (object) down’ (261) and *cìé* ~ *cíé* ‘put or pour (mass, many small objects) in’ (262).

- (261) *mā ní bà = [âⁿ wú]* ‘I put it in (e.g. my pocket/bag)’
mù?ùⁿ ní bà = [âⁿ wú] ‘We put it in.’
- wō ní bè = [è wú]* ‘You-Sg put it in.’
ēēⁿ ní bè = [èⁿ wú] ‘You-Pl put it in.’
- à ní bà = [á wù]* ‘He/She put it in.’
ààⁿ ní bá = [âⁿ wú] ‘They-Hum put it in.’
- è ní bè = [é wù]* ‘It put it in.’
èèⁿ ní bé = [èⁿ wú] ‘They-Nonh put it in.’

(262)	<i>mā</i>	<i>cà?àcí</i>	<i>cìè = [èⁿ</i>	<i>wú]</i>	‘I put peanuts in (e.g. pocket)’
	<i>mù?úⁿ</i>	<i>cà?àcí</i>	<i>cìè = [èⁿ</i>	<i>wú]</i>	‘We put peanuts in.’
	<i>wō</i>	<i>cà?àcí</i>	<i>cì = [ì</i>	<i>wú]</i>	‘You-Sg put peanuts in.’
	<i>ēēⁿ</i>	<i>cà?àcí</i>	<i>cì = [ìⁿ</i>	<i>wú]</i>	‘You-Pl put peanuts in.’
	<i>à</i>	<i>cà?àcí</i>	<i>cìé = [è</i>	<i>wù]</i>	‘He/She put peanuts in.’
	<i>ààⁿ</i>	<i>cà?àcí</i>	<i>cìé = [èⁿ</i>	<i>wù]</i>	‘They-Hum put peanuts in.’
	<i>è</i>	<i>cà?àcí</i>	<i>cí = [ì</i>	<i>wù]</i>	‘It put peanuts in.’
	<i>èèⁿ</i>	<i>cà?àcí</i>	<i>cí = [ìⁿ</i>	<i>wù]</i>	‘They-Nonh put peanuts in.’

8.4.3 Goal postposition *kpǎ-mà* ~ *kpá-mà* or *kpǎ-ɲò* ~ *kpá-ɲò*

kpǎ-mà ~ *kpá-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 *kpǎ-mà* (after +3Sg), *kpā-mà* (after M-toned pronominal), and *kpá-mà* (after other -3Sg).

(263)	a.	<i>[mā sé]</i>		<i>[wáí</i>	<i>kpá-mà]</i>
		[1Sg come.Pfv]		[money	goal]
		‘I came for the money.’			
	b.	<i>[mā sé]</i>		<i>[wō</i>	<i>kpā-mà]</i>
		[1Sg come.Pfv]		[2Sg	goal]
		‘I came to you (into your presence).’			
	c.	<i>jèr-rá = ∅</i>	<i>sí = í</i>	<i>sàà</i>	<i>[mā kpā-mà]</i>
		lion-Nom=Ipfv	Fut=3SgNonhRefl	pursue.Ipfv	[1Sg goal]
		‘The lion will pursue me.’			

See text 2016_02 @ 00:23, 00:39, and 03:09.

A variant *kpǎ-ɲò* ~ *kpá-ɲò* or *kpǎ-ɲò* ~ *kpó-ɲò* is also attested in the ‘follow/pursue’ context: text 2016_02 @ 02:27 and @ 00:35

The variant *kpǎ-mà* ~ *kpá-mà* is probably a frozen combinations of *kpáná* ‘follow’ (in adjoined form *kpáⁿ*) 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 *kpá-mà*. The verb *kpáná* still exists, but it requires one of the postpositions presented above.

(264)	<i>mā</i>	<i>kpání</i>	<i>[zàkî</i>	<i>kpá-mà / kpá-ɲò]</i>
	1Sg	follow.Pfv	[Z	goal]
	‘I followed Zaki.’			

8.4.4 *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’.

- (265) *mā bɔ́ [jàl-á-àⁿ-n̄ / kòò-rá-àⁿ / bòbɔ́-rà-àⁿ / bàl-lá-àⁿ ná]*
 1Sg exit.Pfv [Jali-/Natioro-/Bobo-/Senoufo-Nom.Pl **ethnicity**]
 ‘I went beyond the Jali/Natioro/Bobo/Senoufo ethnicity.’

ná may be related to the adjective *ná* ‘foreign’, suffixed *ná-nà*. 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 *kósòⁿ* ‘because of’

kósòⁿ is a noun-like element that functions like a postposition ‘because of’, explaining a reason or cause. It is tonally invariant: *mā kósòⁿ* ‘because of me’, *dí kósòⁿ* ‘because of the child’, etc.

kósòⁿ occurs in the expression *wò kósòⁿ* with focalized 3Sg complement (or possessor) in the sense ‘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’ (*gbɔ́-nɔ̀*)

I take *gbɔ́-nɔ̀* to be a noun (suffixed form implies *gbɔ́ⁿ* as the stem). It immediately follows an NP denoting the comparandum. There are no tonal interactions like those in possessor-possessum combinations.

- (266) a. *wó = ∅ wálí màà [náā gbɔ́-nɔ̀]*
 2Sg=Ipfv work(n) do.Ipfv [woman **manner-Nom**]
 ‘You-Sg work like a woman.’
- b. *má = ∅ wálí màà [à gbɔ́-nɔ̀]*
 1Sg=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).

fě́ěⁿ ‘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 *bílí* instead of -3Sg *bíli*.

- (267) a. *à* *jímē* *fě́ěⁿ*
 3SgHum weep.Pfv **a.lot**
 ‘He/She wept a lot.’
- b. *à* *fě́ěⁿ* *bílí* *mā-ñ*
 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 *nē?ēkē* ‘a little’ (268a-b).

- (268) a. *à* *jímē* *nē?ēkē*
 3SgHum weep.Pfv **a.little**
 ‘He/She wept a little.’
- b. *á* *bílí* *mā-ñ* *nē?ēkē*
 3SgHum give.Pfv 1Sg-Indep **a.little**
 ‘He/She gave me a little.’

The noun *dòdòni* can mean ‘a little’ or, in temporal contexts, ‘a little while’ (hence ‘soon’).

- (269) a. [*à* *dòdòni* *bílí* *mā-ñ*]
 [3SgHum **a.little** give.Pfv 1Sg-Indep]
 ‘He/She gave me a little.’
- b. [*sáni* *dòdòni*] [*zàkî = ∅* *‘sáá*]
 [by **a.little**] [Z=Ipfv come.Ipfv]
 ‘Zaki will come by (=within) a little while.’

See also (570).

8.5.3 ‘Exactly’ (*kpé?é-nū* ~ *kpè?è-nù*)

Exactness of a quantity is specified by adding *kpé?é-nū* after the numeral. After the numeral ‘1’ the form is *kpè?è-n(ù)*. The core sense is ‘only, not more than’ (§19.1.3).

- (270) a. *tàgà* *jááⁿ-flā*
 sheep twenty-two
 ‘forty sheep’

- b. [tàgà jáāⁿ-flā kpé?é-nū] tó?rí
 [sheep twenty-two **exactly**] sell.Imprt
 ‘Sell-2Sg exactly forty sheep!’
- c. [tàgà dúlí kpè?è-n] tó?rí
 [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 *né* ‘good’ is common; the clause containing it can be negated to translate ‘bad(ly)’.

- (271) a. á = ∅ [‘wálí né] màà
 3SgHum=Ipfv [work(n) **good**] do.Ipfv
 ‘He/She works well.’ (lit. “... does good work”)
- b. ààⁿ = ∅ [síjí né] sàà = rē?
 3PlHum=Ipfv [song **good**] sing.Ipfv=Neg
 ‘They sing badly.’ (lit. “... sing bad songs”)

8.5.4.2 ‘Proper, right, (socially) normal’ (jàànéè ~ jáánéè)

A predicate characterizing an action as socially correct (normal, proper, right), or with negation as incorrect, is expressed by variants of imperfective *jàánà* ~ *jáánà* ‘become good/better, improve’. The form used is *jàànéè* ~ *jáánéè*, trimmed to *jàáná =* ~ *jááná =* before the negative enclitic.

- (272) a. [á = ∅ mì mé-yá]
 [3SgHum=Ipfv Rel do-Prog]
 [è jàànéè / jááná = nē?]
 [3SgNonh **be.normal.Ipfv** / **be.normal.Ipfv =Neg**]
 ‘What he/she is doing is normal / isn’t normal.’

- b. *èèⁿ* *náánéè / náána = nē?*
 3PINonh **be.normal.Ipfv / be.normal.Ipfv =Neg**
 ‘They (e.g. actions) are normal / aren’t normal.’

8.5.5 Manner adverbs (‘like this/that’)

The basic noninterrogative manner adverb (‘like this/that’, ‘so’, ‘thus’) is *nánē*. It may be historically connected in some way with *nàà* ‘here’ and/or *nè* ‘here/there’.

- (273) a. *è* *mà* *nánē*
 3SgNonh do.Imprt **like.this**
 ‘Do-2Sg it like this!’
- b. *bí* *wálí* *mà* *nánē = nē?*
 Proh work(n) do.Imprt **like.this=Neg**
 ‘Don’t-2Sg work (do the work) like that!’

There is also an adverb *yààlàà* ‘thus’. It occurs in a narrative where it resumes a situation that has been described, before the next foregrounded event appears.

- (274) *donc* *ààⁿ* *tú = ú* *yààlàā, ...*
 so 3PIHum stay.Pfv=Link **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.

- (275) a. *fì* ‘today; nowadays’
lò ‘yesterday; formerly, in the old days’
wòsò?ɔ̃ⁿ tò ‘day before yesterday’
wòsò?ɔ̃ⁿ tóó dè ‘a few/several days ago’
káātò ‘now’ (current time)
sísàⁿ ‘now’ (also in Jula; discourse marker, see §19.3.1)
- b. *síní* ‘tomorrow; in the future’
síní kéné ‘day after tomorrow’
síní kéné kútórò-mà ‘second day after tomorrow’ (third from today)

- | | | |
|----|--------------------------|---------------------------|
| c. | <i>bùlù</i> | ‘last year’ |
| | <i>wò jéè mà = éé dè</i> | ‘a few/several years ago’ |
| | <i>jēē-wè</i> | ‘next year’ |
| | <i>jìnà</i> | ‘this year’ |

8.5.6.2 Spatial adverbs

The following are the main spatial adverbs.

- | | | | |
|-------|----|-----------------------|---|
| (276) | a. | <i>álà mà</i> | ‘above, upward, on top’ |
| | | <i>dò?ó mà</i> | ‘below, down, under’ |
| | b. | <i>wòrò-dúgú</i> | ‘in the south’ (“kola-nut place”, cf. <i>wóró</i> ‘kola nut’) |
| | | <i>kò?ò-dúgú</i> | ‘in the north’ (“salt place”, cf. <i>kòò</i> ‘salt’) |
| | | <i>tál-bàà tó-nò</i> | ‘in the west’ (“sun-fall at”) |
| | | <i>tál-fidè tó-nò</i> | ‘in the east’ (“sun-rise at”) |
| | c. | <i>kùdóró mà</i> | ‘in the rear’ |
| | | <i>kinà</i> | ‘forward; in front’ |

‘Right hand’ is *tùkùni ból-ò* with *ból* ‘hand’ and a compound initial or possessor. ‘Left hand’ is *nòkòlò ból-ò*.

8.5.6.3 ‘(Go) straight’ (*téléna*)

Adverbial ‘straight, directly (to somewhere)’ in the context of motion is expressed by the intransitive verb ‘go straight’ with imperfective *téléna* and perfective *téléni* ~ *téleni*, rather than by an adverb.

- | | | | | |
|-------|--|------------------------|-------------|-----------------|
| (277) | <i>mù?ùⁿ</i> | <i>téleni</i> | <i>fɔ</i> | <i>jàlsà-dù</i> |
| | 1Pl | go.straight.Pfv | all.the.way | Blé |
| | ‘We went straight (=directly) to Blédougou (village).’ | | | |

8.5.6.4 ‘Apart, separate’ (*dáná*)

The adverb *dáná* may occur after an NP, or more typically in parallelistic constructions repeated after two contrasting NPs.

- | | | | | |
|-------|---------------------------------|---------------|----------------------------------|--------------|
| (278) | <i>jáá-nà-áⁿ = ∅</i> | <i>dáná,</i> | <i>dígí-nà-áⁿ = ∅</i> | <i>dáná</i> |
| | 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. $\acute{a} = \emptyset$ [wálí jé] màà [wá?átí bù?ù-nū]
 3SgHum=Ipfv [work(n) good] do.Ipfv [time all-Pl]
 ‘He/She always does good work.’
- b. $\acute{a} = \emptyset$ [wálí jé] màà fésé-fésé = rē?
 3SgHum=Ipfv [work(n) good] do.Ipfv 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 *tóó* ‘stay’ in §15.1.1.2. For $t\bar{o} = n\bar{e}?$ ‘(not) yet’ see §15.4.4.2.

8.5.6.7 ‘By, between now and’ (*sáni* and *yàní ~ jàní*)

sáni 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 *yàní ~ jàní* (280b-c).

- (280) a. [sáni wúláára] [zàkî = ∅ ‘sáá]
 [from.now evening] [Z=Ipfv come.Ipfv]
 ‘Zaki is coming by (=no later than) this evening.’
- b. [mù?úⁿ = ∅ sà kwéⁿ-bègé màà]
 [1Pl=Ipfv Fut crops-cut.VblN do.Ipfv]
 jàní [yēē dúli]
 from.now [month one]
 ‘We’ll harvest the crops one month from now.’ (< kwéⁿ, bègè)

- c. [mùʔúⁿ=Ø sà wálí màà]
 [1Pl=Ipfv Fut work(n) do.Ipfv]
 jàní [yēē dúlì] tú [kpàsòʔr̄ flā]
from.now [month one] plus [week two]
 ‘We’ll do the work in a month plus a couple of weeks (=a month and a half) from now.’

8.5.6.8 ‘Already’ (*kàbáⁿ*, *náání*)

These two elements meaning ‘already’ may occur separately or in combination.

- (281) a. *bákàr* *téʔ=*
 B go.Pfv
 [à búl=] [ò sá] *kàbáⁿ*
 [3SgHum return.Adjn] [3SgHum come.Adjn] **already**
 ‘Bakari went and has already come back.’
- b. à kú [mèʔéⁿ kpà-mà] *náání*
 3SgHum begin [person goal] **already**
 ‘He/She is already stalking the person’ (2016_04 @ 00:39)
- c. [mí-nà-àⁿ [yí dù] *kàbáⁿ* *náání* *dóō*]
 [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) *wábáw̄*, é *fidì*
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 *wábáw̄* 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 *dèè* ‘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’ (*fèènàà*), functioning as reversive for the phonologically unrelated ‘tie, bind’ (*kùlónà*) as well as for ‘hobble (animal, with rope)’ (*firikíyà*).

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* *ná* *bè* *fìdì-rá*
1Sg 3SgHumObj put.down.Pfv run.VbIN-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) *ààⁿ* *mā* *jóēⁿ*
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* *bèé*
 3SgHum fall.Pfv
 ‘He/She fell.’
- b. *mā ná* *bèé*
 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.

(286)	Pfv	Ipfv		gloss (intr)	gloss (tr)
	+3Sg	+3Sg	-3Sg		
	<i>bèé</i>	<i>bàà</i>	<i>(báá)</i>	‘fall’	‘knock down, put down’
	<i>bðé</i>	<i>(bðð)</i>	<i>bóó</i>	‘exit, go out’	‘take out’
	<i>sðé</i>	<i>(sðð)</i>	<i>sóó</i>	‘enter’	‘put in’
	<i>kpèéⁿ</i>	<i>(kpààⁿ)</i>	<i>kpááⁿ</i>	‘die’	‘kill’
	<i>kàʔrí</i>	<i>(kàʔrà)</i>	<i>káʔrá</i>	‘snap, be broken’	‘snap, break (sth)’
	<i>bíí</i>	<i>(bíè)</i>	<i>bíé</i>	‘(fire) be lit’	‘light (fire)’
	<i>mèé</i>	<i>(màà)</i>	<i>máá</i>	‘be done, happen’	‘do’

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.

(287)	adjective	gloss	inchoative Ipfv (factitive Ipfv +3Sg)
a.	transparently related adjective and verb		
	<i>kpēē</i>	‘white’	<i>kpéé (kpèè)</i>
	<i>kānā</i>	‘red’	<i>kánáná ~ kánná (kànnà)</i>
	<i>gbðʔð ~ gbòʔò</i>	‘black’	<i>gbðʔð (gbòʔò)</i>
	<i>né</i>	‘good’	<i>nàánà (nàánà)</i>

<i>gbá?á alá</i>	‘thin; dry’	<i>gbà?à lánà (gbà?à lánà)</i>
<i>kúmā</i>	‘cold’	<i>kúmà (kùmà)</i>
<i>kítā</i>	‘bad’	<i>kitàliá (kitàliá)</i>
<i>gúnī</i>	‘short’	<i>gùnò (gùnò)</i>

b. suppletive or highly irregular

<i>tāā</i>	‘hot’	<i>dèè (dèè)</i>
<i>súmáá</i>	‘long’	<i>sòòⁿ-bàà (sòòⁿ-bàà)</i>
<i>kútō</i>	‘old’	<i>kò?riyáà</i>

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
	<i>ni?énáá (ni?ènàà)</i>	‘become wet’
	<i>dó?óyáà (dò?òyáà)</i>	‘shrink, become small’
	<i>tòlò</i>	‘rot’ (factitive unknown)
	<i>jáá (jàà)</i>	‘become sweet, delicious’
	<i>kónó (kònò)</i>	‘grow, become big, widen’
	<i>gbà?à lánà (gbà?à lánà)</i>	‘dry off’
	<i>gbàà (gbàà)</i>	‘become difficult or expensive’
	<i>nèè-bàà (nèè-bàà)</i>	‘become bitter(-tasting)’
	<i>ḡùnò (ḡùnò)</i>	‘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)	<i>má = ∅</i>	<i>sárā</i>	<i>mùú</i>	<i>mè-yá</i>
	1Sg=Ipfv	tobacco	field	do-Prog
	‘I grow tobacco.’ (<i>mùù</i>)			

‘Field’ plus ‘do’ is a standard collocation meaning ‘do farm work’. The question is the status of ‘tobacco’. The options are a) to treat *sárā mùú*, 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 *mùú* as an incorporated noun, leaving *sárā* as a true syntactic object.

If we take ‘tobacco’ out, the result is (290).

- (290) *má* = ∅ *mùú* *mè-yá*
 1Sg=Ipfv field do-Prog
 ‘I do farming.’

Here the options are a) to treat ‘field’ as a conventionalized object of ‘do’, or b) to analyse *mùú* 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) *má* = ∅ *nì* *mùú* *mè-yá*
 1Sg=Ipfv 3SgNonhObj field 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 *nì* as its direct object. However, even here *nì* 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) *má* = ∅ [*nà* *wàlí*] *mè-yá*
 1Sg=Ipfv [3SgHum work] 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* = ∅ [*mā* *wàlí*] *mè-yá*
 3SgHum=Ipfv [1Sg work] do-Prog
 ‘He/She does my work.’

Returning to (289) above, the LH tones of *mùú* ‘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 *sḍé* ~ *sḍé* ‘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 kú sǒé* ‘buried me’ (variant *mā kū sǒé*)
ná kù sǒé ‘buried him/her’
náàⁿ kú ‘sǒé ‘buried them (human)’

In (294) the pronoun has a clear tonal effect on *kù* ‘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 *kū* (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*] *sǒé* ‘put my corpse in’
 [*ná kǔ*] *sǒé* ‘put his/her corpse in’
 [*náàⁿ kú*] *sǒé* ‘put their corpse in’

These considerations suggest that (294) exemplifies a transitive compound construction [NP_{obj} N-Vb], while (295) exemplified a regular transitive construction with inalienably possessed object [[Poss N]_{obj} 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 (inalienably) possessed object constructions. For example, ‘scare’ and ‘bother’ in (296-7) behave tonally like (295) rather than (294) above.

- (296) [*mā jǎá*] *bègé* ‘scared me’
 [*ná jàá*] *bègé* ‘scared him/her’
 [*náàⁿ jǎá*] *bègé* ‘scared them (human)’

- (297) [*mā nǎ*] *kpàní* ‘bothered me’
 [*ná nǎ*] *kpàní* ‘bothered him/her’
 [*náàⁿ nǎ*] *kpàní* ‘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. *sā* [*sùkār* *dè*]
 come.Imprt [sugar with]
 ‘Bring (the) sugar!’
- b. *bī* [*gbāá* *dè*]
 hold.Imprt [stick with]
 ‘Hold-2Sg the stick!’
- c. *bàlì* *wār-rà*
 accept.Imprt money-Nom
 ‘Accept-2Sg the money!’
- d. *bá?rì* *dà?àl-lá*
 touch.Imprt mat-Nom
 ‘Touch-2Sg the mat!’

10.1.1.2 Pseudo-transitive verb ‘go’ (*wàá*)

There are two verbs translatable as ‘go’. One is *tá?á*, whose morphosyntax is that of a simple intransitive verb. The other is *wàá*, which takes an obligatory but apparently nonreferential

nonhuman 3Sg object. The distinction can be observed in the imperative, where only *wǎ* takes an obligatory object pronoun.

(299)	verb (Ipfv +3Sg)	gloss	imperative
a.	<i>wàá</i>	‘go’	<i>è wǎ</i>
b.	<i>tá?á</i>	‘go’	<i>tá?á</i>

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’

subject	‘go’ pseudo-transitive	‘come’ intransitive	‘hit it’ transitive (OV)
a. 1Sg/2Sg			
1Sg	<i>mā ní wěē</i>	<i>mā séé</i>	<i>mā ní bà?rí</i>
2Sg	<i>wō ní wěē</i>	<i>wō séé</i>	<i>wō ní bà?rí</i>
b. 3Sg			
3SgHum	<i>á = ∅ wěē</i>	<i>à sèé</i>	<i>à ní bà?rí</i> <i>á ∅ bà?rí</i>
3SgNonh	<i>é = ∅ wěē</i>	<i>è sèé</i>	<i>è ní bà?rí</i> <i>é ∅ bà?rí</i>
c. other			
1Pl	<i>mù?úⁿ = ∅ wěē</i>	<i>mù?ùⁿ séé</i>	<i>mù?ùⁿ ní bà?rí</i>
2Pl	<i>ēéⁿ = ∅ wěē</i>	<i>ēēⁿ séé</i>	<i>ēēⁿ ní bà?rí</i>
2Pl	<i>mǎā = ∅ wěē</i>	<i>mǎā séé</i>	<i>mǎā ní bà?rí</i>
3PlHum	<i>àáⁿ = ∅ wěē</i>	<i>ààⁿ séé</i>	<i>ààⁿ ní bà?rí</i>
3PlNonh	<i>èéⁿ = ∅ wěē</i>	<i>èèⁿ séé</i>	<i>èèⁿ ní bà?rí</i>

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 = ∅ wěē* ‘he/she went’ and *é = ∅ 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 ∅ bà?rí* and *é ∅ bà?rí*, where *∅* 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 *wěē* ‘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 *ní* before L-initial transitive verb *bà?rí*. I therefore transcribe *mù?úⁿ* = \emptyset *wěē* 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 *wěē* ‘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. *dí-ré* = *è⁽ⁿ⁾* *wěē*
 child-Nom 3SgNonhObj go.Pfv
 ‘The child went.’ (< *dí-rá*)
- b. *dí-ré* = *è⁽ⁿ⁾* *bà?rí*
 child-Nom 3SgNonhObj go.Pfv
 ‘The child hit it.’ (< *dí-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* *gbó-rè* =] *è⁽ⁿ⁾* *wěē*
 [sheep big-Nom] 3SgNonhObj go.Pfv
 ‘The big sheep-Sg went.’ (< *gbó-rà*)
- b. [*tàgà* *flá*] = \emptyset *wěē*
 [sheep two] = 3SgNonhObj go.Pfv
 ‘Two sheep went.’ (< *flā*)
- c. *ámádú* = \emptyset *wěē*
 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. *dí-rá=∅* *sí=i* *wàá*
 child-Nom=Ipfv Fut=3SgNonhObj go.Ipfv
 ‘The child will go.’ (optionally pronounced *sí=i wàá* by H-Leveling)
- b. *dí-rá=∅* *sà* *sáá*
 child-Nom=Ipfv Fut come.Ipfv
 ‘The child will come.’

I conclude that ‘go’ (imperfective and citation form *wàá*) is basically a transitive with a nonreferential nonhuman 3Sg object, but that it has some irregularities especially in the perfective.

wàá ‘go’ verb is one of the verbs that shows an ATR alternation in the perfective. Clause-finally the +ATR form with *e*-vowel is used (304a-b). Clause-medially the unmarked form is -ATR with *ɛ*-vowel (304a-d), unless the following element (such as *dè* ‘there’ or *nàà* ‘here’) requires a +ATR preceding form (304e).

- (304) a. *á=* *∅* *wěé*
 3SgHum= 3SgNonhObj go.Pfv
 ‘He/She went (away).’
- b. *àáⁿ=* *∅* *wěé*
 3PIHum= 3SgNonhObj go.Pfv
 ‘They went (away).’
- c. *á / àáⁿ=* *∅* *wèé* [*sìbí* *dè*] *bá*
 3SgHum/3PIHum= 3SgNonhObj go.Pfv [meat with] over.there
 ‘He-or-she/They took the meat over there.’
- d. *á=* *∅* *wèé* *jàlsà-dù*
 3SgHum= 3SgNonhObj go.Pfv Blédougou
 ‘He/She went to Blédougou.’
- e. *á=* *∅* *wèé* *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 *ē* (305).

(305)	verb (+3Sg Ipfv)	gloss	imperative
a. motion			
	<i>jò?rò</i>	‘jump’	<i>ē jò?rī</i>
	<i>kìàⁿ</i>	‘fly away’	<i>ē kīⁿ</i>
	<i>mùnnà</i>	‘crawl’	<i>ē mūnī</i>
b. stance			
	<i>sàà</i>	‘lie down’	<i>ē sā</i>
	<i>bàlà</i>	‘stand; stop’	<i>ē bāl</i>
	<i>sà?à</i>	‘sit’	<i>ē sā?ā</i>
	<i>cònjólà</i>	‘squat’	<i>ē cònjólō</i>
	<i>sòⁿsó?rà</i>	‘squat’	<i>ē sòⁿsó?rī</i>
	<i>mààsá</i>	‘bow, bend over’	<i>ē māsāsā</i>

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
	<i>sáá</i>	‘come’	<i>sā</i>
	<i>bóó</i>	‘exit’	<i>bō</i>
	<i>sóó</i>	‘enter’	<i>sō</i>
	<i>sìdánà</i>	‘ascend’	<i>sìdá</i>
	<i>jà?ánà</i>	‘descend’	<i>jà?áⁿ</i>
	<i>fìdè</i>	‘run’	<i>fídí</i>
	<i>cíé</i>	‘arrive’	<i>cī</i>

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	<i>mā nāāⁿ sé?ē</i>	<i>mā nāāⁿ jó?rī</i>
2Sg	<i>wō nīī sé?ē</i>	<i>wō nīī jó?rī</i>
2Pl	<i>ēēⁿ nīīⁿ sé?ē</i>	<i>ēēⁿ nīīⁿ jó?rī</i>

b. M-final pronominal

2Pl *mǎā nīⁿ séʔē* *mǎā nīⁿ jóʔrī*

c. 3Sg pronominals

3SgHum *à ná sèʔé ~ á sèʔé* *à ná jòʔrī ~ á jòʔrī*

3SgNonh *è ní sèʔé ~ é sèʔé* *è ní jòʔrī ~ é jòʔrī*

d. other plural pronominals

1Pl *mùʔúⁿ nààⁿ séʔē* *mùʔúⁿ nààⁿ jóʔrī*
~ mùʔùⁿ nāāⁿ séʔē *~ mùʔùⁿ nāāⁿ jóʔrī*

3PlHum *ààⁿ náāⁿ séʔē* *ààⁿ náāⁿ jóʔrī*

3PlNonh *èèⁿ nīⁿ séʔē* *èèⁿ nīⁿ jóʔrī*

There is one textual example in which *è-yàá* occurs instead of nonhuman 3Sg pseudo-reflexive *è ní*, namely *è-yàá ∅ bàlí* ‘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 *èèⁿ-yàà nīⁿ bàlí*, showing that *yàà* is part of the subject pronominal and is followed by the reflexive object (here nonhuman 3Pl *nīⁿ*). What relationship (if any) *yàà* has to the much better attested but strictly 3Sg *-yà* (human *à-yà*, nonhuman *è-yà* contracting as *ì-yà*), used almost exclusively in postverbal objects, is unclear. See also the discussion following (104a-c) of rare nonhuman 3Sg *ì-yà* and 3Pl *ì-yǎ-āⁿ* 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 *sí=ìⁿ* in the 3Pl future examples, versus *sà=àⁿ* (1Sg, 1Pl) and *sì=ìⁿ* (2Pl). 3Sg future *sá=á* (human) and *sí=í* (nonhuman) have undergone H-Leveling (§3.8.3.2).

(308) Non-perfective pseudo-reflexive paradigms for ‘sit’

subject	‘sit(s)’	‘will sit’	‘be sitting’
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a. M-toned pronominal

1Sg *má=∅ nààⁿ sáʔá* *má=∅ nààⁿ séʔé-yá*

má=∅ sà=àⁿ sáʔá

2Sg *wó=∅ nī sáʔá* *wó=∅ nī séʔé-yá*

wó=∅ sì=ì sáʔá

2Pl *ēéⁿ=∅ nīⁿ sáʔá* *ēéⁿ=∅ nīⁿ séʔé-yá*

ēéⁿ=∅ sì=ìⁿ sáʔá

b. M-final pronominal

2Pl *mǎā=∅ nīⁿ sáʔá* *mǎā=∅ nīⁿ séʔé-yá*

mǎā=∅ sì=ìⁿ sáʔá

c. 3Sg pronominals

3SgHum	$\acute{a} = \emptyset \text{ n\grave{a} s\grave{a}?\grave{a}}$	$\acute{a} = \emptyset \text{ n\grave{a} s\grave{e}?\grave{e}-y\acute{a}}$
	$\acute{a} = \emptyset \text{ s\acute{a} = \acute{a} s\grave{a}?\grave{a}}$	
3SgNonh	$\acute{e} = \emptyset \text{ n\grave{i} s\grave{a}?\grave{a}}$	$\acute{e} = \emptyset \text{ n\grave{i} s\grave{e}?\grave{e}-y\acute{a}}$
	$\acute{e} = \emptyset \text{ s\acute{i} = \acute{i} s\grave{a}?\grave{a}}$	

d. other plural pronominals

1Pl	$m\grave{u}?\acute{u}^n = \emptyset \text{ n\grave{a}\grave{a}^n \text{ s\acute{a}?\acute{a}}$	$m\grave{u}?\acute{u}^n = \emptyset \text{ n\grave{a}\grave{a}^n \text{ s\acute{e}?\acute{e}-y\acute{a}}$
	$m\grave{u}?\acute{u}^n = \emptyset \text{ s\grave{a} = \grave{a}^n \text{ s\acute{a}?\acute{a}}$	
3PlHum	$\grave{a}\acute{a}^n = \emptyset \text{ n\grave{a}\grave{a}^n \text{ s\acute{a}?\acute{a}}$	$\grave{a}\acute{a}^n = \emptyset \text{ n\grave{a}\grave{a}^n \text{ s\acute{e}?\acute{e}-y\acute{a}}$
	$\grave{a}\acute{a}^n = \emptyset \text{ s\acute{a} = \grave{a}^n \text{ s\acute{a}?\acute{a}}$	
3PlNonh	$\grave{e}\acute{e}^n = \emptyset \text{ n\grave{i}\grave{i}^n \text{ s\acute{a}?\acute{a}}$	$\grave{e}\acute{e}^n = \emptyset \text{ n\grave{i}\grave{i}^n \text{ s\acute{e}?\acute{e}-y\acute{a}}$
	$\grave{e}\acute{e}^n = \emptyset \text{ s\acute{i} = \acute{i}^n \text{ s\acute{a}?\acute{a}}$	

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 transitives 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 *ε* (E-stem). Final long vowels (*εε*) and diphthongs (*ie*, *ɔε*, *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.

(309) Intransitives (E-stem perfective)

Pfv +3Sg -3Sg	Ipfv	Impprt	Prog	gloss
<i>cèé</i> <i>céé</i>	<i>cáá</i>	—	<i>cé-yá</i>	‘ripen, harden’
<i>gbèé</i> <i>gbéé</i>	<i>gbàà</i>	—	<i>gbè-yá</i>	‘become difficult’
<i>jèé</i> <i>jéé</i>	<i>jàá</i>	—	<i>jé-yá</i>	‘become sweet’
<i>sèé</i> <i>séé</i>	<i>sáá</i>	<i>sā</i>	<i>sé-yá</i>	‘come’
<i>kpèéⁿ</i> <i>kpééⁿ</i>	<i>kpááⁿ</i>	<i>kpāⁿ</i>	<i>kpéⁿ-yá</i>	‘die’
<i>bèé</i> <i>béé</i>	<i>bàà</i>	<i>bà</i>	<i>bè-yá</i>	‘fall’
<i>kpèé</i> <i>kpéé</i>	<i>kpéé</i>	—	<i>kpé-yá</i>	‘turn white’
<i>dèé</i> <i>déé</i>	<i>dèè</i>	<i>dě</i>	<i>dè-yá</i>	‘get hot’
<i>bḍé</i> <i>bóé</i>	<i>bḍó</i>	<i>bḍ</i>	<i>bó-yá</i>	‘exit’
<i>sḍé</i> <i>sóé</i>	<i>sḍó</i>	<i>sḍ</i>	<i>só-yá</i>	‘enter’
<i>cìé</i> <i>cíé</i>	<i>cié</i>	<i>cī</i>	<i>cí-yá</i>	‘arrive’
<i>tè?é</i> <i>té?ē</i>	<i>tá?á</i>	<i>tā?ā</i>	<i>tè?è-yá</i>	‘go’
<i>dè?é(ē)</i> <i>dé?ē(ē)</i>	<i>dà?à</i>	<i>dà?à</i>	<i>dè?è-yá</i>	‘escape’
<i>kùmé</i> <i>kúmē</i>	<i>kúmà</i>	—	<i>kùmá-yà</i> ~ <i>kùmé-yà</i>	‘cool off’
<i>bèlé(ē)</i> <i>bélē(ē)</i>	<i>bélé</i>	<i>bēlē</i>	<i>bélé-yá</i>	‘pass’
<i>ḡiné</i> <i>ḡínē</i>	<i>ḡináà</i>	<i>ḡinà</i>	<i>ḡiné-yà</i>	‘forget’
<i>gbḍ?é</i> <i>gbḍ?ē</i>	<i>gbḍ?ḍ</i>	<i>gbḍ?ḍ</i>	<i>gbḍ?ḍ-yá</i>	‘turn black’
<i>tólóē</i> <i>tólē</i> (see comment below)	<i>tḍlḍ</i>	<i>tólḍ</i>	<i>tólḍ-yá</i>	‘rot’
<i>ḡìímē</i> <i>ḡíímē</i>	<i>ḡìímàà</i>	<i>ḡìímà</i>	<i>ḡìímè-yà</i>	‘weep’

<i>bàné?ēⁿ</i>	<i>báné?ēⁿ</i>	<i>bàná?àⁿ</i>	<i>bàné?é-yà</i>	‘get tired’
<i>báné?ēⁿ</i>				
<i>dò?òyéē</i>	<i>dó?óyáà</i>	<i>dó?óyà</i>	<i>dó?óyé-yà</i>	‘shrink’
<i>dó?óyéē</i>				
<i>kò?riyéē</i>	<i>kò?riyáà</i>	<i>kò?riyá</i>	<i>kò?riyé-yà</i>	‘grow old’
<i>kó?ríyéē</i>				

tòlóē ‘rot’ (+3Sg perfective) has been heard as *tòló*, *tòlóē*, and *tòléē*. Of these *tòlóē* is structurally correct, but the *oe* diphthong is marginal in Jalkunan (§3.3.5.1). *tòló* 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.

The intransitives in (310) have perfectives ending in *i* (I-stema). Nonmonosyllabic perfectives ending in a long vowel *ii* are trimmed to *i* clause-medially. This affects ‘think’ and ‘worsen’.

(310) Intransitives (I-stem perfective)

Pfv	Ipfv	Imprt	Prog	gloss
<i>bíí</i>	<i>bíé</i>	—	<i>bí-yá</i>	‘be lit’
<i>bíi</i>				
<i>bùlí</i>	<i>búló</i>	<i>būlū</i>	<i>búlú-yá</i>	‘return’
<i>búli</i>				
<i>dìbí</i>	<i>díbé</i>	—	<i>díbí-yá</i>	‘be extinguished’
<i>díbi</i>				
<i>fidí</i>	<i>fidéē</i>	<i>fidí</i>	<i>fidí-yà</i>	‘run’
<i>fídi</i>				
<i>kóní</i>	<i>kónó</i>	<i>kō</i>	<i>kóní-yá</i>	‘grow’
<i>kóni</i>				
<i>gùní</i>	<i>gùnò</i>	<i>gǔⁿ</i>	<i>gùnì-yá</i>	‘become short’
<i>gúní</i>				
<i>ηùníi</i>	<i>ηùnò</i>	—	<i>ηùnì-yá</i>	‘become sour’
<i>ηúníi</i>				
<i>ᵐàání</i>	<i>ᵐàánà</i>	<i>ᵐǎ</i>	<i>ᵐàánì-yà</i>	‘improve’
<i>ᵐáání</i>				
<i>míílí</i>	<i>míílî</i>	<i>mīilī</i>	<i>míílí-yà</i>	‘think’
<i>míilí</i>				
<i>jà?ání</i>	<i>jà?ánà</i>	<i>jà?áⁿ</i>	<i>jà?áni-yà</i>	‘descend’
<i>jà?áni</i>				
<i>sìdání</i>	<i>sìdánà</i>	<i>sìdá</i>	<i>sìdáni-yà</i>	‘ascend’
<i>sídání</i>				
<i>kànàní</i>	<i>kán(á)ná</i>	—	<i>kánání-yá</i>	‘turn red’
<i>kánání</i>				

<i>kitàlĩ</i>	<i>kitàlĩ</i>	—	<i>kitàlĩ-yà</i>	‘worsen’
<i>kítálĩ</i>				
<i>gbà?àlání</i>	<i>gbà?àlání</i>	<i>gbà?àlání</i>	<i>gbà?àlání-yà</i>	‘become thin or dry’
<i>gbá?álání</i>				

Array (311) gives fuller sets of forms for three intransitives, including negative forms.

(311) category	‘come’	‘fall’	‘descend’
Pfv +3Sg	<i>sèé</i>	<i>bèé</i>	<i>jà?ání</i>
Pfv +3Sg Neg	<i>sèè = rē?</i> ~ <i>sèè = rē?</i>	<i>bèè = rē?</i> ~ <i>bèè = rē?</i>	<i>jà?án = nē?</i>
Pfv -3Sg	<i>séé</i>	<i>béé</i>	<i>já?ání</i>
Pfv -3Sg Neg	<i>séé = rē?</i> ~ <i>séé = rē?</i>	<i>béé = rē?</i> ~ <i>béé = rē?</i>	<i>já?án = nē?</i>
Ipfv	<i>sáá</i>	<i>bàà</i>	<i>jà?ánà</i>
Ipfv Neg	<i>sáá = rē?</i>	<i>bàà = rē?</i>	<i>jà?ánà = nē?</i>
Prog	<i>sé-yá</i>	<i>bè-yá</i>	<i>jà?ání-yà</i>
Prog Neg	<i>sé-yá = rē?</i>	<i>bè-yá = rē?</i>	<i>jà?ání-yà = rē?</i>
Imprt	<i>sā</i>	<i>bà</i>	<i>jà?áⁿ</i>
Proh	<i>bí sā = rē?</i>	<i>bí bà = rē?</i>	<i>bí jà?à = nē?</i>
Imprt Pl	<i>ēēⁿ sā</i>	<i>ēēⁿ bà</i>	<i>ēēⁿ jà?āⁿ</i>
Proh Pl	<i>ēēⁿ bí sā = rē?</i>	<i>ēēⁿ bí bà = rē?</i>	<i>ēēⁿ bí jà?à = nē?</i>
Verbal noun	<i>sēē</i>	<i>bó bèè</i>	<i>jà?ání</i>

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 9TAM 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)

Pfv	Ipfv	Imprt	Prog	gloss
+3Sg	+3Sg	+3Sg	+3Sg	
-3Sg	-3Sg	-3Sg	-3Sg	
<i>bèé</i>	<i>bàà</i>	<i>bǎ</i>	<i>bè-yá</i>	‘put down’
<i>béé</i>	<i>báá</i>	<i>bá</i>	<i>bé-yá</i>	
<i>jèé</i>	<i>jàà</i>	<i>jǎ</i>	<i>jè-yá</i>	‘sweeten’
<i>jéé</i>	<i>jáá</i>	<i>já</i>	<i>jé-yá</i>	
<i>dèé</i>	<i>dèè</i>	<i>dě</i>	<i>dè-yá</i>	‘heat (sth)’
<i>déé</i>	<i>déé</i>	<i>dé</i>	<i>dé-yá</i>	
<i>mèé</i>	<i>mèè</i>	<i>mě</i>	<i>mè-yá</i>	‘hear’
<i>méé</i>	<i>méé</i>	<i>mé</i>	<i>mé-yá</i>	
<i>bòé</i>	<i>bòò</i>	<i>bǒ</i>	<i>bò-yá</i>	‘remove’
<i>bóé</i>	<i>bóó</i>	<i>bó</i>	<i>bó-yá</i>	
<i>mòé</i>	<i>mòò</i>	<i>mòó</i>	<i>mò-yá</i>	‘rub’
<i>móé</i>	<i>móó</i>	<i>móó</i>	<i>mó-yá</i>	
<i>jìé</i>	<i>jìè</i>	<i>jǐ</i>	<i>jì-yá</i>	‘see’
<i>jíé</i>	<i>jíé</i>	<i>jí</i>	<i>jí-yá</i>	
<i>dòéⁿ</i>	<i>dòòⁿ</i>	<i>dòóⁿ</i>	<i>dòⁿ-yá</i>	‘step on’
<i>dóéⁿ</i>	<i>dóóⁿ</i>	<i>dóóⁿ</i>	<i>dóⁿ-yá</i>	
<i>jòéⁿ</i>	<i>jòòⁿ</i>	<i>jòóⁿ</i>	<i>jòⁿ-yá</i>	‘rob’
<i>jóéⁿ</i>	<i>jóóⁿ</i>	<i>jóóⁿ</i>	<i>jóⁿ-yá</i>	
<i>yèé</i>	<i>yèè</i>	<i>yèé</i>	<i>yè-yá</i>	‘send (sb)’
<i>yéé</i>	<i>yéè</i>	<i>yéé</i>	<i>yé-yá</i>	
<i>fìé</i>	<i>fìè</i>	<i>fìé</i>	<i>fè-yá</i>	‘fan (v)’
<i>fíé</i>	<i>fíè</i>	<i>fíé</i>	<i>fé-yá</i>	

Similar paradigms for transitive verbs with I-stem perfectives are in (313).

(313) Transitives (I-stem perfective)

Pfv	Ipfv	Imprt	Prog	gloss
+3Sg	+3Sg	+3Sg	+3Sg	
-3Sg	-3Sg	-3Sg	-3Sg	
<i>kìí</i>	<i>kìè</i>	<i>kìí</i>	<i>kì-yá</i>	‘sow’
<i>kíí</i>	<i>kíé</i>	<i>kíí</i>	<i>kí-yá</i>	
<i>mìí</i>	<i>mìè ~ mìà</i>	<i>mǐ</i>	<i>mì-yá</i>	‘drink’
<i>míí</i>	<i>míé ~ míá</i>	<i>mí</i>	<i>mí-yá</i>	
<i>dèíí</i>	<i>dèè</i>	<i>dèí</i>	<i>dè-yá</i>	‘open’
<i>déíí</i>	<i>déé</i>	<i>déí</i>	<i>dé-yá</i>	

<i>kèéí</i>	<i>kèè</i>	<i>kèé</i>	<i>kè-yá</i>	‘call’
<i>kééí</i>	<i>kéé</i>	<i>kéé</i>	<i>ké-yá</i>	
<i>jùlí</i>	<i>jùlò</i>	<i>jùlí</i>	<i>jùlí-yá</i>	‘push’
<i>júlí</i>	<i>júló</i>	<i>júlí</i>	<i>júlí-yá</i>	
<i>bàʔrí</i>	<i>bàʔrà</i>	<i>bàʔrí</i>	<i>bàʔrí-yá</i>	‘hit’
<i>báʔrí</i>	<i>báʔrá</i>	<i>báʔrí</i>	<i>báʔrí-yá</i>	
<i>sìní</i>	<i>sìnà</i>	<i>síⁿ</i>	<i>sìní-yá</i>	‘dig’
<i>síní</i>	<i>síná</i>	<i>síⁿ</i>	<i>síní-yá</i>	
<i>fààlí</i>	<i>fààlà</i>	<i>fààlí</i>	<i>fààlí-yà</i>	‘gather up’
<i>fáálí</i>	<i>fáálá</i>	<i>fáálí</i>	<i>fáálí-yá</i>	
<i>sèèní</i>	<i>sèèná</i>	<i>sèéⁿ</i>	<i>sèèní-yá</i>	‘collect wood’
<i>sééní</i>	<i>sééná</i>	<i>sééⁿ</i>	<i>sééní-yá</i>	
<i>kùlónì</i>	<i>kùlónò</i>	<i>kùló</i>	<i>kùlónì-yà</i>	‘tie’
<i>kúlónì</i>	<i>kúlónò</i>	<i>kúló</i>	<i>kúlónì-yà</i>	
<i>dìmìnì</i>	<i>dìmìnà</i>	<i>dìmí</i>	<i>dìmìnì-yá</i>	‘hurt (sb)’
<i>dímíní</i>	<i>dímínáá</i>	<i>dímí</i>	<i>dímínì-yá</i>	

Full transitive paradigms including negative forms for three transitive verbs are in (314) below. ‘Put is the same stem as intransitive ‘fall’ 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.

(314)	category	‘taste’	‘put down’	‘push’
	Pfv +3Sg	<i>nènéē</i>	<i>bèé</i>	<i>jùlí</i>
	Pfv Neg +3Sg	<i>nènéē = nē?</i>	<i>bèè = ré?</i>	<i>júl = lē?</i>
	Pfv -3Sg	<i>nénéē</i>	<i>béé</i>	<i>júlí</i>
	Pfv Neg -3Sg	<i>nénéē = nē?</i>	<i>béé = ré?</i>	<i>júl = lē?</i>
	Ipfv +3Sg	<i>nènéè</i>	<i>bàà</i>	<i>jùlò</i>
	Ipfv +3Sg Neg	<i>nènéè = nē?</i>	<i>bàà = ré?</i>	<i>jùlò = ré?</i>
	Ipfv -3Sg	<i>nènéè</i>	<i>báá</i>	<i>júló</i>
	Ipfv -3Sg Neg	<i>nénéè = nē?</i>	<i>báá = rē?</i>	<i>júló = rē?</i>
	Prog +3Sg	<i>nèné-yá</i>	<i>bè-yá</i>	<i>jùlí-yá</i>
	Prog +3Sg Neg	<i>nèné-yá = rē?</i>	<i>bè-yá = rē?</i>	<i>jùlí-yá = rē?</i>
	Prog -3Sg	<i>néné-yá</i>	<i>bé-yá</i>	<i>júlí-yá</i>
	Prog -3Sg Neg	<i>néné-yá = rē?</i>	<i>bé-yá = rē?</i>	<i>júlí-yá = rē?</i>
	Impprt -3Sg	<i>nèné</i>	<i>bà</i>	<i>jùlí</i>
	Proh Sg	<i>nèné = nē?</i>	<i>bà = ré?</i>	<i>jùl = lé?</i>
	Impprt Pl	<i>néné</i>	<i>bá</i>	<i>júlí</i>
	Proh Pl	<i>néné = nē?</i>	<i>bá = rē?</i>	<i>júl = lē?</i>
	VbIN	<i>néné ~ nèné</i>	<i>béé ~ bèè</i>	<i>júlí ~ jùlí</i>

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, *ɔɛ* 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 *Cv?v* 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 *bðé* 'exited' becoming negative *bðð = rē?* varying with *bòð = rē?* 'did not exit'.

The perfective stem ends in a front vowel {*i e ε*}. 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 *e(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.

(315)	imperative +3Sg or intr	perfective +3Sg	imperfective +3Sg or intr	gloss
	a. shift to -ATR in imperfective			
	<i>wě</i>	<i>wěē</i> ~ <i>wěē</i> (non-clause-finally)	<i>wèè</i>	'bathe (sb)'
	<i>tě</i>	<i>těē</i>	<i>tèè</i>	'shatter (sth)'
	<i>yě</i>	<i>yěē</i>	<i>yèè</i>	'send on mission'
	<i>dèí</i>	<i>dèī</i>	<i>dèê</i>	'open'
	<i>bègé</i>	<i>bègέ</i>	<i>bègè</i> ~ <i>bègà</i>	'cut'
	<i>dàkó</i>	<i>dàkóí</i>	<i>dàkóò</i>	'catch (sth thrown)'

b. no shift to -ATR in imperfective

<i>kō</i>	<i>kòní</i>	<i>kónó</i>	‘grow’
<i>lě</i>	<i>lèní</i>	<i>lènà</i>	‘look at’
<i>sè?rí</i>	<i>sè?rí</i>	<i>sè?rà</i>	‘sweep’

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

a. +ATR in progressive only

<i>dě</i>	<i>dèé</i>	<i>dèè</i>	<i>dè-yá</i>	‘heat (sb)’
<i>mòó</i>	<i>mòé</i>	<i>mòò</i>	<i>mò-yá</i>	‘rub’

b. initial -ATR in heavy stem preserved in progressive

<i>kò?rìyá</i>	<i>kò?rìyèé</i>	<i>kò?rìyáà</i>	<i>kò?rìyè-yà</i>
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The imperative is usually closely related to the imperfective. 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-*

<i>gbèṅgbéà</i>	‘hammer (sth)’
<i>pèmpé?rà</i>	‘engage energetically in (activity)’
<i>sòⁿsó?rà</i>	‘squat’
<i>possibly syncopated from CvCv-</i>	
<i>jéⁿjéná</i>	‘(group) scatter’

- b. *lèkè-lékà* ‘tickle’ (*k* ~ *g*)
mènè-ménè ‘grope, feel one’s way’
mùgù-múgù ‘break up lumps’
ḡùnù-ḡúnù ‘groan’ or ‘murmur’
yègè-yégè ‘(chicken) scratch the ground’
yùgù-yúgù ‘shake (sth)’
kòlòḡ-gólónà ‘roll’
múnú-múnnù ‘spin, rotate’
- c. *bègè-bégà* ‘chop (with ax)’ *bègè* ~ *bégà* ‘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 syncope. The forms shown in (317a-c) are imperfective, so the base ends in {*a ɔ ɛ*}, 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 =*rĒ?* (= *rĕ?* ~ = *rē?*)

The all-purpose negative enclitic =*rĒ?* ~ =*rĕ?* (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. *mù?úʷ=* \emptyset *wèé* *bòbó=rĕ?*
 1Pl= 3SgNonhObj go.Pfv Bobo=Neg
 ‘We didn’t go to Bobo (city).’
- b. *mā* *dó-sé* [*kòó* *mà*]=*nĒ?*
 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 =*rĒ?* takes the tap *r* as basic, and is neutral as to *ɛ* versus *e*. Since tap *r* is not normally allowed word-initially, and since the *r* in =*rĒ?* 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 (§3.6.1.1) 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. *à* *ɲìné* [*sìbí* *mà*] = *nē?*
 3SgHum forget.Pfv [meat on]=Neg
 ‘He/She didn’t forget the meat.’
- b. *à* *kpèè = nē?*
 3SgHum die.Pfv=Neg
 ‘He/She didn’t die.’ (< *kpèéⁿ*)
- c. *ɲù?ù-nɔ-ðⁿ* *gbá?á aláñ = nē?*
 garment-Nom-Pl dry.off.Pfv=Neg
 ‘The clothes didn’t dry.’ (< *gbá?á aláñ*)

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 *bà?rí = rē?* are also possible, and preferred in careful speech.

- (320) a. *mā* *nāāⁿ* *bál = lē?*
 1Sg 1SgRefl stand.Pfv=Neg
 ‘I didn’t stand/stop.’ (< *báñ*)
- b. *mā* *ná* *bǎ?l = lē?*
 1Sg 3SgHum hit.Pfv=Neg
 ‘I didn’t hit him/her.’ (< *bà?rí*)

ATR Harmony (§3.4.1) determines the surface vowel quality of the enclitic, *ɛ* or *e*. However, when the enclitic directly follows a verb, a *Cvv* verb itself optionally shifts from -ATR to +ATR, thus *à sèè = rē?* ~ *à sèè = rē?* ‘he/she didn’t come’. After any such shift, but before Apocope, the enclitic surfaces with *ɛ* after a syllable with {*a ɛ ɔ*}, 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 *bí = í bāl = lē?* ‘(don’t) stop!’ where +ATR *e* in the negative enclitic is required by the apocopated (or syncopated) /i/.

(321)	host-final V	positive	negative	gloss
a. -ATR				
	<i>a</i>	<i>é=∅ sà sǎǎ</i>	<i>è sá 'sáá=rē?</i>	'it will (not) come'
	<i>ε</i>	<i>mā ní jǐé</i>	<i>mā ní jǐè=rē?</i>	'I did (not) see it'
	<i>o</i>	<i>é=∅ sà tǎlǎ</i>	<i>è sá tǎl=lē?</i>	'it will (not) rot'
b. +ATR				
	<i>i</i>	<i>ē bǎlǐ</i>	<i>bí=í bǎl=lē?</i>	'(don't) stop!'
		<i>é kǐrⁿ</i>	<i>é kǐr=nē?</i>	'it did (not) fly'
	<i>u</i>	<i>è kǔⁿ</i>	<i>bí=í kù=nē?</i>	'(don't) eat it!'
		<i>è gǔⁿ</i>	<i>bí=í gù=nē?</i>	'(don't) shorten it!'
	<i>e</i>	<i>è lě</i>	<i>bí=í lè=rē?</i>	'(don't) look at it!'
		<i>é=∅ wěē</i>	<i>é=∅ wèé=rē?</i>	'it went/didn't go'
		<i>è tǎlǎē</i>	<i>è tǎlǎ=rē?</i>	'it rotted'
	<i>o</i>	<i>è dǎkó</i>	<i>bí=í dǎkó=rē?</i>	'(don't) catch it!'

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.

(322)	host tones	positive	negative	gloss
a. monosyllabics				
	H	<i>èèⁿ déé</i>	<i>èèⁿ déé=rē?</i> (~ <i>déé=rē?</i>)	'They got/didn't get hot.'
		<i>mā náàⁿ jíé</i>	<i>mā náàⁿ jíé=rē?</i> (~ <i>jíé=rē?</i>)	'I saw/didn't see them.'
	L	<i>á=∅ nǎà</i>	<i>á=∅ nǎà=nē?</i>	'He/She is(n't) here.'
	M	<i>á=∅ sà sǎá</i>	<i>à sá 'sǎá=rē?</i>	'He/She will (not) come.'
		<i>má=∅ sà sǎá</i>	<i>mā sǎ sǎá=rē?</i>	'I will/won't come.'
		<i>á=∅ sà bǎó</i>	<i>à sá 'bǎó=rē?</i> (~ <i>bǎó=rē?</i>)	'He/She will (not) exit.'
	<HM>	<i>èèⁿ bíí</i>	<i>èèⁿ bíí=rē?</i>	'They caught/didn't catch fire.'
	<LH>	<i>è dèé</i>	<i>è dèè=rē?</i> (~ <i>dèè=rē?</i>)	'It got/didn't get hot.'
		<i>è bíí</i>	<i>è bíí=rē?</i>	'It caught/didn't catch fire.'

b. nonmonosyllabics

LL	<i>é = Ø sà t̀l̀</i>	<i>è sá t̀l̀ = rē?</i> (~ <i>t̀l̀ = rē?</i>)	‘It will (not) rot.’
HH	<i>sóóló = Ø = è</i>	<i>sóólóó = Ø = rē?</i>	‘It’s (not) five.’
	<i>yí?é-ré = Ø = è</i>	<i>yí?é-rá = Ø = rē?</i>	‘It’s (not) a fish.’
	<i>é = Ø sà kónó</i>	<i>è sá ‘kónó = nē?</i>	‘It will (not) grow.’
MM	<i>mī-íló = Ø = è</i>	<i>mī-íló = Ø = rē?</i>	‘It’s (not) six.’
	<i>jū-ró = Ø = è</i>	<i>jū-ró = Ø = rē?</i>	‘It’s (not) millet.’
	<i>gbāā-ré = Ø = è</i>	<i>gbāā-rá = Ø = rē?</i>	‘It’s (not) a stick.’
LH	<i>à f̀dí</i>	<i>à f̀dí = rē?</i>	‘He/She ran.’
	<i>ẁl-á = Ø = è</i>	<i>ẁl-á = Ø = rē?</i>	‘It’s (not) a dog.’
	<i>b̀bó = Ø = è</i>	<i>b̀bó = Ø = rē?</i>	‘It’s (not) Bobo Dioulasso (city).’
HM	<i>ààⁿ f̀dí</i>	<i>ààⁿ f̀dí = rē?</i>	‘They ran (didn’t run).’
	<i>è k̀tálí</i>	<i>è k̀tálí = rē?</i>	‘It got worse (didn’t get worse).’
	<i>mā ná bà?rí</i>	<i>mā ná bà?rí = lē?</i>	‘I (didn’t) hit him/her.’
HL	<i>á = Ø k̀tálíà</i>	<i>à k̀tálíà = rē?</i>	‘It worsens/doesn’t worsen.’

<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 *C̣ṾC̣* and *C̣ṾṾC̣* sequences. When an apparent *C̣ṾṾ* verb instead preserves its rising tones before the negative enclitic, which happens with *C̣ṾṾ* verbs, this suggests that these forms are structurally bisyllabic, i.e. /C̣i.(y)í/ (323d).

- (323) a. positive imperative *è gũⁿ* ‘Shorten it!’
 prohibitive *bí = í g̀ = nē?* ‘Don’t shorten it!’
- b. positive perfective *à s̀é* ‘He/She came.’
 negative perfective *à s̀è = rē?* ‘He/She didn’t come.’
 (~ *s̀è = rē?*)
- c. positive perfective *mā ná j̀é* ‘I saw him/her.’
 negative perfective *mā ná j̀è = rē?* ‘I didn’t see him/her.’
 (~ *j̀è = rē?*)
- d. positive perfective *è b̀í* ‘It caught fire.’
è b̀í = rē? ‘It didn’t catch fire.’

10.2.2 Status of the glottal stop in negative *= rē?*

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 $=\grave{a} \sim =\grave{\delta}$ and $=y\grave{a}$ (§13.2.1). The combination of the negative and interrogative enclitics is $=r=\grave{a} \sim =r=\grave{\delta}$, the latter after a back rounded vowel.

- (324) a. $\grave{a}\acute{a}^n = \emptyset$ $t\check{u}$ $k\grave{a} = r = \grave{a}$
 3PlHum=Ipfv millet.cakes want.Stat=Neg=Q
 ‘Don’t they like millet cakes?’ (< $t\check{u}$)
- b. $\grave{a}\grave{a}^n$ $b\acute{u}l\acute{o} = r = \grave{\delta}$
 3PlHum return.Ipfv=Neg=Q
 ‘Won’t they go back?’

There is also a textual passage where a clause ending in negative $=r\bar{E}?$ 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) $[[m\grave{e}?\acute{\epsilon}^n \ b\grave{u}?\grave{u}] \ s\acute{e}=?]$ $[[n\acute{a}\bar{a} \ k\acute{u}d\bar{o} \ m\acute{i}] \ s\grave{e}\grave{e}=r\bar{E}?$
 [[person all] come.Pfv] [[woman old Dem] come.Pfv=Neg]
 ‘All the (other) people came, but that old woman didn’t come.’ (2016_04 @ 03:00)

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) ‘they ...’ ‘he/she ...’ ‘I ...’
- a. perfective
- | | | | |
|--|---|--|-------------------|
| $\grave{a}\acute{a}^n \ s\acute{e}\acute{e}$ | $\grave{a} \ s\grave{e}\acute{e}$ | $m\bar{a} \ s\acute{e}\acute{e}$ | ‘... came’ |
| $\grave{a}\grave{a}^n \ s\acute{e}\acute{e} = r\bar{E}?$ | $\grave{a} \ s\grave{e}\grave{e} = r\bar{E}?$ | $m\bar{a} \ s\bar{e}\bar{e} = r\bar{E}?$ | ‘... didn’t come’ |
- (also negative variants with +ATR $s\acute{e}\acute{e} = r\bar{E}?$)
- b. present (imperfective stem begins with H-tone)
- | | | | |
|--|---|--|----------------------|
| $\grave{a}\acute{a}^n = \emptyset \ ^\prime s\acute{a}\acute{a}$ | $\acute{a} = \emptyset \ ^\prime s\acute{a}\acute{a}$ | $m\acute{a} = \emptyset \ ^\prime s\acute{a}\acute{a}$ | ‘... come(s)’ |
| $\grave{a}\grave{a}^n \ s\acute{a}\acute{a} = r\bar{E}?$ | $\grave{a} \ s\acute{a}\acute{a} = r\bar{E}?$ | $m\bar{a} \ s\bar{a}\bar{a} = r\bar{E}?$ | ‘... do(es)n’t come’ |

c. future

$\text{\grave{a}\acute{a}^n} = \emptyset \text{ s\grave{a} s\acute{a}\acute{a}} \quad \acute{a} = \emptyset \text{ s\grave{a} s\acute{a}\acute{a}} \quad \acute{m}\acute{a} = \emptyset \text{ s\grave{a} s\acute{a}\acute{a}} \quad \text{'... will come'}$
 $\text{\grave{a}\acute{a}^n s\acute{a}} \text{'s\acute{a}\acute{a} = r\bar{e}?\} \quad \acute{a} s\acute{a} \text{'s\acute{a}\acute{a} = r\bar{e}?\} \quad \acute{m}\bar{a} \text{ s\bar{a} s\acute{a}\acute{a} = r\bar{e}?\} \quad \text{'... won't come'}$

d. present (imperfective stem begins with L-tone)

$\text{\grave{a}\acute{a}^n} = \emptyset \text{ b\grave{a}\grave{a}} \quad \acute{a} = \emptyset \text{ b\grave{a}\grave{a}} \quad \acute{m}\acute{a} = \emptyset \text{ b\grave{a}\grave{a}} \quad \text{'... falls'}$
 $\text{\grave{a}\acute{a}^n b\grave{a}\grave{a} = r\bar{e}?\} \quad \acute{a} b\grave{a}\grave{a} = r\bar{e}?\} \quad \acute{m}\acute{a} b\grave{a}\grave{a} = r\bar{e}?\} \quad \text{'... do(es)n't fall'}$

e. progressive

$\text{\grave{a}\acute{a}^n} = \emptyset \text{'s\acute{e}-y\acute{a}} \quad \acute{a} = \emptyset \text{'s\acute{e}-y\acute{a}} \quad \acute{m}\acute{a} = \emptyset \text{'s\acute{e}-y\acute{a}} \quad \text{'... are/is coming'}$
 $\text{\grave{a}\acute{a}^n s\acute{e}-y\acute{a} = r\bar{e}?\} \quad \acute{a} s\grave{e}-y\acute{a} = r\bar{e}?\} \quad \acute{m}\bar{a} s\acute{e}-y\acute{a} = r\bar{e}?\} \quad \text{'... aren't/isn't/am not coming'}$
 $\text{\grave{a}\acute{a}^n} = \emptyset \text{ b\grave{e}-y\acute{a}} \quad \acute{a} = \emptyset \text{ b\grave{e}-y\acute{a}} \quad \acute{m}\acute{a} = \emptyset \text{ b\grave{e}-y\acute{a}} \quad \text{'... are/is falling'}$
 $\text{\grave{a}\acute{a}^n b\acute{e}-y\acute{a} = r\bar{e}?\} \quad \acute{a} b\grave{e}-y\acute{a} = r\bar{e}?\} \quad \acute{m}\bar{a} b\acute{e}-y\acute{a} = r\bar{e}?\} \quad \text{'... aren't/isn't/am not falling'}$

In negative perfectives (326a) LH-toned *s\acute{e}\acute{e}* flattens to *s\grave{e}\grave{e}* 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 $\text{\grave{a}\acute{a}^n}$, which combines with the floating H-tone as / $\text{\grave{a}\acute{a}^n}$ H/ \rightarrow $\text{\grave{a}\acute{a}^n}$ in the positive examples in (326b-e), is heard as L-toned $\text{\grave{a}\acute{a}^n}$ in the negative examples in (326b,c,e). Likewise, human 3Sg \acute{a} is raised to / \acute{a} H/ \rightarrow \acute{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 *s\acute{e}-y\acute{a}*, where the stem *s\acute{e}-* shows the lexical H-tone of 'come' also seen in its imperfective *s\acute{a}\acute{a}*. Compare *b\grave{e}-y\acute{a}*, progressive of 'fall', with L-toned *b\grave{e}-* as in imperfective *b\grave{a}\grave{a}*. 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 *s\grave{a}* unexpectedly becomes H-toned under negation, except when M-Spreading has occurred. Thus human 3Pl $\text{\grave{a}\acute{a}^n s\acute{a}$, human 3Sg $\acute{a} s\acute{a}$, but 1Sg $\acute{m}\bar{a} \text{ s\bar{a}}$ (326c).

The other morphemes that unexpectedly become H-toned in the negative in (326) are monomoraic subject proclitics. Human 3Sg is normally L-toned \acute{a} 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 \acute{a} , hence $\acute{a} b\grave{a}\grave{a} = r\bar{e}?\}$ 'he/she doesn't fall'. The 1Sg counterpart is likewise $\acute{m}\acute{a} b\grave{a}\grave{a} = r\bar{e}?\}$. 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 *s\acute{a}* in (326c), and/or in the 3Sg and 1Sg pronouns \acute{a} and $\acute{m}\acute{a}$ 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 *àá* from /*ààⁿ*/ in *àáⁿ bàà = rē?* ‘they don’t fall’ in (326d). The same *ààⁿ* remains L-toned in *ààⁿ sáá = rē?* ‘they don’t come’ (326b), which has exactly the same categorial structure as *àáⁿ bàà = rē?*, but differs in that imperfective *bàà* ‘fall(s)’ is lexically L-toned, while *sáá* ‘come(s)’ is lexically H-toned. The raising under negation of 3Sg *à* to *á*, and of 1Sg *mā* to *má*, likewise occurs only before L-toned *bàà* 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 *à sèé* ‘he/she came’ and *à sèè = rē?* ‘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. *à sá *sáá = rē?* ‘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 morphotonological 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 *à* and 1Sg *mā* 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. *àáⁿ / á / má* *wùlá* *dòndò = nē?*
 3PIHum / 3SgHum / 1Sg dog eat.meat.Ipfv=Neg
 ‘They/He-or-she/I do(es)n’t eat dog (meat).’ (< *wùlà*)
- b. *ààⁿ / à / mā* *yí?é* *dòndò = nē?*
 3PIHum / 3SgHum / 1Sg fish eat.meat.Ipfv=Neg
 ‘They/He-or-she do(es)n’t eat fish.’

- c. $\hat{a}\hat{a}^n / \hat{a} / m\bar{a}$ $gb\bar{a}\hat{a}$ $d\hat{o}n\hat{o} = n\bar{e}?$
 3PlHum / 3SgHum / 1Sg wood eat.meat.Ipfv=Neg
 ‘They/He-or-she do(es)n’t eat wood.’ (< $gb\bar{a}\hat{a}$)

See also the data on positive versus negative experiential perfects in §15.1.1.3.

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 $k\acute{u}$ (§15.1.1.1);
- continuative (‘keep doing’) with $t\acute{o}\acute{o} \sim t\acute{u}\acute{u}$ (§15.1.1.2)
- experiential perfect (‘have ever done’) with $d\acute{u}$ (§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. $m\bar{a}$ $s\bar{i}b\acute{i}$ $d\hat{o}n\acute{i}(\acute{i})$
 1Sg meat eat.meat.Pfv
 ‘I ate (the) meat.’
- b. $\acute{a} =$ \emptyset $w\grave{e}\acute{e}$ $b\hat{o}b\acute{o}$
 3Sg= 3SgNonhObj go.Pfv 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 (566) 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 $m\bar{a}$, human 3Pl pronoun $\hat{a}\hat{a}^n$, and human 3Sg \hat{a} 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+ = \emptyset /.

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 $\{i\ e\ \epsilon\}$, 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 ϵ , the choice depending on the ATR category of the final syllable of the stem. However, in some contexts -ATR ϵ optionally becomes +ATR e , for example when followed by negative enclitic $=r\bar{E}?$, by past $k\acute{e}$, spatial adverbs $n\grave{a}\grave{a}$ ‘here’ and $d\grave{e}$ ‘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 $Cv\bar{v}$ 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 tonal 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 $Cv\bar{v}$ stems have +3Sg $C\bar{v}\bar{v}$ and -3Sg $C\acute{v}\acute{v}$. There are also several cases of +3Sg $C\bar{v}\bar{v}$ or $C\bar{v}\bar{v}$ versus -3Sg $C\bar{v}\bar{v}$, suggesting that these verbs have a lexical H-tone medially. Bisyllabic $CvCv$ stems are +3Sg $C\bar{v}C\bar{v}$ and -3Sg $C\acute{v}C\bar{v}$ (the latter with final M-tone). Heavy stems, e.g. $CvCv\bar{v}$, $Cv\bar{v}Cv$, $CvCvCv$, and $CvCvCvCv$, 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 $Cv\bar{v}$ syllables.

(329) Perfective verbs (intransitive, prepausal)

+3Sg	-3Sg	gloss
a. E-stem (-ATR ϵ)		
<i>monosyllabic</i>		
$b\bar{e}\acute{e}$	$b\acute{e}\acute{e}$	‘fall’
$d\bar{e}\acute{e}$	$d\acute{e}\acute{e}$	‘get hot’
$s\bar{e}\acute{e}$	$s\acute{e}\acute{e}$	‘come’
$kp\bar{e}\acute{e}^n$	$kp\acute{e}\acute{e}^n$	‘die’
$b\bar{o}\acute{e}$	$b\acute{o}\acute{e}$	‘exit’
$s\bar{o}\acute{e}$	$s\acute{o}\acute{e}$	‘enter’
<i>CvCv (bimoraic)</i>		
$j\bar{i}n\acute{e}$	$j\acute{i}n\bar{e}$	‘forget’ (VO)
$d\bar{e}?\acute{e}$	$d\acute{e}?\bar{e}$	‘escape’
$t\bar{e}?\acute{e}$	$t\acute{e}?\bar{e}$	‘go’

<i>heavy</i>		
<i>jǐmē</i>	<i>jímē</i>	‘weep’
b. E-stem (+ATR <i>e</i> , less common)		
<i>monosyllabic</i>		
<i>béé</i>	<i>béeé</i>	‘be sated (full after eating)’
<i>těē</i>	<i>tēē</i>	‘be shattered’
<i>nonmonosyllabic</i>		
<i>tòlóē</i>	<i>tólē(ē)</i>	‘rot’
~ <i>tòléē</i>		
<i>yèlélēē</i>	<i>yéélélēē</i>	‘melt’
<i>wàwáwē</i>	<i>wáwáwē</i>	‘yawn’
c. I-stem (stems with final <i>Cv</i>)		
<i>CvCv stem</i>		
<i>bùlí</i>	<i>búlí</i>	‘return’
<i>fídí</i>	<i>fídí</i>	‘run’
<i>CvCvv stem</i>		
<i>jàání</i>	<i>jàání</i>	‘improve, become good’
<i>CvCvCv stem</i>		
<i>sídání</i>	<i>sídání</i>	‘ascend’
<i>jàʔání</i>	<i>jàʔání</i>	‘descend’
<i>tùnùní</i>	<i>tùnùní</i>	‘become lost’
<i>CvCvCvCv stem</i>		
<i>gbàʔálání</i>	<i>gbàʔálání</i>	‘become thin’ or ‘dry off’
d. I-stem (stems with final <i>Cvv</i>)		
<i>Cvv stem</i>		
<i>ǰǐ</i>	<i>ǰí</i>	‘spend night’
<i>sòí</i>	<i>sóí</i>	‘wait’
<i>CvCvv stem</i>		
<i>jààbí</i>	<i>jàábí</i>	‘reply’
<i>mìlǐ</i>	<i>mílǐ</i>	‘think’

I-stem perfectives with final short *í* like those for ‘return’ and ‘run’, are sometimes extended as *íí* ~ *íí*, mimicking lexical final long vowels like *íí* ~ *íí* in verbs like ‘think’. In principle, the final long vowel in *bùlǐ* ‘returned’ should occur only in continuity intonation in discourse, while that in *mìlǐ* ‘thought’ should be regular in all clause-final or isolation pronunciations (cf. imperfectives *bùlò* and *mìlìà*). 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 *fídí* for ‘ran’, since imperfective *fídéé* has *CvCvv* shape, but in fact the perfective often ends in a short vowel (*fídí*).

Perfective forms ending in {*í 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, *bðé* ‘exited’ (+3Sg) becomes *bð*. Before the negative enclitic such forms have long vowels, suggesting a Monophthongization rule (§3.6.2.4), e.g. /œ/ → *œ̄*, as in *bðð = rē?* ~ *bðð̄ = rē?* ‘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>i</i> or <i>ii</i> , no systematic trimming						
	<i>Cii</i>						
	<i>nĩ</i>	<i>nĩ</i>	<i>nĩ = rē?</i>	<i>nĩ̄ = rē?</i>	<i>nìè</i>		‘spend night’
	<i>CvCi</i>						
	<i>bùlí</i>	<i>búli</i>	<i>bùlú = rē?</i>	<i>búlū = rē?</i>	<i>búló</i>		‘return’
	<i>CvCvCi</i> (subject to Syncope)						
	<i>sídání</i>	<i>sídání</i>	<i>sídán̄ = nē?</i>	<i>sídán̄̄ = nē?</i>	<i>sídánà</i>		‘ascend’
	final <i>Cii</i>						
	<i>mìlílí</i>	<i>míílí</i>	<i>mìlílí = rē?</i>	<i>míílí̄ = rē?</i>	<i>míílî</i>		‘think’
	b. final <i>e</i> in <i>Coe</i> trimmed medially, no lengthening						
	<i>tólóē</i>	<i>tólēē</i>	<i>tóló = rē?</i>	<i>tólō = rē?</i>	<i>tòlò</i>		‘rot’
		~ <i>tólēē</i>					
	c. Monophthongization						
	<i>bðé</i>	<i>bóé</i>	<i>bðð = rē?</i>	<i>bóó = rē?</i>	<i>bóó</i>		‘exit’
			~ <i>bðð̄ = rē?</i>	~ <i>bóó̄ = rē?</i>			
	<i>bèé</i>	<i>béé</i>	<i>bèè = rē?</i>	<i>béé = rē?</i>	<i>bàà</i>		‘fall’
			~ <i>bèè̄ = rē?</i>	~ <i>béé̄ = rē?</i>			
	<i>dèé</i>	<i>déé</i>	<i>dèè = rē?</i>	<i>déé = rē?</i>	<i>dèè</i>		‘get hot’
			~ <i>dèè̄ = rē?</i>	~ <i>déé̄ = rē?</i>			

When the final {*ī ē ē̄ é*} is deleted, the underlying length of the final vowel is revealed. For example, although *bùlí* ‘returned’ can be pronounced *bùlî*, mimic-ing perfectives like *mìlílí* ‘thought’, when the negative enclitic is added the form *bùlú = rē?* shows that ‘return’ ends in *Cv* while the form *mìlílí = rē?* shows that ‘think’ ends in *Cvv*. This distinction is confirmed by their imperfectives (*búlú* and *míílî*). We might therefore analyse the perfectives (omitting initial tones) as underlying /bulú̄/, /pií̄/, /miilí̄/, /sidání/, /tolóē/, /bœœé/, /beéé/ (or /baaé/),

and /bɔɔ́/. 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 [dǔ] (+3Sg) and [dǔ́] (-3Sg), and ‘exited’ is heard as [dǔǔ́] (+3Sg) and [dǔǔ́́] (-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 = rē?*) are omitted in this array.

(331) Perfective paradigm (intransitive)

	‘__ fell’	‘__ didn’t fall’	
a. -3Sg perfective			
<i>pronouns, M-toned</i>			
1Sg	<i>mā béé</i>	<i>mā bēē = rē?</i>	
2Sg	<i>wō béé</i>	<i>wō bēē = rē?</i>	
2Pl	<i>ēēⁿ béé</i>	<i>ēēⁿ bēē = rē?</i>	
<i>other plural pronouns</i>			
1Pl	<i>mù?ùⁿ béé</i>	<i>mù?ùⁿ bēé = rē?</i>	
3PlHum	<i>ààⁿ béé</i>	<i>ààⁿ bēé = rē?</i>	
3PlNonh	<i>èèⁿ béé</i>	<i>èèⁿ bēé = rē?</i>	
<i>plural noun</i>			
‘people’	<i>mè?è-ná-àⁿ béé</i>	<i>mè?è-ná-àⁿ bēé = rē?</i>	
<i>personal name</i>			
‘Bakari’	<i>bákàr béé</i>	<i>bákàr bēé = rē?</i>	
b. +3Sg perfective			
<i>pronouns</i>			
3SgHum	<i>à bèé</i>	<i>à bèè = rē?</i>	
3SgNonh	<i>è bèé</i>	<i>è bèè = rē?</i>	
<i>singular nouns</i>			
‘person’	<i>mè?éⁿ bèé</i>	<i>mè?éⁿ bèè = rē?</i>	(< <i>mè?èⁿ</i>)
‘wall’	<i>kógó bèé</i>	<i>kógó bèè = rē?</i>	
‘fish’	<i>yí?é bèé</i>	<i>yí?é bèè = rē?</i>	
‘onion’	<i>jābá bèé</i>	<i>jābá bèè = rē?</i>	(< <i>jābā</i>)
‘brick’	<i>tòfá bèé</i>	<i>tòfá bèè = rē?</i>	

Perfective forms for transitives that can take a range of objects are in (332). Imperfective stems are shown for comparison.

(332) Perfective paradigm (transitive)

positive		negative		Ipfv	gloss
+3Sg	-3Sg	+3Sg	-3Sg	+3Sg	
a. E-stem (-ATR ϵ)					
<i>monosyllabic</i>					
<i>bèé</i>	<i>béé</i>	<i>bèè = rē?</i>	<i>béé = rē?</i>	<i>bàà</i>	‘put down’
<i>dèé</i>	<i>déé</i>	<i>dèè = rē?</i>	<i>déé = rē?</i>	<i>děē</i>	‘heat (sth)’
<i>cìé</i>	<i>cíé</i>	<i>cìè = rē?</i>	<i>cíé = rē?</i>	<i>cìè</i>	‘put (in sth)’
<i>dḍéⁿ</i>	<i>dḍēⁿ</i>	<i>dḍó = nē?</i>	<i>dḍó = nē?</i>	<i>dḍḍⁿ</i>	‘step on’
<i>jḍéⁿ</i>	<i>jḍēⁿ</i>	<i>jḍó = nē?</i>	<i>jḍó = nē?</i>	<i>jḍḍⁿ</i>	‘rob’
<i>nonmonosyllabic</i>					
<i>dè?éē</i>	<i>dé?èè</i>	<i>dè?é = rē?</i>	<i>dé?ē = rē?</i>	<i>dá?á</i>	‘let go’
<i>dèrēē</i>	<i>dérēè</i>	<i>dèr = rē?</i>	<i>dér = rē?</i>	<i>dá?á</i>	‘squeeze’
<i>sò?éē</i>	<i>só?èè</i>	<i>sò?ó = rē?</i>	<i>só?ō = rē?</i>	<i>sò?ò</i>	‘catch’
<i>mḍmḍē</i>	<i>mómḍē</i>	<i>mḍmḍó = nē?</i>	<i>mómḍó = nē?</i>	<i>mḍmḍò</i>	‘carry on back’
b. E-stem (+ATR e)					
<i>monosyllabic</i>					
<i>yěē</i>	<i>yéē</i>	<i>yèè = rē?</i>	<i>yéē = rē?</i>	<i>yèè</i>	‘send (on a mission)’
<i>těē</i>	<i>téē</i>	<i>tèè = rē?</i>	<i>téē = rē?</i>	<i>tèè</i>	‘shatter’
<i>nonmonosyllabic</i>					
<i>gèrréē</i>	<i>gèrrēè</i>	<i>gèrré = rē?</i>	<i>gèrré = rē?</i>	<i>gèrréà</i>	‘belch’ (onomatopoeic)
c. I-stem					
<i>monosyllabic</i>					
<i>dèíí</i>	<i>déíí</i>	<i>dèíí = nē?</i>	<i>déíí = nē?</i>	<i>déé</i>	‘open (door); uncover’
<i>nonmonosyllabic</i>					
<i>bà?rí</i>	<i>bá?rī</i>	<i>bă?l = lē?</i>	<i>bâ?l = lē?</i>	<i>bà?rà</i>	‘hit’
(variants <i>bà?r̄ = rē?</i> , <i>bá?r̄ = rē?</i>)					
<i>dàkóí</i>	<i>dákóí</i>	<i>dàkóó = rē?</i>	<i>dákóó = rē?</i>	<i>dàkó</i>	‘catch (sth thrown)’
<i>gíléní</i>	<i>gíléní</i>	<i>gílén̄ = nē?</i>	<i>gílén̄ = nē?</i>	<i>gílénà</i>	‘hang up’

Examples with ‘he/she hit ___’ are in (333). The variants with $\acute{a} \emptyset$ instead of $\grave{a} ná$ or $\grave{a} ní$ for 3Sg object are difficult to model, see (103a) and discussion preceding it. The variant $\acute{a} (\grave{a})\grave{a}^n$ for expected $\# \grave{a} \grave{a}\grave{a}^n$ 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 m̄ báʔrī	à m̄ báʔr̄ = rēʔ
2Sg	à w̄ báʔrī	à w̄ báʔr̄ = rēʔ
1Pl	à mùʔù ⁿ báʔrī	à mùʔù ⁿ báʔr̄ = rēʔ
2Pl	à ēē ⁿ báʔrī	à ēē ⁿ báʔr̄ = rēʔ
3PlHum	á àà ⁿ báʔrī	á àà ⁿ báʔr̄ = rēʔ
	~ à náà(à) ⁿ báʔrī	~ à náà(à) ⁿ báʔr̄ = rēʔ
3PlNonh	á èè ⁿ báʔrī	á èè ⁿ báʔr̄ = rēʔ
	~ à nî(i) ⁿ báʔrī	~ à nî(i) ⁿ báʔr̄ = rēʔ

plural noun

‘people’	à mèʔè-ná-à ⁿ báʔrī	à mèʔè-ná-à ⁿ báʔr̄ = rēʔ
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b. 3Sg perfective form

pronouns

3SgHum	à ná bàʔrī	à ná bàʔr̄ = rēʔ
	~ á ∅ bàʔrī	~ á ∅ bàʔr̄ = rēʔ
3SgNonh	à ní bàʔrī	à ní bàʔr̄ = rēʔ
	~ á ∅ bàʔrī	~ á ∅ bàʔr̄ = rēʔ

singular nouns

‘person’	à mèʔé ⁿ bàʔrī	à mèʔé ⁿ bàʔr̄ = rēʔ	(< mèʔé ⁿ)
‘wall’	à kógó bàʔrī	à kógó bàʔr̄ = rēʔ	(< kógō)
‘fish’	à yíʔé bàʔrī	à yíʔé bàʔr̄ = rēʔ	(< yíʔé)
‘onion’	à jābá bàʔrī	à jābá bàʔr̄ = rēʔ	(< jābā)
‘brick’	à tòfá bàʔrī	à tòfá bàʔr̄ = rēʔ	(< tòfá)

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 *sà*) both use of the imperfective stem; the two are distinguished by a post-subject particle *sà* which occurs in the future.

The imperfective stem ends in *a* or less often *ε*. The latter may reflect earlier **a* via contraction, e.g. **ea* → *ε(ε)*. Vocalic contractions are indeed common. Typical imperfective shapes for monosyllabics are *Caa*, *Cɔɔ*, *Cεε*, *Cie*, and *Cia*, the last two often in free variation. Typical imperfective shapes for *CvCv* bisyllabics are *CiCa*, *CuCo*, and several types of *Cv₁Cv₂* with repeated non-high vowel (usually -ATR *CɔCo*, *CaCa*, and *CεCε*, less often +ATR *CoCo* and *CeCe*). Trisyllabics generally end in *a* (or *ɔ* 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. *sáá* ‘come(s)’ versus *bàà* ‘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 *fidéè* ‘run(s)’, *jà?ánà* ‘descend(s)’, and *sègèléá* ‘limp(s)’, but HL is attested in *gbógò* ‘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 *báá* after -3Sg object. Some bisyllabic and even longer transitives similarly have an all-L versus all-H split, e.g. +3Sg *sàná* ~ -3Sg *sáná* ‘buy’ and a rare trisyllabic stem without lexical medial H-tone like +3Sg *sìdànàà* ~ -3Sg *sídánáá*. However, many bisyllabics and most polysyllabics end in a falling HL pattern, i.e. a lexical H-tone and automatic final L-tone, following the variable L (+3Sg) or H (-3Sg) onset, e.g. *sèlà* ~ *sélà* ‘carve(s)’, *dùtò?ónò* ~ *dútò?ónò* ‘shut(s), cover(s)’ and *firikè* ~ *fírikè* ‘hobble(s) (an animal)’. A final H-tone is rare and is perhaps limited to frozen compounds, e.g. *sà?átáá* ~ *sá?átáá* ‘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 *Cvv* to *Cv*. 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 *bàà*).

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’
	1Sg	<i>má ‘bóó</i>	<i>má bàà</i>
	2Sg	<i>wó ‘bóó</i>	<i>wó bàà</i>
	1Pl	<i>mù?úⁿ ‘bóó</i>	<i>mù?úⁿ bàà</i>
	2Pl	<i>ēéⁿ ‘bóó</i>	<i>ēéⁿ bàà</i>
	3SgHum	<i>á ‘bóó</i>	<i>á bàà</i>
	3SgNonh	<i>é ‘bóó</i>	<i>é bàà</i>
	3PlHum	<i>àáⁿ ‘bóó</i>	<i>àáⁿ bàà</i>
	3PlNonh	<i>èéⁿ ‘bóó</i>	<i>èéⁿ bàà</i>

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 =Ø enclitic in the transcription indicates that the H-tone has attached to the host pronoun.

(335)		‘exit (v)’	‘fall’
	1Sg	<i>má = Ø ‘bɔ́ɔ</i>	<i>má = Ø bàà</i>
	2Sg	<i>wó = Ø ‘bɔ́ɔ</i>	<i>wó = Ø bàà</i>
	1Pl	<i>mù?úⁿ = Ø ‘bɔ́ɔ</i>	<i>mù?úⁿ = Ø bàà</i>
	2Pl	<i>ēéⁿ = Ø ‘bɔ́ɔ</i>	<i>ēéⁿ = Ø bàà</i>
	3SgHum	<i>á = Ø ‘bɔ́ɔ</i>	<i>á = Ø bàà</i>
	3SgNonh	<i>é = Ø ‘bɔ́ɔ</i>	<i>é = Ø bàà</i>
	3PlHum	<i>àáⁿ = Ø ‘bɔ́ɔ</i>	<i>àáⁿ = Ø bàà</i>
	3PlNonh	<i>èéⁿ = Ø ‘bɔ́ɔ</i>	<i>èéⁿ = Ø bàà</i>

/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. *bákàrí = Ø* *‘bɔ́ɔ / bàà*
 B=Ipfv exit.Ipfv / fall.Ipfv
 ‘Bakari goes out/falls (regularly).’ (< *bákàrí*)
- b. *yí?é-rá = Ø* *‘bɔ́ɔ / bàà*
 fish-Nom=Ipfv exit.Ipfv / fall.Ipfv
 ‘The fish goes out/falls (regularly).’ (< *yí?é-rá*)
- c. *jàngbáá-rà = Ø* *bɔ́ɔ / bàà*
 cat-Nom=Ipfv exit.Ipfv / fall.Ipfv
 ‘The cat goes out/falls (regularly).’
- d. *bú?ū-nà = Ø* *bɔ́ɔ / bàà*
 liver-Nom=Ipfv exit.Ipfv / fall.Ipfv
 ‘The liver comes out/falls (regularly).’

When the subject is a plural noun, if the isolation form ends in L-toned *-rà-àⁿ*, there is a final rise due to the /H+=Ø/ enclitic (337a). If the isolation form ends in HL-toned *-rá-àⁿ*, I usually hear the form with imperfective enclitic as *-rá-àⁿ = Ø* with no overt tonal effect of the

enclitic. However, I sometimes hear it as *-rá-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-rà-áⁿ=Ø* *yí?é* *dòndò*
 cat-Nom-Pl=Ipfv fish eat.meat.Ipfv
 ‘(The) cats eat fish (regularly).’
- b. *yí?é-rá-àⁿ=Ø* *bóó / bàà*
 ~ *yí?é-rá-āⁿ=Ø*
 fish-Nom-Pl=Ipfv exit.Ipfv / fall.Ipfv
 ‘(The) fish-Pl go out/fall (regularly).’

The imperfective enclitic /H+=Ø/ is also regular on all subjects preceding future particle *sà* (338a).

- (338) *má=Ø / mù?úⁿ=Ø / àáⁿ=Ø* *sà* *bóó*
 1Sg=Ipfv / 1Pl=Ipfv / 3PlHum=Ipfv Fut exit.Ipfv
 ‘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* *‘yí?é* *dòndò*
 3SgHum=Ipfv/3PlHum=Ipfv **fish** eat.meat.Ipfv
 ‘He/She eats fish.’ (< *yí?é*)
- b. *à* *yí?é* *dòní*
 3SgHum **fish** eat.meat.Pfv
 ‘He/She ate a/the fish.’
- c. *ààⁿ* *yí?é* *dòní*
 3PlHum **fish** eat.meat.Pfv
 ‘They ate a/the fish.’

Further imperfective examples are in (340).

- (340) a. *é=Ø* *‘yí* *mìà*
 3SgNonh=Ipfv water drink.Ipfv
 ‘It (=sheep) drinks water.’

- b. $\acute{a} = \emptyset$ *'níná?ā* *kpààⁿ*
 3SgHum=Ipfv scorpion kill.Ipfv
 'He/She kills a scorpion (regularly).'
- c. $\acute{a} = \emptyset$ *bā?á* *mià*
 3SgHum=Ipfv porridge drink.Ipfv
 'He/She drinks porridge.' (< *bā?ā*)
- d. $\acute{a} = \emptyset$ *jū* *kùnò*
 3SgHum=Ipfv millet eat.Ipfv
 'He/She eats millet.' (< *jū*)
- e. $\acute{a} = \emptyset$ *kūmēé* *kùnò*
 3SgHum=Ipfv meal eat.Ipfv
 'He/She eats a meal.' (< *kūmēé*)
- f. $má = \emptyset / mù?úⁿ = \emptyset / àáⁿ = \emptyset$ *'yí?é* *dònò*
 1Sg=Ipfv / 1Pl=Ipfv / 3PlHum=Ipfv fish eat.meat.Ipfv
 'I/we/they eat fish.'
- g. $\acute{a} = \emptyset$ *ààⁿ* *bá?rá*
 3SgHum=Ipfv 3PlHum hit.Ipfv
 'He/She hits them (regularly).'
- h. $jàngbáá-rà = \emptyset$ *yí?é* *dònò*
 cat-Nom=Ipfv fish eat.meat.Ipfv
 'A/The cat eats fish.'
- i. $bákàrí = \emptyset$ *'yí?é* *dònò*
 B=Ipfv fish eat.meat.Ipfv
 'Bakari eats fish.'

Imperfective enclitic /H+= \emptyset / can be equated morphemically with the locational 'be (present)' subject enclitic /H+= \emptyset / (§11.2.3.1), exemplified in (341).

- (341) $bákàrí = \emptyset$ [*kálá* *tò*]
 B=be [home in]
 'Bakari is at home.'

A linking enclitic = \acute{n} ~ = \grave{n} 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. *sóʔóó-sòʔò* *má = Ø* *nà* *bàʔrà*
 day-day 1Sg=Ipfv 3SgHumObj hit.Ipfv
 ‘Every day I hit-Present him/her.’
- b. *sóʔóó-sòʔò* *má = Ø* *nààⁿ* *báʔrá*
 day-day 1Sg=Ipfv 3PlHumObj hit.Ipfv
 ‘Every day I hit-Present them.’
- c. *má = Ø* *síbí* *bègà*
 1Sg=Ipfv meat cut.Ipfv
 ‘I (regularly) cut-Present (the) meat.’ (< *síbì*)
- d. *má = Ø* *‘yíʔé-rá-àⁿ* *bégá*
 1Sg=Ipfv fish-Nom-Pl cut.Ipfv
 ‘I (regularly) cut-Present (the) fish-Pl.’
- e. *ɲéé-ɲè* *má = Ø* *nì* *wàá* *bòbó*
 year-year 1Sg=Ipfv 3SgNonhObj go.Ipfv 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.

(343)		‘run’	‘descend’
	1Sg	<i>má = ∅ fɪdɛ̀ɛ̀</i>	<i>má = ∅ jàʔánà</i>
	2Sg	<i>wó = ∅ fɪdɛ̀ɛ̀</i>	<i>wó = ∅ jàʔánà</i>
	1Pl	<i>mùʔúⁿ = ∅ fɪdɛ̀ɛ̀</i>	<i>mùʔúⁿ = ∅ jàʔánà</i>
	2Pl	<i>ēéⁿ = ∅ fɪdɛ̀ɛ̀</i>	<i>ēéⁿ = ∅ jàʔánà</i>
	3SgHum	<i>á = ∅ fɪdɛ̀ɛ̀</i>	<i>á = ∅ jàʔánà</i>
	3SgNonh	<i>é = ∅ fɪdɛ̀ɛ̀</i>	<i>é = ∅ jàʔánà</i>
	3PlHum	<i>àáⁿ = ∅ fɪdɛ̀ɛ̀</i>	<i>àáⁿ = ∅ jàʔánà</i>
	3PlNonh	<i>èéⁿ = ∅ fɪdɛ̀ɛ̀</i>	<i>èéⁿ = ∅</i>
	‘woman’	<i>ɲáā-nà = ∅ ...</i>	<i>... fɪdɛ̀ɛ̀</i>
	‘women’	<i>ɲáā-nà-áⁿ = ∅ ...</i>	<i>... jàʔánà</i>
		<i>... fɪdɛ̀ɛ̀</i>	<i>... jàʔánà</i>

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.

(344)		‘think’	‘go’
	1Sg	<i>má = ∅ ‘míílíà</i>	<i>má = ∅ ‘táʔá</i>
	2Sg	<i>wó = ∅ ‘míílíà</i>	<i>wó = ∅ ‘táʔá</i>
	1Pl	<i>mùʔúⁿ = ∅ ‘míílíà</i>	<i>mùʔúⁿ = ∅ ‘táʔá</i>
	2Pl	<i>ēéⁿ = ∅ ‘míílíà</i>	<i>ēéⁿ = ∅ ‘táʔá</i>
	3SgHum	<i>á = ∅ ‘míílíà</i>	<i>á = ∅ ‘táʔá</i>
	3SgNonh	<i>é = ∅ ‘míílíà</i>	<i>é = ∅ ‘táʔá</i>
	3PlHum	<i>àáⁿ = ∅ ‘míílíà</i>	<i>àáⁿ = ∅ ‘táʔá</i>
	3PlNonh	<i>èéⁿ = ∅ ‘míílíà</i>	<i>èéⁿ = ∅ ‘táʔá</i>
	‘woman’	<i>ɲáā-nà = ∅ ...</i>	<i>... míílíà</i>
	‘women’	<i>ɲáā-nà-áⁿ = ∅ ...</i>	<i>... táʔá</i>
		<i>... ‘míílíà</i>	<i>... ‘táʔá</i>

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 =rēʔ in (345b).

- (345) a. *má = Ø* **tá?á* *bòbó*
 1Sg=Ipfv go.Ipfv B
 ‘I go (regularly) to Bobo Dioulasso.’
- b. *má* **tá?á = rē?*
 1Sg go.Ipfv=Neg
 ‘I don’t go.’

A sample of intransitives showing positive/negative tonal relationships in the present is in (346). Optional +ATR negative variants are omitted.

(346) Intransitive imperfectives

positive	negative	gloss
a. H-toned		
<i>bós</i>	<i>bós = rē?</i>	‘exit (v)’
<i>sós</i>	<i>sós = rē?</i>	‘enter’
<i>kpááⁿ</i>	<i>kpáá = nē?</i>	‘die’
<i>sáá</i>	<i>sáá = rē?</i>	‘come’
<i>tá?á</i>	<i>tá?á = rē?</i>	‘go’
<i>búló</i>	<i>búló = rē?</i>	‘return’
b. L-toned		
<i>bàà</i>	<i>bàà = rē?</i>	‘fall’
<i>dèè</i>	<i>dèè = rē?</i>	‘become hot’
c. contour-toned		
<i>fídéè</i>	<i>fídéè = rē?</i>	‘run’
<i>míílâ</i>	<i>míílâ = rē-?</i>	‘think’
<i>sìdánà</i>	<i>sìdánà = nē?</i>	‘ascend’
<i>jà?ánà</i>	<i>jà?ánà = nē?</i>	‘descend’

A sample OV-transitive conjugation is (347). The tonal form of the verb depends on the category of the immediately preceding object: *bà?rà* after +3Sg, *bá?rá* 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
2Pl	á = Ø	èè ⁿ	bá?rá
1Pl	á = Ø	mù?ù ⁿ	bá?rá
3PlHum	á = Ø	nàà ⁿ	bá?rá
3PlNonh	á = Ø	nì ⁿ	bá?rá
‘the children’	á = Ø	dí-rá-à ⁿ	bá?rá
‘Bakari’	á = Ø	bákàrì	bá?rá

b. +3Sg object

3SgHum	á = Ø	nà	bà?rà
3SgNonh	á = Ø	nì	bà?rà
‘the child’	á = Ø	dí	bà?rà

More examples of transitive present-tense forms are in (348).

(348) Transitive present tense

positive		negative		gloss
+3Sg	-3Sg	+3Sg	-3Sg	
a. level-toned				
<i>bà?rà</i>	<i>bá?rá</i>	<i>bà?r̄ = rē?</i>	<i>bá?r̄ = rē?</i>	‘hit’
<i>bègè</i>	<i>bégé</i>	<i>bègè = rē?</i>	<i>bégé = rē?</i>	‘cut’
<i>bìlè</i>	<i>bílé</i>	<i>bìlè = rē?</i>	<i>bílé = rē?</i>	‘give’
<i>bònò</i>	<i>bònò</i>	<i>bònò = nē?</i>	<i>bónó = nē?</i>	‘pour out’
<i>dùtòlò</i>	<i>dútóló</i>	<i>dùtòlò = rē?</i>	<i>dútóló = rē?</i>	‘point at’
<i>dìminàà</i>	<i>dímínáá</i>	<i>dìminàà = nē?</i>	<i>dímínáá = nē?</i>	‘hurt (sb)’
b. contour-toned				
<i>dàkóò</i>	<i>dákóò</i>	<i>dàkóò = rē?</i>	<i>dákóò = rē?</i>	‘catch (sth thrown)’
<i>kùlónò</i>	<i>kúlónò</i>	<i>kùlónò = nē?</i>	<i>kúlónò = nē?</i>	‘tie’
<i>dùtò?ónò</i>	<i>dútó?ónò</i>	<i>dùtò?ónò = nē?</i>	<i>dútó?ónò = nē?</i>	‘cover (sb)’
<i>fìrìkìè</i>	<i>fírìkìè</i>	<i>fìrìkìè = rē?</i>	<i>fírìkìè = rē?</i>	‘hobble (animal)’

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 *sā* (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. <i>sā</i> by M-Spreading in negative		
	1Sg	<i>má = ∅ sà fidéè</i>	<i>mā sā fidéè = rē?</i>
	2Sg	<i>wó = ∅ sà fidéè</i>	<i>wō sā fidéè = rē?</i>
	2Pl	<i>ēéⁿ = ∅ sà fidéè</i>	<i>ēēⁿ sā fidéè = rē?</i>
	2Pl	<i>mǎǎⁿ = ∅ sà fidéè</i>	<i>mǎǎⁿ sā fidéè = rē?</i>
	b. H-toned <i>sá</i> in negative, pronominal subject		
	1Pl	<i>mù?úⁿ = ∅ sà fidéè</i>	<i>mù?ùⁿ sá fidéè = rē?</i>
	3SgHum	<i>á = ∅ sà fidéè</i>	<i>à sá fidéè = rē?</i>
	3SgNonh	<i>é = ∅ sà fidéè</i>	<i>è sá fidéè = rē?</i>
	3PlHum	<i>àáⁿ = ∅ sà fidéè</i>	<i>ààⁿ sá fidéè = rē?</i>
	3PlNonh	<i>èéⁿ = ∅ sà fidéè</i>	<i>èèⁿ sá fidéè = rē?</i>
	c. H-toned <i>sá</i> in negative, nonpronominal subject		
	‘the child’	<i>dí-rá = ∅ sà fidéè</i>	<i>dí-rá sá fidéè = rē?</i>
	‘the children’	<i>dí-rá-āⁿ = ∅ sà fidéè</i>	<i>dí-rá-àⁿ sá fidéè = rē?</i>

In (350), the imperfective verb is H-toned *tá?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 2Pl *ēēⁿ* 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	<i>má = ∅ sà tá?á</i>	<i>mā sā tá?á = rē?</i>
	2Sg	<i>wó = ∅ sà tá?á</i>	<i>wō sā tá?á = rē?</i>
	2Pl	<i>ēéⁿ = ∅ sà tá?á</i>	<i>ēēⁿ sā tá?á = rē?</i>
	2Pl	<i>mǎǎⁿ = ∅ sà tá?á</i>	<i>mǎǎⁿ sā tá?á = rē?</i>
	b.		
	1Pl	<i>mù?úⁿ = ∅ sà tá?á</i>	<i>mù?ùⁿ sá ^ʔtá?á = rē?</i>
	3SgHum	<i>á = ∅ sà tá?á</i>	<i>à sá ^ʔtá?á = rē?</i>
	3SgNonh	<i>é = ∅ sà tá?á</i>	<i>è sá ^ʔtá?á = rē?</i>
	3PlHum	<i>àáⁿ = ∅ sà tá?á</i>	<i>ààⁿ sá ^ʔtá?á = rē?</i>
	3PlNonh	<i>èéⁿ = ∅ sà tá?á</i>	<i>èèⁿ sá ^ʔtá?á = rē?</i>

- c. ‘the child’ *dí-rá = ∅ sà táʔá* *dí-rá sá ʔtáʔá = rēʔ*
 ‘the children’ *dí-rá-āⁿ = ∅ sà táʔá* *dí-rá-àⁿ sá ʔtáʔá = rēʔ*

Transitive verbs are preceded by an object (NP or pronoun). The verb is therefore separated from the future particle *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).

- (351) a. *má = ∅ sà dí bàʔrà*
 1Sg=Ipfv Fut child hit.Ipfv
 ‘I will hit the child.’
- b. *má = ∅ sà dí-rá-àⁿ báʔrá*
 1Sg=Ipfv Fut child-Nom-Pl hit.Ipfv
 ‘I will hit the children.’

Consider now the interactions between *sà* and immediately following object pronouns. We have seen above that *sà* itself is L-toned after all subjects in the positive conjugation. (352) below shows how this *sà* combines with object pronouns in positive transitives. In (352a), the usually M-toned pronouns become H-toned as objects after *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 *sà* before 1st/2nd person objects (352a-b), but becomes H-toned *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 *sá = à(à)ⁿ* and *sí = ì(ì)ⁿ*, the length of the object pronoun vowel is usually not audible because of contraction with the vowel of *sá*.

(352) Object pronouns in the positive transitive future

	object	<i>sà</i> plus object	example with ‘he/she hit’
a.	1Sg	<i>sà má</i>	<i>á = ∅ sà má ʔbáʔrá</i>
	2Sg	<i>sà wó</i>	<i>á = ∅ sà wó ʔbáʔrá</i>
	2Pl	<i>sà ééⁿ</i>	<i>á = ∅ sà (é)éⁿ ʔbáʔrá</i>
b.	1Pl	<i>sà mùʔùⁿ</i>	<i>á = ∅ sà mùʔùⁿ báʔrá</i>
c.	3PlHum	<i>sá = à(à)ⁿ</i>	<i>á = ∅ sá = à(à)ⁿ báʔrá</i>
	3PlNonh	<i>sí = ì(ì)ⁿ</i>	<i>á = ∅ sí = ì(ì)ⁿ báʔráà</i>

d.	3SgHum	<i>sá = à</i>	<i>á = ∅ sá = à bà?rà</i>
	3SgNonh	<i>sí = ì</i>	<i>á = ∅ sí = ì ba?rà</i>

In (352d), *sá = à* and *sí = ì* are optionally leveled to *sá = á* and *sí = 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 *sā* (due to M-Spreading) and those that are followed by H-toned *sá*. This tonal split has no effect on a following object pronoun. Using 1Sg *mā sā* (or, when the object is first person, 2Sg *wō sā*) and human 3Sg *à sá* 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

	object	<i>mā/wō sā</i> plus object	<i>à sá</i> plus object
a.	1Sg	<i>wō sā mà bá?rá-rē?</i>	<i>à sá mà bá?rá = rē?</i>
	2Sg	<i>mā sā wò bá?rá-rē?</i>	<i>à sá wò bá?rá = rē?</i>
	2Pl	<i>mā sā èèⁿ bá?rá-rē?</i>	<i>à sá èèⁿ bá?rá = rē?</i>
b.	1Pl	<i>wō sā mù?ùⁿ bá?rá-rē?</i>	<i>à sá mù?ùⁿ bá?rá = rē?</i>
	3PlHum	<i>mā sā = à(à)ⁿ bá?rá-rē?</i>	<i>à sá = à(à)ⁿ bá?rá = rē?</i>
	3PlNonh	<i>mā sī = ì(i)ⁿ bá?rá-rē?</i>	<i>à sí = ì(i)ⁿ bá?rá = rē?</i>
c.	3SgHum	<i>mā sā = à bà?rà-rē?</i>	<i>à sá = à bà?rà = rē?</i>
	3SgNonh	<i>mā sī = ì bà?rà-rē?</i>	<i>à sí = ì bà?rà = rē?</i>

sà 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)	<i>súrukú-rò = ∅</i>	<i>sí = ì</i>	<i>jíé</i>
	hyena-Nom=Ipfv	Fut=3SgNonh	see.Ipfv
	‘Hyena was considering (how to escape).’ (2016_02 @ 02:19)		

10.3.2.4 Progressive (*-yà ~ -yá*)

The progressive is expressed by its own verb form ending in suffix *-yá*, realized as *-yà* after stems with contour tones. In positive clauses, the subject has the same /H+ = ∅/ 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) a. *má=∅ / á=∅* *sìbí* *bègè-yá*
 1Sg / 3SgHum meat cut-Prog
 ‘I am/He-or-she is cutting (the) meat.’ (< *sìbí*)
- b. *má=∅ / á=∅* *sìbí* *bègà* (~ *bègè*)
 1Sg / 3SgHum meat cut.Ipfv
 ‘I cut/He-or-she cuts the meat (regularly).’
- c. *mā / à* *sìbí* *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

Prog	Pfv +3Sg	Ipfv	gloss
a. <i>ɔ</i> to <i>o</i> before <i>-ya</i> suffix			
<i>bó-yá</i>	<i>bòé</i>	<i>bóó</i>	‘exit’
<i>só-yá</i>	<i>sòé</i>	<i>sóó</i>	‘enter’
b. <i>a</i> or <i>ɛ</i> to <i>e</i> before <i>-ya</i> suffix			
<i>sé-yá</i>	<i>sèé</i>	<i>sáá</i>	‘come’
<i>kpéⁿ-yá</i>	<i>kpěⁿ</i>	<i>kpááⁿ</i>	‘die’
<i>dè-yá</i>	<i>dèé</i>	<i>dèè</i>	‘become hot’
<i>ɲìné-yà</i>	<i>ɲìné</i>	<i>ɲìnáà</i>	‘forget’
<i>tèʔè-yá</i>	<i>tèʔé</i>	<i>táʔá</i>	‘go’
<i>ɟìímè-yá</i>	<i>ɟìímē</i>	<i>ɟìímàà</i>	‘weep’

c. *i* or *u* before *-ya* suffix

imperfective ends in a

<i>sìdání-yà</i>	<i>sìdání</i>	<i>sìdánà</i>	‘ascend’
<i>jàʔání-yà</i>	<i>jàʔání</i>	<i>jàʔánà</i>	‘descend’
<i>míílí-yà</i>	<i>míílí</i>	<i>míílià</i>	‘think’

imperfective ends in ε

<i>fidí-yà</i>	<i>fidí</i>	<i>fidéè</i>	‘run’
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imperfective ends in ɔ

<i>búlú-yá</i>	<i>búlí</i>	<i>búló</i>	‘return’
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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. *má = ∅* *nà* *bàʔrì-yá*
 1Sg=∅ 3SgHumObj hit-Prog
 ‘I am hitting him/her.’
- b. *má = ∅* *nààⁿ* *báʔrì-yà*
 1Sg=∅ 3PIHumObj 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
<i>bè-yá</i>	<i>bé-yá</i>	<i>bàà</i>	‘put down’
<i>dè-yá</i>	<i>dé-yá</i>	<i>dèè</i>	‘heat (sth)’
<i>dòⁿ-yá</i>	<i>dóⁿ-yá</i>	<i>dǒǒⁿ</i>	‘step on’
<i>jǒⁿ-yà</i>	<i>jóⁿ-yà</i>	<i>jǒǒⁿ</i>	‘rob’
<i>cì-yá</i>	<i>cí-yá</i>	<i>cìè</i>	‘speak’
<i>bàʔrì-yá</i>	<i>báʔrì-yá</i>	<i>bàʔrà</i>	‘hit’
<i>sòʔò-yá</i>	<i>sóʔó-yà</i>	<i>sòʔò</i>	‘catch’
<i>mòmó-yà</i>	<i>mómó-yà</i>	<i>mòmóò</i>	‘carry on back’

Intransitive positive and negative conjugations are in (359).

(359) subject	‘am going out’	‘am not going out’
a. 1Sg	<i>má = ∅</i> ‘ <i>bó-yá</i>	<i>má = ∅</i> ‘ <i>bó-yá = rēʔ</i>
2Sg	<i>wó = ∅</i> ‘ <i>bó-yá</i>	<i>wó = ∅</i> ‘ <i>bó-yá = rēʔ</i>
2Pl	<i>ēéⁿ = ∅</i> ‘ <i>bó-yá</i>	<i>éⁿ = ∅</i> ‘ <i>bó-yá = rēʔ</i>

b.	1Pl	$mù?ú^n = \emptyset$ 'bó-yá	$mù?ú^n = \emptyset$ 'bó-yá = rē?
	3SgHum	$á = \emptyset$ 'bó-yá	$á = \emptyset$ 'bó-yá = rē?
	3SgNonh	$é = \emptyset$ 'bó-yá	$é = \emptyset$ 'bó-yá = rē?
	3PlHum	$àá^n = \emptyset$ 'bó-yá	$àá^n = \emptyset$ 'bó-yá = rē?
	3PlNonh	$èé^n = \emptyset$ 'bó-yá	$èé^n = \emptyset$ 'bó-yá = rē?
c.	'the child'	$dí-rá = \emptyset$ 'bó-yá	$dí-rá = \emptyset$ 'bó-yá = rē?
	'the children'	$dí-rá-ā^n = \emptyset$ 'bó-yá	$dí-rá-ā^n$ 'bó-yá = rē?

10.4 *ciè* ~ *cié* 'was/were' and past morpheme *ké*

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 *ciè* ~ *cié* 'was/were'. *ciè* ~ *cié* immediately follows the subject. *ciè* follows +3Sg subjects, *cié* follows -3Sg subjects. Factoring out the time shift, *ciè* ~ *cié* behaves syntactically like the imperfective enclitic and occurs in the same constructions, e.g. with following future, progressive, or "present" (→ 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 *cié* ~ *cié* and imperfective *cié*. 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 *ké*. This morpheme converts simple perfective ('did') to past perfect ('had done', §10.4.9). *ké* also combines with some statives, including 'know' (§10.4.3) and adjectival predicates 'be ADJ' (§10.4.5), the results being translatable 'knew' and 'was/were ADJ'.

A verb immediately preceding *ké* usually shifts at least its final syllable to +ATR, and final *ɛ* in {*ɛɛ ɔɛ 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 *ké*, one possible lead is the verb 'leave, abandon', which has imperfective *kàà* and perfective *kè* ~ *ké*.

The following sections illustrate constructions that *ciè* ~ *cié* 'was/were' and past morpheme *ké* occur in. For the past perfect with *ké* in the antecedent clause in counterfactuals, and *ciè* ~ *cié* in the corresponding consequent clause, see §16.4.

10.4.1 Past-time form of copula construction with *ciè* ~ *cié*

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* *è* *ciè* *jí^m* *kùⁿ*
 previously 3SgNonh **be.Past** market Cop
 ‘It was a market previously.’
- b. *mù?ùⁿ* *cié* *náā-nà-àⁿ* *kúⁿ*
 1Pl **be.Past** woman-Pl Cop
 ‘We were women.’
- c. *mù?ùⁿ* *cié* *náā-nà-àⁿ* *kúⁿ=nē?*
 1Pl **be.Past** woman-Pl Cop
 ‘We were not women.’

Example (360a) corresponds to present-time *jí-⁴né=Ø=è* (< /jí-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 *mù?ùⁿ=Ø náā-nà-àⁿ kúⁿ* ‘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* ~ *cié*

Examples (361a-c) illustrate past time forms of the locational ‘be (somewhere)’ construction.

cié=é 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* *cié=é* *nàà*
 1Sg / B / 3SgHum **be.Past=Link** here
 ‘I / Bakari / He-or-she was here.’
- b. *tàgá* *ciè* [*mùú* *dù*]
 sheep **be.Past** [field in]
 ‘The sheep-Sg was in the field.’
- c. *tàgà-rá-àⁿ* *cié* [*mùú* *dù*]
 sheep-Nom-Pl **be.Past** [field in]
 ‘The sheep-Pl were in the field.’

- d. *yí?é* *ciè* [*yí* *dù*]
 fish **be.Past** [water in]
 ‘The fish-Sg was in the water.’

Negative past-time forms are in (362a-b).

- (362) a. *à* *ciè* [*mùú* *dù*] = *rē?*
 3Sg **be.Past** [field In]=Neg
 ‘He/She was not in the field.’
- b. *bákàrì* *cié* [*mùú* *dù*] = *rē?*
 B **be.Past** [field In]=Neg
 ‘Bakari was not in the field.’

10.4.3 Past-time forms of ‘know’ (*ké*) and ‘want’ (*ciè* ~ *cié*)

With ‘know’, cf. §11.2.6.1, the past morpheme *ké* follows the predicate. Perfective *sò* ‘know’, which occurs in stative present-time contexts, becomes +ATR and long-voweled *sò = ò* before *ké*.

- (363) a. *mā / à* *ní* *sò = ò* *ké*
 1Sg / 3SgHum 3SgNonhObj know.Pfv=Link **Past**
 ‘I/He-or-she knew it.’
- b. *mā / à* *ní* *sò = ò* *ké = 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). *ciè* ~ *cié* ‘was/were’ replaces the imperfective enclitic that occurs on the subject in the present-time version (§11.2.6.2).

- (364) a. *mù?ùⁿ* *cié* *yí* *kà*
 1Pl **be.Past** water want.Stat
 ‘We wanted some water.’
- b. *mù?ùⁿ* *cié* *yí* *kà = rē?*
 1Pl **be.Past** water want.Stat=Neg
 ‘We didn’t want water.’

10.4.4 Past-time forms of possessive predicates with *ciè* ~ *cié*

Positive and negative past-time forms of the ‘have’ construction (§11.5.1) are in (365a-b).

- (365) a. *tàgá* *ciè* [*mā* *ká*]
 sheep **be.Past** [1Sg Poss]
 ‘I had a sheep.’
- b. *wáŕ* *ciè* [*mà* *ká*] = *rē?*
 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* [*bákàrí* *mì*] *kùⁿ*
 [house Dem] **be.Past** [B Poss] be
 ‘This/That house was Bakari’s.’
- b. [*sàà* *mí*] *ciè* [*bákàrí* *mì*] *kù = nē?*
 [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* *mǔ*] *sààⁿ-bè* *ké* *bèlé* [*wō* *mì-nà*]
 [1Sg rope] become.long.Pfv **Past** pass.Pfv [2Sg Poss-Nom]
 ‘My rope was longer than yours-Sg.’
- b. *à* *fàⁿ* *ké* [(*blé*) *mā-n*]
 3SgHum better **Past** [(pass.Pfv) 1Sg-Indep]
 ‘He/She was better than me.’
- c. *à* *fàⁿ* *ké* [(*blé*) *mā-n*] = *nē?*
 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.

- (368) a. *bákàrì* *cíé* *bàà*
 B **be.Past** fall.Ipfv
 ‘Bakari used to fall.’
- b. *bákàrì* *cíé* *bàà = rē?*
 B **be.Past** fall.Ipfv
 ‘Bakari didn’t use to fall.’

10.4.7 Future-in-past with *cìè* ~ *cíé*

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 *cì* ~ *cí* before *sà*. Future *sà* remains L-toned in this combination even before L-toned verb in the negative version (369b).

- (369) a. *bákàrì* *cí* *sà* *bàà*
 B **be.Past** Fut fall.Ipfv
 ‘Bakari was going to/was about to fall.’
- b. *bákàrì* *cí* *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 *cìè* ~ *cíé*

Addition of ‘was/were’ to a progressive clause shifts the reference point to the past.

- (370) a. *mā* *cíé* *sìbí* *bègè-yá*
 1Sg **be.Past** meat cut-Prog
 ‘I was cutting (the) meat.’ (< *sìbí*)
- b. *mā* *cíé* *sìbí* *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 *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. *ké* has H-tone, so the preceding *dòní* in (371a-b) undergoes LH-to-L (§3.8.3.6). Monosyllabic perfectives like *sèé* ~ *séé* ‘came’ and *bòé* ~ *bóé* ‘exited’ are trimmed of the final *é*, re-lengthened, and shift to +ATR before *ké* (371c).

- (371) a. *mā* *sìbí* *dòní* *ké*
 1Sg meat eat.meat.Pfv **Past**
 ‘I had eaten (the) meat.’ (*sìbí*, *dòní*)
- b. *mā* *sìbí* *dòní* *ké = rē?*
 1Sg meat eat.meat.Pfv **Past=Neg**
 ‘I hadn’t eaten (the) meat.’
- c. *mā* *sé = é / bó = ó* *⁴ké*
 1Sg come./exit.Pfv=Link Past
 ‘I had come/gone out.’ (< *séé*, *bóé*)

10.4.10 Past experiential perfect with *ciè* ~ *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) a. *mā* *cié* *gbǎⁿ* *jì* *dú*
 1Sg **be.Past** elephant see.Pfv ExpPf
 ‘I had (once) seen an elephant.’ (< *gbǎⁿ*, *jìé*)
- b. *mā* *cié* *gbǎⁿ* *jì* *dú = rē?*
 1Sg **be.Past** elephant see.Pfv ExpPf=Neg
 ‘I had never seen an elephant.’
- c. *mā* *tóó* *cié* [*í*] *gbǎⁿ* *jìè = rē?*
 1Sg stay.Pfv **be.Past** [1Sg elephant see.Pfv=Neg]
 ‘I had never seen an elephant.’ (=‘I remained without having seen ...’)

10.4.11 Past stative of stance verb (absent)

My assistant did not approve of combinations of stative forms of stance verbs (ending in *ní*) 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) *mìʔì-ná-àⁿ* *séʔé* *‘ké*
 person-Nom-Pl sit.Pfv **Past**
 ‘The people had sat down (=were seated).’ (< *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 *=rĒʔ* 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 *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 *bí* (374c). For plural-addressee prohibitive, *bí* is preceded by 2Pl proclitic *ēēⁿ* (374d).

- (374) a. *fídí* ‘run-2Sg!’
 b. *ēēⁿ fídī* ‘run-2Pl!’
 c. *bí fìdì=rĒʔ* ‘don’t-2Sg run!’
 d. *ēēⁿ bí fìdì=rĒʔ* ‘don’t-2Pl run!’

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)

imperative		prohibitive		Ipfv	gloss
Sg	Pl	Sg	Pl		
a. imperative stem M-toned (imperfective H- or HL-toned)					
<i>imperfective H-toned</i>					
<i>sō</i>	<i>ēēⁿ sō</i>	<i>bí sō = rē?</i>	<i>ēēⁿ bí sō = rē?</i>	<i>sóó</i>	‘enter’
<i>bō</i>	<i>ēēⁿ bō</i>	<i>bí bō = rē?</i>	<i>ēēⁿ bí bō = rē?</i>	<i>bóó</i>	‘exit’
<i>sā</i>	<i>ēēⁿ sā</i>	<i>bí sā = rē?</i>	<i>ēēⁿ bí sā = rē?</i>	<i>sáá</i>	‘come’
<i>kpāⁿ</i>	<i>ēēⁿ kpāⁿ</i>	<i>bí kpāⁿ = nē?</i>	<i>ēēⁿ bí kpāⁿ = nē?</i>	<i>kpááⁿ</i>	‘die’
<i>tā?ā</i>	<i>ēēⁿ tā?ā</i>	<i>bí tā?ā = rē?</i>	<i>ēēⁿ bí tā?ā = rē?</i>	<i>tá?á</i>	‘go’
<i>imperfective HL-toned</i>					
<i>mīlī</i>	<i>ēēⁿ mīlī</i>	<i>bí mīlī = rē?</i>	<i>ēēⁿ bí mīlī = rē?</i>	<i>míílíá</i>	‘think’
b. imperative L-toned except due to M-Spreading (imperfective L-toned)					
<i>bà</i>	<i>ēēⁿ bā</i>	<i>bí bà = rē?</i>	<i>ēēⁿ bí bà = rē?</i>	<i>bàà</i>	‘fall’
<i>dà?à</i>	<i>ēēⁿ dā?ā</i>	<i>bí dà?à = rē?</i>	<i>ēēⁿ bí dà?à = rē?</i>	<i>dà?à</i>	‘escape’
c. imperative LH-toned (trimmed from imperfective <i>C̀̀̀̀C̀̀̀̀C̀̀̀̀</i>)					
<i>fídí</i>	<i>ēēⁿ fídí</i>	<i>bí fídí = rē?</i>	<i>ēēⁿ bí fídí = rē?</i>	<i>fídèè</i>	‘run’
d. imperative LHL-toned (imperfective <i>C̀̀̀̀̀C̀̀̀̀̀C̀̀̀̀̀</i> or <i>C̀̀̀̀̀C̀̀̀̀̀C̀̀̀̀̀</i>)					
<i>jímà</i>	<i>ēēⁿ jīmā</i>	<i>bí jímà = nē?</i>	<i>ēēⁿ bí jímà = nē?</i>	<i>jímàà</i>	‘weep’
<i>sídá</i>	<i>ēēⁿ sīdā</i>	<i>bí sīdà = rē?</i>	<i>ēēⁿ bí sīdà = rē?</i>	<i>sídánà</i>	‘ascend’
		[nasal variants <i>sídáⁿ</i> , <i>bí sīdà = nē?</i> , etc.]			
<i>jà?áⁿ</i>	<i>ēēⁿ jā?āⁿ</i>	<i>bí jà?à = nē?</i>	<i>ēēⁿ bí jà?à = nē?</i>	<i>jà?ánà</i>	‘descend’

sā ‘come!’ becomes *sé=é* in the combination *sé=é nàà* ‘come here’, showing the usual vocalic modifications before ‘here’ and ‘there’ adverbs. *è wǎ* ‘go!’ likewise becomes *è wè=é* in the combination *è wè=é dè* ‘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.	<i>è</i>	<i>bà?rí</i>	
		3SgNonh	hit.Imprt	
		‘Hit-2Sg it!’		
	b.	<i>ēēⁿ</i>	∅	<i>bà?rí</i>
		<i>ēēⁿ</i>	<i>ní</i>	<i>bà?rí</i>
		2Pl	3SgNonh	hit.Imprt
		‘Hit-2Pl it!’ (two variants)		

- c. $\bar{e}\bar{e}^n$ \emptyset $bà?rí$
 $\bar{e}\bar{e}^n$ $ná$ $bà?rí$
 2Pl 3SgHum hit.Imprt
 ‘Hit-2Pl him/her!’ (two variants)
- d. $bí=$ $í$ $bà?r̂=r\bar{e}?$
 Proh= 3SgNonh hit.Imprt=Neg
 ‘Don’t-2Sg hit it!’ (variant $bà?l=l\bar{e}?$, §3.6.1.2)
- e. $\bar{e}\bar{e}^n$ $bí=$ $í$ $bà?r̂=r\bar{e}?$
 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 $bà?rí$ to {H}-toned -3Sg $bá?rí$, there is no drop to final M-tone as there is with perfectives (+3Sg $bà?rí$, -3Sg $bá?rí$).

- (377) a. $\bar{e}\bar{e}^n$ $bá?rí$
 3PlNonh hit.Imprt
 ‘Hit-2Sg them (nonhuman)!’
- b. $\bar{e}\bar{e}^n=$ $\bar{e}(\bar{e})^n$ $bá?rí$
 $\bar{e}\bar{e}^n$ $ní^n$ $bá?rí$
 2Pl 3PlNonh(Obj) hit.Imprt
 ‘Hit-2Pl them (nonhuman)!’ (two variants)
- c. $\bar{e}\bar{e}^n=$ $\bar{e}(\bar{e})^n$ $bá?rí$ (< $/\bar{e}\bar{e}^n \text{ àà}^n/$)
 $\bar{e}\bar{e}^n$ $náá^n$ $bá?rí$
 2Pl 3PlHum(Obj) hit.Imprt
 ‘Hit-2Pl them (nonhuman)!’ (two variants)
- d. $bí=$ $\bar{i}(\bar{i})^n$ $bá?r̂=r\bar{e}?$
 Proh= 3PlNonh hit.Imprt=Neg
 ‘Don’t-2Sg hit them (nonhuman)!’
- e. $\bar{e}\bar{e}^n$ $bí=$ $\bar{i}(\bar{i})^n$ $bá?r̂=r\bar{e}?$
 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.

(378)	imperative		prohibitive		Ipfv	gloss
	+3Sg	-3Sg	+3Sg	-3Sg	+3Sg	
	<i>dě</i>	<i>dé</i>	... <i>dê = rē?</i>	... <i>dé = rē?</i>	<i>dèè</i>	‘heat (sth)’
	<i>jǐ</i>	<i>jí</i>	... <i>jì = rē?</i>	... <i>jí = rē?</i>	<i>jìè</i>	‘see’
	<i>bǎ</i>	<i>bá</i>	... <i>bà = rē?</i>	... <i>bá = rē?</i>	<i>bàà</i>	‘put down’
	<i>kpǎⁿ</i>	<i>kpáⁿ</i>	... <i>kpà = nē?</i>	... <i>kpá = nē?</i>	<i>kpààⁿ</i>	‘kill’
	<i>bǒ</i>	<i>bó</i>	... <i>bò = rē?</i>	... <i>bó = rē?</i>	<i>bòò</i>	‘remove’
	<i>bà?rí</i>	<i>bá?rí</i>	... <i>bà?rì = rē?</i>	... <i>bá?rí = rē?</i>	<i>bà?rà</i>	‘hit’
	<i>fèéⁿ</i>	<i>fééⁿ</i>	... <i>fèè = nē?</i>	... <i>féé = nē?</i>	<i>fèènàà</i>	‘untie’
	<i>dùtʒʒⁿ</i>	<i>dútʒʒⁿ</i>	... <i>dùtʒʒ = nē?</i>	... <i>dútʒʒ = nē?</i>	<i>dùtʒʒnò</i>	‘shut’
	<i>fìrikí</i>	<i>fíríkí</i>	... <i>fìrikì = rē?</i>	... <i>fíríkí = rē?</i>	<i>fìrikîà</i>	‘hobble (animal)’

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 *e* on imperfectives does not occur in imperatives.

(379)	imperative		prohibitive		Pfv	Ipfv	gloss
	+3Sg	-3Sg	+3Sg	-3Sg	+3Sg	+3Sg	
	<i>wě</i>	<i>wé</i>	... <i>wè = rē?</i>	... <i>wé = rē?</i>	<i>wěē</i>	<i>wèè</i>	‘bathe (sb)’
	<i>tě</i>	<i>té</i>	... <i>tè = rē?</i>	... <i>té = rē?</i>	<i>těē</i>	<i>tèè</i>	‘shatter (sth)’
	<i>yě</i>	<i>yé</i>	... <i>yè = rē?</i>	... <i>yé = rē?</i>	<i>yěē</i>	<i>yèè</i>	‘send on mission’
	<i>dèí</i>	<i>déí</i>	... <i>dèè = rē?</i>	... <i>déé = rē?</i>	<i>dèíí</i>	<i>dèèè</i>	‘open’
	<i>bègé</i>	<i>bégé</i>	... <i>bègè = rē?</i>	... <i>bégé = rē?</i>	<i>bègé</i>	<i>bègèè</i>	‘cut’

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. *yá lí* in (380) is clearly imperative rather than imperfective (*yàlà* ~ *yá lá*) in form.

(380)	<i>àáⁿ = Ø</i>	<i>sòrʒ =</i>	<i>[ʒⁿ</i>	<i>sí = ìⁿ</i>	<i>yá lí]</i>
	3PIHum=Ipfv	do.then.Ipfv	[3PIHum	Fut=3PINonh	take. Imp rt]
	“(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 *mù?ùⁿ*. 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. *mù?ùⁿ* = \emptyset *wà*
 1Pl 3SgNonhObj go.Imprt
 ‘Let’s go!’ (pseudo-transitive)
- b. *mù?ùⁿ* *bō* / *būlū* / *fīdī* / *jīnā* / *sīdāⁿ*
 1Pl exit(v)/return/run/forget/ascend.Imprt
 ‘Let’s go out/go back/run/forget/go up!’
- c. *mù?ùⁿ* *kūmēē* *kùⁿ*
 1Pl meal eat.Imprt
 ‘Let’s eat (a meal)!’
- d. *mù?ùⁿ* *wúlá* *bà?rì*
 1Pl dog hit.Imprt
 ‘Let’s beat the dog!’

10.5.2.2 Hortative negative (1Pl plus *bí*)

The hortative negative has the initial 1Pl subject pronoun as in the positive hortative. It is otherwise identical to the prohibitive: preverbal particle *bí*, imperative stem, and clause-final negative enclitic *=rē?*.

- (382) a. *mù?ùⁿ* *bí* = *í* *wà = rē?*
 1Pl Proh 3SgNonhObj go.Imprt=Neg
 ‘Let’s not go!’
- b. *mù?ùⁿ* *bí* *bà = rē?*
 1Pl Proh fall.Imprt=Neg
 ‘Let’s not fall!’

- c. *mùʔùⁿ* *bí* *wùlá* *bàʔr = lēʔ*
 1Sg Prof dog hit.Imprt=Neg
 ‘Let’s not beat the dog!’ (< *wùlà*)

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* ~ *dé* ‘said’ (383a-b) if an actual quotation is being reported.

- (383) a. *zàkî* *dé* [*mā* *sā / fīdī* *sísàⁿ*]
 Z say.Pfv [1Sg come./run.QuotImprt now]
 ‘Zaki told me to come/to run now.’
- b. *mā* *dé* [*â* *sā / fīdī*]
 1Sg say.Pfv [3SgHum come./run.QuotImprt]
 ‘I told him/her to come/to run.’
- c. *mā* *dé* [*ââⁿ* *sā / fīdī*]
 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				
	<i>imperative M-toned</i>			
	<i>bō</i>	<i>bóó</i>	<i>bō</i>	‘exit (v)’
	<i>sā</i>	<i>sáá</i>	<i>sā</i>	‘come’
	<i>sō</i>	<i>sóó</i>	<i>sō</i>	‘enter’
	<i>imperative L-toned</i>			
	<i>bā</i>	<i>bàà</i>	<i>bà</i>	‘fall’
	<i>kā</i>	<i>kàà</i>	<i>kà</i>	‘abandon’

b. nonmonosyllabic

imperative M-toned

<i>tāʔā</i>	<i>táʔá</i>	<i>tāʔā</i>	‘go’
<i>būlū</i>	<i>búló</i>	<i>būlū</i>	‘return’
<i>wālī</i>	<i>wálà</i>	<i>wālī</i>	‘shout’
<i>mīlī</i>	<i>míílà</i>	<i>mīlī</i>	‘think’

imperative LH-toned

<i>fīdī</i>	<i>fìdèè</i>	<i>fīdī</i>	‘run’
<i>sīdā</i>	<i>sìdánà</i>	<i>sìdà⁽ⁿ⁾</i>	‘ascend’

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 interlinears. Transitive quoted imperatives are illustrated in (385).

- (385) a. *mā* *dé* [*à* *dĩ* *bàʔrì*]
 1Sg say.Pfv [3SgHum child hit.Imprt]
 ‘I told him/her to hit the child.’
- b. *mā* *dé* [*à* *dì-rá-àⁿ* *báʔrì*]
 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) *álé=* *ē* *né* *sò*
 God 2Sg good put.in.Imprt
 ‘May God have you enter (there) in good health!’ (< *ála*)

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. *bí* *fìdì = rē?*
 Proh run.Imprt=Neg
 ‘Don’t-2Sg run!’
- b. *mā* *dé* *[à* *bí* *fìdì = rē?]*
 1Sg say.Pfv [3SgHum Proh run.QuotImprt=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. *zàkî* *dé* *[mù?úⁿ =* *∅* *wà]*
 Z say.Pfv [1Pl 3SgNonhObj go.Imprt]
 ‘Zaki said, let’s go!’ (with 1Pl subject)
- b. *zàkî* *dé* *[bákàr* *mà]* *[àáⁿ =* *∅* *wà]*
 Z say.Pfv [B on] [3PlHum 3SgNonhObj 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* *yíʔé* *d̀̀ńí(ì)*
1Sg fish eat.meat.Pfv
‘I ate a/the fish.’
- b. *má=Ø* *‘yíʔé* *d̀̀ǹ̀*
1Sg=Ipfv fish eat.meat.Ipfv
‘I eat fish.’ (< /*mā*=H .../)
- c. *má=Ø* *sà* *yíʔé* *d̀̀ǹ̀*
1Sg=Ipfv Fut fish eat.meat.Ipfv
‘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* *b̀̀d̀́é*
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. *b̄*
 exit(v).Imprt
 ‘Go-2Sg out!’
- b. [*ē* *yé?ré]* *bà?ri*
 [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. *kó?ró* *bèé*
 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. *káⁿ* *sèé*
 rain(n) rain.fall.Pfv
 ‘It rained.’
- d. *káⁿ* *bàlí(ī)*
 rain(n) stand.Pfv
 ‘The rain has stopped.’

- e. *yí-kó* *sòé*
rainy.season enter.Pfv
‘The rainy season has begun.’
- f. *tálá* *fìdé*
sun regrow.Pfv
‘The sun rose.’
- g. *tálá* *bèé*
sun fall.Pfv
‘The sun set.’

11.1.1.4 Emotional and physiological subject-verb collocations

Some terms for emotions and body functions also involve subject-verb collocations. In (393a), *bó?òⁿ* appears to be a specialized variant, attested only in this collocation, of *bú?ūⁿ* ‘liver’.

- (393) a. [*zàkî* *bó?òⁿ*] *là?àní*
[Z **liver**] get.up.Pfv
‘Zaki is angry.’ (lit. “Zaki’s liver has arisen.”)
- b. [*zàkî* *kóyí*] *jà =* *á-yà*
[Z **belly**] become.good.Pfv= Hum-3SgObj
‘Zaki is happy.’ (< /jě à-yà/)
- c. [*mā* *súⁿ*] *těē*
[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-ñ*
hunger-Nom=be 1Sg-Indep
‘I am hungry.’

- b. *mikál-à = ∅* *mā-ñ*
 thirst-Nom=be 1Sg-Indep
 ‘I am thirsty.’
- c. *fùén-ná = ∅* *mā-ñ*
 heat(n)-nom=be 1Sg-Indep
 ‘I am (=feel) hot.’ (also with *dò?òrò-rà* replacing synonym *fùén-ná*)
- d. *jiì-ná = ∅* *mā-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. *kùmāā-ná = ∅* *‘bóó* *mā-ñ*
 cold(n)-Nom=Ipfv exit.Ipfv 1Sg-Indep
 ‘I am (=feel) cold.’
- b. *kùmāā-ná = ∅* *mā-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 *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 *-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. *mā* *tàgá* *bòé*
 1Sg **sheep** take.out(v).Pfv
 ‘I took the sheep-Sg out.’ (< *tàgà*, suffixed *tàgà-rá*)
- b. *dí* *yí?é* *bòé*
 child fish take.out(v).Pfv
 ‘A/The child took a/the fish out.’ (< *yí?é*, suffixed *yí?é-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-yà* and nonhuman /*è-yà*/ → *ì-yà* (§4.3.1.6).

The regular OV transitive verb *bà?rà* ~ *bá?rá* 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 *bá?rá*, occurs as a VO verb with the less violent sense ‘touch’ (397a-b). It has a synonym also with VO syntax, namely *mà?à* ‘touch’ (397c).

- (397) a. *má = ∅* *sà* *bá?r =* *à-yà*
 1Sg=Ipfv Fut touch.Ipfv Hum-3SgObj
 ‘I will touch him/her.’ (< *bá?rá*)
- b. *má = ∅* *sà* *bá?rá* *‘dí-rá*
 1Sg=Ipfv Fut touch.Ipfv child-Nom
 ‘I will touch the child.’
- c. *ǰáā* *mè?é* *mā-ñ*
 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 *sóó* ‘help (someone)’ (398a),.

- (398) a. *má = ∅* *sà* *sóó* *wō-n*
 1Sg=Ipfv Fut help.Ipfv 2Sg-Indep
 ‘I will help you-Sg.’

- b. *mù?ùⁿ* *kpánī* [*zàkî* *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* *jínē* *zàkî*
 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 *kēⁿ ~ kēⁿ* (§8.1.3). For verb-PP collocations, see §11.1.2.4 below.

- (400) *má = ∅* *sà* *sáá* [*téé* *dè*] [*wō* *kēⁿ*]
 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/ dùdòlí* *mā-n*
 3SgHum sheep give.Pfv/show.Pfv 1Sg-Indep
 ‘He/She gave/showed me a sheep.’
- b. *zàkî* *dé* [*wō* *tàgá* *bl =* *é-wò-ñ*]
 Z say.Pfv [2Sg sheep give.Pfv Hum-Logo-Indep]
 ‘Zaki_x said that you-Sg gave a sheep to him_x.’ (< /*bilí à-wò-ñ*/)

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 *dè* ~ *dé* ‘with’, meaning ‘bring’ or ‘convey, deliver, take (sth/sb, there)’. Either of the two stems for ‘go’, intransitive *tá?á* or pseudo-transitive *wàá*, in addition to *sáá* ‘come’, may be used in this construction. Examples in (402a-c) have *sìbì* ‘meat’ as the theme (transferred entity).

- (402) a. *sā* [*sìbí* *dè*]
 come.Imprt [meat with]
 ‘Bring-2Sg the meat!’
- b. *è* *wà* [*sìbí* *dè*] *bá*
 3SgNonh go.Imprt [meat with] over.there
 ‘Take-2Sg the meat over there!’
- c. *tā?ā* [*sìbí* *dè*] *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 *yàfāā* ‘forgive, pardon’. In the sense ‘pursue (someone)’, *kpáná* requires a PP with goal postposition *kpá-mà* or variant (403c), see §8.4.3.

- (403) a. *bī* [*gbāá* *dè*]
 hold.Imprt [stick with]
 ‘Hold-2Sg (onto) the stick!’
- b. *à* *dò-sé* [*sùkār* *mà*]
 3SgHum add.Pfv [sugar on]
 ‘He/She added some sugar.’
- c. *mù?ù”* *kpánī* [*zàkî* *kpá-mà*]
 1Pl follow.Pfv [Z goal]
 ‘We pursued Zaki.’

11.1.2.5 Verbs used with onomatopoeias

The verb *mà?à* (elsewhere ‘touch’) may occur preceding an imitation of a sound, cf. English *it went “blurp!”* (404a). An alternative is to combine *ciè* ~ *cié* ‘say, utter’ with *tð?ð* ‘say (something)’, flanking the imitation of the sound.

- (404) a. *mómìl-là = ∅* *mè?è-yá* “ [sound] ”
 vehicle-Nom=Ipfv make.sound-Prog
 ‘The car is going “[sound]” ’
- b. *mómìlì* *ciè* “ [sound] ” *tò?ò*
 vehicle say.Pfv say.Adjn
 ‘The car went “[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 *kéé* (perfective) or *kéà* (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 *kéē* 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* *kéà*
 3SgHum Fut health affect.Ipfv
 ‘He/She is healthy; he/she has recovered (from illness/injury).’
- b. *à* *wèè* *kéé = 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
	<i>fǝⁿ bàà</i>	‘have fun, play (v)’	<i>fǝⁿ</i> ‘fun (n)’
	<i>ɲìí bàà</i>	‘sleep (v)’, also ‘freeze’	<i>ɲìí</i> ‘sleep (n)’
	<i>kpá?ā bàà</i>	‘shout (v), cry out’	<i>kpá?ā</i> ‘shout (n)’
	<i>gàáⁿ bàà</i>	‘wage war, fight (v)’	<i>gàáⁿ</i> ‘combat (n)’
	<i>nùú bàà</i>	‘draw a line’	<i>nùú</i> ‘tracks’
	<i>dí bàà</i>	‘(plant) bear ripe fruit’	<i>dí</i> ‘child’
	<i>dàà-núúlí bàà</i>	‘spit without hawking’	<i>dàà-núúlí</i> ‘saliva’
	<i>símí bàà</i>	‘breathe’	<i>símí</i> ‘breath’

<i>òòlú bàà</i>	‘ululate, cry for joy’	<i>òòlú</i>	‘women’s ululation’
<i>àlàman bàà</i>	‘assess a fine’	<i>àlàman</i>	‘fine (n)’

The intransitive verb *bóó* ‘exit, go out, leave’ has a transitive counterpart *bòò* ~ *bóó* ‘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
	<i>kòlòkò bòò</i>	‘cough (v)’	<i>kòlòkò</i> ‘cough (n)’
	<i>káā bòò</i>	‘hawk and spit’	<i>káā</i> ‘spittle’
	<i>kóⁿ bòò</i>	‘collect honey from apiary’	<i>kóⁿ</i> ‘honey’
	<i>tá?áí bòò</i>	‘walk’	<i>tá?áí</i> ‘walking (n)’

Another versatile verb that occurs in multiple contexts is *sàà* (imperfective), distinct from ‘come’ (imperfective *sáá*). As intransitive, *sàà* combines with subject *káⁿ* ‘rain (n)’ to mean ‘rain (v)’, as in *káⁿ sèé* ‘it rained’. As pseudo-reflexive it means ‘lie down’, as in *mā nāāⁿ sèé* ‘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
	<i>sígí sàà</i>	‘sing (a song)’	<i>sígí</i> ‘song’
	<i>céⁿ sàà</i>	‘tell a story’	<i>céⁿ</i> ‘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, =ē, =è, =ē, =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+=Ø/, which consists only

of a floating H-tone. Subject pronouns take independent form, e.g. 1Sg *mā-n̄(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-ní=Ø=ī* ‘it’s me’, analysed as /mā-nū=H=ī/. 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. /ū=H=ī/ in pronouns contracts as *í=Ø=ī* (409a,d,e).

- (409) a. *mā-ní=Ø=ī*
 1Sg-Indep=**be=it.is**
 ‘It’s me.’
- b. *bákàrí=Ø=ī*
 B=**be=it.is**
 ‘It’s Bakari.’ (< *bákàrì*)
- c. *ámádú=Ø=ì*
 A=**be=it.is**
 ‘It’s Amadou.’ (*ámádù*)
- d. *à-wò-ní=Ø=ì*
 Hum-3SgFoc-Indep=**be=it.is**
 ‘It’s him/her.’
- e. *à-mǎā-ní=Ø=ì*
 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* ~ =*ē̄*. The choice between =*ē* and =*ē̄* depends on the ATR quality of the stem (410a), cf. §3.4.1. The low vowel *a* is -ATR, and it usually combines with the enclitic as *é=Ø=è* (410b).

- (410) a. *kóló=Ø=ē*
 K=**be=it.is**
 ‘It’s Kolo (personal name).’
- b. *wámàré=Ø=ē̄*
 W=**be=it.is**
 ‘It’s Wamara (personal name).’ (/wámàrà = H = *ē̄*/)

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 *-ré=Ø=è* or (if the stem is

nasal) $-n\acute{e} = \emptyset = \acute{e}$, 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 $j\acute{i}-n\grave{a}$, is realized as downstep. Corresponding plurals have $-\grave{a}-n\acute{i} = \emptyset = \bar{i}$ (from $-\grave{a}-n\bar{u}$) with final M-tone (411d).

- (411) a. $t\grave{a}g\grave{a}-r\acute{e} = \emptyset = \acute{e}$
 sheep-Nom=**be=it.is**
 ‘It’s a sheep.’ (< $t\grave{a}g\grave{a}-r\acute{a}$)
- b. $n\acute{a}\bar{a}-n\acute{e} = \emptyset = \acute{e}$
 woman-Nom=**be=it.is**
 ‘It’s/She’s a woman.’ (< $n\acute{a}\bar{a}-n\grave{a}$)
- c. $j\acute{i}-n\acute{e} = \emptyset = \acute{e}$
 market-Nom=**be=it.is**
 ‘It’s a/the market.’ (/ $j\acute{i}-n\grave{a} = H = \acute{e}$ /)
- d. $t\grave{a}g\grave{a}-r\acute{a}-\grave{a}-n\acute{i} = \emptyset = \bar{i}$
 sheep-Nom-Pl-Nom=**be=it.is**
 ‘It’s/They’re sheep-Pl.’

This construction should be conducive semantically to specific indefinite $d\grave{o}$ (§6.5.2). However, I have observed the combination of $d\grave{o}$ and the ‘it is’ enclitic, which is realized as $-d\grave{o}\acute{e} = \emptyset = \bar{e}$, only with the semantically light nouns $s\acute{e}^n$ ‘thing’ (suffixed $s\acute{e}-n\grave{a}$), where it seems to be obligatory, and $m\grave{e}?\grave{e}^n$ and variants ‘person’ (suffixed $m\grave{e}?\grave{e}-n\acute{a}$), where it is optional.

- (412) a. $s\acute{e}^n-d\grave{o}\acute{e} = \emptyset = \bar{e}$
 thing-one=**be=it.is**
 ‘It’s something.’ (# $s\acute{e}-n\acute{e} = \acute{e}$ rejected by assistant)
- b. $m\grave{e}?\grave{e}^n-d\grave{o}\acute{e} = \emptyset = \bar{e}$
 person-one=**be=it.is**
 ‘It’s someone.’ ($m\grave{e}?\grave{e}-n\acute{e} = \emptyset = \acute{e}$ is also acceptable)

For past time, the identificational enclitic is replaced by the verb $ci\grave{e} \sim ci\acute{e}$ ‘was/were’, and copula $k\grave{u}^n \sim k\acute{u}^n$ 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’ (= $r\bar{E}?$)

The ‘it is X’ construction described above is negated by attaching the negative enclitic $=r\bar{E}?$, realized as $=r\bar{e}?$ or $=r\bar{e}?$ 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-n̄* ~ *mā-nū*, so the medial *i* in *mā-n=Ø=í=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=í=nē?*
 1Sg-Indep=**be=it.is=Neg**
 ‘It isn’t me.’ (</mā-nū = H = ī = rĒ?/)
- b. *bákàr=Ø=Ø=rē?*
 Bakari=**be=it.is=Neg**
 ‘It isn’t Bakari.’ (< *bákàrì*)
- c. *tàgà-rá=Ø=Ø=rē?*
 sheep-Nom=**be =it.is=Neg**
 ‘It’s not a sheep.’
- d. *ɲáā-nà=Ø=Ø=nē?*
 woman-Nom=**be=it.is=Neg**
 ‘It’s not a woman.’
- e. *tàgà-rá-à-ń=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’ (*kùⁿ* ~ *kúⁿ*)

The copula is *kùⁿ* (+3Sg) or *kúⁿ* (-3Sg). The construction is *X = ‘be’ Y kuⁿ* 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 *má=Ø* with the enclitic, not independent *mā-n̄* (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 *kùⁿ*.

- (414) a. *má=Ø* *ɲáā / tàgá* *kùⁿ*
 1Sg=**be** woman / sheep **Cop**
 ‘I am a woman/a sheep.’ (< *tàgà*)

- b. $mù?ú^n = \emptyset$ $náā-nà-à^n / tàgà-rá-à^n$ $kú^n$
 1Pl=**be** woman- / sheep-Nom-Pl **Cop**
 ‘We are women/sheep-Pl.’
- c. $náā-nà = \emptyset$ $bàlá^n$ $kù^n$
 woman-Nom=**be** Senoufo **Cop**
 ‘The woman is a Senoufo (ethnicity).’ (< $bàlá^n$)
- d. $náā-nà-á^n = \emptyset$ $bàl-lá^n-à^n$ $kú^n$
 woman-Nom-Pl=**be** Senoufo-Nom-Pl **Cop**
 ‘The women are Senoufos (ethnicity).’ (< $náā-nà-à^n$)
- e. $má = \emptyset$ $bákàr$ $kú^n$
 1Sg=**be** Bakari **Cop**
 ‘I am a Bakari (name).’

For past time, e.g. ‘we were women’, see §10.4.1.

11.2.2.2 Negative ‘X is not Y’ ($kù = nē?$, plural $kú = nē?$)

Copular ‘X is Y’ (preceding section) is negated by adding the negative enclitic $=rē?$. Because of the nasality of $kù^n \sim kú^n$, the enclitic always takes nasal form $=nē?$. 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. $mā / à$ $náā$ $kù = nē?$
 1Sg / 3SgHum woman **Cop=Neg**
 ‘I am/He-or-she is not a woman.’
- b. $mù?ù^n$ $náā-nà-à^n / tàgà-rá-à^n$ $kú = nē?$
 1Pl woman- / sheep-Nom-Pl **Cop=Neg**
 ‘We are not women/sheep-Pl.’
- c. $náā-nà$ $bàlá^n$ $kù = nē?$
 woman-Nom Senoufo **Cop=Neg**
 ‘The woman is not a Senoufo (ethnicity).’
- d. $á$ $yí?é$ $kù = nē?$
 3SgHum fish **Cop=Neg**
 ‘He/She is not a fish.’ (< $yí?é$)

- e. *á* *bàláⁿ* *kù = nē?*
 3SgHum Senoufo Cop=Neg
 ‘He/She is not a Senoufo (ethnicity).’

On the absence of the ‘be’ subject enclitic in these negative sentences, see comments in §11.2.3.4 below.

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 =*n̄* 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+ = Ø/. This may be identified morphemically with the imperfective subject enclitic /H+ = Ø/. Examples with noun-headed subjects are in (416).

- (416) a. *bákàrí = Ø* [*mùú* / *yí* *dù*]
 B=be [field / water in]
 ‘Bakari is (present) in the field/in the water.’ (< *mùù*)
- b. *búgū-rà-áⁿ = Ø* [*dùgú* *dù*]
 hut-Nom-Pl=be [the.bush in]
 ‘The huts are (out) in the bush.’ (< *dùgù*)
- c. *tàgà-rá-àⁿ = Ø* [*mùú* *dù*]
 sheep-Nom-Pl=be [field in]
 ‘The sheep are in the field.’ (< *mùù*)
- d. *ḡáā-nà-áⁿ = Ø* [*bígí* *tù*]
 woman-Nom-Pl=be [granary in]
 ‘The women are inside the granary.’
- e. *dígíñ-nà-áⁿ = Ø* [*yí* *dù*]
 man-Nom-Pl=be [water in]
 ‘The men are in the water.’

- f. *dígíń-nà = ∅* [*yí* *dù*]
 man-Nom=**be** [water in]
 ‘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) *má / mùʔúⁿ / àáⁿ / ēēⁿ / á* = ∅ [*yí* *dù*]
 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 / mùʔùⁿ / ààⁿ / ēēⁿ / à*)

11.2.3.2 ‘X is here/there’ with linker =*ń* ~ =*ṅ*

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+ = ∅/. 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 [*áń*] rather than rising #[*àń*], I assume that the enclitic =*ń* is added after the /H+ = ∅/ 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+ = ∅/ under favorable conditions. In fact, the linker is heard as L-toned =*ṅ* when preceded by an H-toned vowel (418c), though not by a rising-toned vowel (418e).

- (418) a. *zàkî = ∅ = ń* *dè*
 Z=**be**=Link there.Def
 ‘Zaki is present (here/there).’
- b. *bákàr = ∅ = ń* *nàà*
 B=**be**=**Link** here
 ‘Bakari is here.’
- c. *tàgà-ré = ∅ = ṅ* *nàà*
 sheep-Nom=**be**=**Link** here
 ‘The sheep-Sg is here.’ (< *tàgà-rá*)
- d. *tàgà-rá-āⁿ = ∅ = ń* *nàà*
 sheep-Nom-Pl=**be**=**Link** here
 ‘The sheep-Pl are here.’

- e. $\acute{a} = \emptyset = \grave{n} / m\acute{a} = \emptyset = \grave{n}$ $n\grave{a}\grave{a}$
 3SgHum= / 1Sg=be=Link here
 ‘He-or-she is / I am here.’
- f. $\grave{a}\acute{a} = \emptyset = n$ $n\grave{a}\grave{a}$
 3PIHum=be=Link here
 ‘They are here.’ (heard approximately as [ããń])

Because the nasal linker is found only with ‘here’ and ‘there’, and not with other spatial adverbs like *bá* ‘over there’ (see just below), an alternative analysis of the nasal as the initial segment of the demonstrative adverbs is not out of the question. However, representations like *ínàà* and *ídè* would have unique syllabic shapes in Jalkunan, and in adverbial (as opposed to predicative) function a vocalic rather than nasal extension of preceding words occurs. Another reason for the enclitic analysis is that the tone of the nasal depends on that of the preceding morphemes.

11.2.3.3 ‘X is over there’ (*bá*)

For the distant deictic category (‘over there’), *bá* occurs after /H+ = \emptyset /. There is no linker.

- (419) a. $b\acute{a}k\grave{a}r\acute{i} = \emptyset$ ${}^{\prime}b\acute{a}$
 B=be over.there
 ‘Bakari is over there.’
- b. $\grave{a}\acute{a}^n = \emptyset$ ${}^{\prime}b\acute{a}$
 3PIHum=be over.there
 ‘They are over there.’
- c. $b\acute{a}k\grave{a}r\acute{i} = \emptyset$ ${}^{\prime}b\acute{a} = r\bar{e}?$
 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 = $r\bar{e}?$ in its usual range of variants to the locational expression (i.e. clause-finally). My assistant omitted the = \acute{n} linker before *dè* ‘there (definite)’ but not before *nàà* ‘here’ (420d-e).

- (420) a. $b\acute{a}k\grave{a}r\acute{i} / \acute{a} / \grave{a}\acute{a}^n$ [mùú dù] = $r\bar{e}?$
 B / 3SgHum / 3PIHum [field In] =Neg
 ‘Bakari is not / He-or-she is not / They are not in the field.’ (*bákàrì*)

- b. *bákàr* / *à* / *ààⁿ* [*yí* *dù*] = *rē?*
 B / 3SgHum / 3PIHum [water In] =Neg
 ‘Bakari is not / He-or-she is not / They are not in the water.’ (*bákàrì*)
- 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. *zàkî = í* *nàà* = *nē?*
 Z=Link here =Neg
 ‘Zaki is not here.’
- e. *zàkî* *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+ = \emptyset / 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* [*dà?àlí* *mà*]
stone-Nom=**be** [mat on]
'The stone is on the mat.'
- b. *náā-nà-áⁿ = 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 *sà?à* (perfective *sè?é* ~ *sé?é*), 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. *ààⁿ* *sé?éńí*
3PlHum sit.Stat
'They are sitting (=seated).'
- b. *à* *sè?èńí*
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 *ńí*. The vowel quality of the stem preceding *ńí* shifts to +ATR. Since +ATR *e* can correspond to either -ATR *é* or *a*, it is indeterminate whether the stative is more closely related to the active imperfective or to the active perfective.

(423)	active		stative (3Sg)	gloss
	Ipfv	Pfv +3Sg		
	<i>sàʔà</i>	<i>sèʔé</i>	<i>sèʔèní</i>	‘sit’
	<i>bàlà</i>	<i>bàlí</i>	<i>bàlní</i>	‘stand’
	<i>sàà</i>	<i>sèé</i>	<i>sèèní</i>	‘lie down’

From a text I can add another stative verb, *bèèní* (+3Sg) ~ *bééni* (-3Sg), related to *bàà* ‘put down’ (perfective *bèé* ~ *béé*) and to intransitive *bàà* ‘fall’.

(424)	<i>cíí-ná-àⁿ</i>	<i>bééni</i>	<i>kénéjèná</i>
	breast-Nom-Pl	be.put.down.Stat	outside
	‘The breasts were (=had been) set down outside (of the water).’		

The variant *tùùni* ~ *túúni* from the verb *tóó* ‘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’ (*tóó*)

This is an active (aspect-marking) verb. The basic forms are perfective *tòé* ~ *tóé* (subject to the usual clause-medial trimming) and imperfective *tóó*.

(425)	a.	<i>à</i>	<i>tò</i>	<i>kúnú / bá</i>	
		3SgHum	stay.Pfv	village / over.there	
		‘He/She stayed in the village / over there.’ (< <i>tòé</i>)			
	b.	<i>á=∅</i>	<i>sà</i>	<i>tóó</i>	<i>‘kúnú / ‘bá</i>
		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 *túú* in both perfective and imperfective contexts. One might have expected *tóó*, as in (372c) and other examples. However, this is not the only case where a shift to +ATR has also raised the vowel to high; see *tíʔí* from *táʔá* ‘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 túú nàà / dè*
 3SgHum **stay.Pfv** **here / there.Def**
 ‘He/She stayed here/there.’
- b. *á = ∅ sà túú nàà / dè*
 3SgHum=Ipfv Fut **stay.Ipfv** **here / there.Def**
 ‘He/She will stay here/there.’

See §15.1.1.2 for functions of *tóó* as an auxiliary with another following VP.

11.2.5.2 ‘Become, be transformed into’ (*jámúlò*)

‘X become (=be transformed into) Y’ where Y is an NP denoting a type of entity is expressed by the verb *jámúlò* (imperfective) or *jàmúli* ~ *jámúli* (perfective). This is followed by the Y NP and by the copula *kùn* ~ *kún* (427a-b). The transitive counterpart ‘X transform Z into Y’ adds an object before *jámúlò* (427c).

- (427) a. *à jàmúli [mì?ìⁿ kpěé] kùn*
 3SgHum **be.transformed.Pfv** [person white] Cop
 ‘He/She turned into a white person.’
- b. *á = ∅ sà jámúlò [mì?ìⁿ kpěé] kùn*
 3SgHum=Ipfv Fut **be.transformed.Ipfv** [person white] Cop
 ‘He/She will turn into a white person.’
- c. *mā zàkî jámúli [mì?ìⁿ kpěé] 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 *máá* ‘be done’, i.e. the intransitive counterpart of *màà* ~ *máá* ‘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’ (*sò* 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: *sò* (+3Sg) ~ *só* (-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) a. *mā* / *mùʔùⁿ* / *ààⁿ* *ní* *sò*
 1Sg / 1Pl / 3PlHum 3SgNonhObj **know.Pfv**
 ‘I/We/They know (it).’
- b. *mā* / *mùʔùⁿ* *ń* *sò = rēʔ*
 1Sg / 1Pl 3SgNonhObj **know.Pfv=Neg**
 ‘I/We don’t know it.’ (< *ní*)
- c. *mùʔúⁿ* / *àáⁿ* *sò = rēʔ*
 1Pl / 3PlHum **know.Pfv=Neg**
 ‘We/They don’t know (it).’
- d. *à* *yĩ* *sò*
 3SgHum water **know.Pfv**
 ‘He/She knows the water.’ (*yí*)

Past-time ‘knew’ is *sòdò ké*, see §10.4.3. The perfective ‘know’ verb is lengthened and switched to +ATR in this and some other combinations.

An imperfective *sòdò* (+3Sg) ~ *sósó* (-3Sg) is elicitable, chiefly in future contexts (‘will know’). Similarly, an imperative *só* (3Sg object) or *só* (3Pl object) was elicited. The imperfective *sòdò* ~ *sósó* is homophonous with that of ‘wait’ (perfective *sòíí* ~ *sóí*).

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) a. *wó = Ø* *‘kpé* *kà*
 2Sg=Ipfv what? **want.Stat**
 ‘What do you want?’

- b. *mùʔúⁿ* = ∅ *ʔí* *kà*
 1Pl=Ipfv water **want.Stat**
 ‘We would like some water.’
- c. *mā* *yíʔé* *kà = rē?*
 1Sg fish **want.Stat=Neg**
 ‘I don’t like/want fish.’

The “object” may take specific indefinite form with *dò*.

- (431) a. *má* = ∅ [*gbāá* *dò*] *ká*
 1Sg=Ipfv [stick one] **want.Stat**
 ‘I want a stick.’
- b. *mā* [*gbāá* *dò*] *ká = rē?*
 1Sg [stick one] **want.Stat=Neg**
 ‘I don’t want a stick.’

For future time (432) was elicited. I interpret *máá* as an intransitive counterpart of (imperfective) *màà* ‘do’, i.e. ‘be done, happen’ (§11.2.5.3). The construction is therefore “we will happen to want water tomorrow.”

- (432) *mùʔúⁿ* = ∅ *sà* *máá* *yí* *kà* *síní*
 1Pl=Ipfv Fut **be.done.Ipfv** water **want.Stat** tomorrow
 ‘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 *kóó* ~ *kòò* and is followed by the complement (§17.1.1).

For a homophone *kà* ~ *ká* in the ‘have’ construction, see §11.5.1.

11.3 Quotative verb

11.3.1 ‘Say’ (*tòʔò*, *cìè*, *dè* ~ *dé*)

As transitive verb with a nonhuman 3Sg object, or other NP object such as ‘that’, the ‘say’ verb is *tòʔò* or *cìè* (cited as imperfectives).

- (433) a. *mā* *ní* *tòʔé(ē)*
 1Sg 3SgHumObj **say.Pfv**
 ‘I said it.’

- b. *mā ní cìé*
 1Sg 3SgHumObj say.Pfv
 [= (a)]

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 *tò?ò* under negation (434b).

- (434) a. *à dé= [á-wò sà sáá]*
 3SgHum say.Pfv [Hum-3SgLogo Fut come.Ipfv]
 ‘He_x/She_x said that he_x/she_x would come.’ (< /*dè à-wò*/)
- b. *á =Ø tò?ó=rē? [â-wò sà sáá]*
 3SgHum 3SgObj say.Pfv=Neg [Hum-3SgLogo Fut come.Ipfv]
 ‘He_x/She_x didn’t say that he_x/she_x 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 mǔ] sàðⁿ-béé / gùní(í)*
 [1Sg rope] become.long.Pfv / become.short.Pfv
 ‘My rope is long/short.’
- b. *[mā mǔ] sàðⁿ-bèè=rē? / gǔn=nē?*
 [1Sg rope] become.long.Pfv=Neg / become.short.Pfv=Neg
 ‘My rope is not long/short.’ (/gùní=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+=Ø/. 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 ~ 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. *tàgà-rá = ∅* [*mā* *ká*]
 sheep-Nom=**be** [1Sg **Poss**]
 ‘I have a sheep.’
- b. *tàgà-rá = ∅* [*bákàr* *ká*]
 sheep-Nom=**be** [B **Poss**]
 ‘Bakari has a sheep.’
- c. *tàgà-rá-āⁿ = ∅* [*bákàr* *ká*]
 sheep-Nom-Pl=**be** [B **Poss**]
 ‘Bakari has some sheep.’
- d. *bákàrí = ∅* [*mā* *ká*]
 B=**be** [1Sg **Poss**]
 ‘I have Bakari.’
- e. *dí-rá = ∅* [*tàgá* *kà*]
 child-Nom=**be** [sheep **Poss**]
 ‘The sheep has a child (=lamb).’ (< *tàgà*)
- f. *dí-rá = ∅* [*tàgà-rá-āⁿ* *ká*]
 child-Nom=**be** [sheep-Nom-Pl **Poss**]
 ‘The sheep-Pl have a child (=lamb).’

The paradigm with possessor is (437).

- (437) a. M-toned pronouns
- | | |
|-----|--------------------------|
| 1Sg | <i>mā ká</i> |
| 2Sg | <i>wō ká</i> |
| 2Pl | <i>ēēⁿ ká</i> |
- b. other plural pronouns
- | | |
|---------|----------------------------|
| 1Pl | <i>mù?ùⁿ ká</i> |
| 3PlHum | <i>ààⁿ ká</i> |
| 3PlNonh | <i>èèⁿ ká</i> |
- c. 3Sg pronouns
- | | |
|---------|-------------|
| 3SgHum | <i>à kà</i> |
| 3SgNonh | <i>è kà</i> |

d. singular noun
 ‘sheep-Sg’ *tàgá kà* (< *tàgà*)

e. plural noun
 ‘sheep-Pl’ *tàgà-rá-àⁿ 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 *=rē?* 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 *tàgá* before a nonpronominal NP in (438d).

- (438) a. *wār* [*mā* *ká*] = *rē?*
 money [1Sg Poss]=Neg
 ‘I don’t have any money.’ (< *wārī*)
- b. *wār-rá* = [*à* *kà*] = *rē?*
 money-Nom [3SgHum Poss]=Neg
 ‘He/She doesn’t have any money.’
- c. *wār-rá* [*mù?ùⁿ* *ká*] = *rē?*
 money-Nom [1Pl Poss]=Neg
 ‘We don’t have any money.’
- d. *tàgá* *zàkî* *ká* = *rē?*
 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 *=rē?*.

For past-time counterparts with *cìè* ~ *cíé* ‘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 *dè* ‘with’

For instrumental-comitative *dè* ~ *dé* 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 *dè* ~ *dé* ‘with’ is the predicate. The possessor is the subject.

- (439) a. *tàgà-rá* = ∅ [*mḏḏ-ñ* *dè*]
 sheep-Nom=be [rope-Dim **with**]
 ‘The sheep has a rope on it.’ (< *mḏḏ-nī*)
- b. *tàgà-rá* = ∅ [*gbǒ* *dè*]
 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* = ∅ / *bákàrí* = ∅ [*mā* *dō*]
 sheep-Nom=be / B=be [1Sg **with**]
 ‘A sheep/Bakari is with me.’ (i.e. ‘I have a sheep/Bakari with me.’)
- b. *tàgá* *cìè* [*mā* *dō*]
 sheep-Nom be.Past [1Sg **with**]
 ‘A sheep was with me.’
- c. *tàgà-rá* / *bákàr* [*mā* *dō*] = *rē?*
 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 mĩ*] *kùⁿ* ‘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 *kùⁿ*. The combination /*mì kùⁿ*/ undergoes Final Tone-Raising to *mĩ kùⁿ*. 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 mĩ kùⁿ* ‘(it) is his/hers’. Since *kùⁿ* always follows *mĩ* in this construction, and since *mĩ* is treated tonally as a normal singular noun, *kùⁿ* does not vary tonally for possessum number. If X is a nonpronominal NP, it omits the nominal suffix before *mì kùⁿ* (441d), as usual with possessors. However, the subject Y does have the nominal suffix where morphologically possible.

- (441) a. *[sàà mí-nà]=∅* *[bákàrí mĩ]* *kùⁿ*
 [house Dem-Nom]=be [B Poss] Cop
 ‘This/That house is Bakari’s.’
- b. *[sàà mí-nà-àⁿ]=∅* *[bákàrí mĩ]* *kùⁿ*
[zàkĩ mĩ] *kùⁿ*
 [house Dem-Nom-Pl]=be [B/Z Poss] Cop
 ‘These/Those houses are Bakari’s/Zaki’s.’
- c. *[sàà mí-nà]=∅* *[náā-nà-áⁿ mĩ]* *kùⁿ*
 [house Dem-Nom]=be [woman-Nom-Pl Poss] Cop
 ‘This/That house belongs to the women.’
- d. *[sàà mí-nà]=∅* *[náā mĩ]* *kùⁿ*
 [house Dem-Nom]=be [woman Poss] Cop
 ‘This/That house belongs to the woman.’
- e. *bákàrí=∅ / é=∅* *[mā mĩ]* *kùⁿ*
 B=be / 3SgNonh=be [1Sg Poss] Cop
 ‘Bakari/It belongs to me.’
- f. # *[mā mĩ]* *kùⁿ*
 # [1Sg Poss] Cop
 [intended sense: ‘It belongs to me.’]

The pronominal paradigm is (442).

- (442) 1Sg *[mā mĩ]* *kùⁿ*
 2Sg *[wō mĩ]* *kùⁿ*
 1Pl *[mùʔúⁿ mĩ]* *kùⁿ*
 2Pl *[ēéⁿ mĩ]* *kùⁿ*

3SgHum	[à mĩ] kù ⁿ
3SgNonh	[è mĩ] kù ⁿ
3PlHum	[àá ⁿ mì] kù ⁿ
3PlNonh	[èé 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* (< *bákàrì*) rather than *bákàrí* = \emptyset in (443b).

- (443) a. [sàà mí-nà] [bákàrí mĩ] kùⁿ = nē?
 [house Dem-Nom] [B Poss] be =Neg
 ‘This/That house is not Bakari’s.’
- b. *bákàr* [mā mĩ] kùⁿ = 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] = \emptyset = 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* = \emptyset = è. The plural is regular: *mì-nà-àⁿ-ní* = \emptyset = 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] = \emptyset = è
 house-Nom [1Sg Poss-Nom] =be =it.is
 ‘The house is mine.’
- b. [mā mì-né] = \emptyset = è
 [1Sg Poss-Nom] =be =it.is
 ‘It’s mine.’
- c. [mā mì-nà-àⁿ-ní] = \emptyset = 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* (~ *béle*) ‘pass’, cf. English *surpass*. It is often syncope 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 mǎ] sòòⁿ-bèé*
 [1Sg rope] become.long.Pfv
 ‘My rope is long.’ (*mòⁿ*)
- b. *[mā mǎ] sòòⁿ-bè [blé [wō mì-nà]]*
 [1Sg rope] become.long.Pfv [pass.Adjn [2Sg Poss-Nom]]
 ‘My rope is longer than yours-Sg.’
- c. *[mā mǎ] sòòⁿ-bè [blé [wō mì-nà]] = nē?*
 [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. *zàkî kūmēé kùnò [blé mā-n]*
 Z meal eat.Ipfv [pass.Adjn 1Sg-Indep]
 ‘Zaki eats more food than I (do).’

- b. *zàkî* [*wáŕ* *fééⁿ*] *bílí* *mā-ñ* [*blé* *bákàrì*]
 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’ (*fðⁿ ~ fɔⁿ*)

In this construction, the predicate is *fðⁿ ~ fɔⁿ*, obeying the usual +3Sg (L-tone) versus -3Sg (H-tone) pattern for monosyllabic verbs. *blé* ‘pass’ is redundant in this case but it is optionally present.

- (447) a. *zàkî* *fɔⁿ* [(*blé*) *mā-n*]
 Z **better** [(**pass.Adjn**) 1Sg-Indep]
 ‘Zaki is better than me.’
- b. *à* *fðⁿ* [(*blé*) *mā-n*]
 3SgHum **better** [(**pass.Adjn**) 1Sg-Indep]
 ‘He/She is better than me.’
- c. *à* *fðⁿ* [(*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. *jàngbáā* *fééñí* [*blé* *wùl-á-à-nū*]
 cat **abound.Pfv** [**pass.Adjn** dog-Nom-Pl-Nom]
 ‘There are more cats than dogs.’
- b. *ààⁿ* *fééñí* [*blé* *mù?ú-nú*]
 3Pl **abound.Pfv** [**pass.Adjn** 1Pl-Indep]
 ‘There are more of them than of us.’

For past time (with past marker *ké* at the end of the first clause, preceding *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) *zàkî* [[*sìgì-sèè* *mé?ēⁿ* *ɲě* *kùⁿ*
 Z [[song-sing.VblN person] **good**] 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) [*sìgì-sèè* *mé?ē-nà-àⁿ* *bú?ú-nú* *zàkî* *fɔⁿ*
 [song-sing.Vbln person-Nom-Pl all-Nom] Z **better**
 ‘(Out of) all the singers, Zaki is better (=the best).’

12.1.5 ‘A fortiori’ (*cà?á dóò*)

The sense ‘all the more so’ is expressed by *cà?á dóò* in this textual passage (hyena speaking).

- (451) [*mì?íⁿ* *ɲàyí*] *dì* *kúⁿ* *îⁿ*,
 [person tears] become.delicious.Pfv Cop oh!,
 [*è* *sìbí*] *cà?á* *dóò*,
 [3SgNonh meat] **all.the.more** **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’ (*dúlí kùⁿ*)

dúlí (< *dúli* ‘1’) plus copula *kùⁿ ~ kúⁿ* 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. [*bákàri* *bú?ú* *zàkî*]
 [B and Z]
sɔsⁿ-béé *ká-nà = ∅* *dúlí* *kùⁿ*
 become.long.VblN have.VblN-Nom=be **equal** Cop
 ‘Bakari and Zaki are of the same height (=are equally tall).’

- b. *[[zàkîⁿ búʔú mā] dè]*
 [[Z and 1Sg] with]
[mùʔùⁿ búʔú] wár-māā háké=∅ dúlí kùⁿ
 [1Pl all] money-owner 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 *Cv̄v* verbs, this form may sound short-voweled (*Cv̄*) when clause-final, but it is structurally *Cv̄v* and is heard as such before the negative enclitic (454a-d).

- (453) a. *à* *bèé / bèè = rē?*
3SgHum fall.Pfv / fall.Pfv=Neg
‘He/She fell / didn’t fall.’
- b. *ààⁿ* *béé / béé = rē?*
3PlHum fall.Pfv / fall.Pfv=Neg
‘They fell / didn’t fall.’
- c. *mā* *béé / béé = rē?*
1Sg fall.Pfv / fall.Pfv=Neg
‘I fell / didn’t fall.’
- d. *zàkî* *béé / béé = rē?*
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 *è-wò*

(nonhuman). A 3Pl subject pronoun likewise takes the focalized (or logophoric) form *à-mǎā* (human) as in (454b) or *è-mǎā* (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. *à-mǎā* *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. *zàkî* *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 *sīdānī*, 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-wó = ∅* *sà* *bàà*
 Hum-3SgFoc=Ipfv Fut fall.Ipfv
 ‘It’s he-or-she [focus] who will fall.’ (*à-wò*)
- b. *à-mǎā = ∅* *sà* *bàà*
 Hum-3PlFoc=Ipfv Fut fall.Ipfv
 ‘It’s they [focus] who will fall.’
- c. *à-wò* *sá* *bàà = rē?*
 Hum-3SgFoc Fut fall.Ipfv =Neg
 ‘It isn’t he-or-she [focus] who will fall.’

- d. *à-mǎā* *sā* *bàà = rē?*
 Hum-3PIFoc Fut fall.Ipfv =Neg
 ‘It isn’t they [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 = ∅* *sà* *bàà*
 1Sg Fut fall.Ipfv
 ‘I will fall.’ or ‘It’s I [focus] who will fall.’
- b. *zàkî = ∅* *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. *zàkî* *sá* *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* *d̀̀nî / d̀̀n = nē?*
 Hum-3SgFoc meat eat.meat.Pfv (=Neg)
 ‘It was(n’t) he-or-she [focus] who ate (the) meat. (< /d̀̀nî = nē?/)
- b. *à-mǎā* *sìbí* *d̀̀nî / d̀̀n = nē?*
 Hum-3PIFoc meat eat.meat.Pfv (=Neg)
 ‘It was(n’t) they [focus] who ate (the) meat.’
- c. *mā* *sìbí* *d̀̀nî / d̀̀n = 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* *sìbí* *dòníí / dǒn = 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 *ná*) also apply to focalized forms with *-wò* (458a-b).

- (458) a. *mā* *ná-wò* *bá?rìì*
 1Sg HumObj-3SgFoc hit.Pfv
 ‘It was him-or-her [focus] that I hit.’
- b. *mā* *nā-mǎǎ* *bá?rìì*
 1Sg HumObj-3PIFoc 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* *bá?rìì*
 3SgHum 1Sg hit.Pfv
 ‘He/She hit me’ or ‘It was me [focus] who(m) he/she hit.’
- b. *mā* *zàkíí* *bá?rìì*
 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).

- (460) a. *mā* *tàgá* *bíl=* *à-yà*
 1Sg sheep give.Pfv Hum-3SgObj
 ‘I gave a/the sheep-Sg to him/her.’ (< /bílí à-yà/)
- b. *mā* *tàgá* *bíl=* *è-wò-ù*
 1Sg sheep give.Pfv Hum-3SgFoc-Indep
 ‘It was him-or-her [focus] that I gave the sheep to’ (< /bílí à-wò-n/)

The complement of the postposition is unfocalized in (461a) but focalized in (461b).

- (461) a. *mā* *sé=* [(è)èⁿ *dé]*
 1Sg come.Pfv [3PINonh with]
 ‘I brought them (e.g. sheep).’ (< /sé èèⁿ/)
- b. *mā* *sé=* [è-mǎā *dé]*
 1Sg come.Pfv [Nonh-3PIFoc with]
 ‘It was them [focus] (e.g. sheep) that I brought.’ (< /sé è-mǎā/)

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 *bò* may occur instead of the regular perfective verb *bóē*.

- (462) [*kpé* *kùdù*] *wō* *bóē* / *bò*
 [what? for] 2Sg exit.Pfv / exit.Adjn.Defoc
 ‘Why did you-Sg come/go up?’

Other defocalized intransitive verbs in this construction include *sà* ‘come’ and *sìdà* (or *sìdàⁿ*) ‘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 (*sáá* ‘come’, *bóó* ‘exit’) keep the H-tone in the regular adjoined form (*sá*, *bó*), whereas all defocalized adjoined verbs are L-toned (*sà*, *bò*).

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 *bà?rí* for expected *bà?rí* ‘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 m̄ kóónī]*
 [3SgHum 1Sg insult.Pfv]
[wò kósòⁿ m̄ ná bà?rì]
 [3SgFoc because] 1Sg 3SgHumObj hit.Adjn.Defoc
 ‘He/She insulted me, it [focus] is why I hit-Past him/her.’
- b. *[tàngà síbī-rà] m̄ nì-wò ká*
 [sheep meat-Nom] 1Sg NonhObj-3SgFoc want.Stat
 ‘Sheep meat, it [focus] is what I like/want.’
- c. *jàlsà-dù mù?úⁿ=∅ 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 $=à \sim =\dot{\delta}$. The *yà* variant is exemplified in (464). Monosyllabic *Cvv* verbs are usually shortened to *Cv* before *yà*. This includes elision of the final *ε* in *Cœ* perfectives, e.g. that of *bóé* ~ *bòé* ‘exited’ which becomes *bó yà* ~ *bò yà* (464a-b) The underlying *ε* does, however, prevent contraction to $\#bó=\dot{\delta} \sim \#bò=\dot{\delta}$. In effect, the underlying /*ε*/ becomes, or fuses with, the *y* of the interrogative allomorph *yà*. Other verbs ending in *ε*, including *Cie* perfectives, retain the *ε* before *yà* (464c-d). The preservation of -ATR vowels *ε* and *ɔ* avoids confusion with the progressive verb form (suffix *-yá* after +ATR stem).

- (464) a. *zàkî / dí-kpé?r-à-àⁿ / wò sé / bó yà*
 Z / child-young-Nom-Pl / 2Sg come./exit.Pfv Q
 ‘Did Zaki/the children/you-Sg come/go out?’ (< *séé*, *bóé*)

- b. *dí* *sě/ bǎ* *yà*
 child come./exit.Pfv **Q**
 ‘Did the child come/go out?’ (< *sěě, bǎě*)
- c. *à* *sìdání / tề?ế / cìế* *yà*
 3SgHum ascend.Pfv / go.Pfv / arrive.Pfv **Q**
 ‘Did he/she go up/go/arrive?’
- d. *wō* *tāá* *jìế* *yà*
 2Sg fire see.Pfv **Q**
 ‘Did you-Sg see the fire?’

The contracting (encliticized) variant =*à* ~ =*ò* is exemplified in (465). Contraction is clear in (465a), where imperfective *bóó* (which has no underlying final *ε*) combines with =*à* as *bó*=*ò*. It is more difficult to determine whether enclisis/contraction occurs after *a* in (465b), but since nasalization extends to the end of *kpáⁿ*=*àⁿ* I favor a contraction analysis. There is no contraction (or other evidence of enclisis) after *ε* (465c).

- (465) a. *zàkî=∅* *sà* *bó=ò*
 Z=Ipfv Fut exit.Pfv=**Q**
 ‘Will Zaki go out?’ (< *bóó*)
- b. *á=∅* *sà* *sá=à / nìná=à / kpáⁿ=àⁿ*
 3SgHum=Ipfv Fut come.Ipfv=**Q** / forget.Ipfv=**Q** / die.Ipfv=**Q**
 ‘Will he/she come/forget/die?’ (< *sáá, nìnáà, kpááⁿ*)
- c. *á=∅* *sà* *cìế / fìđế* *à*
 3SgHum=Ipfv Fut arrive.Ipfv / run.Ipfv **Q**
 ‘Will he/she arrive/run?’ (< *fìđếế*)

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 *á* or *ó*, neither the long vowel nor the initial H-tone of the particle is audible after contraction: ...*á=à*, ...*ó=ò* (466a-b). However, when it contracts with preceding L-toned *à* or *ò* the result is a long <LHL> syllable: ...*à=â*, ...*ò=ô* (466c). (466d) illustrates *àà* after personal names, which triggers LL#L-to-LH#L (Final Tone-Raising) with ‘Bakari’ and ‘Amadou’. /*zàkî àà*/ is realized as *zàkí áà* in allegro speech.

- (466) a. *káⁿ* *sề* *kún-ná=à*
 rain(n) rain-fall.Pfv village-Nom=**Q**
 ‘Has it rained in the village?’ (< *kún-ná*)

- b. *wō ní b(i)lí kò-nó=ò*
 2Sg 3SgNonhObj give.Pfv bird-Nom=Q
 ‘Did you-Sg give it to the bird?’ (< *kò-nó*)
- c. *wō ní bè [sàá tò]=ô / [dà?àlí mà]=â*
 2Sg 3SgNonhObj put.Pfv [house in]=Q / [mat on]=Q
 ‘Did you-Sg put it in the house/on the mat?’ (< *sàà, dà?àlí*)
- d. *wō ní bìlí bákàrí àà*
ámádú àà
zàkí áà
 2Sg 3SgNonhObj give.Pfv Z Q
 ‘Did you-Sg give it to Bakari/Amadou/Zaki?’ (< *bákàrí, ámádú, zàkí*)

For clause-final *wà* ‘whether’ in quoted polar interrogatives, see §13.2.9.2 below. This *wà* may be related to *wálimà* ‘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 *=rĒ?* and the interrogative particle is realized as *=r=à* (467).

- (467) *wó=∅ sà tá?á=à,*
 2Sg=Ipfv Fut go.Ipfv=Q,
wálimà wō sā tá?á=r=à
 or 2Sg Fut go.Ipfv=Neg=Q
 ‘Will you-Sg go, or won’t you (go)?’

13.2.1.3 Negative imperfective interrogative *=rè=ēⁿ* as hortative

In (468), a negative interrogative with the special form *=rè=ēⁿ* 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 *Shall we not ...?* with rhetorical-question force.

- (468) *mù?úⁿ [jèré dī-rá-àⁿ] yáá=rè=ēⁿ*
 1Pl [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 dù] dɔʔɔ *kè*
 [Jalkunan in] also **tagQ**
 'In Jalkunan (language), right?' (2016_01 @ 00:12)

- (470) *má*=∅ sà bɛl-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?' (*māʔāⁿ*, *māʔā-nǐ*)

Content interrogatives like 'who?', 'what?', 'how?', 'when?', and 'which?' are intrinsically focal.

The human interrogative noun is *māʔāⁿ*, usually in the extended form *māʔā-nǐ* (→ *māʔā-nì* 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-nǐ*=∅=ì=∅
who?-Indep=be=it.is=Q
 'Who is it?'
 b. *māʔā-nǐ*= *nè*=∅
who?=Indep=be there=Q
 'Who is it?' (variant *māʔá nè*)
 c. *māʔā(-nì)* *sé*=è / *téʔé*=è / *bó*=è
who?-Indep come./go./exit..Pfv =Q
 'Who came/went/went out' (< *sé*, *téʔé*, *bóé*)
 d. *māʔāⁿ* *bó* *fì*
 who? exit(v).Pfv today
 'Who went out today?' (< *bóé*)

- e. *[mā?ā-nĩ sàá]=∅ nè / =è*
 [who?-Indep house]=be there / =Q
 ‘Whose house is that?’
- f. *zàkî mā?āⁿ bá?ri=ì*
 Z who? hit.Pfv=Q
 ‘Who(m) did Zaki hit?’
- g. *zàkî mā?ā-nì bá?ri=ì*
 Z who? hit.Pfv= Q
 ‘Who(m) did Zaki hit?’
- h. *wō mā?āⁿ jíé=è*
 2Sg who? see.Pfv=Q
 ‘Who(m) did you-Sg see?’
 (variant *wō má?á-nì jíé=è*)

If the queried individuals are known to be nonsingular, a specifically plural form *mā?ā-āⁿ* or *má?á-nì-ìⁿ* may be used (472).

- (472) *mā?ā-nì=ì / mā?ā=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 mēé=è*
 what? be.done.Pfv =Q
 ‘What happened?’
- b. *wō kpé jìé=è*
 2Sg what? see.Pfv=Q
 ‘What did you-Sg see?’
- c. *kpé=∅ nè*
 what?=be there
 ‘What’s that (there)?’

- d. *kpé* = ∅ = *è*
what? = be = it.is
 ‘What is it?’
- e. *wó* = ∅ *sà* *kpé* *kùnò*
 2Sg=Ipfv Fut **what?** eat.Ipfv
 ‘What will you-Sg eat?’

‘With what?’ and ‘why?’ are PPs containing ‘what?’

- (474) a. *wó* = ∅ *mùú* *màà* [*kpé* *dè*]
 2Sg=Ipfv field cultivate.Ipfv [**what?** with]
 ‘What do you-Sg do farm work with?’ (< *mùú*)
- b. [*kpé* *kùdù*] *wō* *sà* / *sìdà*
 [**what?** for] 2Sg 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. *sá* ‘come’, *sìdà* ‘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) [*kpé* *bóō* *dè*] [*ēēⁿ* *sà* / *bò* / *sìdà*]
 [**what?** exit.Pfv there.Def] [2Pl come./exit./ascend.Adjn.Defoc]
 ‘What happened there (so that) you-Pl came/went out/went up?’

13.2.4 ‘Where?’ (*mì*, *dóò*)

The simple interrogative locative adverb is *mì*. As an adverb it occurs postverbally.

- (476) a. *wó* = ∅ *mì*
 2Sg=be **where?**
 ‘Where are you-Sg?’
- b. *wó* = ∅ *‘tá?á* *mì*
 2Sg=Ipfv go.Ipfv **where?**
 ‘Where are you-Sg going?’
- c. *wō* *bó* *mì*
 2Sg exit.Pfv **where?**
 ‘Where did you leave?’ (=Where do you come from?) (< *bóé*)

- d. *mù?úⁿ = ∅* *sà* *kūmēé* *kùnó* *mì*
 1Pl=Ipfv Fut meal eat.Ipfv **where?**
 ‘Where will we eat?’ (< *kùnò*)

For the roughly synonymous *là?á jàⁿ 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?’ (*mànâ*)

The manner interrogative is *mànâ*. As an adverb it occurs postverbally.

- (478) a. *mù?úⁿ = ∅* *sí = ì* *màà* *mànâ*
 1Pl=Ipfv Fut=3SgNonhObj do.Ipfv **how?**
 ‘How (=What) will we do?’
- b. *mǎǎ = ∅* *mùú* *màà* *mànâ*
 2Pl=Ipfv field cultivate.Ipfv **how?**
 ‘How do you-Pl do farm work?’
- c. *é = ∅* *mànâ*
 3SgNonh=be **how?**
 ‘How is it?’
- d. *à* *mànâ*
 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 *jáá* ‘woman’ with HM(L) and similar falling tone patterns. In other combinations where it is noninitial it is H-toned *sóló*.

- (479) a. *sòló = ∅ = è*
how.much?=be=it.is
 ‘How much is it?’

- b. [tàgà sóló]=Ø wō ká=à
 [sheep **how.many?**]=Ipfv 2Sg Poss=Q
 ‘How many sheep do you-Sg have?’

Further examples showing the tone split are in (480).

- (480) a. *sòló* after +3Sg
 jàá sòló=è ‘It’s how many women?’
- b. *sóló* after -3Sg
 dí sóló=è ‘It’s how many children?’
 yí?é sóló=è ‘It’s how many fish?’
 tàgà sóló=è ‘It’s how many sheep?’
 sàà sóló=è ‘It’s how many houses?’
 mù?ùⁿ sóló ‘how many of us?’

The distributive adverbial is *sòlò-sóló=è* ‘it’s how much (each)?’, a common phrase in markets. The ordinal is *sóló=já* ‘how many-eth?’ (French *quantième*).

13.2.7 ‘Which?’ (*jò*)

The adjectival interrogative ‘which?’ is *jò*. Its L-tone can induce Final Tone-Raising on the preceding noun; there are no other tonal interactions.

- (481) *wó=Ø* [[*sàá* *jò*] *tó*]=ò
 2Sg=be [[house **which?**] in]=Q
 ‘Which house are you-Sg in?’ (< *sàà*)

Some other important interrogative phrases are based on ‘which?’ after a semantically light noun. The combination with *là?à* ‘place’ and locative postposition, i.e. ‘in which place?’, functions as a near-synonym of *mí* ‘where?’ (§13.2.4 above).

- (482) [*wō* *sàà-rá*]=Ø [[*là?á* *jò*] *tó*]
 [2Sg house-Nom]=be [[place **which?**] 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?’ (*wá?áí.jò-nò*)

The most general temporal adverbial interrogative is a combination of the noun ‘(point in/period of) time’ with the interrogative adjective ‘which?’

- (483) *wó = ∅* *'sáá* [*wá?átí* *nò-nò*]
 2Sg=Ipfv come.Ipfv [time which?-Nom]
 'When do you-Sg come?'

Other similar combinations can be made by using a different temporal noun, as in *sú?úⁿ nò-nò* '(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. *[[mè?éⁿ mì] = ∅* *sí = ì* *wàà*,
 [[person Rel]=Ipfv Fut=3SgNonh go.Ipfv],
mā *ní* *sò = rē?*
 1Sg 3SgNonhObj know.Pfv=Neg
 'Who will go, I don't know (it).'
- b. *[mù?úⁿ = ∅ sà nìé [[là?á mì] tó]],*
 [1Pl=Ipfv Fut spend.night.Ipfv [[place Rel] in]]
mā *ní* *sò = rē?*
 1Sg 3SgNonhObj know.Pfv=Neg
 'Where we will spend the night, I don't know (it).' (< *nìé*)

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) *[mù?úⁿ = ∅ sà nìí nàà wà]*
 [1Pl=Ipfv Fut spend.night.Ipfv here whether]
mā *ní* *sò = rē?*
 1Sg 3SgNonhObj know.Pfv=Neg
 'Whether we will spend the night here, I don't know (it).'
- (< *nìé* 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 *mì* is attached at the end of the head NP;
- there is no nominal suffix (*-ra* etc.) preceding *mì* within the head NP, and often no nominal suffix on *mì* itself;
- the head NP is pluralized by changing *mì* to *mǐ-ĩⁿ*;
- headless relatives have *mì* or *mǐ-ĩⁿ* 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 *mì*

Relative marker *mì* is added at the end of the head NP. Its L-tone distinguishes it from demonstrative *mí* ‘this, that’. It is homophonous with interrogative *mì* ‘where?’, and (more suggestively) to default possessum *mì*.

In elicitation, relative *mì* 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 *mì-nà* (2016_02 @ 03:16 and @ 04:22). I note that demonstrative *mí* ‘this/that’ (§4.4.1.1) does regularly allow the nominal suffix (→ *mí-nà*), as does default possessum *mì* (→ *mì-nà*, §6.2.4). It is possible that I misunderstood these textual examples.

In subject relatives, *mì* 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 *mǐ*, see text 2016_01 @ 02:29.

The plural of relative *mì* is *mǐ-ĩⁿ*. Plurality is not otherwise marked on the head NP. Thus *sàá mì* ‘the house that ...’, plural *sàá mì-ĩⁿ* ‘the houses that ...’. There is no (singular) nominal suffix between *mì* and the plural ending, which confirms that the nominal suffix is

not usually added to *mì*. Near-homonyms are demonstrative *mǐí* and its plural *mǐí-íⁿ* (§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 *bà?rí ~ bá?rí* ‘hit (perfective)’ in *wō [yìgí mǐ] bá?rí* ‘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 *mù?ùⁿ gbāá bègé [[jéné mǐ] dé]* ‘the ax with which we chopped the wood’, see (507b) in §14.5.5 below for mark-up. Plural *mǐ-íⁿ*, 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 (*mǐ-íⁿ*) is required (486a). The internal head may also include the ‘all’ quantifier *bù?ù ~ bú?ú*, which follows *mǐ-íⁿ* (486b).

- (486) a. *[[yìgí flāā mǐ-íⁿ] bē] èéⁿ=∅ mǐ*
 [[cow two Rel-Pl] fall.Pfv.SbjFoc] 3PINonh=be where?
 ‘Where are the two cows that fell?’
- b. *[wó=∅ [sàá mǐ-íⁿ bú?ú] jí-yá nè]*
 [2Sg=Ipfv [house Rel-Pl all] see-Prog there]
zàkî mí-nà-à-nú=∅=í
 Z Poss-Nom-Pl-Nom=be=it.is
 ‘All the houses that you-Sg see (there) are Zaki’s.’

The usual immediately postnominal demonstrative *mí* 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. *[wó=∅ [sàá mǐ] jí-yá nè]*
 [2Sg=Ipfv [house Rel] see-Prog there]
zàkî mí-né=∅=è
 Z Poss-Nom=be=it.is
 ‘The house that you-Sg see there is Zaki’s.’ (< /mí-ná=è/)

- b. [wó=∅ [sàá mì-īⁿ] jí-yá nè]
 [2Sg=Ipfv [house Rel-Pl] see-Prog there]
 zàkî mí-nà-à-nú=∅=ī
 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. [[mù?úⁿ mǐ-īⁿ]=∅=ñ *nàà*]
 [[1Pl Rel-Pl-Nom]=be=Link here]
 [mù?ùⁿ sá ‘tá?á=rē?]
 [1Pl Fut go.Ipfv=Neg]
 ‘We who are here, we will not go.’
- b. [[mā mí]=∅=ñ *nàà*] [mā sā tá?á=rē?]
 [[1Sg Rel]=be=Link here] [1Sg Fut go.Ipfv=Neg]
 ‘I who am here, I will not go.’

14.3.2 Conjoined NP as head

When a conjoined NP like ‘men and women’ in (489a) becomes a relative head, relative marker *mì* (plural *mì-īⁿ*) 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 *ààⁿ* in (489b-c), but it may encliticize to and contract with the preceding right conjunct.

- (489) a. [dīgīn-nà-àⁿ bú?ú náā-nà-áⁿ] *nù?ùⁿ bá?rī*
 [man-Nom-Pl and woman-Nom-Pl] Recip hit.Pfv
 ‘The men and the women fought (each other).’
- b. [[dīgín mǐ-īⁿ] bú?ú [náā mǐ-āⁿ=]] *ààⁿ nú?úⁿ bá?rī*
 [[man Rel-Pl] and [woman Rel-Pl]] 3PIHum Recip hit.Pfv
ààⁿ=∅ mì
 3PIHum=be where?
 ‘Where are the men and the women who fought (each other)?’
 (/mì-īⁿ ààⁿ/)

- c. *[[dìgínì mì] búʔú [nāā mì=] ááⁿ núʔúⁿ báʔrì]*
 [[man **Rel**] and [woman **Rel**] 3PIHum Recip hit.Pfv]
àáⁿ=∅ mì
3PIHum=be where?
 ‘Where are the man and the woman who fought (each other)?’

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 séʔéē*
 Rel Blédougou establish.Pfv
 ‘the one (=person) who established (=founded) Blédougou’
 (2016_01 @ 01:28)
- b. *mǐ-īⁿ jàlsà-dù séʔéē*
 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) *bon, [cì-né= [è mì] bóó=] [∅ 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-ná [è mì] bó(é) [è bàlì]/]

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. *dìgínì séé*
 man come.Pfv
 ‘A/The man came.’

- b. *dìgín-nà-àⁿ* *séé*
 man-Nom-Pl come.Pfv
 ‘(The) men came.’
- c. [*dìgíní* *mì* *sē*] *á = ∅* *mì*
 [man Rel come.Pfv.SbjFoc] 3SgHum=be where?
 ‘Where is the man who came?’
- d. [*dìgín* *mí-íⁿ* *sē*] *á = ∅* *mì*
 [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. *dìgíní* *mì* *sēē-rē?*
 man Rel come.Pfv.SbjFoc
 ‘the man who didn’t come’
- b. *dìgín* *mí-íⁿ* *sēē-rē?*
 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, *yìgì* ‘cow’ lacks its nominal suffix (*yìgì-rá*). The perfective intransitive verb ‘fall’ takes M-toned subject-focus form in (494b).

- (494) a. *yìgí* *bèé*
 cow fall.Pfv
 ‘A/The cow fell.’ (< *yìgì*)
- b. [[*yìgí* *mì*] *bē*] *é = ∅* *mì*
 [[**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. *yìgí* *bèè = rē?*
 cow fall.Pfv
 ‘A/The cow didn’t fall.’

- b. *[[yìgí mì] bēē=rē?]* *é=∅* *mì*
 [[**cow** **Rel**] fall.Pfv.SbjFoc=Neg] 3SgNonh=be 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. *yìgì-rá-àⁿ* *béé*
 cow-Nom-Pl fall.Pfv
 ‘A/The cows fell.’
- b. *[[yìgí mì-īⁿ] bē]* *èéⁿ=∅* *mì*
 [[**cow** **Rel-Pl**] fall.Pfv.SbjFoc] 3PlNonh=be where?
 ‘Where are the cows that fell?’

Negative counterparts of the plural-subject type are (497a-b).

- (497) a. *yìgì-rá-àⁿ* *béé=rē?*
 cow-Nom-Pl fall.Pfv
 ‘A/The cows didn’t fall.’
- b. *[[yìgí mì-īⁿ] bēē=rē?]* *èéⁿ=∅* *mì*
 [[**cow** **Rel-Pl**] fall.Pfv.SbjFoc=Neg] 3PlNonh=be 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 *ááⁿ*, not their *n*-initial variants *ná* and *náà*, but with the same tones.

- (498) a. *[mè?éⁿ mì-īⁿ] =ñ* *nàà]* *[ààⁿ sá ‘tá?á=rē?]*
 [**person** **Rel-Pl**] =Link here] [3PlHum Fut go.Ipfv.Neg]
 ‘The people who are here, they won’t go.’
- b. *[[kàá mì] á jíní]*
 [[**snake** **Rel**] 3SgHumObj bite.Pfv]
é=∅ mì
 3SgNonh=be where?
 ‘Where is the snake that bit him/her?’ (*kàà*)
- c. *[[kàá mì-∅] ááⁿ jíní]*
 [[**snake** Rel] 3PlHumObj bite.Pfv]
èéⁿ=∅ mì
 3SgNonh=be 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* *bàʔrí(i)*
 1Sg cow hit.Pfv
 ‘I hit-Past a/the cow.’ (< *yìgí*)
- b. [*wō* [*yìgí* *mì*] *bàʔrí*] *é=∅* *mì*
 [2Sg [**cow** **Rel**] hit.Pfv] 3SgNonh=be where?
 ‘Where is the cow that you-Sg hit-Past?’
- c. [*wó=∅* [*sàá* *mì*] *jíá*] [*zàkû* *mì-né*]=∅=*è*
 [2Sg=Ipfv [**house** **Rel**] see.Ipfv] [Z Poss-Nom]=be=it.is
 ‘The house that you-Sg see belongs to Zaki.’ (< *sàá*, /*mì-nà*=H=*è*/)

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* *yìgì-rá-àⁿ* *bàʔrí(i)*
 1Sg cow-Nom-Pl hit.Pfv
 ‘I hit-Past a/the cows.’
- b. [*wō* [*yìgí* *mì-īⁿ*] *bàʔrí*] *èéⁿ=∅* *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* *bàʔrí=rē?*
 1Sg cow hit.Pfv=Neg
 ‘I didn’t hit a/the cow.’ (< /*bàʔrí=rē?*/)
- b. [*wō* [*yìgí* *mì*] *bàʔrí=rē?*] *é=∅* *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* *yìgì-rá-àⁿ* *bàʔrí=rē?*
 1Sg cow-Nom-Pl hit.Pfv=Neg
 ‘I didn’t hit a/the cows.’ (< /*bàʔrí=rē?*/)

- b. [wō [yìgí mì-r̄ⁿ] bá?r̄=rē?] èéⁿ=∅ mì
 [2Sg [cow Rel-PI] hit.Pfv=Neg] 3PINonh=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 *mì* is also possible, cf. §14.3.3 above.

- (503) [mā [séⁿ mì] kúní] sìbì-rá=∅=rē?
 [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 possessum ‘house’ as NP-head (504c).

- (504) a. [[dígín mí] sàá] bèé
 [[man Dem] house] fall.Pfv
 ‘This man’s house fell (collapsed).’
- b. [[dígín mǐ] sàá] bè] á=∅ mì
 [man Rel] house fall.Pfv.SbjFoc] 3SgHum=be where?
 ‘Where is the man whose house fell?’
- c. [[dígín mí] sàá] mì] bē] é=∅ mì
 [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 (504c). 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 *mì*).

The situation is clarified in (505a-b). Unpossessed ‘father’ is *jé-ná* including the nominal suffix. It becomes *jè-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. *dígíní* *jè-ná*
 man father-Nom
 ‘(the) man’s father’ (< *díkíní* ~ *dígíní*)

- b. *[[dígín mì] jé-n = é wèê] á=∅ mì*
 [[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 *bèé*), compare the subject-focus perfective *bē* 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 sé?é [sè?è-cógō mì]*
 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 (*dè*) 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 (*dé*).

- (507) a. *mù?ùⁿ gbāá bègé [jéné dè]*
 1Pl stick cut.Pfv [ax with]
 ‘We chopped the wood with an ax.’
- b. *[mù?ùⁿ gbāá bègé [jéné mì] dé]*
 [1Pl stick cut.Pfv [[ax **Rel** with]]
é=∅ mì
 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 *tss* 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+ = Ø/, 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 *kðð* ‘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 *kū* 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	<i>mā kū jìimàà</i>
	2Sg	<i>wō kū jìimàà</i>
	2Pl	<i>ēēⁿ kū jìimàà</i>
b.	1Pl	<i>mù?ùⁿ kú jìimàà</i>
	3SgHum	<i>à kú jìimàà</i>
	3SgNonh	<i>è kú jìimàà</i>
	3PlHum	<i>ààⁿ kú jìimàà</i>
	3PlNonh	<i>èèⁿ kú jìimàà</i>
c.	‘the child’	<i>dí-rá kú jìimàà</i>
	‘the children’	<i>dí-rá-àⁿ kú jìimàà</i>

A textual example is (509). Here the verb is transitive.

- (509) *[[kàrò lè] bélé]*
 [[elder.brother warthog] pass.Adj]
[è kú [yálā mí] sìnà]
 [3SgNonh **begin** [hole Dem] dig.Ipfv]
 ‘Elder brother warthog moved over and began digging that hole’ (2016_02 @ 03:20)

This construction is stylistically marked and 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-sʔʔ* is used (§17.4.7). For simple ‘keep (doing)’ after the onset has already been presented, see the following section.

15.1.1.2 *tʔʔ(túú)* ‘stay’ as continuative auxiliary (‘keep doing’)

The verb ‘stay, remain (somewhere)’ is *tʔʔ* (cited in the imperfective). In the relevant adjoined constructions it occurs with variants including +ATR *tòò ~ tóó* and *tùù ~ túú*. 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 tú = ú yààlà(ā)* with the same H-toned adjoined verb form *túú*. 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 ààⁿ tú = ú yààlàā, ...*
 so 3PIHum **stay**.Adjn=Link thus, ...
 ‘So they remained thus (=in that situation), ...’ (2016_04 @ 00:23)

An example with *tóó* 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 (*tʔʔ* → *tóó*) and/or by its tonal effect on the adjoined verb. In some examples the second subject seems to be completely absent.

- (511) a. *[é=∅ sí=í bàà fì]*
 [3SgNonh Fut=3SgNonh fall.Ipfv today]
[à tóó] *[wèè kéé=rē?]*
 [3SgHum **stay.Adjn**] [health be.healthy.Pfv]=Neg
 ‘Up to today (=even now), he/she’s still sick.’
- b.. *zàkî tóó= [∅ sèè=rē?]*
 Z **stay.Adjn** [3SgHum come.Pfv=Neg]
 ‘Zaki hasn’t come yet.’ = ‘Zaki still hasn’t come.’ (< /tóó à/)
- c. *zàkî tóó [∅ kūmēé kǔn]=nē?*
 Z **stay.Adjn** [3SgHum meal eat.Pfv]=Neg
 ‘Zaki hasn’t eaten (a meal) yet.’ (/kùní=nē?/)
- d. *ààⁿ tóó= [ǎⁿ séé=rē?]*
 3PIHum **stay.Adjn** [3PIHum come.Pfv=Neg]
 ‘They haven’t come yet.’
- e. *mā tóó [∅ sèè=rē?]*
 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 *āⁿ*) resulting in *tóó=āⁿ*, the other a regular transitive, with +ATR *tóó* hinting at an earlier adjoined **tóó in*.

The ‘stay’ verb can also be added before the *kú* construction described in the preceding section. The sense is ‘keep VP-ing’ (512).

- (512) *[ààⁿ tóó] [(à)àⁿ kú dòó màà]*
 [3PIHum **stay.Adjn**] [3PIHum **begin** dance(n) do.Ipfv]
[ààⁿ tóó] [(à)àⁿ kú cí-ná-àⁿ 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*)

tóó ‘stay’ may also occur with a verbal-noun complement. In this case, *tùù ~ túú* is followed by a syllabic extension *ni* that continues the same tone (*tùùni ~ túúni*) (513a-c). I interpret this as a stative (non-aspect-marking) form of the otherwise active (aspect-marking) verb *tóó*. See §11.2.4.2 for statives of stance/position verbs that end in *ní*.

- (513) a. *à tùùni mùù-mèè-rá*
 3SgHum **stay.Stat** field-do.VblN-Nom
 ‘He/She keeps farming.’

- b. *ààⁿ / mā* *túúní* *mùù-mèè-rá*
 3PIHum/1Sg **stay.Stat** field-do.VblN-Nom
 ‘They/I keep farming.’
- c. *ààⁿ* *túúní* [*mā* *bāʔr-rā*]
 3PIHum **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* *gbǎⁿ* *jìì / kpèèⁿ / bèè / sàní / bàʔr(i)* *dú = wò*
 2Sg=Ipfv elephant see./kill./put.down./buy./hit.Pfv **ExpPf=Q**
 ‘Have you-Sg ever seen/killed an elephant?’ (< *gbǎⁿ*)
 (verbs *jìé*, *kpèéⁿ*, *bèé*, *sàní*, *bàʔrí* in +3Sg perfective form)
- b. *má = Ø / àáⁿ = Ø* *yíʔé* *jìì / kpèèⁿ* *dú*
 1Sg=Ipfv / 3PIHum=Ipfv fish see./kill.Pfv **ExpPf**
 ‘I/They have (once) seen/killed a fish.’
- c. *á = Ø* *mà* *báʔr* *dú*
 3SgHum=Ipfv 1Sg hit.Pfv **ExpPf**
 ‘He/She has (once) hit me.’
- d. *má = Ø* *sàá* *sèè* *dú*
 1Sg=Ipfv house build.Pfv **ExpPf**
 ‘I have (once) built a house.’
- e. *má = Ø* *sàà-rá-àⁿ* *séé* *dú*
 1Sg=Ipfv hosue 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 *sìdǎñ* (apocopated < *sìdání*) is evidence for perfective rather than verbal-noun form (cf. verbal noun *sìdání*).

(515)	a.	1Sg	<i>má = ∅</i>	<i>sìdāñ</i>	<i>‘dú</i>
		1Pl	<i>mùʔúⁿ = ∅</i>	<i>sìdāñ</i>	<i>‘dú</i>
	b.	2Sg	<i>wó = ∅</i>	<i>sìdāñ</i>	<i>‘dú</i>
		2Pl	<i>ēéⁿ = ∅</i>	<i>sìdāñ</i>	<i>‘dú</i>
	c.	3SgHum	<i>á = ∅</i>	<i>sìdāñ</i>	<i>‘dú</i>
		3PlHum	<i>àáⁿ = ∅</i>	<i>sìdāñ</i>	<i>‘dú</i>
	d.	3SgNonh	<i>é = ∅</i>	<i>sìdāñ</i>	<i>‘dú</i>
		3PlNonh	<i>èéⁿ = ∅</i>	<i>sìdāñ</i>	<i>‘dú</i>

Negative versions add the usual clause-final negative enclitic. The imperfective subject enclitic is now absent, as seen clearly in (516b). Human 3Pl *àáⁿ* 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.	<i>àáⁿ / á</i>	<i>sìdāñ</i>	<i>‘dú = rē?</i>	
		3PlHum / 3SgHum	ascend.Pfv	ExpPf=Neg	
				‘They have/He-or-she has not ever gone up.’	
	b.	<i>ààⁿ / à</i>	<i>yíʔé</i>	<i>jì</i>	<i>dú = rē?</i>
		3PlHum / 3SgHum	fish	see.Pfv	ExpPf=Neg
				‘They have/He-or-she has not ever seen a fish.’	

15.1.1.4 *tàà ~ táá* with ‘arrive’

This auxiliary is attested only in perfective clauses with following *cìé* ‘arrived’. I can detect little semantic difference between forms with and without *tàà ~ táá*. Etymologically, *tàà ~ táá* may be a contraction of the adjoined (and imperfective) verb *táʔá* ‘go’, see (85) in §3.9, but if so the two forms of ‘go’ have diverged synchronically. A further difficulty is that the form *cìé* 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.	<i>àáⁿ</i>	<i>táá</i>	<i>cìé</i>
		3PlHum	go(?)	arrive.Pfv
				‘They arrived.’ (2016_04 @ 02:03)
	b.	<i>à</i>	<i>tàà</i>	<i>cìé</i>
		3SgHum	go(?)	arrive.Pfv
				‘He/She arrived.’

One possibility is that *tàà-cié* ~ *táá-ciè* is now a compound verb.

15.1.1.5 *sí* 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 *sí=ì* when contracted with following object pronouns. However, both the form and the sense of the two morphemes are divergent. I gloss *sí* 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 adjunction

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)

	Pfv -3Sg	Ipfv	Imprt	adjoined	gloss
a.	<i>séé</i>	<i>sáá</i>	<i>sā</i>	<i>sá</i>	‘come’
	<i>bóé</i>	<i>bóó</i>	<i>bō</i>	<i>bó</i>	‘exit’
	<i>sóé</i>	<i>sóó</i>	<i>sō</i>	<i>só</i>	‘enter’
	<i>béé</i>	<i>bàà</i>	<i>bà</i>	<i>bà</i>	‘fall’
b.	<i>búlí</i>	<i>búló</i>	<i>būlū</i>	<i>búlú</i>	‘return’
c.	<i>jàʔání</i>	<i>jàʔánà</i>	<i>jàʔáⁿ</i>	<i>jàʔàⁿ</i>	‘descend’
	<i>sídání</i>	<i>sídánà</i>	<i>sídáⁿ</i>	<i>sìdàⁿ</i>	‘ascend’
	<i>fídí</i>	<i>fídéè</i>	<i>fídí</i>	<i>fìdì</i>	‘run’

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)	Pfv +3Sg	Ipfv +3Sg	Imprt		adjoined		gloss
			+3Sg	-3Sg	+3Sg	-3Sg	
	<i>dóní</i>	<i>dònò</i>	<i>dǒⁿ</i>	<i>dóⁿ</i>	<i>dòⁿ</i>	<i>dóⁿ</i>	‘eat (meat)’
	<i>bùgú</i>	<i>bùgò</i>	<i>bùgú</i>	<i>búgú</i>	<i>bùgù</i>	<i>búgú</i>	‘skin (animal)’
	<i>sàní</i>	<i>sànà</i>	<i>sǎⁿ</i>	<i>sáⁿ</i>	<i>sàⁿ</i>	<i>sáⁿ</i>	‘buy’
	<i>tòʔrí</i>	<i>tòʔrò</i>	<i>tòʔrí</i>	<i>tóʔrí</i>	<i>tòʔrì</i>	<i>tóʔrí</i>	‘sell’

The short vowels in adjoined verbs like *sá* ‘come’ (520a) and *dòⁿ ~ dɔⁿ* ‘eat meat’ (521) are unmistakable when the negative enclitic is added: *sá = rē?*, *dò = nē?* ~ *dɔ = nē?*.

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 bēé* ‘he/she fell’, *è bēé* ‘it fell’, *à fídí* ‘he/she ran’, *è fídí* ‘it ran’. All -3Sg pronominal categories begin with H-tone, e.g. *bēé* and *fídí*. 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 (*bé=*, *fídí=*), 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* *fíd=*] [*i* *só*]
 [3SgNonh **run.Pfv**] [3SgNonh enter.Adjn]
 ‘It (=animal) ran in.’ (< /*è fídí è só*/)
- b. [*èèⁿ* *fíd=*] [*ììⁿ* *só*]
 [3PINonh **run.Pfv**] [3PINonh 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 *sìdání* ‘ascended’ remains tonally distinct from -3Sg *sídání* as first verbs in adjunctions.

- (523) a. [*è* *sìdán=*] [*í* *jà?àⁿ*]
 [3SgNonh ascend.Pfv] [3SgNonh descend.Adjn]
 ‘It (=animal) went up and came (back) down.’
- b. [*mù?ùⁿ* *sídání=*] [*ín* *jà?àⁿ*]
 [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 b'é=]* *[é jà?àⁿ]*
 [2Sg fall.Pfv] [2Sg descend.Adjn]
 ‘You-Sg fell down.’ ([b'éé ē])
- b. *[ààⁿ fídī]* *[(à)àⁿ sɔ]*
 [3PlHum run.PPfv] [3PlHum enter.Adjn]
 ‘They ran in.’

Allowing for *vv*-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 *ààⁿ* in (524b) and nonhuman 3Sg *è* 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. *búl = ú* from /búli é/ and *búl = ð* from /búli à/ in (527a-e) below, see also (536).

(525) Adjoined subject proclitic

category	in adjoined clause		in main clause
	typical forms	underlying	
a. 1Sg	= (i)n, = (ù)n	/in/	<i>mā</i>
1Pl	= (i)n, = (ù)n	/iin/	<i>mù?ùⁿ</i>
b. 2Sg	= í, = ú	/é +M/	<i>wō</i>
2Pl	= í ⁿ , = ú ⁿ	/éé ⁿ +M/	<i>ēēⁿ</i>
c. 3HumSg	= à, = ð	/à/	<i>à</i>
3HumPl	= à ⁿ , = ð ⁿ	/àà ⁿ /	<i>ààⁿ</i>
d. 3NonhSg	= ì, = ù	/è/	<i>è</i>
3NonhPl	= ì ⁿ , = ù ⁿ	/èè ⁿ /	<i>èèⁿ</i>

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 ē 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 *yí?é* ‘fish’ and *kúmání* ‘sparrow’, which remain H-toned in (527d-e) even after +3Sg pronoun, but drop to M-toned /yí?ē/ and /kūmānī/ 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 búl=] [ú yí?é / kūmání dòⁿ]
 [2Sg return.Pfv] [2Sg fish / sparrow eat.meat.Adjn]
 ‘You-Sg again ate a fish.’ (/búli é/, yí?é, kúmání)
- b. [ēēⁿ búlú=] [íⁿ yí?é / kūmání dòⁿ]
 [2Pl return.Pfv] [2Pl fish / sparrow eat.meat.Adjn]
 ‘You-Pl again ate a fish/sparrow.’
- c. [ēēⁿ búlú=] [íⁿ yí?ē-rá-àⁿ dóⁿ]
 [2Pl return.Pfv] [2Pl fish-Nom-Pl eat.meat.Adjn]
 ‘You-Pl again ate fishes.’
- d. [â búl=] [ð yí?é / kúmání dòⁿ]
 [3SgHum return=] [3SgHum fish / sparrow eat.meat.Adjn]
 ‘He/She again ate a fish/sparrow.’
- e. [â búl=] [ð yí?é-rá-àⁿ dóⁿ]
 [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 *bá?rí* (or *bá?r* by Apocope). When the subject is 2Sg (528a) or 2Pl (528b), the floating M-tone fills only the first syllable of *bá?rí* ~ *bá?r*, resulting in *bā?rí* ~ *bā?r*. On this evidence, the way the floating M is applied differs from noun (527) to verb (528).

- (528) a. [wō búl=] [ú bāʔr mā-n]
 [2Sg return.Pfv] [2Sg touch.Adjn 1Sg-Indep]
 ‘You-Sg again touched me.’
- b. [ēēⁿ búlú=] [íⁿ bāʔr mā-n]
 [2Pl return.Pfv] [2Pl touch.Adjn 1Sg-Indep]
 ‘You-Pl again touched me.’
- c. [â búl=] [ð báʔr mā-n]
 [3SgHum return.Pfv=] [3SgHum touch.Adjn 1Sg-Indep]
 ‘He/She again touched me.’

(529) shows how H-toned adjoined *sá* ‘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 búl=] [ú sā(=rēʔ)]
 [2Sg return.Pfv] [2Sg come.Adjn(=Neg)]
 ‘You-Sg again came/didn’t again come.’
- b. [ēēⁿ búlú=] [íⁿ sā(=rēʔ)]
 [2Pl return.Pfv] [2Pl come.Adjn(=Neg)]
 ‘You-Pl again came/didn’t again come.’
- c. [â búl=] [ð sá(=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 *mùʔùⁿ* 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 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 sɔ dí-kpéʔr-à-àⁿ-n=]
 1Sg help.Pfv child-young-Nom-Pl-Indep]
 [ā àáⁿ sìdà]
 [that 3PIHum ascend.Adjn]
 ‘I helped the children go up.’

The relevant input can plausibly be taken to be /...-à-àⁿ-nū à ààⁿ sìdà/. This portion is heard as [àànāàáⁿsìdà], and the rather long [āàáⁿ] 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. [â bá=] [â jà?àⁿ] [yí dù]
 [3SgHum fall.Pfv] [3SgHum descend.**Adjn**] [water in]
 ‘He/She fell down into the water.’ (</â bĕ à jà?àⁿ/)
- b. [mā bé=] [n̄ jà?àⁿ] [yí dù]
 [1Sg fall.Pfv] [1Sg descend.**Adjn**] [water in]
 ‘I fell down into the water.’ (</mā bé ìn jà?àⁿ/)

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 /bĕ/ in the 3Sg subject cases (532c).

- (532) a. 1Sg mā bé= (i)n̄ jà?àⁿ
 1Pl mù?ùⁿ bé= (i)n̄ jà?àⁿ
- b. 2Sg wō bé= é jà?àⁿ
 2Pl ēēⁿ bé= (é)éⁿ jà?àⁿ
- c. 3SgHum à bá= à jà?àⁿ
 (variant bĕ= è)
 3PlHum ààⁿ bá= (à)àⁿ jà?àⁿ
- d. 3SgNonh è bé= è jà?àⁿ
 3PlNonh èèⁿ bé= (è)èⁿ jà?àⁿ

Similar combinations of ‘run’ with ‘enter’ are in (533a-b).

- (533) a. [*à* *fíd=*] [*è* *só*]
 [3SgHum run.Pfv] [3SgHum enter.Adjn]
 ‘He/She ran in.’ (</*à fídí à só*/)
- b. [*mā* *fíd=*] [*in* *só*]
 [1Sg run.Pfv] [1Sg enter.Adjn]
 ‘I ran in.’ (</*mā fídí àⁿ só*/)

The full pronominal paradigm is (534). Again, Leftward H-Shift (§3.8.3.7) has applied to /*fídí*/ in (534c).

- (534) a. 1Sg *mā* *fíd=* *in* *só*
 1Pl *mù?ùⁿ* *fíd=* *in* *só*
- b. 2Sg *wō* *fíd=* *í* *sō* </*wō fídí é+M só*/
 (uncontracted variant *wō fídí é sō*)
 2Pl *ēēⁿ* *fíd=* *(i)íⁿ* *sō*
 (uncontracted variant *wō fídí ééⁿ sō*)
- c. 3SgHum *à* *fíd=* *è* *só* </*à fídí à só*/
 3PlHum *ààⁿ* *fídí* *(à)àⁿ* *só*
- d. 3SgNonh *è* *fíd=* *ì* *só*
 3PlNonh *èèⁿ* *fídí=* *(ì)ìⁿ* *só*

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 *búló* ‘return’ plus adjoined clause (‘do again’)

The verb *búló* ‘return, go back’ (perfective *bùlí* ~ *búli*) may combine with a following adjoined clause of the type described above. In this combination, *búló* 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* *búl=*] [*ò* *sá*]
 [3SgHum **return.Pfv**] [3SgHum come.Adjn]
 ‘He/She came again.’ (/à *bùlí* à *sá*/)

- b. [à búl=] [ð kūmēē kùⁿ]
 [3SgHum return.Pfv] [3SgHum meal eat.Adjn]
 ‘He/She ate (a meal) again.’

A pronominal-subject paradigm of ‘X came again’ is (536). The first verb is again perfective *bùlí* ~ *búli*. 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 /bùlí/.

- (536) a. 1Sg *mā* *búl=* *ùn* *sá*
 1Pl *mù?ùⁿ* *búl=* *ùn* *sá*
- b. 2Sg *wō* *búl=* *ú* *sā*
 2Pl *ēēⁿ* *búl=* *úúⁿ* *sā*
- c. 3SgHum *à* *búl=* *ð* *sá* < /à bùlí à sá/
 3PlHum *ààⁿ* *búl=* *(ð)ðⁿ* *sá*
- d. 3SgNonh *è* *búl=* *ù* *sá*
 3PlNonh *èèⁿ* *búl=* *ùùⁿ* *sá*

15.2.2.3 ‘Help’ (*só*) 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 *à* ‘that’ (§15.2.1.4), which encliticizes to and contracts with a final *-nū* of pronouns or plural nouns. For example, if there is an internal prosodic break in (537a), it occurs after *mā-n ā*. The examples in (537) end in adjoined *sìdà* ‘ascend’, whose L-tones favor Final Tone-Raising on a preceding morpheme.

- (537) a. [zàkî só *mā-n̄*] [*ā* *ń* *sìdà*]
 [Z help.Pfv 1Sg-Indep] [**that** 1Sg ascend.Adjn]
 ‘Zaki helped me go up.’ (< /mā-nū à (ì)ñ sìdà/)
- b. [*mā* só *zàkî*] [*á=* *∅* *sìdà*]
 [1Sg help.Pfv Z] [**that=** 3SgHum ascend.Adjn]
 ‘I helped Zaki go up.’ (< /à à sìdà/)
- c. [*wō* só *mù?ú-nú*] [*mù?úⁿ* *sìdà*]
 [2Sg help.Pfv 1Pl-Indep] [1Pl ascend.Adjn]
 ‘You-Sg helped us go up.’ (here with uncontracted second subject)

- d. [mā sɔ dí-kpéʔr-à-à-n =]
 1Sg help.Pfv child-young-Nom-Pl-Indep]
 [ā àáⁿ sídà]
 [that 3PIHum ascend.Adjn]
 ‘I helped the children go up.’ (< /-à-àⁿ-nū à/)

‘Help’ is the only adjoined construction known to me that requires a change in subjects, which may account for the presence of the à complementizer; see §15.2.1.4.

15.2.2.4 Adjoined *kàʔrà* ~ *káʔrá* ‘finally VP’

In simple main clauses, *kàʔrà* ~ *káʔrá* (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 *káʔrá* are in textual passage (538).

- (538) à sè káʔrá sísàⁿ,
 3SgHum come.Pfv do.finally.Adjn now,
 à sè tóró káʔrá,
 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. [zàkî sé] [à búlú]
 [Z come.Pfv] [3SgHum return.Adjn]
 ‘Zaki came and (he) went back.’
 b. [zàkî tɛʔɛ] [à búl =] [ɔ sá]
 [Z go.Pfv] [3SgHum return.Adjn] [3SgHum come.Adjn]
 ‘Zaki went and (he) came back.’ (/à búlú à sá/)

Two adjoined clauses occur in the textual passage (540).

- (540) *súrukú* *bòó=* [*∅-wò* *má*] *sísàⁿ*, *kàrò* —
 hyena exit.Pfv [Nonh-3SgFoc on] now, [false start]
èéⁿ *fidì*, *èéⁿ=* *∅* *wà*
 3PINonh run.**Adjn**, 3PINonh 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* *búlú* [*∅-wò* *má*] *sísàāⁿ*
 hare-Nom=Ipfv return.**Adjn** [Nonh-3SgFoc on] now
 ‘Thereupon [focus] Hare went back now.’ (2016_02 @ 04:59)
- b. *wábáw*, *é* *fidì*
 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. [*zàkî* *sà* *tá?á*] [*à* *búlú*]
 [Z Fut go.Ipfv] [3SgHum return.**Adjn**]
 ‘Zaki will go and return (=come back).’
- b. [*zàkî* *sà* *sáá*] [*à* *búlú*]
 [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).

- (543) a. [mā té? =] [èn búl =] [ùn sá]
 [1Sg go.Pfv] [1Sg return.Adjn] [1Sg come.Adjn]
 ‘I went and came back.’ (/mā té? é òn búlú òn sá/)
- b. [mù?ùⁿ té? =] [èn búl =] [ùn sá]
 [1Pl go.Pfv] [1Pl return.Adjn] [1Pl come.Adjn]
 ‘We went and came back.’
- c. [wō té? =] [é búl =] [ú sā]
 [2Pl go.Pfv] [2Sg return.Adjn] [2Sg come.Adjn]
 ‘You-Sg went and came back.’ (</wō té? é é búlú é sā/)
- d. [ēēⁿ té? é =] [éⁿ búl =] [(ú)úⁿ sā]
 [2Pl go.Pfv] [2Pl return.Adjn] [2Pl come.Adjn]
 ‘You-Pl went and came back.’ (</té? é éēⁿ búlú ééⁿ sā/)

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* Ø *bà?rí* and *é* Ø *bà?rí* in (103a) above. When the object is 3Pl or 1st/2nd person, it can appear overtly in the adjoined clause (544d-e).

- (544) a. [àⁿ síbí sîdà(n) =] [ààⁿ =] Ø *dòⁿ*
 [3PlHum meat burn.Pfv] [3PlHum 3SgObj eat.meat.Adjn]
 ‘They roasted and ate the meat.’ (</sîdàní ààⁿ è dòⁿ/)
- b. [à síbí sîd(àn) =] [á] Ø *dòⁿ*
 [3AfHum meat burn.Pfv] [3SgHum 3SgObj eat.meat.Adjn]
 ‘He/She roasted and ate the meat.’ (</sîdàní à/)
- c. [mā sà tàgá fòlò-sá] [ń] Ø *bùgù*
 [1Sg Fut sheep slaughter.Ipfv] [1Sg 3SgObj skin(v).Adjn]
 ‘I will slaughter and skin (and butcher) the sheep-Sg.’
- d. [à tàgà-rá-àⁿ sîd(àn) =] [à =] (à)àⁿ *dòⁿ*
 [3AfHum sheep-Nom-Pl burn.Pfv] [3SgHum 3PlObj eat.meat.Adjn]
 ‘He/She roasted and ate the sheep-Pl.’

- e. [à m̄ s̄d(àn)=] [à= m̄ d̄s̄n]
 [3AfHum 1Sg burn.Pfv] [3SgHum 1Sg eat.meat.Adjn]
 ‘He/She roasted and ate me.’

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. [zàkî s̄dán=] [á jà?àⁿ]
 [Z ascend.Pfv] [3SgHum descend.Adjn]
 ‘Zaki went up and came (back) down.’ (</s̄dání/)
- b. [zàkî s̄s̄=] [à b̄s̄]
 [Z enter.Pfv] [3SgHum exit.Adjn]
 ‘Zaki went in and came (back) out.’ (</s̄s̄é/)

An adjoined clause may also be added to an imperative first clause (546). (546a) shows the effect on *būlū* of the floating M after the 2Sg proclitic. In (546b), *dè* ‘there (definite)’ requires an H-toned linking form *búl=ú* of the preceding word, canceling the floating M-tone from the 2Sg subject proclitic (§4.4.2.1).

- (546) *sē=* [é *būlū*]
 come.Imprt [2Sg return.Adjn]
 ‘Come-2Sg (here) and (then) go back!’ (</s̄ā é b̄ulū/)
- sē=* [é *búl=ú* *dè*]
 come.Imprt [2Sg return.Adjn=Link there.Def]
 ‘Come-2Sg (here) and (then) go back there!’

15.2.3.2 Adjoined *kàà* ‘leave, abandon’

In main clauses, *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 *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. [m̄ t̄ò?ó b̄è=]
 [1Sg waterjar put.down.Pfv]
 [ń k̄è= é-yè=è d̄è]
 [1Sg leave.Adjn Nonh-3SgObj=Link there.Def]
 ‘I put down the waterjar and left it there.’ (</t̄ò?ò b̄ě/, /ń k̄à è-yà d̄è/)
 [è-yà with /a/ → ee before d̄è]

- b. [à tɛʔé [mā dē]]
 [3Sg go.Pfv [1Sg with]]
 [á kà mā-ñ dè]
 [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=] [ò sá]=rɛʔ
 [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. *fidi* is the regular adjoined form for the verb ‘run’; here it undergoes regular Final Tone-Raising to *fídí* before L-toned *bò* ‘exit’. The unusual feature is the tone of *bò*, since its normal adjoined form is *bó*, preserving the lexical H-tone also found in imperfective *bóó*.

- (549) *súrukú-rò* *commencer* *è* *fídí* *bò*
 hyena-Nom begin 3SgNonh run.Adjn exit.Adjn
 ‘Hyena began running away.’ (2016_02 @ 02:27)

No subject pronominal may intervene between *fídí* and *bò* in this construction: *èèⁿ fídí bò* ‘they (animals) ran away’, *mùʔúⁿ fídí 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 *wòlò-* ~ *wóló-*. All forms shown are imperfective.

- (550) *wòlò-báá* ‘pick out (selectively)’ or ‘untangle’
wòlò-máá (variant of *wòlò-báá*)
wòlò-kónò ‘welcome (a guest)’ or ‘encounter’

The second elements might be related to *bàà* ‘put down’, *màà* ‘do’, and possibly *kónó* ‘become wide’. There is also a verb *wòlònàà* ‘strip off (leaves)’.

Several inchoative verbs related to adjectives (§9.5) end in *-bàà* (551).

- (551) *fò?ò-bàà* ‘go far away’
kùdò-bàà ‘become heavy’
nèè-bàà ‘become bitter’
sòdⁿ-bàà ‘become long’
tòò-bàà ‘become deep’

Some other verbs that may be composite, at least etymologically, are in (552).

- (552) a. *nù?ùⁿ-yáà* ‘get better’ (adjective *nú?úⁿ tó*)
jùgù-yáà ‘become nasty’ (adjective *júgúyéé tó*)
- b. *dàà-sò* ‘be familiar with (place)’
dàà-só?ó ‘begin’
- c. *dá-‘kááⁿ* ‘(sth) finish, end’
dá-‘kpááⁿ ‘die’ (cf. *kpááⁿ* ‘die’)
- d. *bèl-màà* ‘treat, care for (medically)’
dó-‘sáá ‘add’
kù-sóó ‘bury’ (*kù* ‘corpse’)
màà-kúmà ‘rinse’ (cf. *kùmà* ‘make cold’)
mà-dímínà ‘wound (sb)’ (cf. *dímíní* ‘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).

- (553) a. *[wō sé [[‘só?ó mì] dó]*
 [2Sg come.Pfv [[**day** **Rel**] Comit]
mā té?é ‘ké [sàá dù]
 1Sg go.Pfv Past [house in]
 ‘On the day when you-Sg came, I had gone away on a trip.’ (< *té?é*)
- b. *[[jēé mì] [mā nòḡó] dè-kéⁿ]*
 [[**year** **Rel**] [1Sg friend] finish.Pfv]
mā wál mèè = nē?
 1Sg work(n) do.Pfv=Neg
 ‘The year my friend passed away, I didn’t do any work.’
 (< *jēé, nòḡò, wálí*)

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) *[zàkî cíé sò-yà] [mā kú bós]*
 [Z be.Past 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 = ∅ jìí màà, gbō-nō sà sós*
 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 *tóró* ‘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 sé]*
 [since 1Sg come.Pfv]
mā tó= [ɔ̃ⁿ wéé]=rē?
 1Sg stay.Pfv [1SgRefl bathe.Pfv]=Neg
 ‘Since I came, I haven’t bathed (yet).’ (< /tós āⁿ/)
- b. *[é yàlí lò]*
 [3SgNonh.3SgNonh take.Pfv yesterday)
[è sí=í bà fì]
 [3SgNonh Fut=3SgNonhObj put.down.Ipfv today
mā tóò [Ø kùmēé kùn]=nē?
 1Sg stay.Pfv [1Sg(?) meal eat.Adjn]=Neg
 ‘From yesterday through today (=since yesterday), I haven’t eaten.’ (/kùní = nē?/)

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 *sàrà* ‘do then’

‘Before ...’ with clausal scope is expressed using the auxiliary verb *sàrà* (imperfective, not attested in perfective form), which means ‘do then’ (cf. English *proceed to VP*). The subject takes the imperfective enclitic. *sàrà* is followed by an adjoined clause. In (557c), the two-clause construction with *sàrà* is itself adjoined to the preceding clause, to judge by 2Sg adjoined subject proclitic *é* instead of 2Sg imperfective *wó=Ø*.

- (557) a. *[mù?ùⁿ sá]*
 [1Pl enter.Pfv]
[ká-ná=Ø sàrà= [Ø sá]]
 [rain-Nom=Ipfv do.then.Ipfv [3SgNonh rain.fall.Adjn]]
 ‘We went in before the rain fell.’
- b. *[zàkî è wěé]*
 [Z 3SgNonh go.Pfv]
[má=Ø sàrà= [î sá]]
 [1Sg=Ipfv do.then.Ipfv [1Sg come.Adjn]]
 ‘Zaki went away before I came.’
- c. *[jù?ù-ná-àⁿ wé=]*
 [garment-Nom-Pl wash.Imprt]
[é sàrà= [í= Ø wà]]
 [2Sg do.then.Adjn [2Sg 3SgNonh go.Adjn]]
 ‘Wash the clothes before you-Sg go.’

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	<i>má</i> = ∅	<i>sòrò</i> = <i>n</i>	<i>sá</i>
	1Pl	<i>mùrúⁿ</i> = ∅	<i>sòrò</i> = <i>n</i>	<i>sá</i>
b.	2Sg	<i>wó</i> = ∅	<i>sòr</i> = <i>í</i>	<i>sā</i>
	2Pl	<i>ēéⁿ</i> = ∅	<i>sòr</i> = <i>íⁿ</i>	<i>sā</i>
c.	3SgHum	<i>á</i> = ∅	<i>sòr</i> = (<i>ò</i>)	<i>sá</i>
	3SgNonh	<i>é</i> = ∅	<i>sòr</i> = ∅	<i>sá</i>
d.	3PlHum	<i>àáⁿ</i> = ∅	<i>sòr</i> = <i>òòⁿ</i>	<i>sá</i>
	3PlNonh	<i>èéⁿ</i> = ∅	<i>sòr</i> = <i>ììⁿ</i>	<i>sá</i>

15.4.4.2 With *t̄s = nē?* ‘not yet’

An alternative ‘before ...’ clause is illustrated in (559). Synchronically we have preclausal *f̄s* ‘all the way to, until’, then the positive clause followed by *t̄s = nē?*.

- (559) *bon*, *f̄s* *èèⁿ* *cíé* [*jèré* *mà*] *t̄s = nē?*,
 well, until 3PlNonh arrive.Pfv [lion on] **yet=Neg**,
èèⁿ *cíé* *sísàāⁿ*, *cíⁿ* *dè* [*súrúkú* *màā*], ...
 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) (< *mà*)

15.4.4.3 *t̄sⁿ* ‘first’ (adverb)

The nasal in *t̄s = nē?* ‘not yet’ (see preceding section) presupposes a nasalized vowel in *t̄sⁿ*. The form *t̄sⁿ* 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) *mā* *ná* *lè* *t̄sⁿ*
 1Sg 3SgHum look.at.Imprt **first**
 ‘Let me look at him first (=before you do)!’ (2016_02 @ 03:04)

15.4.5 *tóró* ~ *tónó* ‘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-mèè* *tóró,*
 1Sg speak.Pfv conversation-do.VblN **while,**
gb̄-n̄ *sà* *sóó* [*sàá* *tò*]
 thief-Nom Fut enter(v).Ipfv [house in]
 ‘While I was conversing (elsewhere), the thief was entering the house.’ (*sàà*)

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).

tóró ~ *tónó* in the sense ‘while’ may also follow verbal nouns, in durative complements of perception verbs (§17.1.3.2). *tóró* ~ *tónó* also occurs in purposive clauses (§17.5.1).

The historical relationship between *tóró* ~ *tónó* and *tóⁿ* (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) [*mù?ùⁿ* *jíí* [[*là?á* *mì*] *tó*]]
 [1Pl spend.night.Pfv [[**place** **Rel**] in]]
é= \emptyset *fò?ò-bèé*
 3SgNonh 3SgNonhRefl be.distant.Pfv
 ‘The place where we spent the night is far away.’

15.5.2 Manner adverbial clause (*kómi* ‘as’)

The noun *cógó* ‘manner’ can take a verbal-noun complement. The resulting NP can function as an NP argument in a higher clause (563).

- (563) *mā* [*sàá-dèè* *cógó*] *sòò = rē?*
 1Sg [house-open.VblN **manner**] know.Ipfv=Neg
 ‘I don’t know how to open the door (to the house).’

kómi ‘as’ (French *comme*) may be preposed to a regular clause (without *cógō*) as a manner adverbial (564).

- (564) *má* = ∅ *wàlí* *mè-yá*
 1Sg=Ipfv work(n) do-Prog
 [*kómi* *zàkî* = ∅ *wàlí* *mè-yá*]
 [as Z=Ipfv work(n) do-Prog
 ‘I work like (=the same way) Zaki works.’ (*wàlí*)

For preclausal *èmmè kómi*, see §19.2.3.2.

16 Conditional constructions

16.1 Hypothetical conditional with *nī* ‘if’

16.1.1 Regular antecedent clause

Examples are in (565). Particle *nī* (sometimes heard as *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 interlinears) is discussed in the following section.

- (565) a. *nī* *ká-ná = ∅* *sā*,
 if rain(n)-Nom=Ipfv rain.fall.Antec,
mù?úⁿ = ∅ *sà* *sóó*
 1Pl=Ipfv Fut enter.Ipfv
 ‘If it rains, we’ll go in.’
- b. *nī* *wō* *kā* *mā-n̄*,
 if 2Sg abandon.Antec 1Sg-Indep,
má = ∅ *wò* *kpááⁿ*
 1Sg=Ipfv 2Sg kill.Ipfv
 ‘If you-Sg leave me, I’ll kill you.’
- c. *nī* *zàkî* *mā* *bá?rī*,
 if Z 1Sg hit.Antec,
má = ∅ *nì* *wàá*
 1Sg=Ipfv 3SgNonhObj go.Ipfv
 ‘If Zaki hits me, I’ll go away.’
- d. *nī* *wō* *bóó* *bà*, *lā?ā*
 if 2Sg fall(n) fall.Antec, get.up.Imprt
 ‘If you-Sg fall, get up!’
- e. *nī* *ààⁿ* *búl = ú* *dè*,
 if 3PIHum return.Antec=Link there.Def,
àáⁿ = ∅ *sà =* *ààⁿ* *kpááⁿ*
 3PIHum=Ipfv Fut 3PIHum kill.Ipfv
 ‘If they go back there, they (=others) will kill them.’
 (/būlū/ modified by the following *dè*)

- f. *nī* *zàkî* *sā = rē?*
 if Z come.Antec=Neg
 ‘if Zaki doesn’t come’

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)

	Pfv -3Sg	Ipfv	Imprt	adjoined	‘if’	gloss
a. <i>Cvv</i> stems						
<i>imperative M-toned</i>						
	<i>séé</i>	<i>sáá</i>	<i>sā</i>	<i>sá</i>	<i>sā</i>	‘come’
	<i>bóé</i>	<i>bóó</i>	<i>bō</i>	<i>bó</i>	<i>bō</i>	‘exit’
	<i>sóé</i>	<i>sóó</i>	<i>sō</i>	<i>só</i>	<i>sō</i>	‘enter’
<i>imperative L-toned</i>						
	<i>béé</i>	<i>bàà</i>	<i>bà</i>	<i>bà</i>	<i>bā</i>	‘fall’
b. bisyllabic stems						
	<i>bùlí</i>	<i>búló</i>	<i>būlū</i>	<i>búlú</i>	<i>būlū</i>	‘return’
	<i>fídí</i>	<i>fídéè</i>	<i>fídí</i>	<i>fídì</i>	<i>fídì</i>	‘run’
c. trisyllabic stems (in some cases reduced to bisyllabic)						
	<i>jáʔánī</i>	<i>jàʔánà</i>	<i>jàʔáⁿ</i>	<i>jàʔàⁿ</i>	<i>jāʔāⁿ</i>	‘descend’
	<i>sídánī</i>	<i>sídánà</i>	<i>sídá</i>	<i>sídà</i>	<i>sīdā</i>	‘ascend’
			~ <i>sídáⁿ</i>	~ <i>sídàⁿ</i>	~ <i>sīdāⁿ</i>	

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.

- (567) a. *nī mā dí bàʔrì / jì / jàʔàⁿ*
 if 1Sg child hit./see./take.down.Antec
 ‘if I hit/see/take down the child’
- b. *nī mā dí-rá-àⁿ bàʔrí / jí / jáʔáⁿ*
 if 1Sg child-Nom-Pl hit./see./take.down.Antec
 ‘if I hit/see/take down the children’

16.2 ‘Even if ...’ (*áli*)

áli ‘even’ may replace *nī* ‘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) [*áli ká-ná ʔkú sáá síní*]
 [even rain(n)-Nom begin rain.fall.Ipfv tomorrow]
 [*má=∅ nì wáá [mùú dù]*]
 [1Sg=Ipfv 3SgNonhObj go.Ipfv [field in]]
 ‘Even if it rains tomorrow, I’ll go to the field(s).’ (< *mùú*)

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 =*rĒ?* plus *wò*, the negative enclitic drops its final glottal stop, which occurs only at clause boundaries.

- (569) [*káⁿ sě wò*] [*káⁿ sèè=rĒ wò*]
 [rain(n) rain.fall.Pfv **whether**] [rain(n) rain.fall.Pfv=Neg **whether**]
 [*má=∅ nì wáá [mùú dù]*]
 [1Sg=Ipfv 3SgNonh go.Ipfv [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 *cìè ~ cíé* ‘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 *cìè*. This is the common pattern since the antecedent is semantically a past perfect and the consequent is semantically imperfective (future-in-past).

- (570) *[nī káⁿ dḍḍn sé=é 'ké]*
 [if rain(n) a.little rain.fall.Pfv=Link **Past**]
[sónó cìè ɲàá-nà]
 [maize **be.Past** goodness-Nom]
 ‘If it had rained a little, the maize (crop) would have been good (=grown well).’
 (< *dḍḍnì, séé*)

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 cì ké wó?rɔ*
 if 3SgNonh can.Pfv **Past** be.removed.Adjn
mè?è-ná-àⁿ cíé tɔ= [ɔⁿ kú
 person-Nom-Pl **be.Past** stay.Ipfv [3PIHum begin
[mè?è-ná-àⁿ cíí-ná-àⁿ] jɔⁿ
 [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) (*cì* < *cíé*, /*tɔɔ ààⁿ 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 = ∅ kɔ̀ɔ̀ [má = ∅ nì wàà kúnú]*
 1Sg=Ipfv want.Ipfv [1Sg=Ipfv 3SgNonhObj go.Ipfv village]
 ‘I want to go to the village.’ (*wàá*)
- b. *má = ∅ kɔ̀ɔ̀ [má = ∅ nì wàà kún] = nē?*
 1Sg=Ipfv want.Ipfv [1Sg=Ipfv 3SgNonhObj go.Ipfv village]=Neg
 ‘I don’t want to go to the village.’ (*kúnú*)
- c. *má = ∅ kɔ̀ɔ̀ [má = ∅ fìdèè]*
 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 *à-wò* and nonhuman *è-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	<i>má = ∅</i>	<i>kàà</i>	<i>[má = ∅</i>	<i>fìdèè]</i>
	1Pl	<i>mù?úⁿ = ∅</i>	<i>kàà</i>	<i>[mù?úⁿ = ∅</i>	<i>fìdèè]</i>
b.	2Sg	<i>wó = ∅</i>	<i>kàà</i>	<i>[wó = ∅</i>	<i>fìdèè]</i>
	2Pl	<i>ēéⁿ = ∅</i>	<i>kàà</i>	<i>[ēéⁿ = ∅</i>	<i>fìdèè]</i>
c.	3SgHum	<i>á = ∅</i>	<i>kàà =</i>	<i>[à-wò = ∅</i>	<i>fìdèè]</i>
	3SgNonh	<i>é = ∅</i>	<i>kàà =</i>	<i>[ò-wò = ∅</i>	<i>fìdèè]</i>
d.	3PlHum	<i>àáⁿ = ∅</i>	<i>kà =</i>	<i>[ááⁿ = ∅</i>	<i>fìdèè]</i>
	3PlNonh	<i>èéⁿ = ∅</i>	<i>kàà</i>	<i>[èéⁿ = ∅</i>	<i>fìdèè]</i>

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.	<i>zàkî = ∅</i>	<i>kàà =</i>	<i>[à-wò = ∅</i>	<i>fìdèè]</i>
		Z=Ipfv	want.Ipfv	[Hum-3SgLogo=Ipfv	run.Ipfv]
		‘Zaki _x wants (himself) _x to run.’ (</kàà à-wò/)			
	b.	<i>zàkî = ∅</i>	<i>kàà =</i>	<i>[à</i>	<i>fìdì]</i>
		Z=Ipfv	want.Ipfv	[3SgHum	run.Imprt]
		‘Zaki _x wants him/her _y 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	... <i>kàà</i>	<i>[mā</i>	<i>fìdì]</i>
2Sg	... <i>kàà</i>	<i>[wō</i>	<i>fìdì]</i>
2Pl	... <i>kàà</i>	<i>[ēēⁿ</i>	<i>fìdì]</i>

b. other -3Sg pronouns

1Pl	... <i>kàà</i>	<i>[mù?ùⁿ</i>	<i>fídí]</i>
3PlHum	... <i>kàà</i>	<i>[ààⁿ</i>	<i>fídí]</i>
3PlNonh	... <i>kàà</i>	<i>[èèⁿ</i>	<i>fídí]</i>

c. +3Sg pronouns

3SgHum	... <i>kàà</i>	<i>[à</i>	<i>fídí]</i>
3SgNonh	... <i>kàà</i>	<i>[è</i>	<i>fídí]</i>

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 (*ní* 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. *[mā jéⁿ sèé*
 [1Sg father] come.Pfv
 ‘My father came/has come.’
- b. *mā ní sò [[mā jéⁿ sèé]*
 1Sg 3SgNonhObj know.Pfv [[1Sg father] come.Pfv]
 ‘I know that my father has come.’ (< *mā ní*)

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-mǎǎ* (→ *á-mǎǎ*) 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. *zàkî í sò*
 Z 3SgNonhObj know.Pfv
[á= Ø-wò=Ø sí= í wàá]
 [that Hum-3SgLogo=Ipfv Fut= 3SgNonhObj go.Ipfv]
 ‘Zak_x knows that he_x (himself) will go.’ (*í* for more common *ní*)

- b. *dí-kpé?-rà-áⁿ* *sò*
 child-small-Nom-Pl know.Pfv
[á = ∅-mǎǎ = ∅ *sí = í* *wàá]*
 [that **Hum-3PI**Logo=Ipfv Fut= 3SgNonhObj go.Ipfv
 ‘The children_x know that they_x (themselves) will go.’
- c. *dí-kpé?-rà-áⁿ* *sò*
 child-small-Nom-Pl know.Pfv
[á = áⁿ = ∅ *sí = í* *wàá]*
 [that **3PI**Hum=Ipfv Fut= 3SgNonhObj go.Ipfv
 ‘The children_x know that they_{x/y} (others) will go.’

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 mē [á zàkî séé]*
 1Sg 3SgNonhObj hear.Pfv [that Z come.Pfv]
 ‘I heard (it) that Zaki has come.’
- b. *mā tí? = [í jîè]*
 1Sg go.Pfv [3SgNonh see.Adjn]
[mî?î-ná-àⁿ wéé [mùú dù]]
 [person-Nom-Pl go.Pfv [field in]]
 ‘I went and saw (=it) that the people had gone to the fields.’
 (variant *wéé*)
- c. *á ∅ mē*
 3SgHum 3SgObj hear.Pfv
[á ∅-wò sá ‘tá?á = rē?]
 [that Hum-3SgLogo Fut go.Ipfv=Neg]
 ‘He_x heard (it) that he_x isn’t going.’ (< *mě, 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* *zàkî* *jíé* *bóó / sáá / bàà*
 1Sg Z see.Pfv exit(v).Ipfv / come.Ipfv / fall.Ipfv
 ‘I saw Zaki go(ing) out / come(ing) / fall(ing).’
- b. *mā* *zàkî* *jíé* [*dí-kpé?r-à-àⁿ* *bá?rá*]
 1Sg Z see.Pfv [child-small-Nom-Pl hit.Ipfv]
 ‘I saw Zaki hit(ing) the children.’

It is also possible to add *tóró* ~ *tónó* ‘while’ (§15.4.5) to a verbal noun (§4.2.2) complement, emphasizing the durative or progressive aspect of the event.

- (580) *mā* *zàkî* *jíé* [**bóó / *séé / bèè* *tónó*]
 1Sg Z see.Pfv [exit./come./fall.VblN **while**]
 ‘I saw Zaki going out/coming.’

For *tóró* ~ *tónó* in purposive clauses, see §17.5.1.

17.1.4 Obligational (*fɔ̃* ‘it must be’) with present or future clause

A preposed *fɔ̃*, which suspiciously resembles French *il faut* but might also be identified Jalkunan-internally with *fɔ̃*, ‘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) *fɔ̃* [*má = ∅* *nì* *wàà* *kúnú*]
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. *káⁿ* *sè* *kúnú*
 rain(n) rain.fall.Pfv village
 ‘It rained in the village.’

- b. *zàkî* *dé* [*káⁿ* *sè* *kúnú*]
 Z 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 clause-level TAM adjustments.

17.2.1 *à* as quotative ‘that’ complementizer

A quoted indicative clause optionally begins with *à* ‘that’. In the majority of elicited quoted indicative clauses, *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. *zàkî* *dé* [*à* *bákàrí=∅* *sà* *sáá*]
 Z say.Pfv [**that** B Fut come.Ipfv]
 ‘Zaki said that Bakari will come.’
- b. *zàkî* *dé* [*bákàrí=∅* *sà* *sáá*]
 Z 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 *à* ‘that’ and the initial vowel of human third-person logophoric pronouns, singular *à-wò* and plural *à-mǎǎ*. The *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 *à-wò* and simple *wò*, and between *à-mǎǎ* and simple *mǎǎ*. Or, reversing the direction of etymology, these logophoric pronouns may have originally been *wò* and *mǎǎ*, and acquired their initial *à-* by reanalysis of ‘that’ clauses beginning with the complementizer. Also relevant to this is the possible historical relationship between third person *à-wò* and *à-mǎǎ* on the one hand and second person pronouns *wò* (2Sg) and *mǎǎ* (2Pl, alongside *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 [àwò] could be parsed with or without the *à* complementizer. In (584b), phonetic [wò] seemingly has neither the complementizer *à* nor the human prefix *à-*, but we can’t rule out the possibility that at least one of these morphemes is present and has been elided by *vv*-Contraction.

- (584) a. *zàkîŋ dé [à (à)-wò=∅ sà sáá]*
 Z say.Pfv [(that) (Hum-)3SgLogo=Ipfv Fut come.Ipfv]
 or: *[à-wò]*
 [Hum-3SgLogo
 ‘Zaki_x said that he_x (himself) will come.’
- b. *zàkîŋ dé [∅-wò sà sáá]*
 Z say.Pfv [Hum-3SgLogo Fut come.Ipfv]
 [= (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 [zàkîŋ=∅ sà sáá]*
 B say.Pfv [Z=Ipfv Fut come.Ipfv]
 ‘Bakari said Zaki will come.’
- b. *zàkîŋ dé [bákàrì=∅ sà sáá]*
 Z say.Pfv [B=Ipfv Fut come.Ipfv]
 ‘Zaki said Bakari will come.’

17.2.2 Combination of *dè* ~ *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=∅ (sà) yí?é dònò*
 B=Ipfv (Fut) fish eat.meat.Ipfv
 ‘Bakari eats/will eat fish.’
- b. *mā dé [(à) bákàrì=∅ (sà) yí?é dònò]*
 1Sg say.Pfv [(that) B=Ipfv (Fut) fish eat.meat.Ipfv]
 ‘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	
	Pfv	Ipfv	‘he/she said ___’	‘I said ___’
3SgHum	<i>à</i>	<i>á = ∅</i>	<i>à dɛ̀ à = ∅</i>	<i>mā dɛ̀ à = ∅</i>
3SgNonh	<i>è</i>	<i>é = ∅</i>	<i>à dɛ̀ è = ∅</i>	<i>mā dɛ̀ è = ∅</i>
3PlHum	<i>ààⁿ</i>	<i>àáⁿ = ∅</i>	<i>à dɛ̀ (à)àⁿ = ∅</i>	<i>mā dɛ̀ (à)àⁿ = ∅</i>
3PlNonh	<i>èèⁿ</i>	<i>èéⁿ = ∅</i>	<i>à dɛ̀ (è)èⁿ = ∅</i>	<i>mā dɛ̀ (è)èⁿ = ∅</i>

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 *náā-nà* ‘woman’, also show no tonal effect when the imperfective enclitic is added: *náā-nà = ∅*.

Consider first the ‘I said ___’ column. Here the ‘say’ verb is H-toned *dɛ̀* by virtue of following a -3Sg subject pronoun, in this case 1Sg *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
3SgHum	<i>/mā dɛ̀ à H/</i>	<i>mā dɛ̀ = à</i>
3SgNonh	<i>/mā dɛ̀ è H/</i>	<i>mā dɛ̀ = è</i>
3PlHum	<i>/mā dɛ̀ ààⁿ H/</i>	<i>mā dɛ̀ = (à)àⁿ</i>
3PlNonh	<i>/mā dɛ̀ èèⁿ H/</i>	<i>mā dɛ̀ = (è)èⁿ</i>

These forms can be understood if the third person subject pronoun (*à*, etc.) first encliticizes to the ‘say’ verb *dɛ̀*, producing falling tone patterns, as in *dɛ̀ = à*. In the plural combinations, the length of the pronominal vowel is reduced, except in careful speech, so that */dɛ̀ ààⁿ/* is for practical purposes realized as *dɛ̀ = àⁿ*. 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 *dɛ̀* ‘said’ since it follows a +3Sg subject, but in fact the usual pronunciation is with H-toned *dɛ̀*, as in the ‘I said ___’ forms.

Since the third person proclitics are all underlyingly L-toned (*à*, *ààⁿ*, etc.), one possibility is that *dɛ̀* undergoes Final Tone-Raising to *dɛ̀* 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...’ 3PIHum...’ 3PINonh...’

/à dè à H/	/à dè è H/	/à dè àà ⁿ H/	/à dè èè ⁿ H/	underlying
/à dé à H/	/à dé è H/	/à dé àà ⁿ H/	/à dé èè ⁿ H/	tone-raising
/à dé = à H/	/à dé = è H/	/à dé = (à)à ⁿ H/	/à dé = (è)è ⁿ H/	enclisis
/à dé = à/	/à dé = è/	/à dé = (à)à ⁿ /	/à dé = (è)è ⁿ /	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) /mā dé à ààⁿ H/ ‘I said that they (will) ...’
 /à dè à àà 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...’ 3PIHum...’

/à dè à à H/	/à dè à àà ⁿ H/	underlying
/à dè á à H/	/à dè á àà ⁿ H/	tone-raising
/à dé = à H/	/à dé = (à)à ⁿ H/	Leftward H-Shift and <i>vv</i> -Contraction
/à dé = à/	/à dé = (à)à ⁿ /	no docking of H

Yet another wrinkle is the possibility that *dè* in 3Sg *à dè* ‘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 ...’ 3PIHum ...’

/à dè à H/	/à dè àà ⁿ H/	underlying
/à dé = à H/	/à dé = (à)à ⁿ H/	Leftward H-Shift and <i>vv</i> -Contraction
/à dé = à/	/à dé = (à)à ⁿ /	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 = Ø / tàgà-rá = Ø yí?é dònò]*
 B say.Pfv [3SgHum=Ipfv/sheep=Ipfv fish eat.meat.Ipfv]
 ‘Bakari_x said that he-or-she_y/(the) sheep eats fish.’
- b. *bákàr dé [= à = Ø / tàgà-rá = Ø sà yí?é dònò]*
 B say.Pfv [3SgHum=Ipfv/sheep=Ipfv Fut fish eat.meat.Ipfv]
 ‘Bakari_x said that he-or-she_y/(the) sheep-Sg will eat fish.’
- c. *bákàr dé [= à = Ø / tàgà-rá = Ø yí?é dònù-yá]*
 B say.Pfv [3SgHum=Ipfv/sheep=Ipfv fish eat.meat.Prog]
 ‘Bakari_x said that he-or-she_y/(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+ = Ø/. The ‘be’ enclitic is followed by a locational expression (‘be here’, etc.) as in (594).

- (594) a. *á = Ø / tàgà-rá = Ø [mùú dù]*
 3SgHum=/sheep-Nom=be [field in]
 ‘He-or-she/(the) sheep-Sg is in the field(s).’ (*mùu*)
- b. *bákàr dé = [à = Ø / tàgà-rá = Ø [mùú dù]]*
 B say.Pfv [**3SgHum=/sheep-Nom=be** [field in]]
 ‘Zaki_x said that he-or-she_y/(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. *má = Ø sà sáá*
 1Sg=Ipfv Fut come.Ipfv
 ‘I will come.’

- b. *zàkî* *dé=* *[(à-)wò* *sà* *sáá]*
 child-Nom-Pl say.Pfv [Hum-**3SgLogo** Fut come.Ipfv]
 ‘Zak_x said that he_x (himself) would come.’
- c. *zàkî* *dé=* *[à* *sà* *sáá]*
 child-Nom-Pl say.Pfv [**3SgHum** Fut come.Ipfv]
 ‘Zak_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. *wō* *mà* *bá?rī*
2Sg **1Sg** hit.Pfv
 ‘You-Sg_y hit-Past me_x.’ (addressed by X to Y)
- b. *zàkî* *dé* *[à* *mā* *ná-wò* *bá?rī]*
 Z say.Pfv [that **1Sg** HumObj-**3SgLogo** hit.Pfv]
 ‘Zak_x said that I_y hit-Past him_x.’ (current speaker is Y)

My assistant did not update original second person vocatives in this manner. The original 2Sg independent pronoun *wō-ñ* in (598a) has vocative function (compare simple prohibitive *bí sã=rē?* ‘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 *wō-ñ*, not 1Sg *mā-ñ* or a third-person form.

- (598) a. *wō-ñ* *bí* *sã=rē?*
2Sg-Indep Proh come.Imprt=Neg
 ‘(Hey) you-Sg_y, don’t-2Sg_y come!’ (addressed by X to Y)
- b. *zàkî* *dé* *[mā mā]* *[wō-ñ* *bí* *sã=rē?]*
 Z say.Pfv [1Sg with] [**2Sg-Indep** Proh come.Imprt=Neg]
 ‘Zak_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 interlinears “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.

- (599) a. *bà*
 fall.Imprt
 ‘Fall-2Sg!’
- b. *mā dé [à bā]*
 1Sg say.Pfv [3SgNonh fall.QuotImprt
 ‘I told him/her to fall.’

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.

(600)	1Sg	1Pl	3SgHum	3PlHum	gloss
	<i>mā bā</i>	<i>mù?ùⁿ bā</i>	<i>à bā</i>	<i>ààⁿ bā</i>	‘fall’
	<i>mā sā</i>	<i>mù?ùⁿ sā</i>	<i>à sā</i>	<i>ààⁿ sā</i>	‘come’
	<i>mā būlū</i>	<i>mù?ùⁿ būlū</i>	<i>à būlū</i>	<i>ààⁿ būlū</i>	‘return’
	<i>mā fīdī</i>	<i>mù?ùⁿ fīdī</i>	<i>à fīdī</i>	<i>ààⁿ fīdī</i>	‘run’
	<i>mā sīdā</i>	<i>mù?ùⁿ sīdā</i>	<i>à sīdā</i>	<i>ààⁿ sīdā</i>	‘descend’

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 (*bà?rì* ~ *bá?rí*) depending on whether the preceding NP (the object) is + 3Sg or -3Sg.

- (601) a. *tàgá bà?rì*
 sheep hit.Imprt
 ‘Hit-2Sg the sheep-Sg!’ (< *tàgà*)
- b. *à dè [mā tàgá bà?rì]*
 3SgHum say.Pfv [1Sg sheep hit.Imprt]
 ‘He/She told me to hit the sheep-Sg.’
- c. *tàgà-rá-àⁿ bá?rí*
 sheep-Nom-Pl hit.Imprt
 ‘Hit-2Sg the sheep-Pl!’
- d. *à dè [mā tàgà-rá-àⁿ bá?rí]*
 3SgHum say.Pfv [1Sg sheep-Nom-Pl hit.Imprt]
 ‘He/She told me to hit the sheep-Pl.’

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? / s̄ā=rē?*
Proh fall.Imprt=Neg / come.Imprt=Neg
‘Don’t-2Sg fall/come!’
- b. *à* *dè* [*mā* *bí* *bà=rē? / s̄ā=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’ (*cíé*)

This verb may be a special case of the verb ‘arrive’, which has imperfective *cíé* and perfective *cìé ~ cíé*. 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 *cíé* 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 *cíé* 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=∅* *‘cíé* *sìdánà / sáá*
3PIHum=Ipfv can.Ipfv ascend.Ipfv / come.Ipfv
‘They can go up/come.’

- b. $\hat{a}a^n = \emptyset$ $ci\acute{e}$ $s\grave{i}d\acute{a}n\grave{a} = n\bar{e}?$ / $s\acute{a}\acute{a} = r\bar{e}?$
 3PIHum=Ipfv can.Ipfv ascend.Ipfv=Neg / come.Ipfv=Neg
 ‘They can’t go up/come.’
- c. $\hat{a}a^n = \emptyset$ ${}^4ci\acute{e}$ [${}^4w\acute{a}l\acute{i}$ $m\grave{a}\grave{a}$]
 3PIHum=Ipfv can.Ipfv [work(n) do.Ipfv]
 ‘They can do the work.’
- d. $w\acute{o} = \emptyset$ ${}^4ci\acute{e}$ $s\grave{a}\acute{a} = \grave{a}$
 2Sg=Ipfv can.Ipfv come.Ipfv=Q
 ‘Can you-Sg come?’
- e. $m\acute{a} = \emptyset$ ${}^4ci\acute{e} = r\bar{e}?$
 1Sg=Ipfv can.Ipfv=Neg
 ‘I can’t.’

The future counterpart has a similar structure but adds the future particle $s\grave{a}$. It usually implies that the capability is not true at the time of speaking but will be during some future time interval.

- (604) a. $\hat{a}a^n = \emptyset$ $s\grave{a}$ $ci\acute{e}$ $s\grave{i}d\acute{a}n\grave{a}$ / $s\acute{a}\acute{a}$
 3PIHum=Ipfv Fut can.Ipfv ascend.Ipfv / come.Ipfv
 ‘They will be able to go up/come.’
- b. $\hat{a}a^n = \emptyset$ $s\grave{a}$ $ci\acute{e}$ $s\grave{i}d\acute{a}n\grave{a} = n\bar{e}?$ / $s\acute{a}\acute{a} = r\bar{e}?$
 3PIHum=Ipfv Fut can.Ipfv ascend.Ipfv / come.Ipfv
 ‘They will not be able to go up/come.’
- c. $\hat{a}a^n = \emptyset$ $s\grave{a}$ $ci\acute{e}$ [${}^4w\acute{a}l\acute{i}$ $m\grave{a}\grave{a}$]
 3PIHum=Ipfv Fut can.Ipfv [work(n) do.Ipfv]
 ‘They will be able to do the work.’

17.3.1.2 $ci\grave{e} \sim ci\acute{e}$ 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 $ci\grave{e} \sim ci\acute{e}$ and there is no imperfective subject enclitic. $ci\grave{e} \sim ci\acute{e}$ is followed not by a VP as in nonpast contexts, rather by an adjoined clause (§15.1) as in (605a-b). This perfective $ci\grave{e} \sim ci\acute{e}$ ‘could’ is grammatically distinct, and in part tonally distinct, from $ci\grave{e} \sim ci\acute{e}$ ‘was/were’ (§10.4).

- (605) a. $\hat{a}a^n$ $ci\acute{e}$ [$\hat{a}a^n$ $s\grave{i}d\grave{a}$]
 3PIHum can.Pfv [3PIHum ascend.Adjn]
 ‘They were able to go up.’

- b. $\text{\grave{a}\grave{a}^n}$ $\text{c}\acute{\text{i}}\acute{\text{e}}$ $[(\grave{\text{a}})\grave{\text{a}}^n]$ $\text{s}\acute{\text{a}} = \text{r}\acute{\text{e}}?$
 3PIHum can.Pfv [3PIHum come.Adjn=Neg]
 ‘They were not able to come.’
- c. $\text{\grave{a}\grave{a}^n}$ $\text{c}\acute{\text{i}}\acute{\text{e}}$ $[(\grave{\text{a}})\grave{\text{a}}^n]$ $\text{w}\acute{\text{a}}\text{l}\acute{\text{i}}$ $\text{m}\grave{\text{a}}$
 3PIHum can.Pfv [3PIHum work(n) do.Adjn]
 ‘They were able to do the work.’

(605a-c) show no contractions of $\text{c}\acute{\text{i}}\acute{\text{e}}$ with the following subject pronominal, but such contractions do occur in allegro speech. Examples are in (606) below. The tonal distinction between +3Sg $\text{c}\acute{\text{i}}\acute{\text{e}}$ and -3Sg $\text{c}\acute{\text{i}}\acute{\text{e}}$ is neutralized here, perhaps due to Leftward H-Shift (§3.8.3.7) in 3Sg subject forms (606c), e.g. $\text{\grave{a}} \text{c}\acute{\text{i}} = \acute{\text{e}} \text{s}\acute{\text{a}}$ < $/\text{\grave{a}} \text{c}\acute{\text{i}}\acute{\text{e}} \text{\grave{a}} \text{s}\acute{\text{a}}/$. The drop of $\text{s}\acute{\text{a}}$ ‘come’ to $\text{s}\bar{\text{a}}$ in (606b), right-hand column, is normal in adjunctions, where second-person adjoined subject proclitics come with a floating M. The vowel length of 3PI subject proclitics is partially respected in spite of contractions. 1Sg $\text{m}\bar{\text{a}} \text{c}\acute{\text{i}} = \acute{\text{i}}\text{n} \text{s}\grave{\text{i}}\text{d}\grave{\text{a}}$ has undergone H-Leveling (§3.8.3.2) from $/\text{c}\acute{\text{i}} = \acute{\text{i}}\text{n}/$ before an L-tone, but 1PI $\text{m}\grave{\text{u}}\text{?}\grave{\text{u}}^n \text{c}\acute{\text{i}} = (\acute{\text{i}})\text{i}\text{n} \text{s}\grave{\text{i}}\text{d}\grave{\text{a}}$ from $/\text{c}\acute{\text{i}} = \acute{\text{i}}\text{n}/$ preserves a falling contour before $\text{s}\grave{\text{i}}\text{d}\grave{\text{a}}$ at least in careful speech. 3PI forms like $\text{\grave{a}\grave{a}^n} \text{c}\acute{\text{i}} = \acute{\text{e}}\acute{\text{e}}^n \text{s}\grave{\text{i}}\text{d}\grave{\text{a}}$ (606d) show Final Tone-Raising before L-toned $\text{s}\grave{\text{i}}\text{d}\grave{\text{a}}$, an even clearer sign that their vowels can be treated as long in spite of contraction.

(606)		‘could go up’	‘could come’
a.	1Sg	$\text{m}\bar{\text{a}} \text{c}\acute{\text{i}} = \acute{\text{i}}\text{n} \text{s}\grave{\text{i}}\text{d}\grave{\text{a}}$	$\text{m}\bar{\text{a}} \text{c}\acute{\text{i}} = \acute{\text{i}}\text{n} \text{s}\acute{\text{a}}$
	1PI	$\text{m}\grave{\text{u}}\text{?}\grave{\text{u}}^n \text{c}\acute{\text{i}} = (\acute{\text{i}})\text{i}\text{n} \text{s}\grave{\text{i}}\text{d}\grave{\text{a}}$	$\text{m}\grave{\text{u}}\text{?}\grave{\text{u}}^n \text{c}\acute{\text{i}} = \acute{\text{i}}\text{n} \text{s}\acute{\text{a}}$
b.	2Sg	$\text{w}\bar{\text{o}} \text{c}\acute{\text{i}} = \acute{\text{i}} \text{s}\grave{\text{i}}\text{d}\grave{\text{a}}$	$\text{w}\bar{\text{o}} \text{c}\acute{\text{i}} = \acute{\text{i}} \text{s}\bar{\text{a}}$
	2PI	$\text{e}\bar{\text{e}}^n \text{c}\acute{\text{i}} = \acute{\text{i}}^n \text{s}\grave{\text{i}}\text{d}\grave{\text{a}}$	$\text{e}\bar{\text{e}}^n \text{c}\acute{\text{i}} = \acute{\text{i}}^n \text{s}\bar{\text{a}}$
c.	3SgHum	$\text{\grave{a}} \text{c}\acute{\text{i}} = \acute{\text{e}} \text{s}\grave{\text{i}}\text{d}\grave{\text{a}}$	$\text{\grave{a}} \text{c}\acute{\text{i}} = \acute{\text{e}} \text{s}\acute{\text{a}}$
	3SgNonh	$\acute{\text{e}} \text{c}\acute{\text{i}} = \grave{\text{i}} \text{s}\grave{\text{i}}\text{d}\grave{\text{a}}$	$\acute{\text{e}} \text{c}\acute{\text{i}} = \grave{\text{i}} \text{s}\acute{\text{a}}$
d.	3PIHum	$\text{\grave{a}\grave{a}^n} \text{c}\acute{\text{i}} = \acute{\text{e}}\acute{\text{e}}^n \text{s}\grave{\text{i}}\text{d}\grave{\text{a}}$	$\text{\grave{a}\grave{a}^n} \text{c}\acute{\text{i}} = (\acute{\text{a}})\grave{\text{a}}^n \text{s}\acute{\text{a}}$
	3PINonh	$\text{\grave{e}}\grave{\text{e}}^n \text{c}\acute{\text{i}} = \acute{\text{i}}^n \text{s}\grave{\text{i}}\text{d}\grave{\text{a}}$	$\text{\grave{e}}\grave{\text{e}}^n \text{c}\acute{\text{i}} = (\acute{\text{i}})\acute{\text{i}}^n \text{s}\acute{\text{a}}$

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 *jiè* ~ *jié* ‘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 wúlá bè mùù-mèè-ná*
 1Sg afternoon make.fall.Pfv field-do.VblN-Nom
 ‘I spent the (mid-)day farming.’
- b. *zákî kó?ró mè dòò-mèè-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* ~ *bálá* and perfective *bàlì* ~ *báli*. 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 *fidì* in (608a) and *tò?rì* in (608b) undergo regular Final Tone-Raising before L-toned *mà*.

- (608) a. *ká-ná mā bálì*
 rain-Nom 1Sg prevent.Pfv
[[sée/ bóó/ bèé/ fidí/ sìdání] mà]
 [[come/exit/fall/run/ascend.VblN] on]
 ‘The rain prevented me from coming / going out / falling / running / going up.’
- b. *è mā bálì ...*
 3SgNonh 1Sg prevent.Pfv
... [wáí-méé mà]
 ... [work(n)-do.VblN on]
... [tàgá tò?rì mà]
 ... [sheep sell.VblN] on]
 ‘It prevented me from ... doing the work/selling the sheep.’
- c. *è mā bálì [sóó mà] [sáá tò]*
 3SgNonh 1Sg prevent.Pfv [enter.VblN on] [house in]
 ‘It prevented me from entering the house.’ (< *sàà*)

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-kpɛʔr-à-àⁿ *báʔrí* *bàlí(i)*
 1Sg [child-young-Nom-Pl hit.VbIN] prevent.Pfv
 ‘I have stopped hitting children.’
- b. *mā* *bé* *dòl-ɔ*
 1Sg fall.Pfv beer-Nom
 ‘I’ve given up beer.’

17.4.4 ‘Consent’ (*bàlà* or *sǒǒⁿ*) 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 *ì-yà* ‘it’ (610c-d). In (610c-d), /*bàlí ì-yà*/ is realized as *bál = ì-yà* after Leftward H-Shift.

- (610) a. *à* *bàlí* *séé-rá / bóó-rá /*
bàlí *bèè-rá / fìdì-rá / sǐdǎñ-nà*
 3SgHum accept.Pfv come./exit.VbIN-Nom /
 fall./run./ascend.VbIN-Nom
 ‘He/She agreed to come/to come out/to fall/to run/to go up.’
- b. *à* *bàlí* *wálí-méé-rá*
 3SgHum accept.Pfv work(n)-do.VbIN-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. *á = ∅* *sà* *bál =* *ì-yà*
 3SgHum=Ipfv Fut accept.Pfv Nonh-3Sg
 ‘He/She will agree to/accept it (proposal or invitation).’

The verb *sǒǒⁿ* (cited in imperfective form) ‘accept (doing), be willing (to do)’ has the same syntax. Leftward H-Movement has occurred in (611b).

- (611) a. *à sòʒⁿ ʔwáí-méé-rá*
 3SgHum accept.Pfv work(n)-do.VblN-Nom
 ‘He/She agreed to do the work.’
- b. *à sò(ʒ)ⁿ ì-yà*
 3SgHum accept.Pfv Nonh-3Sg
 ‘He/She agreed to/accepted it (proposal or invitation).’ (/sòʒⁿ ì-yà/)

17.4.5 ‘Forget’ (*ɲínáà*) with postverbal verbal-noun complement

This verb (imperfective *ɲínáà*, perfective *ɲíné* ~ *ɲínē*) can take a postverbal object denoting the forgotten entity (399). In the sense ‘forget [to VP]’, the object is a verbal noun (612).

- (612) *à ɲíné séé-rá*
 3SgHum forget.Pfv come.VblN-Nom
 ‘He/She forgot to come.’

17.4.6 ‘Be afraid to’ (*jóʒⁿ*) with postverbal verbal-noun or future complement

In simple ‘X fear Y’ clauses, the verb *jóʒⁿ* ‘fear, be afraid of’ (cited in the imperfective_ takes a PP complement with postposition *kìnà* ~ *kíná* ‘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).

- (613) a. *zàkî=∅ jóʒⁿ séé-ré=é nàa*
 Z=Ipfv be.afraid.Ipfv come.VblN-Nom=Link here
 ‘Zaki is afraid to come here.’ (*séé-rá*)
- b. *zàkî=∅ jóⁿ-yá*
 Z=Ipfv be.afraid.Prog
[má=∅ sà= (à-)wò bá?rá]
 [1Sg=Ipfv Fut Hum-3SgLogo hit.Ipfv]
 ‘Zaki_x is afraid that I will hit him_x.’

17.4.7 ‘Begin’ (*dàà-sʔʔ*) 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-sʔʔ* is likely a combination of *dāā* ‘mouth’ and *sòʔʔ* ~ *sʔʔ* ‘catch’, following a regional phrasing pattern.

- (614) a. *à wálā dàà-sʔē*
 3SgHum shout(n) begin.Pfv
 ‘He/She began to shout.’
- b. *má = Ø sà wálí-méé dàà-sʔó*
 1Sg=Ipfv Fut work(n)-do.VbIN begin.Ipfv
 ‘I will begin to do the work.’
- c. *kūmēē-kúní dàà-sʔó*
 meal-eat.VbIN 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 ~ dá-⁴kááⁿ*) 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-kéⁿ ~ dé-kéⁿ* (perfective) and *dà-kááⁿ ~ dá-⁴kááⁿ* (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 *dá-⁴kááⁿ*, except when followed by the negative enclitic, a slight downstep is audible (suggesting compound morphology).

- (615) a. *mā làʔá sèʔrí(i)*
 1Sg place sweep.Pfv
 ‘I swept (the place).’ (< *làʔà*)
- b. *mā làʔà-sèʔrí dē-géⁿ*
 1Sg place-sweep.VbIN finished.Pfv
 ‘My sweeping (the place) has finished.’
- c. *má = Ø sà [làʔá sèʔr] dá-⁴kááⁿ*
 1Sg=Ipfv Fut [place sweep.VbIN] finish.Ipfv
 ‘I will finish sweeping (the place).’
- d. *mā dē-géⁿ làʔà-sèʔrí-rá*
 1Sg finish.Pfv place-sweep.VbIN-Nom
 ‘I have finished sweeping (the place).’

- e. *à* *dè-gèⁿ* *kūmēē-kūn-nā*
 3SgHum finish.Pfv meal-eat.VblN-Nom
 ‘He/She finished eating.’

17.5 Purposive and causal clauses

17.5.1 Same-subject purposive clause (*tóró* ~ *tónó*)

Adding *tóró* ~ *tónó* 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 *tóró*, which is postverbal rather than clause-final. The main verb is in verbal-noun form.

- (616) a. [*zàkí=* *ì* *wèè*] [*kūmēé* *kùn* *tóró*]
 [Z 3SgNonh go.Pfv] [meal eat.VblN **Purp**]
 ‘Zaki went (there) to eat.’ (*kùni*)
- b. [*mā* *sé*] [*wál* *sééñ* *tóró*]
 [1Sg go.Pfv] [work(n) look.for.VblN **Purp**]
 ‘I came to look for a job.’ (*sééni*)
- c. [*à* *sè*] [*yí* *béñ* *tóró*]
 [3SgHum come.Pfv] [water draw.water.VblN **Purp**]
 ‘He/She came to draw water (at a well).’ (< *béni*)
- d. [*mā* *sé*] [**sóó* *tóró* *wō-n*]
 [1Sg go.Pfv] [help.VblN **Purp** 2Sg-Indep]
 ‘I came in order to help you-Sg.’

Note also *á wèé [kléñ tònò]* ‘he/she went hunting’, with *kléñ* ‘hunt (noun)’.

tóró ~ *tónó* 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 (*bùgóórē*)

In (617), *bùgóórē* ‘because’ is followed by a regular indicative clause explaining the reason or motive for the eventuality denoted by the preceding main clause.

- (617) *[má = Ø sà tóó [sàá tò]]*
 [1Sg=Ipfv Fut stay.Ipfv [house in]]
bùgóórē zàkî wéé kéé = rē?
 because Z health(n) be.healthy.Pfv=Neg
 ‘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 *yé?ré* (§18.1.2). Forms based on possessed *yé?ré* 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.

(618)	reflexive possessor		nonreflexive
	regular	<i>n</i> -initial	
1Sg	<i>āⁿ</i>	<i>nāāⁿ</i>	<i>mā</i>
2Sg	<i>ē ~ ī</i>	<i>nīī</i>	<i>wō</i>
1Pl	<i>āāⁿ</i>	<i>nāāⁿ</i>	<i>mù?ùⁿ</i>
2Pl	<i>ēēⁿ ~ īīⁿ</i>	<i>nīīⁿ</i>	<i>ēēⁿ</i>
3SgHum	<i>à (~ aⁿ)</i>	<i>ná</i>	<i>à</i>
3SgNonh	<i>è ~ ì</i>	<i>ní</i>	<i>è</i>
3PlHum	<i>ààⁿ</i>	<i>náàⁿ ~ nààⁿ</i>	<i>ààⁿ</i>
3PlNonh	<i>èèⁿ ~ ììⁿ</i>	<i>nîîⁿ ~ nîîⁿ</i>	<i>èèⁿ</i>

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-addressee imperatives as in [ē jéⁿ] nàkì ‘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 semantocs. 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

	M-toned
	L-toned
1Sg	ā ⁿ
3SgHum	à (~ a ⁿ)
1Pl	āā ⁿ
3PlHum	àà ⁿ
2Sg	ē ~ ī
3SgNonh	è ~ ì
2Pl	ēē ⁿ ~ īī ⁿ
3PlNonh	èè ⁿ ~ ìì ⁿ

Though the basic 3Sg reflexive forms are à (human) and è (nonhuman), my assistant sometimes nasalizes their vowels. In the case of human 3Sg à ~ àⁿ, 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 $\bar{e}\bar{e}^n$ with nonhuman 3Pl $\bar{e}\bar{e}^n$, and (in proto-Jalkunan) that of archaic 2Sg object variant \bar{e} (preserved in imprecations) with nonhuman 3Sg \bar{e} . If this is correct, the pattern (segmental identity, but M versus L tone) then spread analogically to first person forms, with 1Sg $m\bar{a}$ determining their -ATR value.

Except for objects in imperatives with second person possessor, as in $[\bar{e} j\acute{e}^n] n\grave{a}k\grave{i}$ ‘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 $\bar{a}\acute{a}^n$, $\bar{e}\acute{e}^n$, and $\bar{e}\acute{e}^n$ are due to Final Tone-Raising (tone sandhi) before an L-tone.

(620) Reflexively possessed alienables

	‘fish’ ($y\grave{i}?\acute{e}$)	‘bird’ ($k\grave{\delta}^n$)	‘fire’ ($t\bar{a}\bar{a}$)
1Sg	$\bar{a}^n y\grave{i}?\grave{e}-r\grave{a}$	$\bar{a}^n k\grave{\delta}-n\acute{o}$	$\bar{a}^n t\grave{a}\grave{a}-r\grave{a}$
2Sg	$\bar{e} y\grave{i}?\grave{e}-r\grave{a}$	$\bar{e} k\grave{\delta}-n\acute{o}$	$\bar{e} t\grave{a}\grave{a}-r\grave{a}$
1Pl	$\bar{a}\acute{a}^n y\grave{i}?\grave{e}-r\grave{a}$	$\bar{a}\acute{a}^n k\grave{\delta}-n\acute{o}$	$\bar{a}\acute{a}^n t\grave{a}\grave{a}-r\grave{a}$
2Pl	$\bar{e}\acute{e}^n y\grave{i}?\grave{e}-r\grave{a}$	$\bar{e}\acute{e}^n k\grave{\delta}-n\acute{o}$	$\bar{e}\acute{e}^n t\grave{a}\grave{a}-r\grave{a}$
3SgHum	$\grave{a} y\grave{i}?\grave{e}-r\acute{a}$	$\grave{a} k\grave{\delta}-n\acute{o}$	$\grave{a} t\grave{a}\grave{a}-r\acute{a}$
3SgNonh	$\grave{e} y\grave{i}?\grave{e}-r\acute{a}$	$\grave{e} k\grave{\delta}-n\acute{o}$	$\grave{e} t\grave{a}\grave{a}-r\acute{a}$
3PlHum	$\grave{a}\acute{a}^n y\grave{i}?\grave{e}-r\grave{a}$	$\grave{a}\acute{a}^n k\grave{\delta}-n\acute{o}$	$\grave{a}\acute{a}^n t\grave{a}\grave{a}-r\grave{a}$
3PlNonh	$\grave{e}\acute{e}^n y\grave{i}?\grave{e}-r\grave{a}$	$\grave{e}\acute{e}^n k\grave{\delta}-n\acute{o}$	$\grave{e}\acute{e}^n t\grave{a}\grave{a}-r\grave{a}$

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 $\bar{a}^n j\acute{e}-n\acute{a}$ ‘my (own) father’ in (621) shows no M-Spreading and has the same nominal tone as $\grave{a}\acute{a}^n j\acute{e}-n\acute{a}$ ‘their father’. By contrast, nonreflexive inalienable $m\bar{a} j\acute{e}-n\bar{a}$ ‘my father’ does show M-Spreading; see (176a) in (§6.2.2.3).

(621) Reflexively possessed inalienables

	‘father’ (<i>jéⁿ</i>)	‘child’ (<i>dí</i>)
1Sg	<i>āⁿ jé-ná</i>	<i>āⁿ dí-rá</i>
2Sg	<i>ē jé-ná</i>	<i>ē dí-rá</i>
1Pl	<i>āāⁿ jé-ná</i>	<i>āāⁿ dí-rá</i>
2Pl	<i>ēēⁿ jé-ná</i>	<i>ēēⁿ dí-rá</i>
3SgHum	<i>à jè-ná</i>	<i>à dì-rá</i>
3SgNonh	<i>è jè-ná</i>	<i>è dì-rá</i>
3PlHum	<i>ààⁿ jé-ná</i>	<i>ààⁿ dí-rá</i>
3PlNonh	<i>èèⁿ jé-ná</i>	<i>èèⁿ dí-rá</i>

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_x Z]’, or of the type ‘X and [X’s Y]’, phrased as ‘X and [Refl_x 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 wār bîl= [ààⁿ jé-ná]*
 1Sg money give.Pfv [1SgRefl father-Nom]
 ‘I gave (the) money to my father.’
 (/wārī +L bîlí āⁿ/ → (/wārī +L bîl= āāⁿ/) → *wār bîl= ààⁿ*)
- b. *wō sà wār bîlî= [î jé-ná]*
 2Sg Fut money give.Ipfv [2SgRefl father-Nom]
 ‘You-Sg will give the money to your father.’ (< *bîlê î*)
- c. *wār bîlî= [î jé-ná]*
 money give.Imprt [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 *yé?ré* found in subject-object reflexives is absent.

- (623) a. *mā* *dèrèké* *jì=* [*āⁿ* *kūtō*]
 1Sg boubou see.Pfv [1SgRefl under]
 ‘I found the boubou (=garment) under myself.’ (< *dèrèkè*, *jìé* → *jì*)
- b. *ēéⁿ* *dèrèké* *jì=* [*īⁿ* *kūtō*]
 2Pl boubou see.Pfv [2PlRefl under]
 ‘You-Pl found the boubou under yourselves.’
- c. *wō* *dèrèké* *jì=* [*ī* *kūtō*]
 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* *bū?ā=* [*āⁿ* *jé-ná*]] = \emptyset *‘sáá* *síní*
 [1Sg and [1SgRefl father-Nom]] = Ipfv come.Ipfv tomorrow
 ‘I and my father are coming tomorrow.’ (< *bū?ū*)
- b. [*bákàrì* *bú?á=* [*á* *dò?ò-rá*]] = \emptyset
 [B and [3SgHumRefl younger.brother-Nom]] = Ipfv
‘sáá *síní*
 come.Ipfv tomorrow
 ‘Bakari_x and his_x brother are coming tomorrow.’ (< *bú?ú*)

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_x Infl [Refl_x N] Verb]’. A pronominal subject, inflectional morpheme (if any), and reflexive possessor can become partially fused.

In (625), *kɔ́yí* ‘belly’ (inalienable) and *bàʔà* ‘porridge’ (alienable) take their regular possessed tonal forms, namely *kɔ́yí* (except 3Sg possessed *kɔ̀yí*), and *bàʔà* (except 3Sg possessed *bàʔá*). *bàʔà* 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* [*nāāⁿ*] *kɔ́yí*] *jìé*
 1Sg [1SgRefl belly] see.Pfv
 ‘I saw my belly.’
- b. *mā* [*nāáⁿ*] *bàʔá*] *jìé*
 1Sg [1SgRefl porridge] see.Pfv
 ‘I saw my porridge.’
- c. *mùʔùⁿ* [*nāāⁿ*] *kɔ́yí*] *jìé*
 1Pl [1PlRefl belly] see.Pfv
 ‘We saw our belly.’
- d. *mùʔùⁿ* [*nāáⁿ*] *bàʔá*] *jìé*
 1Pl [1PlRefl porridge] see.Pfv
 ‘We saw our porridge.’
- e. *à* [*ná*] *kɔ̀yí*] *jìé*
 3SgHum [3SgHumRefl belly] see.Pfv
 ‘He_x saw his_x (own) belly.’
 (variant *á* [*∅ kɔ̀yí*] *jìé*)
- f. *à* [*ná*] *bàʔá*] *jìé*
 3SgHum [3SgHumRefl porridge] see.Pfv
 ‘He_x saw his_x (own) porridge.’
 (variant *á* [*∅ bàʔá*] *jìé*)
- g. *ààⁿ* [*nāáⁿ*] *kɔ́yí*] *jìé*
 3PlHum [3PlHumRefl belly] see.Pfv
 ‘They_x saw their_x (own) belly.’
- h. *ààⁿ* [*nāáⁿ*] *bàʔá*] *jìé*
 3PlHum [3PlHumRefl porridge] see.Pfv
 ‘They_x saw their_x (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+ = *∅*/ 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	<i>mā nāāⁿ</i>	<i>má = ∅ nāāⁿ</i> ~ <i>má = ∅ nààⁿ</i>	<i>má = ∅ sà = àⁿ</i>	—
2Sg	<i>wō nīī</i>	<i>wó = ∅ nīī</i> ~ <i>wó = ∅ nīīⁿ</i>	<i>wó = ∅ sī = ì</i>	<i>∅ ē</i>
1Pl	<i>mùʔùⁿ nāāⁿ</i>	<i>mùʔúⁿ = ∅ nāāⁿ</i> ~ <i>mùʔúⁿ = ∅ nààⁿ</i>	<i>mùʔúⁿ = ∅ sà = àⁿ</i>	—
2Pl	<i>ēēⁿ nīīⁿ</i>	<i>ēéⁿ = ∅ nīīⁿ</i> ~ <i>ēéⁿ = ∅ nīīⁿ</i>	<i>ēéⁿ = ∅ sī = ìⁿ</i>	<i>ēēⁿ nīī</i>
3SgHum	<i>à ná</i> ~ <i>á</i>	<i>á = ∅ nà</i>	<i>á = ∅ sá = á</i>	—
3SgNonh	<i>è ní</i> ~ <i>é</i>	<i>é = ∅ nì</i>	<i>é = ∅ sí = í</i>	—
3PlHum	<i>ààⁿ náàⁿ</i>	<i>àáⁿ = ∅ nààⁿ</i>	<i>àáⁿ = ∅ sá = àⁿ</i>	—
3PlNonh	<i>èè nīīⁿ</i>	<i>èéⁿ = ∅ nīīⁿ</i>	<i>èéⁿ = ∅ sí = ìⁿ</i>	—
Sg NP	<i>(n)á</i>	<i>= ∅ (n)à</i>	<i>= ∅ sá = à</i>	
Pl NP	<i>(n)áàⁿ</i>	<i>= ∅ (n)ààⁿ</i>	<i>= ∅ sá = àⁿ</i>	

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 āⁿ* was probably distinct from 1Pl **nā āāⁿ*, and 2Sg **nī ī* was probably distinct from 2Pl **nī īīⁿ*, but *vv*-Contraction 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 = ì* versus *sī = ìⁿ*).

In (627) the subjects are nonpronominal NPs.

- (627) a. *zàkí* [*ná* *wùlá* *bàʔrí*
Z [3SgHumRefl dog] hit.Pfv
'Zakí_x hit-Past his_x (own) dog.'
[homophonous with 'Zakí_x hit-Past his/her_y dog.']
- b. [*zàkí* *bùʔù* *bákàrì*] *náàⁿ* *wùlá* *bàʔrí*
[Z and B] 3PlHumRefl dog hit.Pfv
'Zakí_x and Bakari_y hit their_{xy} (own) dog.'
[homophonous with 'Zakí_x and Bakari_y hit-Past their_z dog.']

Imperative and prohibitive examples are in (628).

- (628) a. *[ē* *wùlá]* *bà?rì*
 [2SgRefl dog] hit.Imprt
 ‘Hit-2Sg your-Sg dog!’
- b. *bí=* *[í* *wùlá / dó?ō]* *bà?r=lé?*
 Proh [2SgRefl dog/younger.brother] hit.Imprt=Neg
 ‘Don’t-2Sg hit your dog/your younger brother!’
- c. *ēēⁿ* *bí=* *[(í)ⁿ* *wùlá / dó?ō]* *bà?r=lé?*
 2Pl Proh [2PlRefl dog/younger.brother] hit.Imprt=Neg
 ‘Don’t-2Pl hit your dog/your younger brother!’

18.1.2 Reflexive object (*yé?ré* ~ *yé?ré*)

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 *yé?ré*, comparable to *-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. *yé?ré* is also used as an emphatic (§18.1.2.3 below) but it is not attested as an ordinary noun. A -ATR variant *yé?ré* is also used occasionally by my assistant, see (630b) below. A following verb treats *yé?ré* 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 *dè* in (633) below.

- (629) a. *mā* *[nāāⁿ* *yé?ré]* *bà?rí*
 1Sg [1SgRefl **self**] hit.Pfv
 ‘I hit-Past myself.’
- b. *mā* *sà=* *[āⁿ* *yé?ré]* *bà?rà*
 1Sg Fut= [1SgRefl **self**] 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. *mā* *bá?r=* *[āⁿ* *yé?ré]*
 1Sg touch.Pfv [1SgRefl **self**]
 ‘I touched myself.’ (< *bá?rì*)

- b. $\bar{e}é^n = \emptyset$ $sà$ $bá?ré =$ $[(\bar{e})\bar{e}^n$ $y\bar{e}?r\bar{e}]$
 2Pl=Ipfv Fut touch.Ipfv [2PlRefl **self**]
 ‘You-Pl will touch yourselves.’ (< $bá?rá$)

18.1.2.2 Reflexive preverbal object

The paradigm for indicative clauses with a reflexive preverbal object is (631). The basic tonal form is $yé?ré$, becoming $yè?ré$ with the {LH} pattern associated with 3Sg subjects. M-toned $y\bar{e}?r\bar{e}$ in the 1Sg, 2Sg, and 2Pl perfective is due to M-Spreading from M-toned pronominals.

(631)	perfective	present	future
1Sg	$mā\ nāā^n\ y\bar{e}?r\bar{e}$	$má = \emptyset\ nàà^n\ yé?ré$	$má = \emptyset\ sà = à^n\ yé?ré$
2Sg	$wō\ nī\ y\bar{e}?r\bar{e}$	$wó = \emptyset\ nì\ yé?ré$	$wó = \emptyset\ sì = ì\ yé?ré$
1Pl	$mù?ù^n\ nāā^n\ yé?ré$	$mù?ú = \emptyset\ nàà^n\ yé?ré$	$mù?ú^n = \emptyset\ sà = à^n\ yé?ré$
2Pl	$\bar{e}\bar{e}^n\ nī^n\ yé?ré$	$\bar{e}é^n = \emptyset\ nì^n\ yé?ré$	$\bar{e}é^n = \emptyset\ sì = ì^n\ yé?ré$
2Pl	$mǎā\ nī^n\ yé?ré$	$mǎā = \emptyset\ nì^n\ yé?ré$	$mǎā = \emptyset\ sì = ì^n\ yé?ré$
3SgHum	$à\ ná\ yè?ré$ $á\ yè?ré$	$á = \emptyset\ nà\ yè?ré$	$á = \emptyset\ sá = á\ yè?ré$
3SgNonh	$è\ ní\ yè?ré$	$é = \emptyset\ ní\ yè?ré$	$é = \emptyset\ sí = í\ yè?ré$
3PlHum	$àà^n\ nāā^n\ yé?ré$	$àá^n = \emptyset\ nàà^n\ yé?ré$	$àá^n = \emptyset\ sá = à^n\ yé?ré$
3PlNonh	$èè\ nī^n\ yé?ré$	$èé^n = \emptyset\ nì^n\ yé?ré$	$èé^n = \emptyset\ sí = ì^n\ yé?ré$
Sg NP	$(n)á\ yè?ré$	$= \emptyset\ nà\ yè?ré$	$= \emptyset\ sá = á\ yè?ré$
Pl NP	$(n)áà^n\ yé?ré$	$= \emptyset\ nàà^n\ yé?ré$	$= \emptyset\ sá = à^n\ yé?ré$

The imperative is illustrated in (632a-b).

- (632) a. \bar{e} $yé?ré$ $bà?rì$
 2SgRefl self hit.Imprt
 ‘Hit yourself!’
- b. $\bar{e}\bar{e}^n$ $nī^n$ $yé?ré$ $bà?rì$
 2Pl 2PlRefl self hit.Imprt
 ‘Hit yourselves!’

18.1.2.3 Emphatic nonreflexive use of $yé?ré \sim yé?ré$

In (633), $yé?ré$ added directly to an NP (here a pronoun) functions somewhat like emphatic, nonreflexive *myself* in English. In (633) I prefer to translate with the adverb *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) *zàkî* *kɔ=* [*ð-wó* *kɔ̀lɔ̀kɔ* *ciè*]
 Z want.Ipfv [Hum-3SgLogo talk(n) speak.Adjn]
 [[*mā* *yé?ré*] *dè*]
 [1Sg **self**] with]
 ‘Zaki wants to speak with me personally.’ (*/kɔ̀ð à-wò/*)

18.2 Reciprocal

18.2.1 Reciprocals (*ɲù?ùⁿ*)

This morpheme behaves like a possessed inalienable with lexical melody /L/, cf. (172a) in §6.2.2.1. Its morphosyntax resembles that of reflexive *yé?ré*. However, as a preverbal object it allows more contractions than *yé?ré* does with pronominal subjects. It is intrinsically plural and has no morphologically plural form. The sense is reciprocal (‘each other’).

The tonal effect of *ɲù?ùⁿ* 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 *bá?rī* ‘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. *mù?ùⁿ* *bá?r=* [*āāⁿ* *ɲù?ùⁿ*]
 1Pl touch.Pfv [1PlRefl **Recip**]
 ‘We touched each other.’ (< *bá?rī*)
- b. *ēēⁿ* *bá?r=* [*īīⁿ* *ɲù?ùⁿ*]
 2Pl touch.Pfv [2PlRefl **Recip**]
 ‘You-Pl touched each other.’
- c. *ààⁿ* *bá?r=* [*ààⁿ* *ɲú?úⁿ*]
 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

	perfective	present	progressive
1Pl	<i>mùʔùⁿ nāāⁿ jūʔūⁿ</i> <i>mùʔà = àⁿ jūʔúⁿ</i>	<i>mùʔú = ∅ nààⁿ júʔúⁿ</i>	<i>mùʔúⁿ = ∅ sààⁿ júʔúⁿ</i>
2Pl	<i>ēēⁿ nīⁿ jūʔūⁿ</i>	<i>ēéⁿ = ∅ nìⁿ júʔúⁿ</i>	<i>ēéⁿ = ∅ sīⁿ júʔúⁿ</i>
3PlHum	<i>ààⁿ náàⁿ júʔúⁿ</i>	<i>àáⁿ = ∅ náàⁿ júʔúⁿ</i>	<i>àáⁿ = ∅ sààⁿ júʔúⁿ</i>
3PlNonh	<i>èè nîⁿ júʔúⁿ</i>	<i>èéⁿ = ∅ nîⁿ júʔúⁿ</i>	<i>èéⁿ = ∅ sîⁿ júʔúⁿ</i>
Pl NP	<i>(n)ààⁿ júʔúⁿ</i> <i>~ ∅ jùʔùⁿ</i>	<i>= ∅ náàⁿ júʔúⁿ</i>	<i>= ∅ sààⁿ júʔúⁿ</i>

A transitive verb following *jùʔùⁿ* takes its -3Sg form, beginning with an H-tone, e.g. *báʔrī* ‘hit (perfective)’.

The variant *∅ júʔúⁿ* 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).

- (636) a. *dí-rá-àⁿ* [*náàⁿ* *júʔúⁿ*] *báʔrī*
 child-Nom-Pl [3PlHumRefl **Recip**] hit.Pfv
 ‘The children hit-Past each other.’
- b. *dí-rá-àⁿ* *∅* *jùʔùⁿ* *báʔrī*
 child-Nom-Pl *∅* **Recip** hit.Pfv
 [= (a)]

jùʔùⁿ in (636b) is tonally distinct from *júʔúⁿ* in (636a). One possible analysis is that the final L-tone of *náàⁿ* 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).

- (637) a. *à wèè kéé=rē?*
3SgHum health(n) be.healthy.Pfv=Neg
 ‘He/She is sick.’
- b. *zàkî dé= [è-w(ò) wèè kéé=rē?]*
 Z say.Pfv [Hum-**3SgLogo** health(n) be.healthy.Pfv=Neg]
 ‘Zaki_x said that he_x is sick.’ (/dé à-wò/)
- c. *zàkî dé [à wèè kéé=rē?]*
 Z say.Pfv [**3SgHum** health(n) be.healthy.Pfv=Neg]
 ‘Zaki_x said that he_y/she_y is sick.’

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.

- (638) a. *zàkî dé [wò ná-wò bá?rī]*
 Z say.Pfv [2Sg HumObj-**3SgLogo** hit.Pfv]
 ‘Zaki_x said that you-Sg hit him_x.’
- b. *zàkî dé [wò ná bà?rī]*
 Z say.Pfv [2Sg **3SgHumObj** hit.Pfv]
 ‘Zaki_x said that you-Sg hit him_y/her_y.’

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 *bá?rī* with initial H-tone after *-wò* in (638a), but *bà?rī* 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 *-ñ*) to mark coindexation (639a), versus the usual postverbal object forms such as human 3Sg *à-yà* in uncoindexed contexts (639b).

- (639) a. *zàkî dé [wò bá?r= à-wò-ñ]*
 Z say.Pfv [2Sg touch.Pfv Hum-**3SgLogo-Indep**]
 ‘Zaki_x said that you-Sg touched him_x.’
- b. *zàkî dé [wò bá?r= à-yà]*
 Z say.Pfv [2Sg touch.Pfv **Hum-3SgObj**]
 ‘Zaki_x said that you-Sg touched him_y/her_y.’

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. *zàkî dɛ [wò s= [á-wò dɔ́]]*
 Z say.Pfv [2Sg come.Pfv [Hum-3SgLogo Comit]]
 ‘Zak_x said that you-Sg came with him_x.’ (</sɛ à-wò/)
- b. *zàkî dɛ [wò sá= [à dò]]*
 Z say.Pfv [2Sg come.Pfv [3SgHum with]]
 ‘Zak_x said that you-Sg came with him_y/her_y.’ (</sɛ à dò/)

The same is true of possessors of nonsubject NPs (641 a-b).

- (641) a. *zàkî dɛ [[à-wò wùlá=] è wěě]]*
 Z say.Pfv [[Hum-3SgLogo dog] 3SgNonh go.Pfv]]
 ‘Zak_x said that his_x dog went away’
- b. *zàkî dɛ [[à wùlá=] è wěě]]*
 Z say.Pfv [[3SgHum dog] 3SgNonh go.Pfv]]
 ‘Zak_x said that his_y/her_y 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 *mǎǎ*, i.e. human *à-mǎǎ* (642b), in animal tales also nonhuman *è-mǎǎ*. If there is no coindexation, the simple human 3Pl *ààⁿ* is used (642c).

- (642) a. *mù?úⁿ=∅ sà sáá*
 1Pl=Ipfv Fut come.Ipfv
 ‘We will come.’
- b. *dí-rá-àⁿ dɛ [à-mǎǎ=∅ sà sáá]*
 child-Nom-Pl say.Pfv [Hum-3PlLogo=Ipfv Fut come.Ipfv]
 ‘The children_x said that they_x (themselves) would come.’
- c. *dí-rá-àⁿ dɛ [ààⁿ=∅ sà sáá]*
 child-Nom-Pl say.Pfv [3PlHum=Impf Fut come.Ipfv]
 ‘The children_x said that they_y (=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) *dí-rá-àⁿ* *dé* [*wō* *tàgá* *bílí* *à-mǎā-n*]
 child-Nom-Pl say.Pfv [2Sg sheep give.Pfv Hum-3PILogo-Indep]
 ‘The children_x said that you-Sg gave a sheep to them_x.’

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* *dé* [*mā* *wēē* *kéé = rē?*]
 1Sg say.Pfv [1Sg health(n) be.healthy.Pfv=Neg]
 ‘I said that I was sick.’
- b. *wō* *dé* [*wō* *wēē* *kéé = 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 *kòní* ~ *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 *kòní*, -3Sg *kóní* except *kōnī* after M-toned pronouns. 3Sg pronouns usually (but not always) take the fuller “focalized” form with *-wò*. The *-n* suffix (or variant) that occurs in independent pronouns is absent. Array (645) repeats data from (109) in §4.3.1.5.

(645)	independent	‘as for X’
a. 1st/2nd person pronouns with final M-tone		
1Sg	<i>mā-ñ</i>	<i>mā kōnī</i>
2Sg	<i>wō-ñ</i>	<i>wō kōnī</i>
2Pl	<i>ēē-ñ</i>	<i>ēēⁿ kōnī</i>
2Pl	<i>mǎā-ñ</i>	<i>mǎā kōnī</i>
b. focalized or logophoric third person pronouns		
3SgHum	<i>à-wò-n</i>	<i>à-wò kóní</i>
3SgNonh	<i>è-wò-n</i>	<i>è-wò kóní</i>
3PlHum	<i>à-mǎā-ñ</i>	<i>à-mǎā kōnī</i>
3PlNonh	<i>è-mǎā-ñ</i>	<i>è-mǎā kōnī</i>
c. +3Sg pronouns		
3SgHum	—	<i>à kòní</i>
3SgNonh	—	<i>è kòní</i>
d. other -3Sg pronouns		
1Pl	<i>mù?ú-n(ú)</i>	<i>mù?uⁿ kóní</i>
3PlHum	<i>àà-ń, àà-nú</i>	<i>ààⁿ kóní</i>
3PlNonh	<i>èè-ń, èè-nú</i>	<i>èèⁿ kóní</i>

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 *mù?úⁿ 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’ (*dò?ò* ~ *dó?ó*)

The particle *dò?ò* ~ *dó?ó* 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* *dò?ò*
 child too
 ‘the child too’
- b. *dí-rá-àⁿ* *dó?ó*
 child-Nom-Pl **too**
 ‘the children too’
- c. [*dí* *dò?ò*] *séé*
 [child **too**] come.Pfv
 ‘The child too came.’
- d. [*dí-rá-àⁿ* *dó?ó*] *séé*
 [child-Nom-Pl **too**] come.Pfv
 ‘The children too came.’

The pronominal paradigm is (647), repeating data from (109). M-toned *dò?ò* occurs by assimilation in (647a). The -3Sg form *dó?ó* 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 dò?ò*
 2Sg *wò dò?ò*
 2Pl *ēēⁿ dò?ò*
 2Pl *mǎǎ dò?ò*

b. focalized or logophoric third-person pronouns

3SgHum	<i>à-wò dǒǒ</i>
3SgNonh	<i>è-wò dǒǒ</i>
3PlHum	<i>à-mǎā dǒǒ</i>
3PlNonh	<i>è-mǎā dǒǒ</i>

c. +3Sg pronouns

3SgHum	<i>à dǒǒ</i>
3SgNonh	<i>è dǒǒ</i>

d. other -3Sg pronouns

1Pl	<i>mù?ùⁿ dǒǒ</i>
3PlHum	<i>ààⁿ dǒǒ</i>
3PlNonh	<i>èèⁿ dǒǒ</i>

Like English *also*, *dǒǒ ~ dǒǒ* 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 *dǒǒ ~ dǒǒ* 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’ (*dǒǒ ~ dǒǒ*)

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 *dǒǒ ~ dǒǒ* at the end of the subject NP. Simple perfective examples are in (648).

- (648) a. *[à dǒǒ]* *séé*
 [3SgHum **again**] come.Pfv
 ‘He/She came again.’
- b. *[mā dǒǒ]* *séé*
 [1Sg **again**] come.Pfv
 ‘I came again.’
- c. *[mù?ùⁿ dǒǒ]* *séé*
 1Pl **again** come.Pfv
 ‘We came again.’

That *dǒǒ ~ dǒǒ* is part of the subject NP is clearly shown by the position of a post-subject enclitic or future particle (649).

- (649) *[à* *dòʔó]=Ø* *sà* *sáá*
 [3SgHum **again**]=Ipfv Fut come.Ipfv
 ‘He/She will come again.’

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 *dóʔó* ‘again’ and its negation *dóʔó=rēʔ* ‘no longer’

A -ATR form *dóʔó* 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 *dòʔó* ~ *dóʔó*, this particle is adverbial, not limited to NP-final position.

‘Not again’ or ‘no longer’ can be expressed by clause-final *dóʔó=rēʔ*, i.e. ‘again’ plus the negative enclitic.

- (650) *cíí-ná-àⁿ* *cíé* *wóʔró* *dóʔó=rēʔ*
 breast-Nom-pl can.Ipfv be.detached.Ipfv again=Neg
 ‘Breasts could no longer be taken off.’ (2016_04 @ 03:37)

Other instances of *dóʔó=rēʔ* are in text 2016_04 @ 03:16 and @ 03:40.

19.1.2.4 Clause-final *dóò*

There is also a form *dóò* without glottal stop, whose relationship to *dòʔó* ~ *dóʔó* and to *dóʔó* 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-* ~ *kpéʔé-*)

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)* ~ *kpéʔé-nū* after other NPs. For a related sense ‘exactly’ see §8.5.3.

- (651) a. *à* *[jááⁿ-táá* *kpèʔè]* *bílí* *mā-n̄*
 3SgHum [twenty-ten only] give.Pfv 1Sg-Indep
 ‘He/She gave me only 200 (currency units).’
- b. *mā* *[jàlsà-dù* *kpéʔé-n]* *jíé*
 1Sg [Blédougou only-Indep] see.Pfv
 ‘I saw Blédougou only.’

- c. [mā kpèʔè-̀n] séé
 [1Sg only-Indep] come.Pfv
 ‘Only I came.’
- d. [mā tàgá kpèʔè-̀n]=Ø mā ká
 [1Sg sheep only-Indep]=Ipfv 1Sg have
 ‘I have only my sheep-Sg.’

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*, èèⁿ táʔá cíé [[cî dò] kúdóó], ...
 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-yá sòrò ‘now (it happened that ...)’

è-yá sòrò, usually abbreviated as *yá sòrò*, occurs preclausally 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-yà (nonhuman 3Sg pronoun) and sòrò ‘do then’, which occurs elsewhere in ‘before ...’ clauses (§15.4.4.1).

- (653) [yá sòrò] [à dòʔò]
 [3SgFoc do.then.Ipfv] [3SgHum too]
 cíé [káméé-1 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-sòrò ‘now (it happened that ...)’

This functions in the same way as *yá sòrò* and contains the same element *sòrò*, but the initial element is opaque. The form is said to occur in Jula as well.

- (654) *nàà!* *mù?úⁿ* \emptyset *wà,*
 friend! 1Pl 3SgNonhObj go.Imprt,
kàà-sòrò, *cì-náá,* *[false start omitted],*
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 *wálàà* ~ *wàláà* ‘there it is!’

French *voilà* in the form *wálàà* ~ *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 *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) *èèⁿ* *bé=* *[(è)èⁿ* *wú],*
 3PlNonh put.in.Pfv [3PlNonhRefl Custod],
wálàà, *bon,* *sísàⁿ* *cì-ná* *dúli* *yàlî*
 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 preclausally, 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) *é!* *jà?á* *súrukú* *kòò-fó?ó* *mògèē*
 hey! **lo!** hyena salt-powder suck.Pfv
 ‘Hey, lo! hyena sucked the powdered salt.’ (2016.02 @ 03:25)

19.2.2.2 ‘Even’ (*áli, fō*)

Clause-initial *áli*, 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 *fō* ‘all the way to, as far as’ (also clause-initial) must be used (657b).

- (657) a. *áì* *dí-kpé?rè* *cíé* *[[wáí* *mí]* *màà]*
even child-small can.Ipfv [[work(n) Dem] do.Ipfv]
 ‘Even a small child can do this work.’
- b. *[mā* *jírā]* *ɣùnù* *ké,* *[séⁿ* *dò]* *kùdù,*
 [1Sg face] be.sour.Pfv Past, [thing one] for
fō *mā* *jímē*
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* *tú = ú* *yààlàā, ...*
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 kómì* ‘so’

These two particles occur together in preclausal position. *kómì* is probably French *comme* ‘as, like’. The following clause generally summarizes preceding discourse.

- (659) *èmmè* *kómì* *ààⁿ* *cíé* *gàáⁿ* *bàà*
so **like** 3PIHum be.Past combat(n) wage.Ipfv
 ‘(They also waged war.) So, they used to wage war.’ (2016_01 @ 03:05) (< *gàáⁿ*)

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) [fóʔó-tèè mɛʔɛ̄-nà-à-ní]=ì,
 [gun-shoot.VbIN person-Nom-Pl-Nom]=it.is,
mè [àà" dóʔó] cíé gàá" bàà
but [3PIHum too] be.Past 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, yàbùgórɛ̄"*)

These clause-initial discourse elements are difficult to parse. The first is exemplified in (661). Decomposition into morphemes is difficult.

- (661) *wō-ní=ì nóò-té mā cí wàá kúnú*
 2Sg-Indep=it.is **otherwise** 1Sg 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) *zàkî mā sóʔéé̄*
 Z 1Sg catch.Pfv
yàbùgórɛ̄" mā cíé bákàrì báʔrá
otherwise 1Sg be.Past B hit.Ipfv
 ‘Zaki caught (=restrained) me, otherwise I would have hit Bakari.’

yàbùgórɛ̄" can also function as clause-initial ‘anyway, ...’, coming back to the main discourse theme after a digression. See 2016_01 @ 02:24. For *bùgórɛ̄* ‘because’ see §17.5.2.

19.2.4.3 Self-correction *àfɔ̄* ‘or rather’

An example is (663).

- (663) [*(à)à"* wé [gðlɔ̄ tò]] *hé"*,
 [3PIHumRefl bathe.Adjn [river in] oops!,
àfɔ̄ n = áà" kú ‘táʔá
or.rather if 3PIHum 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’ (*sísàⁿ*)

In narrative, *sísàⁿ* ‘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 *sísàāⁿ*.

- (664) *bon, èèⁿ [jèré dī-rá-àⁿ] séé jíé sísàāⁿ,*
 well, 3PINonh [lion child-Nom-PI] lie.down.Pfv see.Pfv **now**,
è dè é!
 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 *dē?*

Clause-final *dē?* is rather general emphatic. In (665), it indicates mild surprise.

- (665) *[wō nàyí] dī dē?, 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) *má = ∅ [[wō síbí] dò] ká dē?*
 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 *àní sògó mà* ‘good morning’ and its reply *àm báâ*. 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 *àní céè*, a slight prosodic variation on Jula *àní cé→*. An arriving visitor or returning traveler is greeted with *è dáⁿsè* ‘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 *álā* ‘God’, here /*álá*/ before *vv*-Contraction. In (667a), the 2Sg object is archaic *ē* rather than *wō* as usual in imprecations.

In (667b) the 2Pl object *ēēⁿ* is regular. ‘Put you in’ is understood as meaning ‘bring you back (here)’.

- (667) a. *álé= ē jē só*
 God 2Sg good put.in
 ‘May God put you-Sg (back) in well!’
- b. *álé= (ē)ēⁿ jē 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 cáló nù?ùⁿ-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= à-yà*
 God relieve.Imprt Hum-3Sg
 ‘May God relieve him/her.’
- b. *álá [kùtóró má] kùmà*
 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 jēē-wè bílí mù?ú-nú*
 God next.year give.Imprt 1Pl-Indep
 ‘May God give us (all) next year!’

Texts

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=∅ kòò [mā wò náká*
 W: 1Sg=Ipfv want.Ipfv [1Sg 2Sg ask.Ipfv

[[jàlsà-dù sé?é cógō] mà]],
 [[Blédougou sit.VblN manner] on]],

[jàlsà-dù sé?é [sè?è-cógō mǐ]],
 [Blédougou sit.Pfv [sit.VblN-manner Rel]],

má=∅ kòò [dě wō tó?ó [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] dó?ó 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 sé?é sè?è cògò yá mǐ]=yà],*
 S: [[Blédougou sit.Pfv sit.Vbl manner ?? Rel]=Q

jàl-á-àⁿ cíé [fó?ó-tèè mé?é-nà-àⁿ] kúⁿ
 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-á-àⁿ bó màndé,*
 S: Jali-Nom-Pl exit.Pfv Mande,

[ààⁿ bélé=] [àáⁿ wà kǎngāⁿ],
 [3PIHum pass.Adjn] [3PIHum go.Adjn K],

S: ‘The Jali people left (=came from) Mande. They proceeded to go to Kankan.

[*bóé* ‘exited’, 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 dóʔó] cíé
S: [3PIHum also] be.Past

gààⁿ — [kèlè-másá-rà-àⁿ] kúⁿ,
fight(n) — [fight(n)-king-Nom-Pl] Cop,
ààⁿ búlú [[(à)àⁿ kútóró] mà],
3PIHum return.Adjn [[3PIHumRefl behind] on],

S: ‘They were also warrior kings. They turned around and went back.’
[< Jula *kèlè-másá* ‘warrior king’]

00:33 S: [ààⁿ sá], [ààⁿ sá ‘bélé]

S: [3PIHum come.Adjn], [3PIHum come.Adjn pass]
[ààⁿ táʔá] [(à)àⁿ sáʔá kóròwáári-wàngóló],
[3PIHum go.Adjn] [3PIHum sit.down.Adjn Côte d’Ivoire-Ouanggolo],

S: ‘They came, they came and they kept going and they settled at Côte d’Ivoire-Ouanggolo.’

[*Ouangolodougou*, or *Ouanggolo* 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 dúʔúnín-né = è, jàl-á-à-nū,

S: Blédougou land-Nom=it.is, Jali-Nom-Pl-Nom,
ààⁿ bóé kómì [fóʔó-tèè méʔé-nà-à-nū] = y,
3PIHum exit.Pfv as [powder-shoot.VbIN person-Nom-Pl-Nom]=it.is,
ààⁿ sé fééni = yà dè,
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.’

[*dùʔùnìnì* ‘country’, here “possessed”]

00:47 S: [ààⁿ bélé] [ààⁿ sá dàmààná],

S: [3PIHum pass.Adjn] [3PIHum come.Adjn D],
ààⁿ sá cíé dàmààná,
3PIHum come.Adjn arrive.Adjn D,
dó-òⁿ bó = yà dè, [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, ɲ jàlkù-rɔ̃,*
 S: well 1Pl Jalkunan-Nom,
mùʔùⁿ = ∅ 'ni màʔà jàlsà-dù
 1Pl 3SgNonhObj name(v).Ipfv Blédougou
 S: 'Well, (in) our Jalkunan (language), we call it (=Blédougou village) *jalsadu*.'
 [*ɲ* reduced from *mùʔùⁿ* 1Pl]
- 01:04 S: *jál-á-àⁿ, jál-á-àⁿ fě́éñí kéē nàà,*
 S: tsetse-Nom-Pl, tsetse-Nom-Pl become.many.Pfv Past here,
[wò kósòⁿ] ààⁿ dé jàlsà-dù,
 [3SgFoct because] 3PlHum say.Pfv Blédougou,
[jál-á-àⁿ sàá] dù,
 [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".'
 [*jálá* 'tse-tse fly'; Past *ké* → *kéē* before demonstrative adverb *nàà*, can be transcribed *ké = ē nàà* with encliticized linker]
- 01:11 S: *bon, jóʔó-kú-rò, à-mǎǎⁿ dé béré-dùgù,*
 S: well, Jula-language-Nom, Hum-3Pl say.Pfv stick-village,
[mèʔèⁿ kpèè-rá-àⁿ] ∅ jàmúli,
 [person white-Nom-Pl] 3SgObj change.Pfv,
 B: 'Well, in Jula (language), it's they (=Jula people) [focus] who say (=call the village) *béré-dùgù* ("wooden.stick-village"). The white people changed it.'
 [*à-mǎǎ* human 3Pl focused pronoun §13.1.1]
- 01:18 S: *ààⁿ ní màʔàⁿ, Blédougou,*
 S: 3PlHum 3SgNonhObj say.Adjn, B,
nòoté [è tòʔòni béré-dùgù],
 otherwise [3SgNonh be.named B],
jál-kù-rɔ̃, jàlsà-dù, [jál-á-àⁿ sàá] dù,
 Jalkunan-Nom, J, [tsetse-Nom-Pl house] in,
 S: '(And) they called it Blédougou. Otherwise, it was (originally) named *béré-dùgù*. In Jalkunan (language), *jàlsà-dù*, (from) "in the house (=village) of the tse-tse flies".'
- 01:28 S: *jàlsà-dù [séʔé kú-rò] nè,*
 S: Blédougou [sit.Vbl matter-Nom] here,
mì jàlsà-dù séʔéé, dràmànù-gbé,
 Rel Blédougou establish.Pfv, DG,
à-wò jàlsà-dù séʔéé,
 Hum-3Sg Blédougou establish.Pfv,

[à sá] [dòdòré bòlò],
 [3SgHum come.Adjn] [D give.birth.Adjn],

‘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.’

[à-wò human 3Sg focus §13.1.1; dòdòré (name)]

01:42 W: èmmè kómì dràmànù-gbé dòdòré bólōē,
 W: so like DG D give.birth.Pfv,

[dràmànù-gbé dì-kàmà-ná]=Ø [dòdòré dè]
 [DG child-male-Nom]=be [D with]

S: dòdòré dè, [dràmànù-gbé dì-kàmà-ná]=Ø [dòdòré dè]

S: D with, [DG child-male-Nom]=be [D with]

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.’

[dè ‘with’ here with names, cf. ‘by the name of X’]

01:57 S: dòdòré dì-kàmà-nāā, còʔòḡjú dè,
 S: D child-male-Nom, Tch with,

còʔòḡjú dì-kàmà-nāā, è-wó [sìbírì dè],
 Tch child-male-Nom, Nonh-3Sg [S with],

[sìbírì dì-kàmà-ná] [kùgùlì dé],
 [S child-male-Nom [K 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.

[è-wò here for expected human à-wò]

02:11 S: kùgùlì dì-kàmà-nāā, è-wó [sèédù dé],
 S: K child-male-Nom, Nonh-3Sg [S with],

mùʔúⁿ bàlànḡkúdù à zàmplé,
 1Pl Senoufo.language 3SgHum Z

mè à tòʔòḡnì 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.’

[mè = French mais]

02:20 S: wáláā, kùgùlì dì-kàmá dòʔó,
 S: so.there, K child-male too,

[è-wò dóʔó] [bàjára dé],
 [Nonh-3Sg too] [B with],

à-wò dé-kpéⁿ káātò,
 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: *sòlòmání*, [mè?éⁿ mǐ]=∅ [jàlsà-dù sàà-màá] kùⁿ fi,

S: S, [person Rel]=be [Blédougou house-chief] Cop today,
è-wó [sòlòmání dɛ́],
 Nonh-3Sg [S with],

S: ‘(As for) Suleyman, the person who is the village chief today, he is (named) with Suleyman.

[sàà-màà ‘village chief’]

02:34 S: *wáláá*, mǐ-īⁿ jàlsà-dù sé?éé,

S: so.there, Rel-Pl Blédougou establish.Pfv,
ààⁿ *bélé*, *è-wó* *nè*,
 3PIHum pass.Adjn, Nonh-3Sg here,

yàbùgórēⁿ *nàṅkó?rósààdù*, *jàl-á-à-ń*=∅ *dè*,
 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* *tó?ó* *‘kéé* *sùròjìgì-gbé*,

S: Hum-3Pl name name(v).Pfv SG,

à-màà *tó?ó* *kèè* *sùròjìgì-gbé*, *nàṅkó?rósààrè*,
 Hum-3Pl name call.Ipfv SG, N,

S: ‘They [focus] call(ed) him Surojigi Gbe. They call(ed) his name Surojigi Gbe, (at) Niankorodougou.’

[cf. *à mǎǎ tó?ó kèè* ‘their name was called’]

02:50 S: *jàl-á-à-nū* *mè* *à-mààⁿ* *kónténi*

S: Jali-Nom-Pl-Nom but Hum-3PIFoc count.Pfv

nàṅkó?rósààrè *déé-dè*,
 Niankorodougou there.Def-there.Def,

‘The Jali people, however, they are counted (=considered to be) (from) Niankorodougou there.’

[*kónténi* < French *compter*, in Jalkunan *kòḍ* ‘count; consider’]

02:56 S: [jàlsà-dù sé?é-kùdò-ró]=∅ [mí dè],

S: [Blédougou establish.VblN-reason-Nom]=be [Dem with],

è-wó *nè* [fó?ó-tèè *mé?é-nà-àⁿ-ní*]=í,

Nonh-3Sg here [gun-shoot.VblN person-Nom-Pl-Nom]=it.is,

mè [ààⁿ dó?ó] cíé gááⁿ bàà,
 but [3PIHum 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).'

[kúdō 'reason, explanation', gááⁿ 'combat (n)'; 'hunter' is literally 'gun-shooter' so it easily transitions to 'warrior']

03:05 W: èmmè kómì ààⁿ cíé gááⁿ bàà,
 W: so like 3PIHum be.Past combat(n) wage.Ipfv,

S: wàláà, kèlè-másáw, gááⁿ-māsá-rà-à-ñ,

S: so.there, war(n)-king, war(n)-king-Nom-Pl-Nom,
 fó?ó-tèè mé?ē-nà-à-ñ

gun-shoot.VblN person-Nom-Pl-Nom

W: fó?ó-tèè mé?ē-nà-à-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.'

[kèlè-másáw 'war king' is Jula, Jalkunan equivalent is gááⁿ-māsá]

03:16 W: [ààⁿ dó?ó] cíé gááⁿ màà,
 W: [3PIHum too] be.Past war(n) do.Ipfv,

S: wàláà

S: so.there

W: [dóowèè dó?ó]=∅ dè dó?ó=rē?

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: dóowèè, [jàlsà-dù sé?é-kùdó bù?ú] nè,
 S: nothing, [Blédougou establish.VblN-reason all] there,

mè jàlsà-dù, [màrà mí kúrr bù?ù-ná]
 but Blédougou, [commune Dem oldest all-Nom]

jàlsà-dù kúrr bìgì-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 kùrú below) seems to be an expressive adverbial]

03:27 W: jàlsá kùrú [màrà mí bù?ù-ná]
 W: Blédougou oldest [commune Dem all-Nom]

S: *kúrr* *bù?ù-ná*,
 S: oldest all-Nom,
 W: ‘Blédougou is the oldest (village) in this whole commune.’
 S: ‘The oldest of all (of the commune).’
[jàlsà variant of jàlsà-dù]

03:31 W: *súdúū*

W: Sindou

S: *súdúū*, [*é* \emptyset *sò?óó* *nàà*]
 S: Sindou, [3SgNonh 3SgObj catch.Pfv here],
[è tí? =] [*í* *bàà* *fō → —*],
 [3SgNonh go.Pfv] [3SgNonh put.down.Ipfv until —],
fō → wàⁿ — [*fō → kóròwáári —, nànkàràmadùgù*],
 until Wan[golo]— [until Côte d’Ivoire—, N],
[è bù?ú] = \emptyset [*jàl dù?ùpìní*] *kùⁿ*
 [3SgNonh all]=be [Jali territory] Cop

W: ‘(As for) Sindou.’

S: ‘Sindou, it caught it here, it went and put it down all the way to—, all the way to Wan[golo]— all the way to Côte d’Ivoire, (to) Niankaramadougou (village). It’s all Jali territory.’

[súdú ‘Sindou’ is the provincial capital, 16 km driving distance northeast of Blédougou; speaker started to say ‘all the way to Ouangolo’ then corrected; /è tè?é [è bàà]/; dù?ùpìnì ‘territory’]

03:42 W: *nànkàràmadùgù*

W: N

S: *nànkàràmadùgù*, [*è* *bù?ú] = \emptyset* [*jàl dù?ùpìní*] *kùⁿ*,
 S: N, [3SgNonh all]=be [Jali territory] Cop,
parce que wàngóló, jàl-á-à-ń = \emptyset *dè*,
 because W, Jali-Nom-Pl-Nom=be there.Def,

W: ‘Niankaramadougou.’

S: ‘Niankaramadougou. It’s all Jali territory.’

03:48 S: *jàl-á-à-ń*, [*jàlá mǐ-íⁿ*] *sé?é kéē* *dè*,
 S: Jali-Nom-Pl-Nom, [Jali Rel-Pl] sit.Pfv Past there.Def
[mù?ùⁿ bù? = sòⁿ só,
 [1Pl all] 3PlHum know.Pfv,

S: ‘Jali (people), the Jali who settled there, we all know them.’

[past kè → kéē (+ATR, lengthened) before demonstrative adverb dè §4.4.2.1; /bù?ù ààⁿ/]

03:52 S: [*jàl dù?ùpìní*] *màáⁿ*] *tò?ò ké* *fàà*,
 S: [[Jali territory] owner] name(n) Past F,

[[jàl dùʔù̀níní] màáʔ tòʔò ké fàà,
 [[Jali territory] owner] name Past F,

W: *fàà*

W: F

S: ‘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.’

03:59 S: *mè [jàl dǐ]=ì,*

S: but [Jali child]=it.is,

[fàà sí ʔkpáʔ mè bēmá=∅ [[nà nùú] tò]
 [F come.Pfv die.Adjn] but B=be [[3Sg place] in]

S: ‘But (he was) a child (=native) of Jali. Fa came (=went) and died, but Bema is in his tracks (=has taken his place).’

[sí for sé ‘came’; bēmā (name); nùù ‘tracks, trail’ and hence ‘place, position’]

04:03 W: *[fàà sá ʔkpáʔ]*

W: [F come.Pfv die.Adjn]

S: *bēmá=∅ [[nà nùú] tò]*

S: B=be [[3Sg place] in]

W: *bēmá=∅ [[nà nùú] tò]*

W: B=be [[3Sg place] in]

S: *à nùú, [à nùú] tò*

S: 3SgHum place, [3SgHum place] in

W: *bēmá=∅*

W: B=be

S: *[à nùú] tò*

S: [3SgHum place] in

W: *[à nùú] tò*

W: [3SgHum place] in

W: ‘Faa came (=went) and died.’

S: ‘Bema is in his tracks (=has taken his place).’

W: ‘Bema is in his tracks (=has taken his place).’

S: ‘His tracks. In his tracks.’

W: ‘Bema is.’

S: ‘In his tracks.’

W: ‘In his tracks.’

[sá for sé ‘came’]

04:07 W: *èè, jàl dǐ, èmmè kómì —*

W: eh, Jali child, so like —

S: *jàl —, [fàà dí-kámá-né]=è*

S: Jali —, [F child-male-Nom]=it.is

W: [fàà dí-kámá-ná] —
W: [F child-male-Nom]
S: bēmā dè
S: B there.Def
W: bēmā dè
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: wàngóló
W: W
S: wàngóló, kóròwáári, [jál dù?ù?nìné] = 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 kómì, [jàlsà-dù sé?é cógó bù?ú] = Ø —
W: so like, [Blédougou sit manner all]=be] —
S: [è bù?ú] = Ø nè,
S: [3SgNonh all]=be there,
W: èmmè kómì jàlsà-dù méé
W: so like Blédougou be.made.Pfv
kómì è kúrù [lámíní mí sàá fèèⁿ]
like 3SgNonh oldest [surroundings Dem house many]
S: kúrr bù?ù-nú, jàlá kúrr bù?ù-nú,
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 = ē bō [jàl-á-àⁿ ná], wá?rá-rá-à-ñ
S: if 2Sg exit.Antec [Jali-Nom-Pl ethnicity] Wara-Nom-Pl-Nom
W: wá?rá-rá-à-ñ
W: Wara-Nom-Pl-Nom
S: wá?rá-rá-à-ñ, nàcòr-r-ò-ò-ñ,
S: Wara-Nom-Pl-Nom, Natio-ro-Nom-Pl-Nom,
S: ‘If you-Sg go beyond the Jali ethnicity, the Wara people.’
W: ‘Wara people.’
S: ‘The Wara people (and) the Natio-ro people.’

[wáʔrá, nàcòrò]

04:38 S: [mèʔéⁿ mǐ-ǐ] sà déná mùʔú-nú,

S: [person Rel-Pl] Fut follow 1Pl-Nom,

è-wó = Ø [[kùmáʔáni méʔē-nà-àⁿ] dé],

Nonh-3Sg=be [[Konadougou person-Nom-Pl] with],

W: kùmáʔáni méʔē-nà-à-ñ

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: [mā kòní] mì só [jàlsà-dù kú-rò]

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 sòyó mà*

W: Good morning [< Jula]

B: *àm báà*

B: [reply]

W: *kùnù-mé?é-nà-à-ń = Ø* *dóò*

W: village-person-Nom-Pl=be be.where?

B: *[ààⁿ bú?ú] = Ø = ñ* *dè*

B: [3PIHum all]=be=Link there.Def

W: *kpé nīⁿ ké = ē* *dè*

W: what? 2Pl have=Link there.Def

B: *[ààⁿ bú?ú] = Ø = ñ* *dè*

B: [3PIHum all]=be=Link there.Def

W: *kùnù-mé?é-nà-à-ń = Ø* *dóò*

W: village-person-Nom-Pl-Nom=be be.where?

B: *[ààⁿ bú?ú] = Ø = ñ* *dè*

B: [3PIHum all]=be=Link there.Def

W: *dí-rá-à-ń = Ø* *dóò*

W: child-Nom-Pl-Nom=be be.where?

B: *[ààⁿ bú?ú] = Ø = ñ* *dè*

B: [3PIHum all]=be=Link there.Def

W: *náā-nà-à-ń = Ø* *dóò*

W: woman-Nom-Pl-Nom=be be.where?

B: *[ààⁿ bú?ú] = Ø = ñ* *dè*

B: [3PIHum all]=be=Link there.Def

W: *dí-rá-à-ń = Ø* *dóò*

W: child-Nom-Pl-Nom=be be.where?

B: *[ààⁿ bú?ú] = Ø = ñ* *dè*

B: [3PIHum 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 nīⁿ kéē dè* contains 2Pl *ēēⁿ* with unusual nasal onset (cf. third-person objects with initial *n*); *ká* 'have' modified to *ké=ē* before *dè* 'there']

- 00:12 B: *kpé=∅=ñ* *dè*
B: what?=be=Link there.Def
W: *sīnī=nē?*
W: anything=Neg
B: [*kìdà gbó*] =∅ *dóò*
B: [old.man] =be be.where?
W: *á=∅=ñ* *dè*
W: 3Sg=be=Link there.Def
B: [*jàà kúdō*] *bù?ù-ń*
B: [woman old] all-Pl
W: *á=∅=ñ* *dè*
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: *só?óñ-nò*
W: morning-Nom
B: *só?óñ-nò* *kìbéréè,* *sīn* *dè=rē?*
B: morning-Nom greeting, anything there=Neg
W: *àni-ké* *tìbè-rá,*
W: thanks greeting-Nom,
àlá *mù?ùⁿ* *jémé,*
God 1Pl help.Imprt,
àlá *mù?ùⁿ* *sàbábú* *jà,*
God 1Pl cause make.good.Imprt,
àlá *mù?ùⁿ* *géríyè?é* *fèèⁿ*
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.'

[*àni-ké* < Jula; *kìbéréè* '(morning) greeting'; *sàbábú* 'cause, reason' and *gèrìyè?è* 'luck' are tone-raised by *mù?ùⁿ* as possessor §6.2.2.1; transitive imprecations use the imperative stem §10.5.3.2]

00:28 W: *kìdá = Ø* *dè = rē?*
 W: trouble=be there=Neg
má = Ø *kòò*
 1Sg=Ipfv want.Ipfv
[wō *[céⁿ* *dò]* *sá* *[mā* *kēⁿ]]*
 [2Sg [tale one] narrate.Imprt [1Sg Benef]]
kómì *mā* *míē* *[céⁿ* *mè]*
 like 1Sg do.long.time.Pfv [tale hear.Adjn]
má = Ø *kòò* *[wō* *[dùgù-dù]-[síbī-rà-àⁿ]* *céⁿ* *'sá]*
 1Sg=Ipfv want.Ipfv [2Sg [the.bush-In]-[meat-Nom-Pl] tale narrate.Imprt]
 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.'
[kómì < French comme]

00:38 B: *mā* *ní* *mèé,*
 B: 1Sg 3SgNonhObj hear.Pfv,
má = Ø *sà* *bél-dè* *kè,*
 1Sg=Ipfv Fut begin.Ipfv tagQ,
bon, *má = Ø* *sà* *[céⁿ* *mì]* *sàà,*
 well, 1Sg=Ipfv Fut [tale Rel] narrate.Ipfv,
súrukú-rà, *tú* *cíⁿ* *dè,*
 hyena-Nom, along.with hare there.Def,
má = Ø *sí =* *ì-wò* *céⁿ* *'sáá*
 1Sg=Ipfv Fut= Nonh-3Sg tale narrate,
 B: 'I have understood. Shall I begin? Well, the story that I will tell, (it's a tale of) hyena, along with hare. I will tell that tale about it.'
[cíⁿ 'hare']

00:49 B: *bon,* *súrukú* — *súrukú* *bù?ù* *cì-nāā,*
 B: well, hyena— hyena and hare-Nom,
èèⁿ *té?é* *klén-tō-rō,* *èèⁿ* *kú* *klé-nà,*
 3PINonh go.Pfv hunt(n)-Nom, 3PINonh begin hunt(n)-Nom,
bon, *èèⁿ* *tá?á* *[yáálá* *dò]* *jíé,*
 well, 3PINonh go.Adjn [hole one] see.Pfv,
 B: 'Well, hyena, hyena and hare. They went hunting. They were hunting. Well, they went and saw a hole.'
[kléni 'hunting' or more generally 'going around in the bush'; yáalā 'hole'; specific indefinite dò introducing a new discourse referent §6.5.2]

00:57 B: *bon,* *cíⁿ* *dè* *[súrukú* *mà],*
 B: well, hare say.Pfv [hyena Dat],
[yáálá *'mí-nà]* *wó = Ø* *'cíé* *sóō* *nāā*
 [hole this-Nom] 2Sg=Ipfv can enter.Ipfv here

súrukú *dè,* *é!* *dó?ó-cíé,*
hyena say.Pfv, eh! younger.brother,
má=Ø *sà* *cíé* *'sós* *[[yá]lá* *'mí]* *tò]=rē?*,
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.”’

[/sós nàà/ → *sóó nàà* ‘here’ with +ATR before demonstrative adverb; *dó?ó-cíé* vocative of *dó?ó* ‘younger brother’ §4.1.1.3]

01:04 B: *nàà!* *mù?úⁿ* *wà,* *kàà-sòrò,*
B: friend! 1Pl go.Imprt, it.happened.that,

cì-náā, *è* *jèré—*
hare-Nom, 3SgNonh lion— [false start]

è *[jèré* *bòò* *lá?à]* *dàà-sò,*
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 *nò?ò* ‘friend’ §4.1.1.3; *kàà-sòrò* §19.2.1.3]

01:10 B: *bon,* *èèⁿ* *tá?á* *cíé* *[cī* *dò]* *kúdóó],*
B: well, 3PlNonh go.Adjn arrive.Pfv [[thicket one] under],

èèⁿ *tá?á* *sós* *[[cī* *mí]* *dūū],*
3PlNonh go.Adjn enter.Adjn [[thicket Dem] in],

èèⁿ *[jèré* *dì-rá-àⁿ]* *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,* *èèⁿ* *[jèré* *dì-rá-àⁿ]* *séé* *jíé* *sísàāⁿ,*
B: well, 3PlNonh [lion child-Nom-Pl] lie.down.Pfv see.Pfv now,

è *dè* *é!,* *mù?úⁿ* *[jèré* *dì-rá-àⁿ]* *yá]á=rè=ēⁿ,*
3SgNonh say.Pfv hey!, 1Pl [lion child-Nom-Pl] take.Ipfv=Neg=Q,

èèⁿ=Ø *[jèré* *dì-rá-àⁿ]* *yá]í* *sísàⁿ,*
3PlNonh=Ipfv [lion child-Nom-Pl] take.Pfv now,

èèⁿ *bé=* *[(è)èⁿ* *wú],*
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).’

[béé ‘put’ (perfective); custodial postposition *wù* ~ *wú* ‘in the custody of (in a sack or pocket)’ §8.4.2]

01:24 B: *wálàà,* *bon,* *sísàⁿ* *cì-ná* *dúlì* *yà]í,*
B: there.it.is!, well, now hare-Nom one take.Pfv,

[súrukú-rà dúlì yàlì] [èèⁿ kú 'tá?á]
 [hyena-Nom one take.Pfv] [3PINonh begin go.Ipfv]

‘There it is, well, now hare took one and hyena took one (=the other). They went away then.’

01:28 B: èèⁿ kú tá?á klén-tōrō sísaⁿ,
 B: 3PINonh begin go.Ipfv hunt(n) now,
 bon, èèⁿ tá?á wòlò-kónó [jèré dēē],
 well, 3PINonh go.Adjn encounter.Adjn [lion with],

B: ‘Now they set off hunting. Well, they went and encountered (=met with) the lion.’

01:33 B: bon, fō èèⁿ cíé [jèré mà] tō = nē?,
 B: well, until 3PINonh arrive.Pfv [lion on] yet=Neg,
 èèⁿ cíé sísaāⁿ, cǐⁿ dē [súrukú màā],
 3PINonh arrive.Pfv now, hare say.Pfv [hyena Dat],
 é! nàà! mù?ùⁿ wó-ró-ñ kpááⁿ = nē = ēⁿ,
 hey! friend! 1Pl so.and.so-Pl kill.Ipfv=Neg=Q,
 mù?úⁿ = ∅ ‘kpáⁿ bùgórèē,
 1Pl=Ipfv kill.Imprt otherwise=Q,
 mù?úⁿ = ∅ ‘kpáⁿ = [ñ bà = [(ā)āⁿ wú]],
 1Pl=Ipfv kill.Imprt [1Pl put.Adjn= [1PlRefl Custod]],

B: ‘Well, before they reached the lion, (before) they arrived now, hare said to hyena: “Shall we not kill the so-and-sos? Let’s kill (them), otherwise—. Let’s kill and put (them) in our custody (=in sacks)!” ’

[Hunters use wó-ró ‘So-and-so’ (plural wó-ró-nū ~ wó-ró-ñ, §4.1.1.4) as a euphemism for the name of whatever animal they have killed; = rē = ēⁿ negative interrogative as hortative §13.2.1.3; mù?úⁿ = ∅ ‘kpááⁿ reduced from mù?ùⁿ nūⁿ ‘kpáⁿ ‘let’s kill them-Nonhuman!’; 1Pl ñ as second subject in same-subject adjoined clause §15.2.1.3]

01:42 B: bon, cì-ná [è bòlól] sò [bórókó tō],
 B: well, hare-Nom [3SgNonhRefl hand] put.in.Pfv [sack in]
 cà?àcí — cà?àcí cí = [ì wùū],
 peanut — peanut be.put.Pfv [3SgNonh with.self]
 é = ∅ cà?àcí tēè,
 3SgNonh=Ipfv peanut snap.open.Ipfv,
 é! nàà mā [[nāáⁿ mǐ] wǔ] tēē,
 hey! friend 1Sg [[1SgRefl Poss] head] shatter.Pfv,

B: ‘Well, hare put his hand (=paw) into the sack. (Unshelled) peanuts had been put in his control (=into his sack). He cracked open a peanut (by pressing on the tip of the shell). (Hare said): “Hey, friend! I have shattered (=crushed) the head of mine (=my lion cub)!” ’

[tè < tēē; cracking open a peanut shell imitates the sound of crushing a skull; bōlól < bōl(ō) ‘hand’, sò < sòé ‘put in’; cí = < cíé ‘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, súrukú wō nánámá,*
B: well, hyena 2Sg idiot,
[wō dōʔó]=∅ ‘búlú sísàāⁿ,
[2Sg also]=Ipfv return.Ipfv] now,
[ē mì] wǔ] tēè,
[2SgRefl Poss] head] shatter.Pfv,
é ∅ bè= [é wù] [jūfá tò=ó] 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 <
/bě è wù/, tò → tòò before dè]

- 01:54 B: *èèⁿ kú wàá,*
B: 3PINonh begin go.Ipfv,
èèⁿ táʔá kíé sísàāⁿ,
3PINonh go.Adjn arrive.Pfv now,
èèⁿ táʔá wòlòkó [jèré dè],
3PINonh 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: *èèⁿ táʔá [jèré jìéè],*
B: 3PINonh go.Adjn [lion see.Pfv],
é jèré= èèⁿ jáá yàlà,
hey! lion 3PINonh frighten.Adjn take.Adjn,
é kòr jèré, è bó mì,
Hey elder.brother lion, 3SgNonh exit(v).Pfv where?
mùʔùⁿ bó [kléñ tòrò],
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: *mǎā=∅ bó mì,*
B: 2Pl=Ipfv exit(v).Pfv where?
kómì m=∅ sá [[wō dí-rá-àⁿ] jíé]
as 1Pl=Ipfv come.Adjn [[2Sg child-Nom-Pl] see.Pfv]
ààⁿ kú jímǎā,
3PIHum begin weep.Ipfv,
[wó tò] mùʔùⁿ nîⁿ yálí,
[3SgFoc in] 1Pl 3PINonhObj 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)."'

[< *jímàà* 'weep' (Ipfv)]

02:08 B: *mùʔú*ⁿ=∅ *sà*= *àà*ⁿ *bíl*= *í-yà*,
 B: 1Pl=Ipfv Fut 3PIHum give.Ipfv Nonh-3SgObj,
*wálà mʔ ēē*ⁿ [*kú nè*] *mè* [*mā kē*]ⁿ,
 there! oh! 2Pl [thing good] do.Pfv [1Sg Benef]
*èè*ⁿ *bó*,
 3PINonh take.out.Imprt,

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; *bíl* = *í-yà* < /bílé ì-yà/ ; abstract *kú* instead of concrete *sé*ⁿ ‘thing’ in *kú nè* ; *èè*ⁿ *bó* is addressed to hare (not hare and hyena), compare *ēē*ⁿ *èè*ⁿ *bó* pronounced [èè(:)ⁿbó] addressed to two persons]

02:12 B: *bon*, [*cì-né*= [*è* *mì*] *bóó*]
 B: well, [hare-Nom [3SgNonh] Rel take.out.Pfv]
 [∅ *bàlì*],
 [3SgNonh stand.Pfv],
è-yàá ∅ *bál*= [[*è* *kpò-ró*] *mà*],
 3SgNonh 3SgNonhRefl stand.Pfv [[3SgNonhRefl foot-Nom] on],

B: ‘Well, the one (=cub) that hare took out stood up. It stood on its feet.’

[*bóó* ∅ < /bóé è/; *è-yàá* ∅ *bàlì* variant of pseudo-reflexive *è ní bàlì* ‘it stood’, cf. nonhuman 3Pl *èè*ⁿ-*yàá nî*ⁿ *bàlì* (§10.1.1.3); /bàlì è/ contracts as *bál* = è ; [*è kpò-ró*] *mà* with optional nominal suffix before postposition]

02:16 B: *bon*, *súrukú-rò* [*è* *mì*] *bòò*,
 B: with, hyena-Nom [3SgNonhRefl Poss] take.out.Pfv,
é=∅ *bàlì* — *è* *cí*=
 3SgNonh=Ipfv stand.Pfv — 3SgNonh be.able.Pfv
 [[*ì* *bàlì* [*è* *kpò-ró*] *mà*]] = *nē*?,
 [[3SgNonh stand.Pfv [3SgNonhRefl foot-Nom] on]] = Neg,
 [*è* *wú*] *tèè*
 [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: *è* *dè* *ày!*, *nàà* [*à* *mànà*],
 B: 3SgNonh say.Pfv hey!, friend! [3SgHum how?],
ày!, *ââ*, *bon*, *súrukú-rò*=∅ *sí*=*ì* *jìé*,
 hey!, ah!, well, hyena-Nom=Ipfv Fut=3SgNonh see.Ipfv,

cógóyá *wèé-yà = rē?*,
 way.to.escape go-Prog=Neg,

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 mànâ* ‘what’s up?’ §13.2.5; ‘will see it’ in the sense ‘considered (what to do)’]

02:27 B: *súrukú-rò = Ø* *commencer* *è* *fidí* *bò*,

B: hyena-Nom=Ipfv begin 3SgNonh run.Adjn exit.Adjn.Defoc,

jèr-rá = Ø *kpáⁿ* [*súrukú* *kpǎ-jò*],
 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; *kpǎ-jò* §8.4.3]

02:30 B: *bon* *cǐn* *dè* [*súrukú* *mà*],

B: well hare say.Pfv [hyena Dat],

nàà *mā* [*yálā* *mì*] *dúdòl* *wò-nū* *dé?*,
 friend 1Sg [hole Rel] show 2Sg-Indep Emph,

[*è-wò* *lá?ā*] *lè* *dé?*,
 [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* *mā* [*yálā* *mì*] *dúdòl* *wò-nū*,

B: friend 1Sg [hole Rel] show 2Sg-Indep,

[*è-wò* *lá?ā*] *lè* *dé?*,
 [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* *sísàāⁿ*,

B: well now,

súrukú-rò = Ø *tá?á* [*yálā* *mí*] *jì* *sísàⁿ*,
 hyena-Nom go.Ipfv [hole Dem] see.Adjn now,

è *sò* [[*yálā* *mí*] *tò*],
 3SgNonh enter.Pfv [[hole Dem] in],

è *sò* *sísàⁿ* [[*yálā* *mí*] *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* *tí? =]* [*í* *bǎl* *dāā*],

B: [lion-Nom=Ipfv go.Adjn] [3SgNonh stand.Adjn mouth],

bon [ààⁿ flāā-rā]
 well [3PIHum two-Nom]
má?à-níí=Ø *sà* [yálā mí] *sinà*,
 who?-Indep=Ipfv Fut [hole Dem] dig.Ipfv,
è-yà *mì?íⁿ* *jiè=rē?*,
 Nonh-3Sg person see.Pfv=Neg,

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 tá?á ‘go’) after subject with imperfective enclitic; The ‘who?’ question is the narrator’s wondering, not a quotation*]

02:46 B: *bon* *kòrò* *lě*, [dùgù-dù]-[fíyē-rà],
 B: well, elder.brother warthog, [the.bush-In]-[pig-Nom],
wō *sé* *klé* *tà?à* *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.’

[*kòrò lě* ‘(my) older brother warthog’ < *Jula*, cf. *Jalkunan mā gùùⁿ fíyē-rà*]

02:50 B: *è* *dè* *é*, *kòrò* *lě*,
 B: 3SgNonh say.Pfv hey!, elder.brother warthog,
sē *nà-mí-nè*,
 come.Imprt here,
ców *súrukú* *sò* [yálā mí-nà]
 oh! hyena enter.Pfv [hole Dem-Nom]
sī= *ī* *sìⁿ* [mā kō],
 come.Imprt 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; < /sē ì/*]

02:56 B: *bon*, [dùgù-dù]-[síyē-rà] *sé=* [Ø=wò *má* *sísàⁿ*,
 B: well, [the.bush-In]-[pig-Nom] come.Pfv [Nonh-3SgFoc on] now,
è *kú* [yálā mí] *sinà*,
 3SgNonh begin [hole Dem] dig.Ipfv,

B: ‘Well, thereupon [focus] warthog came now. He began digging that hole.’

02:59 B: *è-wó=Ø* [yálā mí] *sìni-yà* *sísàāⁿ*,
 B: Nonh-3SgFoc=Ipfv [hole Dem] dig-Prog now
bon, *cì-ná=Ø* *sí=ì* *jiéé*,
 well, hare-Nom=Ipfv Fut=3SgNonh see.Ipfv,
 [dùgù-dù]-[síyē-rà] =Ø *sà* *cíé* [súrukú màā],
 [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: è búlú sísaⁿ,
 B: 3SgNonh return.Adjn now,
 è dè [kòrò lě]
 3SgNonh say.Pfv [elder.brother warthog]
 bā-dè bā-dè bā-dè, mā ná lè tōⁿ,
 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!” ’
 [bā-dè specialized contraction of bō dè ‘go out/away from there!’; lě ‘look at’ (imperative after +3Sg)]

- 03:09 B: é Ø màà-sáá ká?rá sísaⁿ,
 B: 3SgNonh 3SgRefl bend.over do.finally now,
 è sùrukú lè [yála tō̄]
 3SgNonh hyena look.at.Pfv [hole in]
 é kòò-fó?ó bìl= í-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-sáá ‘bend over’ includes sáá ‘come’; < /bìlì è-yà/]

- 03:13 B: è kòò-fó?ó bìl= í-yàā,
 B: 3SgNonh salt-powder give.Pfv Nonh-3Sg,
 è dè= [é mà] sísaⁿ [kòò-fó?ó mí-nà] 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: ně, nī kòrò lě
 B: here’s, if elder.brother warthog
 sí=i wũ sòò [wà?àtí mì-nà],
 Fut=3SgNonh head put.in.Ipfv [time Rel-Nom],
 é=Ø kòò-fó?ó fié [nìl-là-àⁿ tō̄],
 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!” ’
 [fié < Jula]

- 03:20 B: bon, è bóó bàl, kòrò jàrá —
 B: well, 3SgNonh exit(v) stand.Pfv, elder.brother lion—,

[[*kòrò* *lè*] *bélé*]
 [[elder.brother warthog] pass.Adjn]
[è *kú* *[yá]lā* *mí*] *sìnà*],
 [3SgNonh begin [hole Dem] dig.Ipfv],
búgúri *búgúri* *búgúri*
 digging.sound

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!* *jà?á* *súrukú* *kòò-fó?ó* *mùgéē*,
 B: hey! lo! hyena salt-powder suck.Pfv,
bon, *é* *jiè* *[é=∅* *nì* *sìnì-yá]*
 well, 3SgNonh.3SgObj see.Pfv [3SgNonh=Ipfv 3SgNonhObj dig-Prog]
[é=∅ *nì* *sìnì-yá]*
 [3SgNonh=Ipfv 3SgNonhObj dig-Prog]
[é=∅ *nì* *sìnì-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*] *cì-ná* *sí=i* *jié*,
 B: [lip smack] hare-Nom Fut=3SgNonhObj see.Ipfv,
mā *nḁḁ-nó* *kè,* *à* *wḁmí* *mùgéē*,
 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* *tònó* [*bèlè* *dó?ó*] *sísàⁿ*,
 B: 3SgNonh.3SgRefl approach [pass again] now
è *tá?á* *dò* *bílí=* *íyà*,
 3SgNonh go.Adj one give.Ipfv 3SgNonh
[yá]lā *tòó*] *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*; *yá]lā tò* ‘in the hole’, prolonged before *dè* ‘there’]

03:39 B: *bon,* *sísàāⁿ* [*kòrò* *lè* *dó?ó*] *commencer*,
 B: well, now [elder.brother warthog too] begin,
[è *kú* *sìnà]* [*è* *kú* *sìnà]*,
 [3SgNonh begin dig.Ipfv] [3SgNonh begin dig.Ipfv],

B: ‘Well, now elder brother warthog too began. He was digging, he was digging.’

[‘began’ in Jalkunan: *dàà-sʔʔʔ*]

- 03:42 B: *bon, á! sùrúkú sí=ì jìè,*
 B: well, ah! hyena Fut=3SgNonh see.Ipfv,
é=Ø kòò-fóʔó bɔ̀ɔ̀,
 3SgNonh=Ipfv salt-powder take.out.Ipfv,
é=Ø ciè jèré ó sùrúkú,
 3SgNonh=Ipfv put.Ipfv lion oh! hyena,
é=Ø ciè [[kòrò lè] jìl-là-àⁿ] tɔ̀,
 3SgNonh=Ipfv pour.Ipfv [[elder.brother warthog] eye-Nom-PI] in],
[dùgù-dù]-síyé jìl-là-à-nū sísàⁿ,
 [the.bush-in]-pig eye-Nom-PI-Nom now,

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.’

- 03:48 B: *éʔéʔéʔé [séⁿ dò] bé [[mā jìl] tɔ̀],*
 B: eh-eh! [thing one] fall.Pfv [[1Sg eye] in],
[séⁿ dò] bé [[mā jìl-là-àⁿ] tɔ̀],
 [thing one] fall.Pfv [[1Sg eye-Nom-PI] in],

B: ‘(Warthog:) “Ouch! Something has fallen into my eye! Something has fallen into my eyes.” ’

- 03:51 B: *bon, jèré dèè, s= [ē dè]*
 B: well, lion say.Pfv, come.Imprt [3SgNonh with]
mā ní fié í lè,
 1Sg 3SgNonhObj blow 3SgNonh look.at,

B: ‘Well, lion said (to warthog), “bring it (=your eyes), so I may blow on it and look at it.” ’

[< /sā [è dè]/, í < /ní/]

- 03:56 B: *è-wò [sié ŋìl] fiè púù!*
 B: 3SgNonh [pig eye] blow.Pfv poof!
kòò-rá=Ø wóʔrí bèé [[è jìl] tɔ̀],
 salt-Nom=Ipfv fall.off fall.Pfv [[3SgNonh eye] in],
[jèré jìl] tɔ̀, [jèré dàá] tɔ̀,
 [lion eye] in, [lion mouth] in,

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.’

- 04:04 B: *è→ iyé→, kòrò lě,*
 B: oh! hey!, elder.brother warthog,
[wō jàyí] dì dèʔ, mon vieux,
 [2Sg tears] become.delicious.Pfv Emph, my old man,

B: '(Lion said:) "oh, hey! Elder brother warthog! Man, your tears sure are tasty!'

04:08 B: *bon*, *dóʔó* *kiⁿ*, *kɿⁿ* *dèè*,
 B: well, younger.brother hare, hare say.Pfv,
éè! *kòrò* *lě*, *éè!* *jèré*,
 hey! elder.brother warthod, hey! lion,
wō *nánámá* *kùⁿ* *fà*,
 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: *[mìʔi^m nàyi]* *dì* *kúⁿ* *îⁿ*,
 B: [person tears] become.delicious.Pfv Cop oh!,
[è sibi] *càʔá* *dóò*,
 [3SgNonh meat] all.the.more too,
[è sibi] *dì* *dēʔ*
 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!"'

[dǐ]; copula *kúⁿ* used here as a kind of connector between two clauses; *càʔá dóò* 'all the more, a fortiori'

04:17 B: *áàⁿ*, *bon*, *kù-ró=Ø* *bùlù-yà* *sísàⁿ*,
 B: ah, well, thing-Nom=Ipfv return-Prog now,
jèré *[syèé 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: *[dóó* *ciⁿ* *búlú*,
 B: [younger.brother hare] return.Pfv,
é=Ø *wàà* *[jèré kèⁿ]*,
 3SgNonh=3SgNonh go.Ipfv [lion chez],
[[kòrò lè] *sibi]* *dì*
 [[elder.brother warthog] meat] become.delicious.Pfv
[cógó-yá mì-nà] *páʔ*,
 [manner Rel-Nom] (interjection),
è-yà *dì* *bèlé* *nàyi-rà*,
 3SgNonh become.delicious.Pfv pass.Adjn tears-Nom,

B: 'Younger brother hare went back. He went to lion's place (=den). (Hare to lion:) "The way elder brother warthog's meat is tasty, it is tastier than tears.'

[cógó-yá mì-nà equivalent to *cógó mì]*

04:29 B: *è té?é [Ø-wò má] síàsàⁿ,*
 B: 3SgNonh go.Pfv [Nonh-3SgFoc on] now,
èèⁿ búlúú, è dè á!, kòrò lèé,
 3PINonh return.Pfv, 3SgNonh say.Pfv ah!, elder.brother warthog,
má=Ø [[wō síbí] dò] ká dē?
 1Sg=Ipfv [[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!’

04:35 B: *èéⁿ mà?àlí bò síàsàⁿ,*
 B: 3PINonh knife take.out.Pfv now,
èéⁿ=Ø [[syéé wò?ró búⁿ] dò] bégé,
 3SgNonh=Ipfv [[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 síbí-búⁿ with ‘meat’ as initial, but here in compound with the more
 specific body-part ‘thigh’]*

04:39 B: *èéⁿ (è-)yà bègè síàsàāⁿ,*
 B: 3PINonh Nonh-3SgObj cut.Adjn now,
é bìli [dó?ó cì-náā],
 3SgNonh.3SgObj give.Pfv [younger.brother hare-Nom],
[é Ø sídà],
 [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]

04:43 B: *é kòò-fó?ó bò,*
 B: 3SgNonh salt-powder take.out.Adjn,
é Ø fùùⁿvúní= [í mà],
 3SgNonh 3SgObj sprinkle.grains.Pfv [3SgNonh on],
[é Ø bìl= í-yà],
 [3SgNonh 3SgObj give.Pfv Nonh-3SgObj],
 B: ‘He (=hare) took out the powdered salt. He sprinkled it (=salt) on it (=flesh), and
 he gave it to him (=lion).’

04:45 B: *jèr-ré= è-yà dòníí,*
 B: lion-Nom Nonh-3SgObj eat.meat.Pfv,
è dè ñí! mon vieux, ìyà,
 3SgNonh say.Pfv ooh! my.old.man, oh!,
á [kòrò lě]
 ah! [elder.brother warthog]

[wō sībī yé?ré] dīi,
[2Sg meat self] be.sweet.Pfv,

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’, dī]

04:51 B: èéⁿ=∅ [nì wònò],

B: 3PlNonh=be [3SgNonh still.on],

[kòrò lě] sí=i jíā,
[elder.brother warthog] Fut=3SgNonh see.Ipfv,

kú mí-nàā, é=∅ sà lábán = [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.’

[wònò variant of wònù, lábánà < Jula lábāⁿ, gbòlòkò ~ gbólókó ‘on’]

04:54 B: wábáw, é fidì,

B: whoosh!, 3SgNonh run.Adjn.Defoc,

jèr-ré= èⁿ s= [é kpǎ-ɲò]
lion-Nom= 3SgNonhRefl go.Pfv [3SgNonh for(goal)]

[s= [é kpǎ-ɲò]] [s= [é kpǎ-ɲò]]
[go.Pfv [3SgNonh for(goal)]] [go.Pfv [3SgNonh for(goal)]]

B: ‘Whoosh! He (=warthog) ran away. Lion pursued him, pursued him, pursued him.’

[é fidì adjoined form, for perfective è fidí ‘it ran’, é H-toned by special Final Tone-Raising; /sě [è kpá-ɲò]/ as a complex treated as a pseudo-reflexive verb, jèr-ré= èⁿ nasalized variant of jèr-ré=è]

04:59 B: cì-ná=∅ búlú [∅-wò má] sísàāⁿ,

B: hare-Nom=Ipfv return.Adjn [Nonh-3SgFoc on] now,

è dè [súrukú màā], nàà, nàà,
3SgNonh say.Pfv [hyena on], friend!, friend!

bó, bó, bó, bó,
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. cǐ^m bùlú(i) ‘hare returned’]

05:02 B: súrukú bòó= [∅-wò má] sísàⁿ, kòrò —

B: hyena exit.Pfv [Nonh-3SgFoc on] now, [false start]

èéⁿ fidì, èéⁿ wà,
3PlNonh run.Adjn.Defoc, 3PlNonh go.Adjn.Defoc,

B: ‘Thereupon [focus] Hyena came out now. Elder brother—. They (=hyena and hare) ran, they went (away).’

[bòé ‘exited’; èéⁿ fidì and èéⁿ wà are defocalized adjoined verbs]

05:05 B: èèⁿ cíé cáI-à,
 B: 3PlNonh arrive.Pfv road-Nom,
 è dè nàà [mā kpé tòʔó [wō 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?” ’
 [tòʔó for tòʔé (perfective)]

05:07 B: nàà, è cíé tóʔó=rēʔ cōw,
 B: friend!, 3SgNonh be.able.Pfv be.said.Ipfv=Neg oh!,
 mā dé [[yālā mí] dòʔòyéē],
 1Sg say.Pfv [[hole Dem] become.small.Pfv],
 jáʔà má=∅ ‘cíé [sóó [[yālā mí] tò]],
 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: á mā mì jíéē,
 B: ah! 1Sg Rel see.Pfv,
 m̄ ∅ b̄è= [[é-wò láʔā] t̄],
 1Sg 3SgObj put.down.Pfv [[Nonh-3Sg place] in],
 [è-wò láʔā-rà] n̄
 [Nonh-3Sg place-Nom] there
 B: ‘Ah! What I saw, I have put (it) down in its place. There is its place.’
 [reduced from mā ní b̄ě [è-wò ... ; 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 1Sg=Ipfv Fut Dem put.down.Imprt
[[dáálá-mā míʔi-nà-à] má],
 [[old.times person-Nom-Pl-Nom] on],
 L: ‘I will put down (=tell) this (story) about old-time people.’

00:03 L: *dáálá-mā-nāā, kàà-l-á-āⁿ*
 L: old.times-Nom, young.woman-Dimin-Nom-Pl
cíé ʔtáʔ= [(à)àⁿ wé [gòlò tò]],
 be.Past go.Ipfv [3PIHumRefl bathe.Adjn [river in]],
 L: ‘In the old days, (adolescent) girls used to go and bathe in the river.’
[kàà-li ‘girl’, diminutive < kàʔrà ‘young woman’]

00:06 L: *[né= ààⁿ tãʔã]*
 L: [if 3PIHum go.Antec]
[(à)àⁿ wé [gòlò tò]] héⁿ,
 [3PIHumRefl bathe.Adjn [river in] oops!,
àfō n= áàⁿ kú ʔtáʔá
 or.rather if 3PIHum begin go.Ipfv
[ààⁿ= (ààⁿ) wéé tónó]
 [3PIHum 3PIHumRefl bathe.Adjn Purp]
 L: ‘When they went to bathe in the river, oops! rather when they started out in order to bathe, ...’
[/ní ààⁿ/; àfō (< Jula) in self-corrections; wéé ‘bathe’→ wéé]

00:10 L: *ààⁿ cí gòl-dàà-rá,*
 L: 3PIHum arrive.Adjn river-mouth-Nom,
ààⁿ= [áàⁿ cí-ná-àⁿ] wúʔr=
 3PIHum [3PIHumReflPoss breast-Nom-Pl take.off.Pfv
[ààⁿ sã],
 [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=∅ sòrò [áàⁿ jàʔàⁿ [yí dù]],*
 L: 3PIHum=Ipfv do.then.Ipfv [3PIHum descend.Adjn [water in]],
ààⁿ náàⁿ tímí [ààⁿ wé]
 3PIHum 3PIHumReflObj do.well.Pfv [3PIHum bathe.Adjn]
ààⁿ bó [∅ kàʔrà] sísaⁿ,
 3PIHum exit.Pfv [3PIHum break.Adjn] now,

L: ‘They would (then) proceed to go down into the water. They bathed well. Then they finally came out (of the water).’

[*sòrò* ‘do then’ in ‘before ...’ clause paired with another clause, §15.4.4.1; *kà?rà* ‘break’ adjoined to another verb means ‘do eventually’ with no paired clause §15.2.2.4]

00:16 L: *n = áàⁿ bó dóò,*
 L: if 3PIHum exit.Antec also,
[ààⁿ dó?ó] = Ø sà cíí-ná-àⁿ wé [èèⁿ dáná],
 [3PIHum too]=Ipfv Fut breast-Nom-Pl wash.Ipfv [3PINonh apart]
 L: ‘When they came out, they also washed the breasts separately.’

00:19 L: *ààⁿ néèⁿ nò?rí [[èèⁿ núú] tò],*
 L: 3PIHum 3PINonhObj put.back [[3PINonh place] in],
ààⁿ = Ø sòrò [ààⁿ sá [kélé mà]],
 3PIHum=Ipfv do.then.Ipfv [3PIHum come.Adj [courtyard on]],
 L: ‘They put them (=breasts) on in their place, before they came home.’
[nò?rò ‘affix, post (e.g. on wall)’]

00:23 L: *donc ààⁿ tú = ú yààlàā,*
 L: so 3PIHum stay.Adjn=Link thus,
[nāā kú?ó dò] cíé = é dè,
 [woman old one] be.Past=Link there.Def,
à-mà cíé [[kàà-lí dò] kpá-mà],
 3SgHum be.Past [[young.woman-Dimin one] goal]
á = Ø nà dèn-dénà,
 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.’

[*tóó* → *túú* before *yààlàā* ‘thus’; *à-mà* instead of *à* for human 3Sg subject; *cíé* ‘was/were’ lengthened and +ATR before *dè* ‘there’; *dèn-dénà* ‘stalk (one’s prey)’, lexicalized reduplication of *déná* ‘follow’]

00:29 L: *[yá sòrò] [kàà-lí mí dò?óó],*
 L: [now do.then.Ipfv] [young.woman-Dim Dem too],
[yá sòrò] [à dò?ò] cíé [káméē-l dò] ká,
 [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).’
[(è-)yá sòrò ‘now (it happened that)’ as preclausal discourse marker]

00:33 L: *[à cii-ná-àⁿ jéē,*
 L: [3SgHum breast-Nom-Pl be.good.Pfv]
èèⁿ bálí [bàlì cógō-rà],
 3PIHum stand.Pfv [stand manner-Nom]

L: 'Her breasts were beautiful, they stood the right way (=didn't sag).'

00:35 L: *ààⁿ wěē [[ààⁿ cí-nà-àⁿ] kpó-ṅò] sí-sàⁿ*
 L: 3PIHum go.Pfv [[3PIHum breast-Nom-Pl] goal] now
ààⁿ tú [[yí wèè-rá] dò],
 3PIHum remain.Pfv [water bathe.VblN-Nom] with],
[náā kúdó dò?ò] bóó dè,
 [woman old too] exit.Pfv there,

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=∅ sòò mì?i-ná=∅ kú mì?iⁿ dènnénà*
 L: 2Sg=Ipfv know.Ipfv person-Nom=Ipfv begin person stalk.Ipfv
à kú [mè?éⁿ kpà-mà] náání,
 3SgHum begin [person goal] already,

L: 'You-Sg know that (if) someone is stalking someone, (if) he/she is already stalking the person ...'

[náāñ ~ náání 'already']

00:44 L: *wó=∅ sòò*
 L: 2Sg=Ipfv know.Ipfv
[á=∅ nà —] [á=∅ nà —]
 [3SgHum=Ipfv 3SgHumObj —] [3SgHum=Ipfv 3SgHumObj —]
á=∅ [fèèlé bù?ù] lájèní bègà
 3SgHum=Ipfv [method all] pile.up cut.Ipfv
pour que á=∅ màà [cògò-yá mì]
 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.'

[lájèní < Jula, cf. Jalkunan céé-ṅù?ùmá 'pile up']

00:48 L: *ààⁿ tú= [∅-yà kòṅò] dódò,*
 L: 3PIHum stay.Pfv [Nonh-3Sg still.on] too,
à té?é jì
 3SgHum go.Pfv see.Adjn
[mí-nà-àⁿ [yí dù] kàbáⁿ náání dódò]
 [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.'

[bèèní ~ bééni stative < bàà 'put down']

00:52 L: *cíí-ná-àⁿ* *bééńí* *kéńéńè-ná,*
 L: breast-Nom-Pl be.put.down.Stat outside,
à *[kàà-lí* *cìi-ná-àⁿ]* *wólóbá,*
 3SgHum [young.woman-Dim breast-Nom-Pl] choose.Adjn,
á *yǎ-āⁿ* *bó* *dóò,*
 3SgHum 3PlNonhObj take.out.Adjn also,
 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.’
[bééńí stative < bàà ‘put down’ §11.2.4.2; occasional nonhuman 3Pl preverbal object è-yǎ-āⁿ, see discussion following (104) in §4.3.1.3]

00:57 L: *[à* *[ná* *mì-ná-àⁿ]* *bó]*
 L: [3SgHum [3SgHumObj Poss-Nom-Pl] take.out.Adjn]
[á = *Ø-yààⁿ* *sá*
 [3SgHum Nonh-3Pl set.out.Adjn
[[[kàà-lí *mǐ]* *nùú]* *tò]]*
 [[[young.woman-Dim Poss] place] in]],
à *sá* *[[kàà-lí* *cìi-ná-àⁿ]* *dé]*
 3SgHum come.Adjn [[young.woman-Dim breast-Nom-Pl] with
[kélé *mà]*
 [courtyard on]
 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).’

01:01 L: *[kàá-l* *dò?ò]* *séé,*
 L: [young.woman-Dim too] come.Pfv,
jùⁿ-jǎ?ǎ-jáá — *[jùjǎ?ǎ-máá-ná-àⁿ* *bú?ú-n =]*
 co.wife-woman — [co.wife-owner-Nom-Pl all-Pl]
[ááⁿ *cíí-ná-àⁿ]* *yáí,*
 [3PlHumRefl breast-Nom-Pl] take.Pfv,
 L: ‘The girl came also (to where the breasts had been left). The co-wives (=her companions), the co-wives all took their breasts.’
[‘co-wives’ here used loosely to mean ‘(woman’s) companions’ cf. jámù?ù ‘comrade, peer’]

01:05 L: *[à-wó* *mì-nà-àⁿ]* *jéé = rē?*
 L: [Hum-3Sg Poss-Nom-Pl] see.Pfv=Neg,
à *[[[jáá* *kúdó]* *mì-ná-àⁿ]* *béé =* *jí*
 3SgHum [[[woman old] Poss-Nom-Pl] be.put.down.VblN see.Pfv]
[[[à-wó *mì]* *bèè* *lá?ā-rà*
 [[[Hum-3SgFoc Poss] be.put.down.Pfv place-Nom]
 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.’

[[X nò] t̄ variant of [X nù] t̄ ‘in the place of X’]

01:09 L: á= (à)àⁿ yáǎ,
 L: 3SgHum 3PIObj take.Pfv,
 à sòⁿ níⁿ nò?rí
 3SgHum accept.Pfv 3PINonhObj affix
 [[[à mí] nò?rí] núú-nò]=nē?
 [[[3Sg Poss] affix.VbIN] place-Nom]=Neg
 [à s=] [éèⁿ dé] [kélé mà],
 3SgHum come.Pfv [3PINonh 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).’

[could also be phrased [[à wó] m̄] nù-nò with logophoric 3Sg; negative =nē? with scope over entire clause including ‘accept’; < [à s̄] [èèⁿ dé]]

01:12 L: [à sá=]
 L: [3SgHum come.Adjn]
 [à sí=iⁿ dóló kàméē-l-là],
 [3SgHum Fut=3PINonh show.Ipfv young.man-Dim-Nom]
 L: ‘She came and was going to show them to the young man (=fiancé).’

01:14 L: à dè á!
 L: 3SgHum say ah!
 [mù?ùⁿ kóní] ‘té?é fì [yí dù]
 [1Pl Topic] go.Pfv today [water in]
 [mù?úⁿ=∅ ‘tá?]= [āⁿ 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: ñ tá?á ‘cíé, wó=∅ sòò
 L: 1Pl go.Adjn arrive.Adjn 2Sg=Ipfv know.Ipfv
 mù?úⁿ=∅ dèlé
 1Pl=Ipfv be.accustomed=Ipfv
 kò= [òⁿ cíí-ná-àⁿ] bó,
 begin [1PlRefl breast-Nom-Pl] take.out.Adjn,
 àáⁿ=∅ sòrò= [òⁿ tá?]= [(à)àⁿ 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.’ ’
 [/kú ààⁿ/]

01:22 L: ní mù?ùⁿ [nààⁿ wéé] dà-káⁿ,
 L: if 1Pl [1PlRefl bathe.VbIN] finish.Antec,

mù?úⁿ = Ø *sòró* *sá*
 1Pl=Ipfv do.then.Ipfv come.Adjn
[cífí-ná-àⁿ *wé* *[èèⁿ* *dáná]]*
 [breast-Nom-Pl wash.Adj [3PINonh apart]

L: ‘(Girl:) “When we had finished bathing, we proceeded to come to wash our breasts separately.” ’

01:23 *àáⁿ = Ø* *sòró =* *[ðⁿ* *sí = ìⁿ* *yá lí]*
 3PIHum=Ipfv do.then.Ipfv [3PIHum Fut=3PINonh take.Imprt]
[ààⁿ *nîⁿ* *nó?rí* *[[(ì) ìⁿ* *nùú]* *tò]],*
 [1Pl 3PINonhObj affix.Pfv [[3PINonh place] in]],

L: ‘(Girl:) “We were then going to take them afterwards. We put them (=breasts) on in their place.” ’

[imperative yá lí after future particle §10.5.1.2]

01:25 L: *mā* *sé,* *bù?ú* *mì* *jíé,*
 L: 1Sg come.Pfv, all Poss see.Pfv,
mā *[nááⁿ* *mí]* *jìè = rē?*
 1Sg [1SgRefl Poss] see.Pfv=Neg,

L: ‘(Girl:) “I came. Everyone (else) saw (=found) theirs. I didn’t see (=find) mine.” ’

01:27 L: *mè* *[mā* *mì* *jíé* *[[[áⁿ* *mì]* *nùú]* *tò]]*
 L: but [1Sg Rel see.Pfv [[[1SgRefl Poss] place] in]]
è-wó *nè,*

Nonh-3Sg here,

L: ‘(Girl:) “But what I found in the place of my own, that [focus] is it.” ’

01:29 L: *à* *dè* *bāāsí = è = rē?*
 L: 3SgHum say.Pfv problem=it.is=Neg
àáⁿ = Ø *sà* *kélénà,* *sàà-màà-ná-àⁿ* *kèⁿ,*
 1Pl=Ipfv Fut take.a.walk.Ipfv, house-owner-Nom-Pl chez,

L: ‘He (=young man) said, “it’s no problem. We’ll take a walk, to the house of the village chiefs.” ’

01:34 L: *[nī* *ààⁿ* *kīī* *dè]*
 L: [if 3PIHum arrive.Antec there.Def]
ààⁿ *kú* *nàg* *cíé* *màà,*
 3PIHum begin ask.Ipfv speak 3Pl,
[nī = è *jī]* *[mī* *ká]* *[à* *ná-màà —]*
 [if 3SgNonh be.seen.Antec] [Rel have] [3SgHum 3PIHumObj —],
ààⁿ *nîⁿ* *dá?á-rà,*
 3SgHum 3PINonhObj dispossess.VblN-Nom,

L: ‘When they arrived there, they began to ask. (Young man:) “if it is found, the one who has (it), (what about) our taking them away (from him)?” ’

[*cíé* ‘speak’; [*à ná-màà* —] is a false start]

- 01:38 L: *à* *dè* *òʔóóʔ*,
 L: 3SgHum say.Pfv yes!,
slāā *yèlèní,* *àáʔ=∅* *wèé*
 daytime day.break.Pfv, 3PIHum=3SgNonh go.Pfv
 [[*sàà* *dààlá*] *mà*], *mìʔi-ná-àʔ* *láʔā-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: *ààʔ* *táʔá* *cíí=yà* *dè*
 L: 3PIHum go.Adjn arrive.Adjn=Link there.Def
[cìndá *‘mí-nà*],
 [neighborhood Dem-Nom],
[ààʔ *bélé*] *[ààʔ* *só*] *[sàà-màá* *kèʔ*]],
 [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: *ààʔ* *só* *[sàà-màá* *kèʔ*],
 L: 3PIHum enter.Adjn [house-owner chez]],
àáʔ *nàà* *tóʔó* *[màà* *náá*],
 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]
[ná *mèʔè-ná-àʔ* *bùʔù]* *kééí*,
 [3SgHumRefIPoss person-Nom-Pl] all call.Pfv,
è-yá *sòró*, *[cāl-má* *dòʔò]* *táʔá* *mǐ* *kè*,
 Nonh-3Sg do.then, [husband too] go.Adjn Rel Past,
á=∅ *sàli-féé* *yàlá=* *bòʔò*,
 3Sg=Ipfv guitar-calabash take.Ipv hold.Adjn,
 L: ‘The chief called all his people. When the husband too went, he took a guitar with him.’
[cf. 3Pl subject àá=∅ sàli-féé yàlá= [(à)àʔ *bóʔò]*, *bòʔò* ‘hold’ used only in adjunction to ‘take’ etc.]

- 01:53 L: *à* *tèʔè* *cíé* *kàʔrà* *sísàʔ*,
 L: 3SgHum go.Pfv arrive..Adjn do.finally now,
[á=∅ *sigí* *kèē*], [*à* *kú* *sàlí* *bàʔrà*],
 [3SgHum=Ipfv song sing.Ipv], [3SgHum begin guitar beat.Ipv]

L: ‘Eventually he arrived now. He began singing, he began playing the guitar.’

- 01:57 L: *mè?è-ná-àⁿ* = ∅ *sàà*
 L: person-Nom-Pl come.Ipfv
[ààⁿ tóó] *[(à)àⁿ kú dòó màà]*
 [3PIHum stay.Adjn] [3PIHum begin dance(n) do.Ipfv]
[ààⁿ tóó] *[(à)àⁿ kú cíí-ná-àⁿ contrôler]*,
 [3PIHum stay.Adjn] [3PIHum 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 3PIHum see.Antec [Rel have],
àáⁿ = ∅ *nì* *dà?à*,
 3PI=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: 3PIHum go(?) arrive.Pfv first,
ààⁿ *ná-màà* *kéèi* *dóò*,
 3PIHum HumObj-3PIFoc call.Pfv also,
 L: ‘They (girl and boy) arrived for the first time. It was them (=dancers) [focus] that they (girl and boy) called.’
[tâà ~ táá now an auxiliary used with ‘arrive’ §15.1.1.4, see also 02:38 below]

- 02:06 L: *à-màà* *sé* *sísàāⁿ*,
 L: Hum-3Pl come.Pfv now,
ààⁿ *sígí* *commencer*,
 3PIHum 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 nnéí wéè
 friend hey!
̀̀̀ká yé-gé-yé-gé túnúná
 my breasts be.lost
kó nnéí wéè
 friend hey!
̀̀̀ká yé-gé-yé-gé túnúná
 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-sòrò cíí-ná

L: it.happened.that breast-Nom

[dááramā míʔi-nà-àⁿ]=∅ cíí kèè [kó 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: kó nnéí wéè
friend hey!

ḡká yégé-yégé túnúná
my breasts be.lost

kó nnéí wéè
friend hey!

ḡká yégé-yégé túnúná
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: né tùⁿ yéḡká

1Sg Past have

yégé-yégé blà [kò dáá-rà]
breasts put.down [pond edge-Nom]

jàʔá ḡká yégé-yégé túnúná
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: cégékùrù cégékùrù

cégékùrù cégékùrù

cégékùrù cégékùrù

cégékùrù cégékùrù
cégékùrù cégékùrù

L: '(She sang:)
 "cegekuru cegekuru" (repeated)

02:30 L: *há!* [*(è-)yà mètè-ná-àⁿ bù? =]*
 L: ha! [Nonh-3Sg person-Nom-Pl all]
á = (à)ⁿ pé-m-pé?rà [dòó mà] kàrà-sáⁿ,
 3PIHum 3PIHumRefl be.energetic [dance(n) do.Adjn] only,
 L: 'Ha! All of the people (on the other side), they were energetically dancing.'
 [*pém-pé?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 lè]*
 L: [[3SgHum too] look.Pfv]
[àⁿ = Ø jià dè = rē?,
 [3PIHum 3PIObj see.Pfv there.Def=Neg],
[[àⁿ dó?ó] bélé] [àⁿ = Ø wàà kíná],
 [[3PIHum too] pass.Adjn] [3PIHum=Ipfv go.Adjn ahead],
 L: 'She looked again. They didn't see (them) there. They went on ahead.'

02:38 L: [*àⁿ dó?ó táá cié,*
 L: [3Pl too] go(?) arrive.Pfv,
àⁿ = Ø sál sàà-màà-ná,
 3PIHum 3SgObj inform.Pfv house-owner-Nom,
 L: 'They again arrived (there). They explained it to (=informed) the chief.'
 [*tàà ~ táá (§15.1.1.4), see 02:03 above; preverbal object of sálí is 3SgNonh in abstract sense 'it'*]

02:40 L: [*à-màà dó?ó mètè-ná-àⁿ bá]*
 L: [[Hum-3PIFoc too] person-Nom-Pl commission.Adjn]
[àⁿ = Ø tò?ò [[kálá mì?n bù?ù] má]]
 [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: [*àⁿ bú?ú dó?ó 'bó],*
 L: [[3PIHum all too] exit.Adjn],
[àⁿ dó?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):'

02:44 L: *kó nnéí wéè*
friend hey!
ḡká yéyé-yéyé túnúná
my breasts be.lost
kó nnéí wéè
friend hey!
ḡká yéyé-yéyé túnúná
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]

02:49 L: *né tùⁿ yéḡká*
1Sg Past have
yéyé-yéyé blà [kò dáá-rà]
breasts put.down [pond edge-Nom]
jà?á ḡká yéyé-yéyé màyè dè?
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.”

[this repetition used màyè dè? instead of túnúná ‘become lost’]

02:54 L: *cégékùrù cégékùrù*
cégékùrù cégékùrù
cégékùrù cégékùrù
cégékùrù cégékùrù
cégékùrù cégékùrù

L: ‘(She sang:)
“cegekuru cegekuru” (repeated)

02:58 L: *bon, àáⁿ = ∅ jí=yà dè dᵔᵔ=rē?*
L: well, 3PIHum 3PIObj see.Pfv=Link there.Def again=Neg,
[àáⁿ dᵔᵔ] wà kíná dᵔᵔ bèlè,
[3PIHum too] go.Adjn ahead again pass.Adjn,

L: ‘Well, they didn’t find them there either. They went on ahead.’

[bèlè ‘pass’ probably transitive adjoined bèlè ~ bélé here, compare intransitive adjoined bélé]

- 03:00 L: [ààⁿ táʔá cíí=yà dè]
 L: [3PIHum go.Adjn arrive.Adjn=Link there.Def]
 ààⁿ sígí commencer dòròŋ,
 3PIHum song begin as.soon.as,
 [[mèʔéⁿ bùʔù] sé=?]
 [[person all] come.Pfv]
 [[nāā kúdō mí] sèè=rēʔ],
 [[woman old Dem] come.Pfv=Neg],
 L: ‘They went and arrived there. As soon as they began singing, all the (other) people came, but that old woman didn’t come.’
[Glottal at end of sé=? ‘(they) came’ is in parallel with that of the contrasting negative marker =rēʔ in the paired clause, §10.2.2]
- 03:04 L: jàʔ= à=Ø=ñ dè,
 L: lo! 3SgHum=be=Link there.Def,
 sàà-màá dè áy!, à-mí dódò,
 house-owner say.Pfv hey!, Hum-Dem be.where?,
 L: ‘(Then) lo!, there she was. The chief said, “hey! where is she?”’
[< /jàʔá á=Ø=ñ dè/]
- 03:07 L: [à kàní] [kélé mée dè]
 L: [3SgHum Topic] [courtyard on there]
 ààⁿ ná kèèí,
 3PIHum 3SgHumObj call.Pfv
 L: ‘(The people said:) “As for her, she is in the courtyard.” They called her.’
[[kélé mà] plus dè]
- 03:09 L: [[sàà-màá yèʔnà] láʔá]
 L: [[house-owner self] get.up.Adjn]
 [Ø wǎ= [à kpá-mà]]
 [3SgHum go.Adjn [3SgHum goal]
 L: ‘The chief himself got up and went for (=to find) her.’
- 03:10 L: [ààⁿ dódò] wō kéē
 L: [3PIHum also] 2Sg call.Pfv
 kòlògó cìéē,
 talk(n) speak.Imprt,
 L: ‘(Chief:) “They have called for you-Sg. Speak!”’
- 03:12 L: [mèʔéⁿ bùʔù sá] [wō tú=ū dè],
 L: [person ll come.Adjn] [2Sg stay.Adjn=Link there.Def]
 wōtùmáfèè 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?'

[*tó* plus *dè*; *wõtùmáfèè* said to be a Jula expression identifying the guilty party; *sí* in emphatic question with tag *kè*, §15.1.1.5]

- 03:14 L: [*áⁿʔáⁿʔáⁿ* *é* (*à*-)wò *ká=rēʔ*]
 L: [unh-unh! 3SgNonh (Hum-)3Sg have=Neg
[à-wó=∅ 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 sísaⁿ*,
 L: 3SgHum come.Pfv do.finally.Adjn now,
à sè tóró káʔrá
 3SgHum come.Pfv while do.finally.Adjn
non dòó bèèní-yà réŋ,
 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).'
[bèèní-yà progressive of stative of *bàà* 'put down'; *tóró* 'while' implies a spatial separation of this event and the other one, cf. English *meanwhile* (§15.4.5); *réŋ* not otherwise attested but seems to be associated with 'be put']

- 03:20 L: *à commencer [dòó dè] célifòrù*
 L: 3SgHum begin [dance(n) with] middle.of.way
à kú [sée dè],
 3SgHum begin.Ipfv [come.VblN with],
fō à cì-ná-à flé [à kìnà],
 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 ~ flé 'throw (them)']

- 03:25 L: [*kàá-l dòʔò*] *ká=yè dè péw!*
 L: [young.woman-Dim too] leave.Adjn=Link there.Def totally
[à tú dòò-rá káʔrá sísaⁿ]
 [3SgHum remain.Pfv dance(n)-Nom do.finally.Adjn now]
[kàá-lá mùnú= [à ɲókòʔr-ò] yéw!],
 [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 = [Ø cìi-ná-àⁿ=] sámá =]
 L: [3SgHum [3SgHum breast-Nom-Pl] pull.Adjn]
 [(à)ⁿ bó [[èèⁿ núú] tò],
 [3PINonh take.out.Adjn] [[3PINonh place] in],
 [á [Ø mì-ná-àⁿ 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 [èèⁿ bó] ; < /bìlì à-yà [è dè]/]
- 03:33 L: à bù?ù [cāl —
 L: 3SgHum and husband —
 [kámélé màà-ná =] (à)ⁿ nú?úⁿ yál =
 [young.man owner-Nom] 3PIHum Recip take.Adjn
 [(à)ⁿ sá [kélé mà]],
 [3PIHum 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).’
 [< yálí]
- 03:37 L: è-wò mé sààbú kùⁿ nè,
 L: Nonh-3Sg do.Pfv reason Cop there,
 cíi-ná-àⁿ cíé wó?ró dó?ó = rē?,
 breast-Nom-pl can be.detached.Adjn again=Neg,
 L: ‘That [focus] is what caused (that) breasts could not be taken off any longer.’
 [sààbú variant of sàbàbú ‘reason, cause’]
- 03:40 L: cíi-ná-àⁿ kólí [[(è-)wò sú?úⁿ] tò]
 L: breast-Nom-pl be.stuck [[Nonh-3Sg day] in]
 èèⁿ cíé wó?ró dó?ó = rē?,
 3PINonh can be.removed.Adjn again=Neg,
 L: ‘Breasts were (permanently) attached, on that day. They could not be taken off thereafter.’
 [kólí < French (se) collar ‘be firmly attached, be glued’ via Jula, cf. Jalkunan nó?ró]
- 03:42 L: né = é cì ké wó?ró
 L: if 3SgNonh can Past be.removed.Adjn
 mē?è-ná-àⁿ cíé tó = [ǎⁿ kú
 person-Nom-Pl be.Past stay.Ipfv [3PIHum begin
 [[mē?è-ná-àⁿ cíi-ná-àⁿ] jóⁿ]
 [[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]

03:45 L: *mā mí jié [[lā?á mì] fáⁿ tǝ]*
 L: 1Sg Dem see.Pfv [[place Rel] around in]
mā ní-yà bé= [é dè]
 1Sg NonhObj-3Sg put.down.Pfv [Link there]
 L: ‘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 Senoufou.

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 Jeri are far from being mutually intelligible dialects of a single language

Tröbs states that Jeri 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

	Jeli	Jalkunan
1Sg	<i>nà</i>	<i>mā</i>
2Sg	<i>í</i>	<i>wō</i>
3Sg	<i>i</i>	<i>à</i> (human) <i>è</i> (nonhuman) <i>ná</i> (human object) <i>ní</i> (nonhuman object)
1Pl	<i>à</i>	<i>mù?ùⁿ</i>
2Pl	<i>ò</i>	<i>ēēⁿ</i>
3Pl	<i>ní</i>	<i>ààⁿ</i> (human) <i>èèⁿ</i> (nonhuman) <i>náàⁿ</i> (human object) <i>nîⁿ</i> (nonhuman object)

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

	Jeli	Jalkunan
nominal suffix	—	<i>-ra</i> (and variants)
genitive (alienable):		
animate	<i>-ra ~ -na</i>	—
inanimate	<i>-ka</i>	—
default possessum	<i>nu</i>	<i>mì</i>
plural of noun	<i>-ni</i>	<i>-ààⁿ</i> or <i>-àà-nū</i>
‘this’	<i>mε</i>	<i>mí</i>
‘that (definite)’	<i>wo</i>	—
3Sg logophoric	—	<i>-wò</i>
definite	<i>-o</i>	—
focus (NP)	NP <i>si</i>	—
focus (pronoun)	Pron <i>ta</i>	—
relative marker	<i>mi</i> , plural <i>mi-ni</i>	<i>mì</i> , plural <i>mĩⁿ</i>
‘in’	<i>tɔŋ</i>	<i>tò ~ tó, dù ~ dú</i>
‘on’	<i>ma</i>	<i>mà ~ má</i>
benefactive	<i>suŋ</i>	<i>kèⁿ ~ kéⁿ</i>
perfective	(zero) VP	(zero) VP
‘be (somewhere)’	<i>-a</i>	= ∅ (floating H-tone)
imperfective	<i>-a</i> VP	= ∅ VP
future	<i>-a</i> VP <i>-ŋð</i>	= ∅ <i>sà</i> VP
perfect	<i>wa</i> VP	—
‘keep VPing’	<i>-a ri</i> VP	<i>tóó</i> ‘stay’ plus adjoined clause
past (time shift)	<i>nbe</i>	<i>ké</i> (clause-final), <i>ciè ~ cíé</i> ‘was’
prohibitive	<i>ma(sa)</i> VP <i>tε</i>	<i>bí</i> VP = <i>rĒ?</i>
negative	<i>tε</i> (Ipfv also <i>nde</i>)	= <i>rĒ?</i>
‘if’	<i>ni</i> Sbj <i>sa</i>	<i>nī</i> ...

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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 <i>CvCv</i>)
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 <i>CvL</i>)
Link	linker
Loc	locative
Logo	logophoric
N	a) noun (in e.g. “N-Adj”) b) nasal consonant (in formulae like <i>CvN</i>)
(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”)

Pfv	perfective
Pl	plural
Poss	possessive, possessor
Postp	postposition
PP	postpositional phrase
Prog	progressive
Proh	prohibitive
Pron	pronoun
Purp	purposive
Q	question
Rdp	reduplication
Recip	reciprocal
Refl	reflexive
S	subject (in e.g. “S-infl-O-V-”)
Sbj	subject (in “subject focus”)
Sg	singular
Stat	stative
Temp	temporal postposition (§8.3.3.9)
V	verb (in e.g. “S-infl-O-V-”)
v	vowel (in e.g. <i>CvCv</i>)
Vb	verb
(v)	verb, in interlinear glosses like ‘fight(v)’
VblN	verbal noun
VO	transitive verb with postverbal object
VP	verb phrase

Symbols

*	reconstructed
#	ungrammatical, unacceptable, unattested
á, à, â, ã, ä	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. { <i>u a i</i> }
[...]	a) phonetic (IPA) representation, e.g. [bǔ:]; 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
- āⁿ* 1Sg reflexive possessor, §18.1.1
- aaⁿ* a) *ààⁿ*, human 3Pl pronoun, §3.3
b) *āāⁿ*, 1Pl reflexive possessor, §18.1.1
- bá* ‘over there’, §4.4.2.1, §11.2.3.3
- bàlà* a) ‘prevent’ or ‘cease’, §17.4.2-3
b) ‘consent’, §17.4.4
- bí* in prohibitives, §10.5.1.1
in negative hortatives, §10.5.2.2
- blé* ‘pass’
in comparatives, §12.1.1-2
- bùgóórē* ‘because’, §17.5.2
- bù?ù ~ bú?ú* 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
- cà?á dóò* ‘a fortiori’, §12.1.5
- cie* a) *cìè*, ‘say, utter’, §3.3.1
with onomatopoeias, §11.1.2.6
b) *cìè ~ cié*, ‘was/were’, §10.4
in counterfactual, §16.4
c) *cìé ~ cíé*, ‘be able to’, §17.3.1
- dè* ‘there (definite)’, §4.4.2.1
with linkers, §3.7.3, §11.2.3.2
- dε* a) *dè ~ dé*, instrumental-comitative postposition (‘with’), §8.2.1
in ‘X be with Y’ construction, §11.5.2.1
b) *dè ~ dé*, ‘said’ (perfective positive only), §11.3.1
combination with third person subject pronoun, §17.2.2
- dē?* clause-final emphatic, §19.3.2
- dí* ‘child’
in compounds, §5.1.5

<i>do</i>	a) <i>dò</i> , specific indefinite after a noun, §6.5.2 b) <i>dò</i> ~ <i>dó</i> , comitative postposition, §8.2.2 in ‘X be with Y’ construction, §11.5.2.2
<i>doo</i>	a) <i>dóò</i> , ‘be where?’, §13.2.4 b) <i>dóò</i> , clause-final particle, §19.1.2.4
<i>dò?ò ~ dó?ó</i>	‘also, too’ or ‘again’, §19.1.2
<i>dòòni</i>	‘a little’ or ‘a (little) while’, §8.5.2
<i>du</i>	a) <i>dù</i> ~ <i>dú</i> postposition ‘in, inside of’, §8.3.3.2 in compound initial, §5.1.8 b) <i>dú</i> , experiential perfect, §15.1.1.3
<i>dúli</i>	‘1’, §4.6.1.1, §3.6.1.1 <i>dúli kùⁿ</i> ‘be equal/same’, §12.2.1
<i>e</i>	a) <i>è</i> , nonhuman 3Sg pronoun, §3.3 b) <i>é</i> , nonhuman 3Sg subject pronoun before imperfective enclitic or after Final Tone-Raising, §10.3.2.1 c) <i>é</i> , contraction of nonhuman 3Sg subject and 3Sg object, §3.3.1.3 d) 2Sg <i>ē</i> ~ <i>ī</i> 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) <i>é</i> +M, 2Sg subject of adjoined clause, §15.2.1.3 f) <i>=è</i> ~ <i>=ē</i> , identificational ‘it is X’ enclitic, §11.2.1.1
<i>ēēⁿ</i>	2Pl pronoun, §3.3
<i>èèⁿ</i>	nonhuman 3Pl pronoun, §3.3
<i>=è</i> ~ <i>=ē</i>	identificational ‘it is X’ enclitic, §11.2.1.1 in ‘belong to’ predicates, §11.5.3.2
<i>fééⁿ</i>	‘a lot’, §8.5.2
<i>fō</i>	‘it must be’, §17.1.4
<i>fōⁿ ~ fōⁿ</i>	‘be better’, §12.1.3
<i>fō ~ fō</i>	a) <i>fō</i> ~ <i>fō</i> , ‘until/all the way to’, §7.3.5.2 b) <i>fō</i> , ‘must’, §17.1.4 c) <i>fō</i> ‘even’, §19.2.2.2
<i>fúúlú</i>	postposition ‘between’, §8.3.3.8
<i>fùùrù</i>	‘until, within (time span)’, §8.3.5.3
<i>gbó-nò</i>	‘like, similar to’, §8.5.1
<i>glà ~ glá</i>	postposition ‘next to’, §8.3.3.5
/H+ = Ø/	a) subject enclitic in imperfective-system clauses (present, future, progressive), §10.3.2.1 b) ‘be’ subject enclitic, §11.2.3.1
<i>=ī</i>	identificational ‘it is X’ enclitic, §11.2.1.1
<i>=(i)n</i>	1Sg or 1Pl subject of adjoined clause, §15.2.1.3
<i>jámúlò</i>	‘become, be transformed into’, §11.2.5.2

<i>kà ~ ká</i>	a) ‘want’ (see also <i>kóó ~ kòò</i>), §11.2.6.2 complements, §17.1.1 past time, §10.4.3
<i>kàà</i>	b) ‘have’, §11.5.1 ‘leave, abandon’ in clause adjunctions, §15.2.3.2
<i>kàbáⁿ</i>	‘already’, §8.5.6.8
<i>kàbí</i>	‘since’, §15.4.3
<i>kàʔrà ~ káʔrá</i>	‘finally VP’, §15.2.2.4
<i>ke</i>	a) <i>ké</i> , past time, §10.4 in counterfactual, §16.4 b) <i>kè</i> , approval tag question, §13.2.1.4 c) <i>kè ~ ké</i> , perfective of ‘leave, abandon’, §10.4
<i>kèⁿ ~ kéⁿ</i>	postposition benefactive, §8.1.3 ‘chez’, §8.3.3.4
<i>kìnà ~ kíná</i>	postposition ‘in front of’, §8.3.3.6
<i>kómì</i>	‘as’, §15.5.2
<i>kósòⁿ</i>	‘because of’, §8.4.5
<i>kóó ~ kòò</i>	‘want’, with clausal complement, §17.1.1
<i>kóní</i>	‘as for’, §19.1.1
<i>kpà</i>	postposition in temporal expressions, §8.3.3.9
<i>kpǎ-mà ~ kpá-mà</i>	purposive postposition (goal), §8.4.3
<i>kpǎ-ɲò ~ kpá-ɲò</i>	purposive postposition (goal), §8.4.3
<i>kpé</i>	‘what?’, §13.2.3
<i>kpèʔè- ~ kpéʔé-</i>	‘only’, §19.1.3 <i>kpéʔé-nū ~ kpèʔè-nù</i> , ‘exactly’, §8.5.3
<i>kú</i>	durative inceptive ‘begin’, §15.1.1.2
<i>kùdù ~ kúdú</i>	purposive-causal postposition (‘for’ or ‘because of’), §8.4.1
<i>kùⁿ ~ kúⁿ</i>	copula, in ‘X is Y’, §11.2.2.1-2 in ‘belong to’ predicates, §11.5.3.1
<i>kùtò ~ kútó</i>	postposition ‘under’, §8.3.4.2
<i>-lī ~ -lì</i>	diminutive suffix on nouns and pronouns, §4.2.1, §4.5.2
<i>ma</i>	a) <i>mā</i> , 1Sg pronoun, §3.3 <i>má = ∅</i> , 1Sg imperfective subject <i>mà</i> , 1Sg preverbal object pronoun after some subjects, §3.3.1.3 b) <i>mà ~ má</i> postposition ‘on’, §8.3.3.3 for indirect object of ‘say’, §8.1.2 c) <i>-má-</i> in two exemplar-type composite adjectives, §5.2.2 d) <i>à-mà</i> once for human 3Sg subject <i>à</i> , end of §4.3.1.1 e) <i>má-</i> ~ <i>mà-</i> prefix in numerals ‘7’ to ‘9’, §4.6.1.2, §6.4.2.2
<i>māā</i>	‘owner’, in compounds, §5.1.6

<i>mǎǎ</i>	a) 3Pl logophoric or focalized <i>à-mǎǎ</i> (human), <i>è-mǎǎ</i> (nonhuman), §13.1, §18.3
<i>màʔà</i>	b) 2Pl pronoun <i>mǎǎ</i> , §4.3.1.7 ‘touch’ with postverbal object, §11.1.2.2 as auxiliary with onomatopoeias, §11.1.2.5
<i>māʔāⁿ, māʔā-nǎ</i>	‘who?’, §13.2.2
<i>mànâ</i>	‘how?’, §13.2.5
<i>mi</i>	a) <i>mì</i> , default possessum, §6.2.4 in predicates, §11.5.3.1-2 b) <i>mí</i> , demonstrative, §4.4.1.1 c) <i>mì</i> , relative marker, §14.2 d) <i>mì</i> , ‘where?’, §13.2.4 e) <i>-mī-</i> in instrumental compounds, §5.1.7 f) <i>mī-</i> prefix in numeral <i>mī-īlō</i> ‘6’, §4.6.1.2
<i>mǐ</i>	demonstrative, §4.4.1.2
<i>mǐ-īⁿ</i>	plural relative marker, §14.2
<i>mìʔìⁿ ~ mēʔēⁿ</i>	‘person’ in agentive compounds, §5.1.4
<i>mùʔùⁿ</i>	1Pl pronoun, §3.3
<i>n</i>	a) <i>=(i)n</i> , 1Sg or 1Ok subject of adjoined clause, §15.2.1.3 b) <i>=ń ~ =ñ</i> , linker before ‘here’ and ‘there’ in predicates, §11.2.3.2
<i>na</i>	a) <i>ná</i> , human 3Sg preverbal object, §4.3.1.3 b) <i>-nà ~ -ná</i> , nominal suffix, nasalized from <i>-rà ~ -rá</i> , §2.2.2.1, §4.1.1, §6.1.2 c) <i>ná</i> , after plural ethnicity name, §8.4.4
<i>naa</i>	a) <i>nàà</i> ‘here’, §4.4.2.1 with linkers, §3.7.3, §11.2.3.2 b) <i>náàⁿ</i> human 3Pl preverbal object, §4.3.1.3 c) <i>nāāⁿ</i> , 1Sg and 1Pl reflexive possessor of object, §18.1.1
<i>náání</i>	‘already’, §8.5.6.8
<i>=nēʔ ~ =nēʔ</i>	clause-final negative enclitic, nasalized from <i>=rēʔ ~ =rēʔ</i> , §10.2 in negative copula ‘X is not Y’, §11.2.1.2
<i>nēʔēkē</i>	‘a little’, §8.5.2
<i>ní</i>	a) <i>nī</i> , ‘if’, §16.1 b) <i>-nī ~ -nì</i> diminutive suffix on nouns and pronouns, nasalized from <i>-lī ~ -lì</i> , §4.2.1, §4.5.2 c) possible temporal morpheme in <i>sání</i> and <i>yání</i> ‘by..., between now and ...’ and <i>náání</i> ‘already’ d) <i>ní</i> , nonhuman 3Sg preverbal object, §4.3.1.3 e) <i>ní</i> or <i>nì ~ ní</i> as final syllable in derived stative verbs, §11.2.4.2, §15.1.1.2
<i>nī</i>	a) perfective 2Sg pseudo-reflexive (middle), §10.1.1.3 b) perfective 2Sg reflexive possessor of preverbal object, §18.1.1

<i>nīⁿ</i>	a) <i>nīⁿ</i> , nonhuman 3Pl preverbal object, §4.3.1.3 b) <i>nīⁿ</i> , 2Sg and 2Pl reflexive possessor of preverbal object, §18.1.1 c) <i>nīⁿ</i> ~ <i>nīⁿ</i> , 2Pl pseudo-reflexive, §10.1.1.3
<i>-nò ~ -nó</i>	nominal suffix, nasalized and rounding-assimilated from <i>-rà ~ -rá</i> , §2.2.2.1, §4.1.1, §6.1.2
<i>-nū</i>	plural nominal suffix, §6.1.3
<i>-nā-</i>	ordinal suffix, §4.6.2.2
<i>nàà</i>	postposition, ‘in the presence of’, §8.3.3.7
<i>nàànéè ~ nāánéè</i>	‘proper, right’, §8.5.4.2
<i>nàní</i>	‘(from now) until ...’, §8.5.6.7
<i>nò</i>	‘which?’, §13.2.7
<i>nù?ùⁿ</i>	reciprocal, §18.2.1
<i>-rà ~ -rá</i>	nominal suffix, §2.2.2.1, §4.1.1, §6.1.2
<i>=rē? ~ =rē?</i>	clause-final negative enclitic, §10.2.1 in ‘it is not X’ construction, §11.2.1.2
<i>=rè = ēⁿ</i>	negative imperfective interrogative as hortative, §13.2.1.3
<i>-rò ~ -ró</i>	nominal suffix, rounding-assimilated from <i>-rà ~ -rá</i> , §2.2.2.1, §4.1.1, §6.1.2
<i>sà</i>	a) future tense, §10.3.2.3 b) with imperative verb, §10.5.1.2
<i>sáni</i>	‘by ..., between now and ...’, §8.5.6.7
<i>sí</i>	in interrogatives, §15.1.1.5
<i>sísàⁿ</i>	‘now’, §19.3.1
<i>sòló ~ sóló</i>	‘how much?’ or ‘how many?’, §13.2.6
<i>sò</i>	‘know’, §11.2.6.1 complements, §17.1.2 past time, §10.4.3
<i>sóó</i>	‘help’ (verb), §15.2.2.3
<i>sòrò</i>	‘do then’ in ‘before ...’ clauses, §15.4.4.1 in ‘it happened that ...’ constructions, §19.2.1.2-3
<i>tàà ~ táá</i>	auxiliary with ‘arrive’, §15.1.1.4
<i>tò⁽ⁿ⁾</i>	a) <i>tò ~ tó</i> , postposition ‘in’, §8.3.3.1 in compound initial, §5.1.8 b) <i>tó ~ tóⁿ</i> , in deverbal adjectives, §4.5.3 c) <i>tóⁿ</i> , ‘first’ (adverb), §15.4.4.3 d) <i>tó = nē?</i> ‘not yet’, §15.4.4.2
<i>tóó</i>	<i>tóó ~ túú</i> , verb ‘stay, remain’, §11.2.5.1 as continuative auxiliary ‘keep doing’, §15.1.1.2
<i>tò?ò</i>	‘say (something)’, §3.3.1
<i>tóró ~ tónó</i>	a) same-subject purposive clause, §17.5.1 b) ‘while’, §15.4.5
<i>tú</i>	a) ‘along with’, §7.1.2 b) ‘plus’ (quantify of time), §8.5.6.7

<i>túú</i>	see <i>tóó</i>
<i>wà</i>	quoted polar interrogative, §13.2.9.2
<i>waa</i>	a) <i>wàá</i> ‘go’, §10.1.1.2 b) <i>wáá</i> , ‘or’, §7.2
<i>wálimà</i>	‘or’, §7.2
<i>wo</i>	a) <i>wō</i> <i>wó</i> = \emptyset , 2Sg imperfective subject <i>wò</i> , 2Sg preverbal object pronoun after some subjects, §3.3.1.3 c) <i>wò</i> , 3Sg logophoric or focalized <i>à-wò</i> (human), <i>è-wò</i> (nonhuman), often truncated to \emptyset - <i>wò</i> , §13.1, §18.3 d) <i>wò</i> , ‘whether (or not), clause-final §16.3
<i>wàndò ~ wónó</i>	‘still on (a topic)’, §8.3.5.4
<i>wó-ró</i>	‘So-and-so’, §4.1.1.4
<i>ya</i>	a) <i>-yà</i> ~ <i>-yá</i> , progressive suffix on verbs, §10.3.2.4 b) <i>yà</i> polar (yes/no) interrogative, §13.2.1.1 c) <i>à-yà</i> (human) and <i>è-yà</i> (nonhuman) 3Sg postverbal objects, §4.3.1.6
<i>yàní</i>	‘by ..., between now and ...’, §8.5.6.7
<i>yé?ré ~ yé?ré</i>	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 *tó* ~ *tóⁿ*, §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
deictic (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
- intensifier (adjectival), §6.3.2.1
- 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
 - nasalized 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 *-āṅ*, §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
- quotation, §17.2
 - 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