

# A Grammar of Tiranige

Dogon language family  
Mali

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based on brief fieldwork  
index etc. to be added later

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color coding (excluding section and chapter headings)

black	new material typed in for this language
blue	transcriptions for this language
green	transcriptions for other languages, reconstructions, and formulas
pink	data to be incorporated later into the section
red	comments to oneself (e.g. data to be elicited, section to be rewritten)
orange	temporary cross-refs to examples in other sections

# Contents

<b>1</b>	<b>Introduction</b> .....	<b>1</b>
1.1	Dogon languages .....	1
1.2	Tiranige (aka Duleri) language and Tiranou people .....	2
1.3	Environment .....	4
1.4	Previous study of and current fieldwork on Tiranige.....	5
1.4.1	Previous study .....	5
1.4.2	Fieldwork .....	5
1.4.3	Acknowledgements .....	6
1.4.4	Additional resources .....	6
<b>2</b>	<b>Sketch</b> .....	<b>7</b>
2.1	Phonology .....	7
2.1.1	Segmental phonology .....	7
2.1.2	Prosody .....	7
2.1.3	Key phonological rules .....	8
2.2	Inflectable verbs .....	8
2.3	Noun phrase (NP) .....	8
2.4	Case-marking and PPs .....	9
2.5	Main clauses and constituent order.....	9
2.6	Relative clauses .....	10
2.7	Interclausal syntax .....	10
<b>3</b>	<b>Phonology</b> .....	<b>12</b>
3.1	Internal phonological structure of stems and words .....	12
3.1.1	Syllables.....	12
3.1.2	Metrical structure .....	13
3.2	Consonants .....	13
3.2.1	Alveopalatals ( <i>c, j</i> ) distinct from velars ( <i>k, g</i> ).....	13
3.2.2	Back nasals ( <i>ŋ, ɲ</i> ) .....	14
3.2.3	<i>g</i> -Spirantization ( <i>g</i> → <i>ɣ</i> ) absent.....	14
3.2.4	Labials ( <i>f, w</i> ).....	14
3.2.5	Laryngeals ( <i>h, ʔ</i> ).....	14
3.2.6	Sibilants ( <i>s, z</i> ).....	14
3.2.7	Nasalized sonorants ( <i>r<sup>n</sup></i> absent, <i>w<sup>n</sup></i> and <i>y<sup>n</sup></i> word-finally) .....	15
3.2.8	Consonant clusters.....	15

3.2.8.1	Word- and morpheme-initial <i>CC</i> clusters.....	15
3.2.8.2	Medial geminated <i>CC</i> clusters.....	16
3.2.8.3	Medial nongeminate <i>CC</i> clusters.....	16
3.2.8.4	Medial triple <i>CCC</i> clusters.....	20
3.2.8.5	Final <i>CC</i> clusters.....	20
3.3	Vowels.....	20
3.3.1	Oral vowels.....	21
3.3.2	Nasalized vowels.....	21
3.3.3	Initial vowels.....	22
3.3.4	Stem-final vowels.....	22
3.3.5	Vocalic harmony.....	22
3.3.6	Vocalism of verb-stem alternations.....	22
3.4	Segmental phonological rules.....	25
3.4.1	Trans-syllabic consonantal processes.....	25
3.4.1.1	Nasalization-Spreading.....	25
3.4.2	Nonharmonic vocalic processes.....	25
3.4.2.1	V-lengthening before <i>nd</i> .....	25
3.4.2.2	Syncope.....	25
3.4.2.3	Apocope.....	26
3.4.3	Local consonant sequence rules.....	27
3.4.3.1	Semivowel assimilation.....	27
3.4.3.2	<i>b</i> ~ <i>w</i> alternations (fortition or lenition?).....	27
3.4.3.3	<i>nj</i> ~ <i>j</i> .....	28
3.4.3.4	<i>r</i> → <i>d</i> after alveolar sonorant or stop.....	28
3.4.3.5	<i>rd</i> → <i>dd</i> .....	29
3.4.4	Vowel-vowel and vowel-semivowel sequences.....	29
3.4.4.1	<i>VV</i> -Contraction.....	29
3.4.4.2	Monophthongization ( <i>/iy/</i> to <i>i:</i> , <i>/uw/</i> to <i>u:</i> ).....	30
3.5	Cliticization.....	30
3.6	Tones.....	31
3.6.1	Lexical tone melodies.....	31
3.6.1.1	Lexically <i>/L/</i> -melody stems allowed.....	31
3.6.1.2	Lexical tones of verbs.....	32
3.6.1.3	Lexical tone patterns for unsegmentable noun stems.....	32
3.6.1.4	Lexical tone melodies for adjectives and numerals.....	35
3.6.1.5	Tone-Component location for bitonal noun stems.....	35
3.6.1.6	Tone-Component location for tritonal noun stems.....	35
3.6.2	Grammatical tone patterns.....	35
3.6.2.1	Grammatical tones for verb stems.....	35
3.6.2.2	Grammatical tones for noun stems.....	35

3.6.2.3	Grammatical tones for adjectives and numerals .....	36
3.6.3	Low-level tone rules .....	36
3.6.3.1	Contour-Tone Resyllabification.....	36
3.6.3.2	Contour-Tone Mora-Addition.....	36
3.6.3.3	Rightward L-Spreading .....	37
3.6.3.4	Rightward H-Spreading.....	37
3.7	Grammaticalized intonation .....	38
3.7.1	Morphemes with lexically specified prolongation (→).....	38
<b>4</b>	<b>Nominal, pronominal, and adjectival morphology.....</b>	<b>39</b>
4.1	Nouns .....	39
4.1.1	Simple nouns.....	39
4.1.1.1	Singular (zero) and plural (- <i>gè</i> ).....	39
4.1.1.2	Frozen classifying suffixes (*- <i>ηge</i> , *- <i>ge</i> , *- <i>ηγο</i> ).....	40
4.1.2	High-frequency nouns (‘woman’, ‘man’, ‘child’, ‘person’, ‘thing’).....	42
4.1.3	Initial <i>Cv</i> -reduplication in nouns rare .....	42
4.1.4	Final reduplication in nouns.....	42
4.1.5	Nouns with full-stem iteration.....	42
4.1.6	Frozen initial <i>a</i> - or <i>aN</i> - in nouns .....	44
4.2	Derived nominals.....	44
4.2.1	Characteristic derivative (- <i>ηγά</i> , - <i>γά</i> ) .....	44
4.2.2	Deverbal - <i>ηγέ</i> ~ - <i>ηγè</i> nominals .....	46
4.2.3	Deverbal abstractive nominals .....	45
4.2.3.1	Productive verbal noun (- <i>wà</i> ~ - <i>bà</i> ).....	45
4.2.3.2	Minor deverbal abstractive nominals .....	47
4.2.4	Instrument nominals with - <i>yé</i> .....	47
4.2.5	Uncompounded agentives.....	48
4.3	Pronouns.....	48
4.3.1	Basic personal pronouns .....	48
4.3.2	Personal pronouns as possessors .....	49
4.4	Definite and deictic words.....	49
4.4.1	Determiners.....	49
4.4.1.1	Definite marker ( <i>rì</i> ) .....	49
4.4.1.2	‘This/that’ (deictic demonstrative pronouns).....	50
4.4.2	Demonstrative adverbs .....	52
4.4.2.1	Locative adverbs .....	52
4.4.2.2	Emphatic and approximative modifiers of adverbs.....	52
4.4.2.3	‘Like this/that’ ( <i>mbórò</i> ).....	53
4.4.3	Presentatives (‘here’s ...!’) (- <i>nì</i> ) .....	53
4.5	Adjectives.....	53

4.5.1	Morphologically simple adjectives.....	53
4.5.2	Iterated adjective stems.....	55
4.5.3	Phrasal adjectives (exemplars).....	55
4.5.4	Negative adjectives ( <i>-ná</i> ).....	56
4.5.5	Diminutive adjectives ( <i>-wè</i> ).....	57
4.6	Participles.....	57
4.6.1	Negative participial adjectives ( <i>-rá</i> ).....	58
4.7	Numerals.....	59
4.7.1	Cardinal numerals.....	59
4.7.1.1	‘One’ ( <i>tò:mà</i> ), ‘same (one)’ ( <i>tò:mà</i> ), and ‘other’ ( <i>tó:</i> ).....	59
4.7.1.2	‘2’ to ‘10’.....	59
4.7.1.3	Decimal multiples (‘20’, ...) and combinations (‘11’, ‘59’, ...).....	60
4.7.1.4	Large numerals (‘100’, ‘1000’, ...) and their composites.....	62
4.7.1.5	Currency.....	63
4.7.1.6	Distributive numerals.....	64
4.7.2	Ordinal adjectives.....	64
4.7.2.1	‘First’ ( <i>díló, gó:</i> ) and ‘last’ ( <i>kùgùrìyàngé</i> ).....	65
4.7.2.2	Other ordinals (suffix <i>-n</i> ).....	65
4.7.3	Fractions and portions.....	66
<b>5</b>	<b>Nominal and adjectival compounds.....</b>	<b>67</b>
5.1	Nominal compounds.....	67
5.1.1	Compounds of type [ <i>n̄ n̄</i> ].....	67
5.1.2	Compounds of type [ <i>n̄ n̄</i> ].....	67
5.1.3	Compounds with final verbal noun, type [ <i>n̄ v-VbIN</i> ].....	67
5.1.4	Possessive-type compounds [ <i>n̄ n̄</i> ].....	68
5.1.5	Agentive compounds of type [ <i>n̄ v̄</i> ].....	68
5.1.6	Compounds with <i>bé:</i> or <i>-bè</i> ~ <i>-wè</i> ‘child’.....	69
5.1.7	Compounds with ‘man’ ( <i>bànà</i> ) and ‘woman’ ( <i>yé:</i> ).....	70
5.1.8	Compounds with <i>tùngà</i> or <i>gùnàrì</i> ‘owner’.....	70
5.1.9	Natural-species compounds ( <i>X-nà(:)-X</i> ).....	71
5.1.10	Instrumental compounds ( <i>-wà, -yé</i> ).....	71
5.1.11	Product-of-action compounds ( <i>-yé</i> ~ <i>-yé</i> ).....	72
5.2	Adjectival compounds.....	73
5.2.1	Bahuvrihi (“Blackbeard”) compounds.....	73
5.2.1.1	With adjectival compound final [ <i>n̄ ǎ</i> ].....	73
5.2.1.2	With numeral compound final.....	73
<b>6</b>	<b>Noun Phrase structure.....</b>	<b>75</b>
6.1	Organization of NP constituents.....	75

6.1.1	Linear order.....	75
6.1.2	Headless NPs (absolute function of non-noun NP constituents).....	77
6.1.3	Apparent bifurcation of relative-clause head NP .....	77
6.1.4	Internal bracketing and tone-dropping within an NP.....	77
6.2	Possessives .....	78
6.2.1	Alienable possession.....	78
6.2.1.1	Nonpronominal NP as pronominal alienable possessor.....	78
6.2.1.2	Pronominal alienable possessor .....	79
6.2.1.3	Tone contour of modifiers following an alienably possessed noun .....	80
6.2.2	Inalienable possession .....	83
6.2.2.1	Kin terms and similar relationship terms.....	83
6.2.2.2	Tone contour of modifiers following an inalienably possessed noun .....	85
6.2.3	Recursive possession .....	86
6.3	Noun-adjective.....	87
6.3.1	Noun plus regular modifying adjective.....	87
6.3.2	Numeral-like <i>àmbilè-gè</i> ‘certain (ones)’ .....	88
6.3.3	Expansions of adjective .....	88
6.3.3.1	Adjective sequences .....	88
6.3.3.2	Adjectival intensifiers.....	89
6.3.3.3	‘Good to eat’ .....	89
6.4	NPs containing a numeral .....	89
6.4.1	Ordinary N-(Adj-)Num sequences .....	90
6.4.2	Adj-Num Inversion.....	92
6.5	NP including a determiner.....	93
6.5.1	Prenominal demonstratives absent .....	93
6.5.2	Noun plus demonstrative .....	94
6.5.3	Noun plus definite <i>rì</i> .....	95
6.6	Universal and distributive quantifiers .....	97
6.6.1	‘All’ ( <i>cimà, póy</i> ).....	97
6.7	Accusative ( <i>gi</i> ).....	97
<b>7</b>	<b>Coordination.....</b>	<b>99</b>
7.1	NP coordination.....	99
7.1.1	NP conjunction ( <i>X yà Y yà</i> ) .....	99
7.1.1.1	Ordering of conjuncts.....	99
7.1.1.2	‘X and Y’ with internally complex conjuncts.....	100
7.1.1.3	List “intonation” with <i>yâ</i> : in longer conjoined NPs .....	100
7.1.2	“Conjunction” of verbs or VP’s .....	101
7.2	Disjunction .....	101
7.2.1	‘Or’ particles .....	101

7.2.1.1	<i>mâ</i> → ‘or’ preceding second disjunct in indicative context .....	101
7.2.1.2	<i>wá</i> after each disjunct in interrogative context .....	102
7.2.1.3	Numerical range (e.g. ‘one or two’).....	102
7.2.2	Clause-level disjunction.....	102
<b>8</b>	<b>Postpositions and adverbials.....</b>	<b>103</b>
8.1	Dative and instrumental .....	103
8.1.1	Dative absent.....	103
8.1.2	Instrumental ( <i>yà</i> ) .....	103
8.2	Locational postpositions.....	104
8.2.1	Locative, allative, and ablative functions.....	104
8.2.2	Simple and composite PPs.....	104
8.2.3	Locative ‘in, at, on’ .....	105
8.2.3.1	Locative by vowel-lengthening.....	105
8.2.3.2	Locative postposition ( <i>ɲà, yà, gɪ</i> ).....	105
8.2.3.3	‘Chez X’ ( <i>X ɲâ:</i> or <i>X ɲà:</i> ).....	107
8.2.4	‘Inside X’ or ‘under X’ ( <i>[X<sup>LH</sup> kùlyé] ɲà</i> ).....	107
8.2.5	‘At the bottom/base of X’ ( <i>[X<sup>LH</sup> sigí] ɲà</i> ).....	108
8.2.6	‘On (the head of) X’, ‘over X’ ( <i>[[X<sup>LH</sup> dâná] ɲà</i> ) .....	108
8.2.7	‘Next to, beside X’ ( <i>[X<sup>LH</sup> è:lé] ɲà, [X<sup>LH</sup> jèlé] ɲà</i> ).....	109
8.2.8	‘In front of’ ( <i>[X jíró] ɲà</i> ).....	110
8.2.9	‘Behind/after X’ ( <i>[X<sup>LH</sup> tú:ⁿ] ɲà</i> or <i>[X<sup>LH</sup> tùnú] gɪ</i> ).....	110
8.2.10	‘Under X’ ( <i>[X dùṅó] ɲà</i> ).....	111
8.2.11	‘Between’ ( <i>[[X Y]<sup>LH</sup> bèná] ɲà</i> ) .....	111
8.2.12	‘From X to Y’.....	112
8.3	Purposive-causal ‘for’ ( <i>dàgá</i> ) .....	112
8.4	Other adverbs (or equivalents) .....	113
8.4.1	Similarity ( <sup>LH</sup> <i>tòɔ</i> ‘like’).....	113
8.4.2	Extent ( <i>kùnú</i> → ‘a lot’, <i>cêw<sup>n</sup></i> ‘a little’).....	113
8.4.3	Specificity .....	114
8.4.3.1	‘Approximately’ ( <i>béléwò</i> ).....	114
8.4.3.2	‘Exactly’ ( <i>kák</i> ) .....	114
8.4.4	Spatiotemporal adverbials.....	115
8.4.4.1	Temporal adverbs.....	115
8.4.4.2	‘First’ ( <i>tápòw<sup>n</sup></i> ).....	115
8.4.4.3	Spatial adverbs.....	116
8.4.5	Expressive adverbials (EAs) .....	116
8.4.5.1	‘Apart, separate’ ( <i>tòw<sup>n</sup></i> ).....	117
8.4.5.2	‘Always’ ( <i>wàkàti cíamá</i> ), ‘never’ ( <i>àbádá</i> ).....	117
8.4.6	‘Together’ ( <i>bó:gù</i> ) .....	117

8.4.6.1	‘All, entirely’ ( <i>címà</i> ) .....	118
<b>9</b>	<b>Verbal derivation</b> .....	<b>119</b>
9.1	Reversive verbs ( <i>-lò- ~ -lò-</i> ) .....	119
9.2	Deverbal causative verbs.....	121
9.2.1	Productive causative with suffix <i>-m(ú)-</i> .....	121
9.2.2	Minor causative suffix <i>-gó-</i> .....	122
9.3	<i>-gv-</i> suffix with ‘enter’ and ‘exit’ .....	123
9.4	Mediopassive and transitive .....	124
9.4.1	Mediopassive <i>-yó- ~ -yó-</i> and transitive <i>-ró- ~ -ró- (-dó- ~ -dó-)</i> .....	124
9.4.2	Benefactive function of transitive derivative .....	125
9.4.2.1	Benefactive <i>-ró- ~ -ró- (-dó- ~ -dó-)</i> .....	125
9.4.2.2	<i>kán(ú)-</i> ‘do (sth)’ and <i>ká:-ndó-</i> ‘do (sth) for (sb)’ .....	126
9.5	Reciprocal ( <i>-yó- ~ -yó-</i> ).....	126
9.6	Deadjectival inchoative and factitive verbs.....	127
9.7	<i>-lǎ-</i> for multiplicity .....	129
<b>10</b>	<b>Verbal inflection</b> .....	<b>130</b>
10.1	Inflection of regular indicative verbs .....	130
10.1.1	Overview of indicative (aspect-negation) categories.....	130
10.1.2	Verb stem shapes.....	131
10.1.2.1	<i>Cv</i> : verb stems.....	131
10.1.2.2	<i>CvC</i> verb stems.....	132
10.1.2.3	<i>nCv-</i> verbs.....	132
10.1.2.4	Regular bisyllabic stems.....	133
10.1.2.5	Syncopating final-nonhigh-vowel bisyllabics ( <i>Cvww-</i> , <i>Cvmv-</i> ) .....	136
10.1.2.6	Syncopating final-nonhigh-vowel bisyllabics ( <i>Cvnn-</i> , <i>Cvll-</i> , <i>Cvrv-</i> ).....	138
10.1.2.7	Syncopating final-high-vowel bisyllabics ( <i>Cvnn-</i> , <i>Cvmv-</i> ).....	139
10.1.2.8	Trisyllabic stems .....	140
10.2	Positive indicative AN categories.....	141
10.2.1	Perfective positive system (including perfect) .....	141
10.2.1.1	(Simple) perfective (E/I-stem) .....	141
10.2.1.2	Perfective-1a and -1b absent.....	144
10.2.1.3	Experiential perfect ‘have ever’ ( <i>-tèy ~ -té-</i> ) .....	144
10.2.1.4	Recent perfect ( <i>-sɛ-</i> ) .....	145
10.2.1.5	Resultative ( <i>-sà-</i> ).....	147
10.2.1.6	Reduplicated perfective absent .....	149
10.2.2	Imperfective positive system.....	149
10.2.2.1	Imperfective ( <i>-wò- ~ -bò-</i> ).....	149
10.2.2.2	Reduplicated imperfective absent .....	152



10.2.2.3	Progressive ( <i>-w<sup>n</sup> bǒ:-</i> ) .....	152
10.2.2.4	Future with <i>-lá</i> and perfective .....	155
10.2.2.5	Future tense absent .....	156
10.2.3	Negation of indicative verbs .....	156
10.2.3.1	Perfective negative ( <i>-ní-</i> ) .....	156
10.2.3.2	Experiential perfect negative ( <i>-tè:-ní</i> ) .....	159
10.2.3.3	Recent perfect negative or past perfect negative ( <i>-ní-yé-</i> ) .....	159
10.2.3.4	Imperfective negative ( <i>-rá- ~ -dá-</i> ) .....	160
10.2.3.5	Progressive negative ( <i>órâ-</i> ) .....	163
10.3	Pronominal paradigms for non-imperative verbs .....	164
10.3.1	Subject pronominal suffixes .....	164
10.3.2	Tones of subject pronominal suffixes .....	165
10.4	Stative form of verbs (reduplicated and unreduplicated) .....	166
10.4.1	Stative positive .....	166
10.4.1.1	Type with final <i>a</i> .....	166
10.4.1.2	Passive stative with <i>-yé = w<sup>n</sup> ~ -yé = w<sup>n</sup></i> .....	168
10.4.2	Stative negative .....	169
10.4.2.1	Basic stative negative ( <i>-nâ-</i> ) .....	169
10.4.2.2	Passive stative negative .....	170
10.5	Capacitative ('can, be able') .....	170
10.5.1	Derivational suffix ( <i>-má-</i> ) .....	170
10.5.2	Verb <i>ímá-</i> 'be capable' .....	171
10.6	Nonpast versus past time .....	171
10.6.1	Past-time forms (ablaut to <i>ε</i> or suffixation of <i>-yε-</i> ) .....	171
10.6.1.1	Past <i>bè:- ~ wè:-</i> 'was' .....	172
10.6.1.2	Past <i>órè-</i> 'was not' .....	173
10.6.1.3	Past forms of other statives .....	173
10.6.1.4	Past imperfective and past progressive .....	176
10.6.1.5	Past experiential perfect ( <i>-tèy-yé-</i> ) .....	177
10.6.1.6	Past capacitative ( <i>-mè-</i> ) .....	177
10.7	Imperatives and hortatives .....	178
10.7.1	Imperatives and prohibitives .....	178
10.7.1.1	Imperative (unsuffixed singular, plural <i>-y<sup>n</sup></i> ) .....	178
10.7.1.2	Prohibitive ( <i>-lá ~ -là</i> , plural <i>-lá-y</i> ) .....	181
10.7.2	Hortatives .....	184
10.7.2.1	Hortative ( <i>-y<sup>n</sup></i> , plural <i>-yây<sup>n</sup></i> ) .....	184
10.7.2.2	Hortative negative ( <i>-lây<sup>n</sup></i> , plural <i>-lây<sup>n</sup>y<sup>n</sup>â</i> ) .....	188
10.7.3	Quoted imperatives and hortatives .....	190
10.7.3.1	Quoted imperatives (I/U-stem) .....	190
10.7.3.2	Quoted prohibitives ( <i>-lây<sup>n</sup></i> ) .....	192

10.7.3.3	Quoted hortative.....	193
10.7.3.4	Imperative and hortative imprecations ( <b>rewrite</b> ).....	193
<b>11</b>	<b>Clause, VP, and predicate structure .....</b>	<b>195</b>
11.1	Clausal constituents .....	195
11.1.1	Subjects.....	195
11.1.1.1	Subjects in indicative main clauses .....	195
11.1.1.2	Subjects in relative and complement clauses.....	195
11.1.1.3	Subjects of imperative and hortative verbs.....	195
11.1.1.4	Subjects of lexicalized subject-verb combinations.....	196
11.1.2	Simple transitives .....	196
11.1.2.1	Direct objects of simple transitives .....	196
11.1.2.2	<i>kán(ú)</i> ‘do’ with nouns and unconjugatable words .....	197
11.1.2.3	<i>gún(ú)</i> - ‘say’ and causative <i>gúná-m(ú)</i> - with onomatopoeias.....	198
11.1.2.4	Collocations with low-referentiality objects.....	198
11.1.2.5	Forms of cognate nominals associated with verbs .....	199
11.1.2.6	Grammatical status of cognate nominal .....	200
11.1.3	Clauses with additional arguments and adjuncts.....	201
11.1.3.1	Syntax of expressive adverbials (EAs).....	201
11.1.3.2	Adverbial phrases with verbs of motion, being in, and putting .....	201
11.1.3.3	Ditransitives .....	202
11.1.3.4	Valency of causatives .....	203
11.1.4	Verb Phrase .....	203
11.2	‘Be’, ‘become’, ‘have’, and other statives and inchoatives.....	203
11.2.1	‘It is’ clitics .....	203
11.2.1.1	Positive ‘it is’ ( = <i>w<sup>n</sup></i> ~ = <i>wò</i> ~ = <i>yò</i> ).....	203
11.2.1.2	‘It is not’ ( = <i>là</i> ~ = <i>lá</i> ).....	205
11.2.2	Existential and locative quasi-verbs and particles.....	205
11.2.2.1	Existential particles <i>è</i> ~ <i>é</i> and (distant) <i>yà</i> ~ <i>yá</i> .....	205
11.2.2.2	‘Be (somewhere)’ ( <i>bò</i> - ~ <i>wò</i> -) .....	207
11.2.2.3	Negative <i>órá</i> - ‘is not (in a place)’.....	209
11.2.3	Other stative locational and positional quasi-verbs .....	209
11.2.3.1	Other stative locational quasi-verbs (‘be in/on’).....	209
11.2.4	‘Become’, ‘happen’, and ‘remain’ predicates .....	210
11.2.4.1	‘Remain’ ( <i>ánjó</i> -).....	210
11.2.4.2	‘Become, be transformed into’ ( <i>bíló</i> -).....	210
11.2.4.3	‘Become’ related to ‘be (somewhere)’ quasi-verbs ( <i>wó</i> -).....	210
11.2.5	Mental and emotional statives.....	210
11.2.5.1	‘Know’ ( <i>yèy</i> ).....	210
11.2.5.2	‘Want, like’ ( <i>cèy</i> -).....	211

11.2.5.3	‘Resemble’ ( <i>mòlá-</i> ) .....	212
11.3	Quotative verb .....	212
11.3.1	‘Say’ (perfective <i>gùnè-</i> ) .....	212
11.4	Adjectival predicates .....	213
11.4.1	Positive adjectival predicates .....	213
11.4.1.1	Adjectival predicates with <i>bǒ:-</i> ‘be’ .....	213
11.4.1.2	Adjectival predicates with <i>=w̃<sup>n</sup></i> ‘it is’ .....	215
11.4.1.3	Adjectival predicates like stative verbs .....	216
11.4.2	Negative adjectival predicates .....	217
11.5	Possessive predicates .....	220
11.5.1	‘X have Y’ ( <i>sâ-</i> ) .....	220
11.5.2	‘Y belong to X’ predicates .....	220
<b>12</b>	<b>Comparatives.....</b>	<b>222</b>
12.1	Asymmetrical comparatives .....	222
12.1.1	Predicative adjective with <i>bâ→</i> ‘than’ and comparandum .....	222
12.1.2	Verbal predicate plus <i>bâ→</i> ‘than’ .....	223
12.1.3	‘Surpass’ ( <i>tángó-</i> ) .....	223
12.1.4	‘Be better’ ( <i>mò:, írò</i> ), be more’ ( <i>báy</i> ) .....	224
12.1.5	‘Best’ ( <i>[X jìró] wá:</i> ) .....	225
12.2	Symmetrical comparatives .....	225
12.2.1	‘Equal; be as good as’ ( <i>dágó-</i> ) .....	225
12.2.2	‘Same (equal)’ ( <i>tó:má-ηgá = w̃<sup>n</sup></i> ) .....	225
12.3	‘A fortiori’ ( <i>sájkò</i> ) .....	226
<b>13</b>	<b>Focalization and interrogation.....</b>	<b>227</b>
13.1	Focalization .....	227
13.1.1	Basic syntax of focalization .....	227
13.1.1.1	Which constituents can and cannot be focalized? .....	227
13.1.1.2	Preverbal subject pronouns in nonsubject focalizations .....	228
13.1.1.3	No systematic movement of focalized constituent .....	229
13.1.1.4	Focus morpheme identical to ‘it is’ clitic ( <i>=w̃<sup>n</sup> ~ =wò ~ =yò</i> ) .....	230
13.1.1.5	{LH} or {H} overlay on defocalized verb .....	230
13.1.1.6	Existential <i>è ~ é</i> absent .....	232
13.1.2	Subject focalization .....	233
13.1.3	Object focalization .....	233
13.1.4	Focalization of PP or other adverb .....	234
13.2	Interrogatives .....	234
13.2.1	Polar (yes/no) interrogatives ( <i>lè, ni</i> ) .....	234
13.2.2	‘Who?’ ( <i>á:</i> ) .....	235

13.2.3	‘What?’ ( <i>ndégé</i> ), ‘with what?’, ‘why?’	236
13.2.4	‘Where?’ ( <i>àná</i> )	237
13.2.5	‘When?’ ( <i>áná-ṅgà</i> )	238
13.2.6	‘How?’ ( <i>árá</i> )	238
13.2.7	‘How much/many?’ ( <i>áṅgá</i> )	238
13.2.8	‘Which?’ ( <i>árí</i> )	239
<b>14</b>	<b>Relativization</b>	<b>240</b>
14.1	Basics of relative clauses	240
14.2	Head NP	240
14.2.1	Internal head NP (Poss-N-Adj-Num)	240
14.2.2	<i>árí</i> ‘which’ and/or = <i>w<sup>n</sup></i> after internal head NP	241
14.2.3	Restrictions on the head of a relative clause	242
14.2.4	Conjoined NP as head	242
14.2.5	Headless relative clause	243
14.2.6	Head noun not doubled after relative clause	243
14.3	Preverbal subject pronoun in nonsubject relative	243
14.4	Verb (or: verbal participle) in relative clause	244
14.4.1	Participles of positive perfective-system verbs	244
14.4.2	Participles of positive imperfective-system and stative verbs	245
14.4.3	Participles of negative perfective-system verbs	247
14.4.4	Participles of negative imperfective-system and stative verbs	248
14.4.5	Participle of past-time forms	249
14.5	Relative clause involving verb- or VP-chain	249
14.6	Late-NP elements that follow the verb (or verbal participle)	250
14.6.1	Determiners (demonstrative and definite)	250
14.6.2	Plural ( <i>-gè</i> )	251
14.6.3	Non-numeral quantifiers (‘all’)	251
14.7	Grammatical relation of relativized-on NP	252
14.7.1	Subject relative clause	252
14.7.2	Object relative clause	252
14.7.3	Possessor relative clause	253
14.7.4	Relativization on the complement of a postposition	254
14.8	Relative clauses as quasi-main clauses	255
<b>15</b>	<b>Verb (VP) chaining and adverbial clauses</b>	<b>256</b>
15.1	Direct chains	256
15.2	Temporal adverbial clauses	257
15.2.1	Adverbial clauses expressing temporal overlap	257
15.2.1.1	Noun-headed temporal relative clause (‘[at] the time when ...’)	257

15.2.1.2	Imperfective subordinate clause with <i>-w<sup>n</sup>~ -ŋ</i> ‘while’	258
15.2.1.3	‘Until’ (or ‘before’) clause with <i>-ɔ: gɪ</i>	259
15.2.1.4	‘Since ...’ clauses ( <i>tɔrɔ</i> )	260
15.2.1.5	Durative background clauses ( <i>bí:-ni</i> ‘keep being’, etc.)	260
15.2.2	Adverbial clauses expressing chronological sequences	262
15.2.2.1	Perfective sequences (same or different subject, anterior)	262
15.2.2.2	Chains with nonfinal perfective verb (same-subject co-events)	262
15.2.2.3	Nonfinal verb with <i>-sà-w<sup>n</sup></i> (past, same-subject, anterior)	263
15.2.2.4	Nonfinal verb with <i>ŋá</i> (nonpast, same-subject, anterior)	264
15.2.2.5	Nonfinal verb with <i>-à:</i>	261
15.2.2.6	‘Worked until got tired’ = ‘worked for a very long time’	264
15.2.3	‘Before ...’ clauses ( <i>jimbá, -ɔ: gɪ</i> )	265
15.3	Spatial and manner adverbials	267
15.3.1	Spatial adverbial relative clause (‘where ...’)	267
15.3.2	Manner adverbial clause (‘how ...’) ( <i>bání</i> )	267
<b>16</b>	<b>Conditional constructions</b>	<b>268</b>
16.1	Hypothetical conditional with <i>mè</i> or <i>mè-nè</i> ‘if’	268
16.2	Alternative ‘if’ particles	270
16.2.1	‘Even if ...’ ( <i>hálí ... là</i> )	270
16.3	Counterfactual conditional	270
<b>17</b>	<b>Complement and purposive clauses</b>	<b>271</b>
17.1	Quotative complements	271
17.1.1	Quoted indicative clauses	271
17.1.1.1	‘Say’ verb ( <i>gún(ú)-</i> )	272
17.1.1.2	Clause-final quotative particle <i>wà</i> and tonal changes in verb	272
17.1.1.3	Pronominal subjects (clause-initial versus preverbal proclitic)	274
17.1.2	Jussive complement (reported imperative or hortative)	275
17.1.2.1	Quoted imperative	275
17.1.2.2	Quoted hortative	276
17.2	Factive complements	277
17.2.1	‘Know that ...’ complement (headless relative)	277
17.2.2	‘See (find, hear) that ...’	277
17.2.2.1	Direct-perception construction (‘while ...’)	277
17.2.2.2	Recognition construction (headless relative)	278
17.3	Bare perfective (chain-like) complements	278
17.3.1	‘Help’ ( <i>báró-</i> ) with nominal or bare perfective complement	278
17.3.2	‘Finish’ ( <i>póró-</i> ) with bare perfective complement	279
17.3.3	‘Be accustomed’ ( <i>wélé-</i> ) with bare perfective complement	279

17.4	Verbal noun (and other nominal) complements.....	280
17.4.1	Argument structure of verbal-noun complement.....	280
17.4.2	‘Prevent’ ( <i>téls-</i> ) with verbal-noun complement.....	280
17.4.3	‘Dare’ ( <i>yàrí kán(ú)-</i> ) with verbal-noun complement.....	281
17.4.4	‘Consent’ ( <i>áwó-</i> ) with verbal-noun or imperfective relative complement.....	281
17.4.5	‘Want’ ( <i>cèy-</i> ) with verbal-noun or imperfective relative complement.....	282
17.4.6	‘Forget’ ( <i>ídí-yó-</i> ) with verbal-noun complement.....	282
17.4.7	‘Be afraid to’ ( <i>yó:ní-yó-</i> ) with verbal-noun complement.....	282
17.4.8	‘Begin’ ( <i>déwó-</i> ) with verbal-noun complement.....	283
17.4.9	‘Cease’ ( <i>díyó-</i> ) with verbal-noun complement.....	283
17.5	Purposive, causal, and locative clauses.....	283
17.5.1	Clauses with purposive postposition <i>dàgá</i> ‘for’ and verbal noun.....	283
17.5.2	Purposive clauses with verb in H-toned final -á or -á:.....	284
17.5.3	Causal (‘because ...’) clause ( <i>pàské</i> ).....	284
17.5.4	Obligational ‘must’ construction with <i>kán(ú)-</i> ‘do’.....	284
<b>18</b>	<b>Anaphora.....</b>	<b>286</b>
18.1	Reflexive.....	286
18.1.1	Reflexive object (‘my head’ etc.).....	286
18.1.2	Reflexive possessor.....	287
18.2	Emphatic pronouns.....	287
18.3	Logophoric pronouns (absent).....	287
18.4	Reciprocal.....	288
18.5	<i>tìngà</i> ‘owner’ as anaphor for nonspecific discourse referent.....	288
<b>19</b>	<b>Grammatical pragmatics.....</b>	<b>289</b>
19.1	Topic.....	289
19.1.1	Topic ( <i>kây</i> ).....	289
19.1.2	‘Also’ ( <i>là ~ là:</i> ).....	289
19.1.3	‘Even’ ( <i>hàlí ~ hǎl</i> ).....	290
19.2	Preclausal discourse markers.....	291
19.2.1	‘Well, ...’ ( <i>hàyà</i> ).....	291
19.2.2	‘But ...’ ( <i>mè:</i> ).....	291
19.3	‘Only’ particles.....	291
19.3.1	‘Only’ ( <i>tòmá→</i> ).....	291
19.4	Phrase-final emphatics.....	292
19.4.1	Clause-final <i>kòy</i> ‘sure’ (firm agreement or answer).....	292
19.4.2	Clause-final <i>dé</i> (admonitive).....	292
19.5	Greetings.....	292
	<b>Texts.....</b>	<b>295</b>

Text 1	Hyena, Vulture, and the Dead Body (tale) .....	295
Text 2	Farming .....	297
Text 3	War .....	300
Text 4	Travels.....	303
Text 5	Thieves in Sigal .....	308
Text 6	Thieves in Ndjamena .....	310
<b>Abbreviations .....</b>		<b>312</b>
<b>Symbols.....</b>		<b>314</b>
<b>Index .....</b>		<b>314</b>

# 1 Introduction

## 1.1 Dogon languages

Dogon is a well-defined genetic family of languages spoken on the Dogon plateau, the cliffs and slopes that lead down from them, the sandy plains that stretch out to their north and east, and scattered inselbergs separated from the plateau to the north. Not all varieties have been surveyed professionally, but there are at least 80 varieties with distinct local names, and we currently think that these can be grouped into about 20-25 units of the sort that linguists generally consider to be “languages.”

Dogon is generally thought to belong to Niger-Congo. No close relationships to specific NC families have been demonstrated, and a reasonable working hypothesis is that Dogon (perhaps along with Ijoid) split off at a very early point from what later became the core groups of NC. One argument in favor of this position is that Dogon (and Ijoid) lack the noun-class prefix system which is a major defining characteristic of core Niger-Congo groups like Gur and Bantoid.

Dogon internal classification, as I currently understand it, can be summarized as in (xx1). There is a basic “western” versus “eastern” split, imperfectly correlating with the western and eastern cliffs of the main Dogon plateau. The cliffs on both sides are actually skewed diagonally, running from northeast to southwest. Yanda Dom and Tebul Ure are on the eastern cliffs and are separated from the rest of western Dogon by Tommo So. The columns in (xx1) disregard these points, and are tweaked to bring out geographical (and therefore contact) relationships both within each division and across the divide.

(xx1) western	eastern
	Toro Tegu
	Ben Tey, Bankan Tey
Yanda Dom, Tebul Ure	Jamsay group, Nanga
Najamba-Kindigué-Bondu	
<b>Tiranige</b>	Tommo So
Dogul Dom	Donno So, Toro So group
Bunoge, Mombo, Ampari, Penange	Tengou-Togo group
	Tomo Kan

Tiranige is squarely in the western division. From a glance at maps one can see that their geographical neighbors within Dogon are the Bondu subgroup of Najamba-Kindigué-Bondu



to the northeast, Tommo people to the south-east, and Dogul people to the south. Social contact with these other Dogon groups is limited as explained below.

## 1.2 Tiranige (aka Duleri) language and Tiranou people

Tiranige (*tírá-ní-gé*) is the endonym used by native speakers to denote the language. *-gé* is a suffix found in language names. The people who speak this language are called *tírá-nú*; singular *tírá bólé*.

Fulbe call the Tiranou and their language *nduuleri*. In the form Duleri this term is widely used among non-Tiranou speakers including other Dogon to denote the Tiranou and their language, and has appeared in early Dogon dialect surveys.

The language is spoken in a number of villages in a rather rocky zone along and to the south of the western edge of the Dogon high plateau, and in a few newer villages that hug the cliffs on the plains below. The geographic limits are north latitude 14 42 (Embali) to 14 51 (Korendiou), and west longitude 03 36 (Degui and Toumba) to 03 46 (Semo). Parenthesized coordinates are estimated from maps. Others, those with three decimal points, are our own.

(xx1)	village	native name	north latitude	west longitude
	Beri (Biri)	<i>bìlì</i>	(14 47	03 37)
	Boui	<i>bùrù</i>	(14 48	03 44)
	Damagari	<i>dánálí</i>	(14 48	03 43)
	Degui (Digui)	<i>déjí</i>	14 49.064	03 36.078
	Djigui	<i>jígí</i>	14 46.357	03 39.607
	Dougo	<i>dò:</i>	14 48.441	03 41.884
	Embali (Emmbari)	<i>èmbàlì</i>	(14 42	03 44)
	Gourari	<i>gúlálí</i>	14 49.382	03 41.113
	Guimari	<i>gímálí~ jímálí</i>	14 48.337	03 40.921
	Keti	<i>kéí</i>	14 49.079	03 41.055
	Korendiou	<i>délí</i>	(14 51	03 42)
	Nefari	<i>nèwàlì</i>	(14 43	03 44)
	Neou	<i>nè:</i>	14 49.079	03 41.055
	Ningo	<i>ìjì</i>	(14 50	03 38)
xxx	Pandali (abandoned)	<i>pándalí</i> (?)	—	
	Semo	<i>sémá</i>	(14 44	03 46)
	Some	<i>sòmèyà</i>	(14 44	03 38)
xxx	Sora (abandoned)	<i>sò:ra</i> (?)	—	
	Tanga	<i>tánjá</i>	14 48.742	03 38.691
	Toumba	<i>tùmbà</i>	(14 48	03 36)

Of these villages, only Boui, Ningo, and Korendiou are on the plains, all other villages being on the plateau above. However, in places the cliffs are easily climbed, and children from Ningo commute on foot to Tanga for schooling. (Boui has its own school.)

Sora (near Tanga) and Pandali (near Guimari), both now abandoned, are said to have been the oldest Tiranige speaking settlements. Embali (near Nefari), which is partially abandoned but still inhabited by a few people, is said to be the third oldest.

The coordinates given are from our own GPS readings where shown with fractions to three decimal points (the readings being degrees, minutes, and fractions of minutes from .000 to .999). The coordinates given without three decimal points are estimated from the old colonial government map (dated 1957) which is still in use. Our readings for Neou are significantly different from its position on the old map (N 14 44, W 03 42); either somebody goofed or the village has relocated.

Surnames at Boui are Bassaga, Bassely, Yanogo, Bakandia, Kouba, Guindo, Dolo, and Dicko. Surnames at Ningo are Bakendia and Dicko. In Tanga we were told that all Tiranou on the plateau are Dicko, but this needs checking.

The bulk of the Tiranou population is concentrated in a line of villages near the edge of the plateau (Toumba, Degui, Tanga, Guimari, Gourari, Dougo, Damagari) and the immediately adjacent plains below the cliffs (Ningo, Boui, Korendiou). There is no road leading down from the plateau to the plains in the Tiranou zone (vehicles including motorcycles must go to Borko far to the east to get down to the plains), so the weekly market at Ningo can only be reached on foot from the plateau villages. On the plateau itself, motorcycles can get around, but the terrain is too rocky for donkey-drawn carts, so there are no weekly markets. A few villages in the rugged area farther south (like Neou and Nefari) might have some contact with speakers of other Dogon languages (Bunoge, Dogulu, Tommo So). At the northeastern extremity of the main line of villages (e.g. Degui), Tiranige abuts the Bondu subgroup of Najamba-Kindigué-Bondu, which begins at Tapou and extends eastward to the more heavily populated Dogani-Borko-Tintam area. At the southwestern extremity of this main line (e.g. Damagari) there is some contact with Bangande (speakers of the language isolate Bangime). The Bangande occupy several villages on the slopes of a valley that cuts into the plateau, but they regularly climb up and walk over a section of high plateau to reach Boui and the market village Ningo at the base of the cliffs. In the sandy plains stretching out north and west from the cliffs are a mix of Bozo-Jenaama (locally called Marka) and Fulbe villages.

In our visits to Boui and Tange, we found no significant bilingualism with any other Dogon language or with Bangime or Jenaama. Of course, some individuals there are bilingual due to particular family connections and life histories.

This leaves Fulfulde and Bambara. Fulfulde is the main language of the large market towns in the plains, the most important being Konna. Fulfulde is also used alongside Tiranige at the smaller weekly market in Ningo. There are numerous Fulfulde-speaking villages in the

plains north and west of the cliffs, mostly populated by Rimaibé (ex-slaves of Fulbe). Fulbe women commute on foot to Dogon villages to sell fresh and curdled milk and butter. Many Dogon who own livestock entrust their animals to Fulbe herders. Fulfulde is also still important in Douentza and Mopti-Sevare in spite of inroads from Bambara. Some of the most southwesterly Tiranige-speaking villages in the plateau may have some contact with a cluster of Fulbe-speaking villages just to their south (Gasi, Madina, and Anga) on the edge of the Dogul area. Overall Fulfulde is the dominant second language and lingua franca in much of the Tiranige zone.

Some Tiranou young men travel to southern Mali for seasonal work, generally after the main harvest around late October. Others stay there for several years or move permanently, returning occasionally. Bambara is the dominant language in the south and some younger Dogon who have returned from there can speak Bambara to varying degrees. Bambara is also gradually spreading into Mopti-Sevare, Konna, and Douentza, at the expense mainly of Fulfulde. However, we found very few Bambara-speaking Dogon in our visits to Boui and Tanga.

We found it very difficult to find Tiranou who had been to school long enough to learn French well. The situation was not helped by a mass dropping out of school in Boui a few years before fieldwork began in 2011, as the community came to doubt the effectiveness and value of schooling. The school in Tanga is newer, and its first recruits had worked their way up to the fifth grade at the time of our visit in 2011. As time goes on there will be more French-speaking Dogon in the area.

Tiranige names for the contact languages are: *yómbóli-gé* (Najamba-Kindige aka Bondu), *púndání-gé* (Fulfulde), *bàmbàlà-gé* (Bambara), *tòmò-gè* (Tommo So), *éláw-gé* (Bangime), and *sámíyá-gé* (Jenaama).

### 1.3 Environment

Most Tiranige speakers live on the high plateau, which is separated from the sandy plains below by cliffs. The old maps show an altitude of 380 m. on the plains near Ningo, and 609 m. at nearby Tanga on the edge of the plateau. The cliffs, however, are not steep and are easily climbed in several places.

The plateau, once one gets there, is fairly flat, with no imposing peaks. However, it is generally rocky with many slabs and boulders. The road along the edge of the plateau from Borko and Dogani southeast to the Tiranige speaking villages becomes progressively rockier as one approaches Tanga, and going farther east to Dougo, Guimari, and Gourari the road is difficult even for a 4x4. The southern part of the zone (Neou, Some, Semo, Nefari) is particularly uneven and rocky.

The rocks, however, trap water and make farming possible. Some small dams (*barrages*) have been built in the hope of facilitating rice farming and dry-season cash-crop farming (onions), but the results have not lived up to expectations.

Fields in the sandy plains, particularly near the base of the cliffs, are exploited by residents of the villages located down below, and to some extent by residents of villages up above who climb up and down the cliffs. Although the soil is sandy, precious water including direct rainfall and runoff from the plateau accumulates at the base. There is some dry-season gardening (papaya, mango, lettuce, tomato) just south of Boui.

The predominant staple crop, as elsewhere in Dogon country, is millet (*Cenchrus spicatus*, formerly *Pennisetum glaucum*). Other rainy-season crops are sorghum, peanut, groundnut (*Vigna subterranea*), cow-pea (*Vigna unguiculata*), and sesame.

Both the rocky plateau and the sandy plains permit herding of sheep and goats. Cattle herding is mostly done on the plains, but is often carried out there by Fulbe.

## 1.4 Previous study of and current fieldwork on Tiranige

### 1.4.1 Previous study

This language has been mentioned in the various surveys of Dogon languages/dialects, as either Duleri or Tiranige. No significant documentation of the language has been done previously.

### 1.4.2 Fieldwork

I first visited Boui (in the plains) briefly in 2010. I spent three days there, primarily collecting flora-fauna terminology.

During a 20-month field trip in 2011 and part of 2012, Tiranige was one of several Dogon languages that I worked on. I had hoped to have a junior project member undertake this assignment, but the deteriorating security situation beginning in early 2012 made this impossible.

I worked with a young assistant from Boui (born 1987) who knew some French for a total of about four weeks in two sessions, the main one in April-May 2012. I was able to draft most of the grammar and to fill out a basic lexicon. Unless otherwise indicated the elicited examples in this grammar are from this assistant. However, he vanished into the Dogon diaspora shortly thereafter and I have not had access to him since then.

In 2013 I worked for about one week with an older assistant who was a shopkeeper in Ningo. He was a member of the “cordonnier” caste (*jâŋ*, dialectally *yâw<sup>n</sup>*), which is dominant in the settled area immediately around the Ningo market. There are considerable differences between this speaker and the other assistant. For example, shifts of intervocalic \*b to w and

some other similar consonantal lenitions have occurred in the Boui data but not in the Ningo data. There are also some lexical and grammatical differences. At this point it is not clear how much of the variation is due to geography (Boui versus Ningo), the age difference, or the caste difference.

I also transcribed some texts (see end of this grammar) with the Ningo speaker. He was more comfortable with dictation than with recording.

In early 2017 I continued the grammatical and lexical elicitation and transcribed some freshly recorded texts from Ningo.

#### 1.4.3 Acknowledgements

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#### 1.4.4 Additional resources

In addition to grammars, lexical data, and texts, the project has done extensive work in the following areas: a) flora-fauna (native terminology, identification), b) GPS mapping and photography of Dogon and other villages, and c) production of many documentary-style videos (2 to 20 minutes) dealing with practical activities and with cultural events such as festivals. See the project website at [www.dogonlanguages.org](http://www.dogonlanguages.org) for access to this material.

## 2 Sketch

### 2.1 Phonology

#### 2.1.1 Segmental phonology

Tiranige has a fairly conventional Dogon phoneme inventory, including the usual seven vowel qualities with [±ATR] opposition in mid-height vowels. Long and short vowel length are distinguished. Nasalized vowels occur but are uncommon.

*r<sup>n</sup>* is absent as *n* is not lenited. However, *y<sup>n</sup>* and *w<sup>n</sup>* are common word-finally (§3.2.7).

#### 2.1.2 Prosody

Nouns (and to some extent numerals) have a range of lexical tone melodies: /H/, /HL/, /LH/, /L/, and a few cases of /LHL/ and /HLH/. Tones of verbs, and of modifying adjectives that are not also used as nouns, are supplied by the grammar.

In *CvCvCv*, the medial syllable is in the weak metrical position. Short vowels in this position are subject to raising to {i u} and to syncope in some morphological contexts, especially suffixed *CvCv-Cv* verb forms.

Modifying adjectives and possessors are the major tonosyntactic controllers. The formula for noun-adjective combinations is N<sup>L</sup> Adj (<sup>L</sup>Adj). The first adjective after the noun is {H}-toned (arguably this is the lexical or at least default tone for adjectives). The noun, and a second adjective if present, are dropped to {L} tones.

Preposed possessors control {LH} on a following possessed noun and its modifiers; the H appears on the final syllable (the final mora for monosyllabics).

Basic numerals drop to {L} tone after a noun, or a noun-adjective sequence, if there are no further modifiers. However, the further addition of a demonstrative triggers morphological and tonal changes in the numeral.

Definite *rì* can affect the tones of the final syllable of the preceding word in the NP. Definite *rì* and the basic demonstrative *mbó* trigger more substantial morphological and tonal changes on preceding sequences ending in a numeral.

*mbó* is itself dropped to L-tone except when alone in the NP.

Head NPs in relative clauses undergo no additional tonal changes.

A {LH} overlay with H-tone on the final mora is also common in predicates, specifically in focalized and relative clauses.

Intonational prolongation (symbol  $\rightarrow$ ) is lexicalized in a few grammatical morphemes (e.g. *bâ*  $\rightarrow$  ‘than’) and adverbs (*wàgà*  $\rightarrow$  ‘far away’). There are no Jamsay-type “dying quail” intonation effects.

### 2.1.3 Key phonological rules

In the metrically weak position, short vowels raise to {i u} and may syncope. Syncope can trigger various minor processes to modify the resulting consonant clusters, e.g. /nw/  $\rightarrow$  *mb*.

There is no systematic nasalization-spreading.

Constituents (NPs, PPs, verbs) ending in a [...LH] tone sequence with a final-syllable (or final-mora) H-tone lose this H-tone before another constituent beginning with a H-tone. This is analysed here as Rightward L-Spreading.

## 2.2 Inflectable verbs

Suffixal verb-to-verb derivations are reversive (‘un-VERB’), causative, mediopassive vs. transitive, and reciprocal. Many adjectives have corresponding inchoative verbs, whose causatives function as factitives.

Verbal inflection consists chiefly of perfective/imperfective aspect crossed with positive/negative polarity. Additional categories for aspect-marked indicative verbs include experiential perfect, resultative, and progressive.

There is also a capacitative form (‘can VP’).

There are aspect-neutral statives. These include statives derived from active verbs (‘sit down’ becomes ‘be sitting’) and a few underived defective quasi-verbs (‘be’, ‘have’, ‘know’, ‘want’).

For all of these aspect-marked, capacitative, and stative forms, the temporal reference point can be shifted from the moment of speaking to a point in the past by mutating suffixal vowels to *ɛ* or adding *-yɛ*. For example, imperfective becomes past imperfective. The morphological “past” form of the simple perfective functions as a recent perfect.

Deontic moods are imperative, hortative, and a third-person (or indirect) hortative used in quoted imperatives.

## 2.3 Noun phrase (NP)

The noun that heads the NP may be preceded by a possessor, otherwise all modifiers follow the noun. Nonpronominal possessors precede the noun, as do pronominal possessors for inalienable nouns (kin terms). Pronominal possessors for alienables (i.e. most nouns) usually follow the noun (and any modifying adjectives or numerals).

## 2.4 Case-marking and PPs

Accusative *gi* is a postposition-like morpheme that follows a complete NP (DP). It is generally limited to pronouns and to human NPs. Indirect as well as direct objects are accusative-marked.

There are various other postpositions, the most basic ones being locative, instrumental, and purposive.

## 2.5 Main clauses and constituent order

The basic order is SOV, as best seen when both subject and object in a transitive clause are nonpronominal (xx1).

- (xx1) *[mó:wéli rì] [â:màdú gi] <sup>L</sup>bèndê-Ø*  
 [vehicle Def] [A Acc] <sup>L</sup>bump.Pfv-3SgSbj  
 ‘The vehicle bumped <sup>L</sup>Amadou.’ (Boui)

A spatiotemporal adverb that sets the scene may precede or follow the subject (xx2a). Other adverbial phrases, including spatiotemporals that have a more argument-like relationship to the predicate, typically intervene between subject and object (xx2bc).

- (xx2) a. *â:màdù á:gá ámbá sé:m-bò-Ø*  
 A tomorrow sheep slaughter-Ipfv-3SgSbj  
 ‘Amadou will slaughter a sheep tomorrow.’ (Boui)  
 [or: *á:gá â:màdù ámbá sé:m-bò-Ø*]
- b. *â:màdù [bòmòkò ñà] wàlè kám-bò-Ø*  
 A [B Loc] work(n) do-Ipfv-3SgSbj  
 ‘Amadou will work in Bamako.’ (Boui)
- c. *â:màdù jíwâ: sikòrò <sup>L</sup>gàni-Ø*  
 A house.Loc sugar <sup>L</sup>put.Pfv-3SgSbj  
 ‘Amadou put (the) sugar in the house.’ (Boui)

Double objects occur with ditransitive verbs (xx3). The recipient can be marked as accusative.

- (xx3) *â:màdù á:gá [ámbá nè-wé] [mì gi] túlò-wò-Ø*  
 A tomorrow [sheep 3Sg-Poss] [1Sg Acc] sell-Ipfv-3SgSbj



‘Amadou will sell me his sheep-Sg tomorrow.’ (Boui)

In imperatives, for the Boui assistant a NP or PP may follow the verb (xx4b). The Ningo assistant accepted this but preferred the regular verb-final order (xx4c)

- (xx4) a. *[námà rì]* *[tànà yà]* *tèlè-Ø*  
 [meat Def] [knife Inst] cut.Pfv-3SgSbj  
 ‘He/She cut the meat with a knife.’ (*námà*) (Boui)
- b. *[tànà yà]* *tèlà* *[námà rì]*  
 [knife Inst] cut.Imprt [meat Def]  
 ‘Cut-2Sg the meat with a knife!’ (Boui)
- c. *[tànà yà]* *[námà rì]* *tèlà*  
 [knife Inst] [meat Def] cut.Imprt  
 [= (b)] (Boui)

## 2.6 Relative clauses

The relative construction as a whole functions as a NP (DP) in the higher clause. The overt head NP, maximally Poss-N-Adj-Num, is internal to the relative clause. It has the same form as it would have as a main-clause NP (there is no tone-dropping attributable to the relative clause). Determiners and ‘all’ quantifiers follow the verb. The verb it agrees in plurality with the head NP. The verb lacks the usual pronominal-subject suffixes for 1Sg, 2Sg, and 3Pl as found in main clauses. There is no pronominal-subject marking in subject relatives; if the subject of a nonsubject relative is pronominal, it is marked by a proclitic pronoun. Verbs in relative clauses do mark regular aspect-negation and past-time categories; the morphology is usually the same from main to relative clauses, but there is some specialization of perfective positive verbs in relatives. The verb is usually the same from subject to nonsubject relatives, but the two are distinguished morphologically in the imperfective positive.

## 2.7 Interclausal syntax

There is no “bare” verb form, but the E/I-stem that functions in simple main clauses as the perfective positive is also found on nonfinal verbs in chains that resemble the direct chains of other Dogon languages (§15.2.2.1). In more loosely adjoined temporal adverbial clauses, the main distinction is between imperfective clauses with -w<sup>n</sup> ‘while’ (§15.2.1.3) and various perfective (anterior) clauses (‘after’) (§15.2.2.1). Same-subject and different-subject subordinators do not have distinct subordinating morphemes. As in some other Dogon

languages, anterior adverbial clauses (‘after’) sharply distinguish past time (i.e. realis) from future time (irrealis) contexts (§15.2.2.3).

Conditional constructions are of standard Dogon type, with a clause-final ‘if’ particle *mè* (§16.1). Counterfactuals make use of past-time marking in both antecedent and consequent clauses (§16.3).

Quotative complements make an interesting distinction between same-subject (‘X said that X ...’) and different-subject (‘X said that Y ...’) constructions, for second as well as third person subject. Although Tiranige has no logophoric (or other pure anaphoric) pronouns, quotative clauses have two ways of marking pronominal subject. A preverbal proclitic without quotative marker is associated with same-subject constructions, while a clause-initial pronoun with quotative marker is associated with different-subject constructions (§17.1.1.3). There is a special verb form used for quoted imperatives, which require a clause-initial subject (§17.1.2.1).

True factive clauses as complements of ‘know’ and ‘see’ take the form of headless relatives, cf. English *the fact that ...*

The majority of complements of “control” matrix-clause verbs are verbal-noun complements, which may include objects and other nonsubject constituents, similar to English infinitival VP complements (§17.4).

### 3 Phonology

#### 3.1 Internal phonological structure of stems and words

##### 3.1.1 Syllables

Primary syllabic shapes that occur within stems are *Cv*, *Cv:*, *CvL* with sonorant *L*, and occasionally *Cv:L*. Word-initially, the *C* position may be vacant. The occasional syllable of type *CvT* with some stop *T* is the result of syncope from *CvTv* before a suffix or compound final.

Nouns, verbs, adjectives, and numerals have at least two moras (no monomoraic *Cv* stems). For verbs, see the full inventory of monosyllabic stems in §10.1.2.1. Examples of other monosyllabic stems are in (xx1).

(xx1) a. *Cv:* (including *v:*, *Cv:<sup>n</sup>*, and *Cwv:*)

<i>è:</i>	‘jaw’	
<i>nú:</i>	‘oil’	cf. <i>mǐnú-nù</i> ‘shea-butter’
<i>nú:</i>	‘5’	
<i>tó:</i>	‘other’	
<i>gó:<sup>n</sup></i>	‘body’	
<i>kwě:</i>	‘calabash plant’	
<i>gwí:</i>	‘skin’	

b. *CvL*

<i>kóy</i>	‘tree bark; shell’
<i>bèl</i>	‘animal’

c. *Cv:L*

<i>só:y</i>	‘7’
<i>á:y</i>	‘yawn(n)’
<i>bé:w</i>	‘belching(n)’

In words like *ní:ngà* ‘two’, the nasal-stop cluster is arguably the onset of the final syllable, in which case such words have no superheavy *Cv:L* syllables.

### 3.1.2 Metrical structure

In *CvCvCv*, the medial syllable is metrically weak. In this position, a short nonhigh vowel may be raised to a high vowel, variably *i* or *u* (depending on vocalic and consonantal environment). A short high vowel in this position, whether lexical or due to the raising just mentioned, is syncope under some conditions (§3.4.2.2). Raising and syncope do not occur in all grammatical contexts; they occur in certain verbal derivations (reversive, mediopassive, transitive) of *CvCv*- stems, and in certain verbal inflections when the medial *C* of a *CvCv*-stem is homorganic to the initial suffixal *C*.

## 3.2 Consonants

The consonant phonemes are in (xx1). Marginal ones are parenthesized

(xx1) Consonants

	1	2	3	4	5	6	7	8	9	10
labial	<i>p</i>	<i>b</i>	<i>m</i>	<i>(f)</i>	<i>(v)</i>		<i>w</i>	<i>w<sup>n</sup></i>		
alveolar	<i>t</i>	<i>d</i>	<i>n</i>	<i>s</i>	<i>(z)</i>	<i>l</i>	<i>r</i>	<i>r<sup>n</sup></i>		
alveopalatal	<i>c</i>	<i>j</i>	<i>ɲ</i>				<i>y</i>	<i>y<sup>n</sup></i>		
velar	<i>k</i>	<i>g</i>	<i>ŋ</i>							
laryngeal									<i>(h)</i>	<i>((ʔ))</i>

*c* is IPA [tʃ], *j* is [dʒ], *y* is [j].

key to columns: 1. aspirated voiceless stops (*c* is affricated); 2. voiced stops; 3. nasals, 4. voiceless fricatives (including sibilants); 5. voiced fricatives (including sibilants); 6. laterals; 7-8. unnasalized then nasalized sonorants; 9-10. laryngeals

### 3.2.1 Alveopalatals (*c, j*) distinct from velars (*k, g*)

*c* is distinct from *k* even before front vowels. Likewise, *j* (affricate) is distinct from *g* before front (as well as back) vowels.

Examples: *kìrì-kírì* ‘dizziness’, *cìwàlà* ‘hat’, accusative particle *gì, jìwé* ‘carrion’.

### 3.2.2 Back nasals (*ŋ, ɲ*)

Velar *ŋ* and palatoalveolar *ɲ* are distinct even before front vowels: *yáŋí-yó* ‘fight (v.)’, *míɲí-yó* ‘grind into powder’.

### 3.2.3 *g*-Spirantization (*g* → *ɣ*) absent

There is no systematic spirantization of *g* between back/low vowels.

### 3.2.4 Labials (*f, w*)

*p, m,* and *b* are basic consonants. *f* is rare. It occurs in a few loanwords like *sàlfāná* ‘2 PM prayer’, but other loanwords replace original \**f* with *p* (*àlpàjiri* ‘pre-dawn prayer’).

In word-initial “clusters,” *Cw* before a vowel can represent a desyllabified *o* or *ɔ*, as in the perfective of monosyllabic verb stems (§10.2.1.1).

Elsewhere, unclustered *w* has an articulation approaching [β], i.e. a bilabial approximant, before front vowels {*i e ε*}. The linguist’s pronunciation with English-type [w] was frequently corrected.

### 3.2.5 Laryngeals (*h, ʔ*)

*h* and *ʔ* are not regular phonemes in Tiranige. There are a few Fulfulde loanwords with initial *h* such as *hàlí* ‘until, even’ and *hà:ráw* ‘a minor Muslim holy day’.

### 3.2.6 Sibilants (*s, z*)

*s* is a common consonant: *sáŋgó* ‘cook (rapidly)’, *sùmá* ‘waterskin’, *sá:-* ‘have’. It replaces source-language [ʃ] in borrowings: *síngóm* ‘chewing gum’ with *s* for French [ʃ]. Some speakers pronounce [ʃ] as an allophone of *s* before *i*, as in *síngá* ‘blister beetle’, pronounced [síngá] ~ [ʃíngá] depending on the speaker.

*z* occurs (rarely) in loanwords from source-language [z] or [ʒ]: *àlzéí* ‘Algeria’, *zándármú* ‘gendarme’. Palatoalveolar {*ʃ ʒ*} are essentially absent. *síngóm* ‘chewing gum’ has *s* for French [ʃ].

### 3.2.7 Nasalized sonorants ( $r^n$ absent, $w^n$ and $y^n$ word-finally)

There is no  $r^n$  (nasalized tap).

$w^n$  occurs word-finally, in some cases as an independent morpheme (suffix or clitic). Examples are  $cêw^n$  ‘a little’,  $néw^n$  ‘salt’,  $yá: tèt^n$  ‘around there’,  $éw^n$  ‘wet; fresh’,  $milyôw^n$  ‘million’ (< Fr),  $dèw^n$  ‘day’. The progressive aspect is expressed by suffixing  $-w^n$ , which is followed by auxiliary verb  $bô:-$  (§10.2.2.3), the combination being variably heard as [mbô:-] plus lengthening of the preceding stem-final vowel.  $=w^n$  is also an important allomorph of the ‘it is’ clitic, which occurs in identificational predicates (§11.2.1.1) and as a focus marker (§13.1.1.4).

Word- or stem-final  $w^n$  is easily heard prepausally, as when words are pronounced in isolation. Before a consonant,  $w^n$  behaves like an assimilating nasal. For example,  $néw^n$  ‘salt’ has a possessed form  $néw^n mèt:$  ‘my salt’ pronounced [ném:èt:]. Word-final  $w^n$  also combines irregularly with interrogative particle  $le$  as [n:i] (§13.2.1). In my ordinary transcription I usually write  $w^n$  word-finally since it clarifies the morphemic composition.

$-y^n$  is common as the regular 1Sg pronominal-subject suffix on verbs (§10.3.1). Like  $w^n$ , word-final  $y^n$  combines with interrogative particle  $le$  as [n:i] (§13.2.1). I can cite one intervocalic case:  $gáy^ná$  ‘wild fonio grass (*Panicum*)’.

Phonemically nonnasal syllable-final  $w$ , as in verbs ending with 2Sg subject suffix  $-w$ , can be more or less phonetically nasalized when syllabified with a preceding  $Nv$ . However, this low-level nasalization is not systematic.

### 3.2.8 Consonant clusters

#### 3.2.8.1 Word- and morpheme-initial $CC$ clusters

There are some initial nasal-stop clusters:  $ndó-$  (Boui) ~  $ndó-$  (Ningo) ‘give’ (only known verb of this type),  $ndà:$  ‘person’,  $ngàlà-ngàlà$  ‘gallbladder’,  $mbásá^n$  ‘bassam (fabric)’. After a pause, the nasal is pronounced as its own syllable. However, the nasal does not have an independent tone; it is pronounced with L-tone except when it syllabifies with a final H-toned vowel in the preceding word.

This aside, initial clusters are of the form  $Cw$  before a front or low vowel { $i e \varepsilon a$ } in monosyllabic stems. In attested examples the initial  $C$  is { $d g t k n s$ }. This type of cluster occurs in monosyllabic nouns such as  $dwé:$  ‘ashes’ and  $gwí:$  ‘skin’, and in the apparent compound final in  $òlò-kwá$  ‘flint lighter’. It is common in perfective positives forms of  $Cv:-$  verb stems with  $C$  not a palatoalveolar ( $dwè:-$  ‘insulted’ or ‘pounded’,  $gwè:-$  ‘went out’, see 10.2.1.1). The “w” is articulated as -ATR before  $\varepsilon$ , i.e. as a desyllabified  $\varphi$  (more open than the usual  $w$ ), and one could analyse it phonologically in this fashion.

### 3.2.8.2 Medial geminated *CC* clusters

Stem-internal geminate clusters are uncommon, and are probably confined to loanwords (geminate clusters are common in Fulfulde) and to stems that have undergone syncope of a short high vowel. An example of each attested cluster is in (xx1). If I have one or more stem-internal examples, one such is given.

(xx1)	<i>bb</i>	<i>íbbà</i>	‘handle (of kettle)’
	<i>cc</i>	<i>pèccèré</i>	‘half’
	<i>dd</i>		
	<i>ff</i>		
	<i>gg</i>		
	<i>jj</i>		
	<i>kk</i>		
	<i>ll</i>	<i>mbòllí</i>	‘knobbed end (of stick)’
	<i>mm</i>		
	<i>nn</i>	<i>àl-àl kùnné</i>	‘Adam’s apple’
	<i>ŋŋ</i>	<i>kàŋŋé</i>	‘gold’ (regional word)
	<i>pp</i>	<i>jìrò-sàppà:ré</i>	‘eyedrops’
	<i>rr</i>		
	<i>ss</i>		
	<i>tt</i>		
	<i>ww</i>		
	<i>w<sup>n</sup>w<sup>n</sup></i>		
	<i>yy</i>	<i>ìjò yéyyá</i>	‘home town’
	<i>y<sup>n</sup>y<sup>n</sup></i>		

### 3.2.8.3 Medial nongeminate *CC* clusters

Obstruents (stops, affricates, fricatives) do not occur as first members of clusters. This leaves sonorant-obstruent and sonorant-sonorant combinations.

The only common medial clusters within stems are {mb nd nj ŋg}, i.e. nasal and homorganic voiced stop/affricate. Other *CC* clusters are generally either limited to loanwords, or occur only at stem-suffix or compound boundaries, usually as the result of syncope. In the lists below, if a stem-internal example is known it is given. If not, if an example involving a morpheme boundary is known it is given. Failing that, — is shown.

(xx1) Nasal plus consonant

<i>mb</i>	<i>ámhá</i>	‘sheep’
<i>nd</i>	<i>kándá</i>	‘new’
<i>nj</i>	<i>kúnjúgó</i>	‘knee’
<i>ng</i>	<i>túngó</i>	‘choke (on food)’
<i>mp</i>	<i>sálámpó</i>	‘alms’
<i>nt</i>	<i>èntí kán(ú)</i>	‘wean’
<i>nc</i>	—	—
<i>nk</i>	<i>sànkúnè</i>	‘waterbag’
<i>nz</i>	—	—
<i>ns</i>	<i>ngàrà-n-sá:kú</i>	‘grain sack’
<i>mj</i>	—	—
<i>my</i>	—	—
<i>ny</i>	<i>bún(i)-yó-</i>	‘become red’
<i>ny</i>	—	—
<i>ny</i>	<i>yáŋ(i)-yó-</i>	‘kneel’
<i>mw</i>	[→ <i>mb</i> ]	—
<i>nw</i>	[→ <i>mb</i> ]	—
<i>pw</i>	—	—
<i>pw</i>	—	—
<i>ml</i>	—	—
<i>nl</i>	<i>bín(i) = là</i>	‘not be fat’
<i>pl</i>	—	—
<i>pl</i>	—	—
<i>mr</i>	[→ <i>md</i> ]	—
<i>nr</i>	[→ <i>md</i> ]	—
<i>pr</i>	—	—
<i>pr</i>	—	—

(xx2) Liquid plus consonant

<i>lb</i>	—	—
<i>ld</i>	—	—



<i>lj</i>	—	—
<i>lg</i>	—	—
<i>lp</i>	—	—
<i>lt</i>	—	—
<i>lc</i>	—	—
<i>lk</i>	<i>pél-kúlêy<sup>n</sup></i>	‘60’
<i>lz</i>	—	—
<i>ls</i>	<i>sèl-sèl</i>	‘pointed’
<i>lm</i>	—	—
<i>ln</i>	—	—
<i>lj</i>	—	—
<i>lj</i>	—	—
<i>ly</i>	<i>gúl(í)-yó-</i>	‘thunder(v)’
<i>lw</i>	—	—
<i>lr</i>	—	—
<i>rb</i>	—	—
<i>rd</i>	—	—
<i>rj</i>	—	—
<i>rg</i>	—	—
<i>rp</i>	—	—
<i>rt</i>	—	—
<i>rc</i>	—	—
<i>rk</i>	—	—
<i>rz</i>	—	—
<i>rs</i>	—	—
<i>rm</i>	—	—
<i>rn</i>	—	—
<i>rp</i>	—	—
<i>rj</i>	—	—
<i>ry</i>	<i>yígír-yé</i>	‘stirring-stick’ (verb <i>yígíró-</i> )
<i>rw</i>	—	—
<i>rl</i>	—	—

(xx3) Semivowel plus consonant

<i>yb</i>	—	—
<i>yd</i>	—	—
<i>yj</i>	—	—
<i>yg</i>	—	—
<i>yp</i>	—	—
<i>yt</i>	—	—
<i>yc</i>	—	—
<i>yk</i>	—	—
<i>yz</i>	—	—
<i>ys</i>	—	—
<i>ym</i>	—	—
<i>yn</i>	<i>báy-nâ-</i>	‘not be big’
<i>yn</i>	—	—
<i>yŋ</i>	—	—
<i>yl</i>	—	—
<i>yw</i>	—	—
<i>yr</i>	<i>pòyré</i>	‘light (illumination)’
<i>wb</i>	—	—
<i>wd</i>	—	—
<i>wj</i>	—	—
<i>wg</i>	—	—
<i>wp</i>	—	—
<i>wt</i>	—	—
<i>wc</i>	—	—
<i>wk</i>	—	—
<i>wz</i>	—	—
<i>ws</i>	—	—
<i>wm</i>	—	—
<i>wn</i>	—	—
<i>wŋ</i>	—	—
<i>wj</i>	—	—

<i>wy</i>	<i>ów-yó</i>	‘sit’
<i>wr</i>	<i>ów-ró-</i>	—
<i>wl</i>	—	—

Nasalized semivowels *y<sup>n</sup>* and especially *w<sup>n</sup>* are common stem-finally and may be followed by another consonant, especially in compounds. However, in examples like *bów<sup>n</sup>-bè* ‘key’ (lit. “door-child”) my transcription is somewhat abstract, and the *w<sup>n</sup>* (or *y<sup>n</sup>*) normally behaves like an assimilating nasal consonant, hence [bómbè].

#### 3.2.8.4 Medial triple *CCC* clusters

Medial triple clusters are probably confined to loanwords (such clusters are common in Fulfulde), compounds, and nouns with frozen inanimate class suffix beginning in *ng*. From the latter category I can cite *póhngé* ‘egg’, *bòhngó* ‘vestibule’, *tíhngó* ‘tree’, *béhngé* ‘grass’, and *sòhngó* ‘Bozo (ethnic group)’. Clearly *hng* is a favored triple cluster, with a liquid followed by a homorganic nasal plus voiced stop cluster. Another cluster of this type, *lmb*, is attested: *kòlmbé* ‘gecko’.

Allowing morpheme boundaries, we can add *y-nd* in *báy-ndó-* ‘become big(ger)’.

#### 3.2.8.5 Final *CC* clusters

Final *CC* clusters have not been observed.

### 3.3 Vowels

The vowels are given in (xx1). Nasalized vowels are uncommon.

(xx1)	oral		nasalized	
	short	long	short	long
<i>u</i>	<i>u:</i>	<i>(u<sup>n</sup>)</i>	<i>u:<sup>n</sup></i>	
<i>o</i>	<i>o:</i>	<i>(o<sup>n</sup>)</i>	<i>o:<sup>n</sup></i>	
<i>ɔ</i>	<i>ɔ:</i>	<i>ɔ<sup>n</sup></i>	<i>(ɔ:<sup>n</sup>)</i>	
<i>a</i>	<i>a:</i>	<i>a<sup>n</sup></i>	<i>a:<sup>n</sup></i>	
<i>ɛ</i>	<i>ɛ:</i>	<i>ɛ<sup>n</sup></i>	<i>(ɛ:<sup>n</sup>)</i>	
<i>e</i>	<i>e:</i>	<i>(e<sup>n</sup>)</i>	<i>(e:<sup>n</sup>)</i>	
<i>i</i>	<i>i:</i>	<i>i<sup>n</sup></i>	<i>(i:<sup>n</sup>)</i>	

### 3.3.1 Oral vowels

All oral short and long vowels are common. Monosyllabic noun, verb, adjective, and numeral stems require two moras, so *Cv:* (along with *CvC*) are OK while *Cv* is not. Within nonmonosyllabic stems, long vowels usually occur in initial syllables, though there are some borrowed nouns with medial long vowels: *jìrò-sàppà:ré* ‘eyedrops’. Particles, clitics, and suffixes can be *Cv*.

Long vowels occur in verbal inflectional suffixes, specifically combinations of an aspect-negation suffix and the 3Pl subject suffix (§10.3.1).

### 3.3.2 Nasalized vowels

Nasalized vowels are rare. Long nasalized vowels are attested in a few monosyllabic nouns (xx1). The gaps are probably accidental.

(xx1)	<i>i:<sup>n</sup></i>	—	
	<i>e:<sup>n</sup></i>	—	
	<i>ɛ:<sup>n</sup></i>	—	
	<i>a:<sup>n</sup></i>	<i>pá:<sup>n</sup> kán(ú)</i>	‘understand’
	<i>ɔ:<sup>n</sup></i>	—	
	<i>o:<sup>n</sup></i>	<i>gó:<sup>n</sup></i>	‘body’
	<i>u:<sup>n</sup></i>	<i>kũ:<sup>n</sup></i>	‘skiff (boat)’

Short nasalized vowels are attested in a loanword (‘bassam’), an onomatopoeic word, and two reduplicative stems (xx2). The gaps are again most likely accidental.

(xx2)	<i>i<sup>n</sup></i>	<i>bí<sup>n</sup> gún(ú)</i>	‘vibrate’ (onomatopoeic)
	<i>e<sup>n</sup></i>	—	
	<i>ɛ<sup>n</sup></i>	<i>té<sup>n</sup>-téw<sup>n</sup></i>	‘straight’
	<i>a<sup>n</sup></i>	<i>mbásá<sup>n</sup></i>	‘bassam (fabric)’
	<i>ɔ<sup>n</sup></i>	<i>bɔ<sup>n</sup>-bɔ<sup>n</sup></i>	‘candy’ (< French <i>bonbon</i> )
	<i>o<sup>n</sup></i>	—	
	<i>u<sup>n</sup></i>	—	

### 3.3.3 Initial vowels

Since the initial consonantal slot of a syllable can be unfilled stem- and word-initially, initial vowels are unrestricted: *áyó-* ‘arrive’, *è:lèngè* ‘peanuts’, *órâ-* ‘not be (somewhere)’.

### 3.3.4 Stem-final vowels

All vowel qualities may occur stem- and word-finally in nonverbs. For verbs, the situation is complicated by extensive vocalic ablaut, particularly affecting the final vowel, but all oral vowel qualities are attested stem-finally.

### 3.3.5 Vocalic harmony

Advanced tongue root (ATR) distinguishes two sets of mid-height vowels, +ATR {*e o*} and -ATR {*ɛ ɔ*}. The two sets normally do not combine within a stem, so we can speak of ATR harmony. High vowels {*i u*} are extraharmonic; they can combine in a stem with vowels of either ATR category. Examples: (*cínjó*) *ímbó-* ‘blow (nose)’ versus *ímbó-* ‘pull’ or ‘shut’. Low vowel *a* can combine with +ATR but not -ATR vowels, so *a* could be considered a member of the +ATR set.

Some exceptions to ATR harmony occur in noun stems that contain a frozen classifier suffix; see end of §4.1.1.

In verbal morphology, the A/O-stem (one of three vocally defined forms of each verb stem) involves overlaying +ATR values on all vowels in the stem, with final {*ɛ ɔ*} becoming *a* and nonfinal {*ɛ ɔ*} becoming {*e o*}.

### 3.3.6 Vocalism of verb-stem alternations

Verbs have four vocalism stems defined by vocalic ablaut. The vocalism is determined by the stem’s prosodic shape, ATR value, and presence/absence of nonfinal *a*-vowels. The vocally defined stems are cross-cut by tone contours (melodies) for particular AN categories. The vocalic patterns are summarized in (xx1). I will generally use the O-stem as the citation form, but other choices would also be possible. For this stem, the Boui assistant kept lexical -ATR vowels (leftmost column)

(xx1) O-stem A/O-stem E/I-stem I/U-stem gloss

a. -ATR stems [for Ningo dialect see comments below]

*monosyllabic, a in A/O-stem, C onset in E/I-stem*

*ɲɔ:      ɲa:      ɲɛ:      ɲi:      ‘eat, drink’*

*monosyllabic, ɔ in A/O-stem, Cw onset in E/I-stem*

*dɔ:      dɔ:      dwe:      dwi:      ‘pound’ or ‘insult’*

*nonmonosyllabic, final a in A/O-stem, nonfinal nonlow vowel*

*jeyɔ      jeya      jeyɛ      jeyi      ‘kill’*

*tɔyɔ      toya      tɔyɛ      toyi      ‘step on’*

*diyɔ      diya      diyɛ      di:      ‘abandon’*

*duyɔ      duya      duyɛ      duyi      ‘bathe’*

b. +ATR stems

*monosyllabic, final o in A/O-stem, Cw onset in E/I-stem*

*go:      go:      gwe:      gwi:      ‘go out’*

*nonmonosyllabic, final o in A/O-stem, nonfinal nonlow vowel*

*gujo      gujo      guje      guji      ‘dig’*

*jiyo      jiyo      jiye      ji:      ‘harvest’*

*noyo      noyo      noye      noyi      ‘sleep’*

*nonmonosyllabic, a in A/O-stem, nonfinal a-vowel*

*najo      naja      naje      naji      ‘have fun’*

*dayo      daya      daye      dayi      ‘lay out’*

c. final-high-vowel type

*nonmonosyllabic, final u in A/O-stem, nonfinal nonlow vowel*

*un(u)      uno      uní      uní      ‘go’*

*sin(u)      sino      sini      sini      ‘convey’*

*nonmonosyllabic, final a in A/O-stem, nonfinal a-vowel*

*kan(u)      kana      kani      kani      ‘do’*

*bamu      bama      bami      bami      ‘beat (tomtom)’*

d. irregular

*ndo      nda:      ndɛ:      ndi:      ‘give’*

*gun(u)      guna      gune      guni      ‘say’*

The Ningo assistant, on the other hand, shifted -ATR to +ATR in the O-stem as in the A/O-stem, hence O-stems *ɲo:* ‘drink’, *jeyo* ‘kill’, etc.

Inflectional categories associated with the various vocalism stems are given in (xx2). Categories are positive unless otherwise indicated. The groupings are valid for the majority final-nonhigh-vowel verb stems.

(xx2) O-stem	imperfective; imperfective negative; prohibitive; hortative negative; verbal noun (§4.2.2)
A/O-stem	imperative; perfective negative; <i>-w<sup>n</sup></i> ‘while’ subordinator (§15.2.1.2)
E/I-stem	perfective; recent perfect; experiential perfect; hortative
I/U-stem	quoted imperative (§10.7.3.1)

One could perhaps add an I-stem to account for agentive forms of verbs (§5.1.5), and an A-stem for one type of purposive clause (§17.6.2).

The stems with final high vowel (xx1c) are best treated separately from the main set of verbs exemplified in (xx1a-b). For these final-nonhigh-vowel verbs, the underlying ATR value is clearly seen in the O-stem, which ends in *o* or *ɔ*, and in the E/I-stem, which ends in *e* or *ɛ*. The underlying ATR value is disguised in the A/O- and I/U-stems, which allow only +ATR vowels and *a* along with extraharmonic {*i u*} throughout the stem. We can recover the underlying ATR value even from the A/O-stem by a somewhat tortuous calculation: stems with final *o*, and stems with nonfinal *a* vowel plus final *a*, are +ATR, while stems with final *a* and nonfinal vowel other than *a* are -ATR. In other words, unless the stem has a nonfinal *a*, a final *a* in the A/O-stem is an indirect (but reliable) indicator of -ATR quality. Therefore an A/O-stem like *toya* can only be from a -ATR verb, in spite of the +ATR *o* in the penult and the final nonharmonic *a*. We are not so lucky with the I/U stem, which completely neutralizes ATR values, except that a nonfinal *a* vowel points to +ATR.

Stems with final high vowel are arguably classifiable as +ATR. This is because those with high-vowel penult have final *o* rather than *ɔ* in the A/O-stem. On the other hand, those with *a* in the penult also have final *a* in the A/O-stem. Another irregularity is that final-high-vowel stems with high-vowel penult use the O-stem (with final *u*) rather than the A/O-stem (with final *o*) in the imperative. As a result, the A/O-stem for these verbs is confined to the perfective negative.

### 3.4 Segmental phonological rules

#### 3.4.1 Trans-syllabic consonantal processes

##### 3.4.1.1 Nasalization-Spreading

There is no regular process of nasalization spreading from one syllable to the next.

#### 3.4.2 Nonharmonic vocalic processes

##### 3.4.2.1 V-lengthening before *nd*

The alternation in (xx1) seems to involve a combination of syncope (medial vowel) and lengthening of the first-syllable vowel before *nd*, which is itself derived from /nr/, see §9.4.1.

(xx1)	<i>túni-yó-</i>	‘put on (clothes)’ (Boui)
	<i>tú:n-dó-</i>	‘put (clothes) on (sb)’ (Boui)

A lexical search brings out a suspiciously large number of stems of the shape *Cv:NCv* (generally for both Boui and Ningo dialects) suggesting that \**CvNCv* may have evolved into *Cv:NCv* by lengthening the first vowel. However, in most cases there is no synchronic alternation calling attention to the lengthening. Examples with *nd* include *gó:ndú* ‘hooked end’, *dù:ndú* ‘stump’, *nó:ndó* ‘left (hand)’, *kú:ndù* ‘intact’, *yá:ndó* ‘remember’, *né:ndè* ‘tongue’, *só:ndí* ‘saliva’, *nó:ndí* ‘marrow’, *sé:ndè* ‘piece’, *pà:ndé* ‘trap(n)’. Examples with *mb* include *cé:mbè* ‘stone’, *tó:mbé* ‘protrusion on tree trunk’, *tà:mbé* ‘double hitching post’, *dò:mbé* ‘threshold’, *í:mbè* ‘heart of palm’, and *dà:mbú* ‘tinder’. Examples with *nj* include *ní:njí* ‘sweet’, *mà:njó* ‘papaya’, and *í:njé* ‘dog’. Examples with *ng* include *nì:ngà* ‘2’, and *sà:ngá* ‘thick-lipped vat’. There are other *Cv:ngv* stems that I exclude here since they are or may be frozen combinations of *Cv:* plus an old inanimate suffix.

Lengthening before *NC* cluster is not a productive synchronic process: *kándá* ‘new’, *bémbé* ‘chest (torso)’, *tíngé* ‘choke’, *énjí* ‘vomiting’. The examples above, mostly nouns, are therefore simply flagged for diachronic analysis. Among other Dogon languages, engthening before *NC* is found chiefly in Nanga, an eastern Dogon language that is geographically separated from Tiranige and not closely subgrouped with it.

##### 3.4.2.2 Syncope

Short high vowels are subject to syncope (i.e. word-medial vowel deletion) in the medial syllable of a trisyllabic. Specifically, medial *i/u* in *CvC<sub>2</sub>i/uC<sub>3</sub>v* usually syncopates when *C<sub>2</sub>* is



an unclustered  $\{y w l n \eta r\}$ , i.e. a sonorant other than  $\{m n\}$ . If  $C_2C_3$  does not work as a cluster, syncope is blocked, as in *yájú-ró-* ‘cause to kneel’, since *nr* is a bad cluster. However, in some cases the  $C_3$  position may be a *NC* cluster whose nasal then may then combine with a preceding nasal: *wén-dó-* ‘become small’ from */wéní-ndó-/*. Unreduced clusters like *lŋg* are allowable elsewhere in the language (*pólŋgé* ‘egg’) and could presumably be generated by syncope.

Transparent examples of syncope occur in certain suffixal derivations in verbs that convert a *CvCv-* stem into *CvCi-* or *CvCu-*. This is the case with the reversive (§9.1), and with the (often paired) mediopassive and transitive suffixes (§9.4). Finally, syncope occurs in verbal inflectional morphology, notably in the imperfective positive and capacitative verb forms.

(xx1) a. syncope only

*reversive*

<i>tíyó-</i>	‘lock(v)’	<i>tíy-ló-</i>	‘unlock’
<i>gúwó-</i>	‘hook, hang’	<i>gúw-ló-</i>	‘unhook’
<i>péló-</i>	‘fold’	<i>pél-ló-</i>	‘unfold’

*mediopassive (syncope optional)*

<i>yájú-ró-</i>	‘cause to kneel’	<i>yáj(í)-yó-</i>	‘kneel’
<i>búní</i>	‘red’	<i>bún(í)-yó-</i>	‘become red’

b. syncope, consonantal adjustments

*transitive*

<i>túní-yó-</i>	‘put on (clothes)’	<i>tú:n-dó-</i>	‘put (clothes) on (sb)’ (< <i>/túní-ró-</i> )
<i>wéní-wè</i>	‘small’	<i>wén-dó-</i>	‘become small’ (< <i>/wéní-ndó-</i> )

c. no syncope after *m*

<i>kúmú-ló-</i>	‘open (eye)’	<i>kúmí-yó-</i>	‘shut (eye)’
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Somewhat specialized patterns of syncope and associated consonant-cluster modifications occur in inflectional verbal morphology, involving *CvC<sub>2</sub>v-* stems and *-C<sub>3</sub>v-* suffixes where  $C_2$  and  $C_3$  are homorganic, either both labial or both alveolar. The relevant data are presented in depth in §10.1.2.5-6.

### 3.4.2.3 Apocope

Apocope is word-final vowel deletion. There is no widespread apocope in Tiranige, and final short  $\{i u\}$  can occur after consonants that allow them to syncopate word-medially. For example, imperative ‘go!’ is *ùnú*, contrast syncopated imperfective *úm-bò-* ‘goes’ from

/úú-wò-/. I initially transcribed the noun ‘dance’ as *yèw* but an assistant corrected my pronunciation to bisyllabic *yèwù*, cf. definite *yèwú rì* ‘the dance’, so even word-final homorganic semivowel-vowel sequences do not allow apocope.

### 3.4.3 Local consonant sequence rules

#### 3.4.3.1 Semivowel assimilation

*w<sup>n</sup>* is fairly common stem- and word-finally. When followed by another consonant it behaves like an assimilating nasal consonant (xx1a). *y<sup>n</sup>* is less common but has the same behavior (xx1c). Oral semivowel *w*, at least in 2Sg suffix *-w*, shows similar assimilation before high-frequency clitics (xx1b).

(xx1)	a.	<i>w<sup>n</sup> m</i>	→	<i>mm</i>	<i>néw<sup>n</sup> mǎ:</i> ‘my salt’ [ném:è:]
		<i>w<sup>n</sup> n</i>	→	<i>nn</i>	<i>néw<sup>n</sup> nè-wé</i> ‘his/her salt’ [nén:èwé]
		<i>w<sup>n</sup> l</i>	→	<i>ll</i>	<i>nél=là</i> ‘it isn’t salt’ (< <i>néw<sup>n</sup></i> )
		<i>w<sup>n</sup> b</i>	→	<i>mb</i>	<i>jà:-w<sup>n</sup> bǒ-y<sup>n</sup></i> ‘I am eating’ [jà:mbǒ]
	b.	<i>-w l</i>	→	<i>-ll</i>	2Sg <i>-w</i> plus interrogative <i>lè</i> → <i>-llè</i>
		<i>-w m</i>	→	<i>-m m</i>	2Sg <i>-w</i> plus <i>mè</i> ‘if’ (§16.1)
	c.	<i>y<sup>n</sup> m</i>	→	<i>mm</i>	<i>dèy<sup>n</sup> mǎ:</i> ‘my day’ (but <i>-y<sup>n</sup> mè</i> §16.1)
		<i>y<sup>n</sup> n</i>	→	<i>nn</i>	<i>dèy<sup>n</sup> nè-wé</i> ‘his/her day’
		<i>y<sup>n</sup> l</i>	→	<i>nn</i>	1Sg <i>-y<sup>n</sup></i> plus interrogative <i>lè</i> → <i>n nì</i>

#### 3.4.3.2 *b* ~ *w* alternations (fortition or lenition?)

A lenition of intervocalic \**b* to *w* is at various stages of completion. For the older speaker from Ningo, *b* is generally retained. For the younger speaker from Boui, the lenition has been completed. However, for this speaker there are some *b* ~ *w* alternations due to the fact that the segment in question can occur both intervocalically and adjacent to a consonant.

Some *b* ~ *w* alternations arise when a suffix beginning with *w* is preceded by a stop or nasal. For example, verbal nouns suffix *-wà* (§4.2.2) and imperfective nonsubject relative morpheme *-wá* show up as *-bà* and *-bá*, respectively, when syncope leaves them preceded by *m* or (less often) *n*. This process is clearly best analysed as fortition (hardening) of /*w*/ to *b*.

The other major set of *b* ~ *w* alternations is more difficult to model because of heavy grammaticalization. The relevant forms, as pronounced by my Boui assistant, are those in (xx1).

(xx1) <i>bǒ:-</i>	‘be’ in progressive (§10.2.2.3) or with adjectival predicate (§11.4.1)
<i>bò-</i>	‘be (somewhere)’ (§11.2.2.2)
<i>é wò</i>	‘be present (here/there)’ (§11.2.2.2)
<i>-wò- (-bò-)</i>	imperfective (§10.2.2.1)

Imperfective *-wò-* itself hardens to *-bò-* after a stop or nasal, so the same fortition rule mentioned above can take care of this alternation. However, the alternation of *bò-* ‘be’ (after a locational expression) and *é wò-* looks more like a highly morphologized lenition of *b* to *w*, especially if we agree that *bò-* ‘be somewhere’ is still *synchronically* connected to *bǒ:-*.

Particularly intriguing are *w*-medial verb stems like *táwó-* ‘touch’ and imperfective *táb-bò*, which can be derived from */táw-wò/* after syncope from */táwó-wò/*. Here, synchronic */ww/* appears to harden to *bb*. For more examples see (xx2c) in §10.2.2.1. For the older speaker from Ningo, we have *tábó-* and *táb-bò*, with no consonantal alternation.

#### 3.4.3.3 *ɲj ~ ɲ*

A minor alternation of *ɲj* and *ɲ* has been observed intervocally at the beginning of the second syllable in a few words. The reduced form *ɲ* occurs when a syllabic suffix has been added to make the stem or word trisyllabic, so that the second syllable is in a weak metrical position.

(xx1) <i>ní:ɲjí</i>	‘sweet’	<i>ní:ɲí-nâ-</i>	‘not be sweet’ (§11.4.2)
<i>ménjí-wè</i>	‘thin’	<i>méɲí-ndó-</i>	‘become thin’ (§9.6)
<i>mínjí</i>	‘shea tree’	<i>míɲí-nù-</i>	‘shea butter’
<i>ánjó-</i>	‘be left over’	<i>àɲì-né</i>	‘remainder, the rest’

#### 3.4.3.4 *r* → *d* after alveolar sonorant or stop

Tap *r* does not cluster with preceding consonants except semivowels {*y w*}. After a stop or sonorant, */r/* hardens to *d*. This happens with imperfective negative *-rá-* when a preceding Cv syllable beginning with alveolar {*n l r*} loses its vowel by syncope. Data are in §10.1.2.6-7. For my Ningo assistant, similar syncope before definite *ri* can trigger the rule, as in *tón dì* ‘the planting’ from */tów<sup>n</sup> ri/*.

We can add *d* to the list of consonants that shift a following *r* to *d*, based on the negative predicative form *búrád-dâ* ‘not be smooth’, cf. *búrádá* ‘smooth’ (§11.4.2).

### 3.4.3.5 *rd* → *dd*

*/rd/* clusters are created when */rv-d/* or */rv-r/* syncopates. There is some variation in pronunciation between *rd* and *dd* in this case. In (xx1), the suffix is *-rá* ‘not be (adjective)’, see (xx2) in §11.4.2.

(xx1)	adjective	gloss	‘not be ADJ’
	<i>yágára</i>	‘coarse’	<i>yágár-dâ</i> ~ <i>yágád-dâ</i> (Boui)

For Ningo, imperfective negative *gíd-dà-Ø* ‘he/she doesn’t get’ syncopated from */gír(o)-rà/* shows */rr/* → *dd*, probably via */rd/* (see preceding section).

## 3.4.4 Vowel-vowel and vowel-semivowel sequences

Monosyllabic verbs whose citation form is *Có:-* and *Cí:-* have perfectives that I transcribe *Cwè:-* and *Cwè:-*, see (xx2) in §10.2.1.1. Here the *w* is essentially a devocalized *ɔ* or *o*, respectively, and one could alternatively transcribe *Cɔè:-* and *Còè:-*. I know of no cases of *#Cǎè:-*, since *Ca:-* verbs in other Dogon languages appear in Tiranige as bisyllabic *Cayo-* with perfective *Caye-* (*nàyè-* ‘spent the night’, *kàyè-* ‘shaved’).

### 3.4.4.1 *VV*-Contraction

If the vocalic alternations in verb stems are analysed in terms of ablaut (i.e. mutations among vowel qualities), there is no need to posit underlying vowel sequences at the stem-suffix boundary. For example, the *Cwè:-* and *Cwè:-* perfectives just mentioned could be analysed as reflecting the application of an ablated E-vocalism to */Cɔ:-/* and */Cò:-/*.

Clearly suffixal morphemes in verbal derivation and inflection are nearly all *C*-initial (for 3Pl subject see below). This leaves little scope for a putative *VV*-contraction process. At regular word-boundaries, I did not observe contractions involving word-final and word-initial vowels, like *i* and *u* in (xx1).

(xx1)	<i>[bé-gè</i>	<i>ri]</i>	<i>úm-b-à:</i>
	[child-Pl	Def]	go-Ipfv-3PlSbj

‘The children went (away).’ (Boui)

The best case of *vv*-Contraction is in 3Pl subject forms of verbs. The final verb in (xx1) reflects /ún-wò-/ , cf. 3Sg *úm-bò-Ø*, plus the 3Pl suffix. The latter is rather variable segmentable and tonally, depending on the particular aspect-negation category, making phonological analysis nontransparent. In this imperfective combination, however, it is fairly clear that /o/ in /-wò-/ combines with something like 3Pl allomorph /-â:/ to produce a long *a:*. The full list of input-output relations for vowel quality in nonpast 3Pl subject forms is given in (xx2).

(xx2)	input	output
	<i>a</i> -X	<i>a:</i> resultative <i>-s-â:</i> , imperfective negative <i>-r-â:</i>
	<i>o</i> -X	<i>a:</i> imperfective <i>-w-â:</i> ~ <i>-b-â:</i>
	<i>i</i> -X	<i>i:</i> perfective negative <i>-n-î:</i>
	“	<i>a:</i> experiential perfect negative <i>-tè:-n-â:</i>

This points to /a/ as the probable vowel quality of the 3Pl suffix. Note, however, that the “same” perfective negative suffix *-ni-* has two distinct outputs for 3Pl, depending on whether it is preceded by the experiential perfect morpheme.

In corresponding past forms, we always get *ε* outputs in 3Pl as in other forms, but it isn’t clear whether this is due to contractions of the type /*ε-a*/ → *ε:*, or whether past forms are produced by *ε*-ablaut overlaid on the corresponding nonpast forms (§10.6.1).

#### 3.4.4.2 Monophthongization (/iy/ to *i:*, /uw/ to *u:*)

Monophthongization happens when a suffix or clitic consisting of a semivowel is added to a homorganic vowel, or when combinations like *Cuwi-Cv* and *Ciyi-Cv* syncope to *Cuw-Cv* and *Ciy-Cv*.

### 3.5 Cliticization

There are no second-position clitics of the Wackernagel type. The extent to which we should recognize phonological clitics is debatable. There are many function elements, often monosyllabic or subsyllabic, that could be considered as affixes, clitics, or particles (or, in verb complexes, auxiliaries). Analytic choices among these possibilities depend on the fixity of linear relationships and on phonological interactions, and the different considerations may

diverge and may be individually fuzzy or moot. There is no stress or accent system that would clearly distinguish affixes, clitics, and particles.

I take 1Sg ( $-\dot{y}^n$ ), 2Sg( $-\dot{w}$ ), and 3Pl (e.g.  $-\acute{y}\acute{e}$ ) subject morphemes in verbal morphology to be suffixes. However, the 1Pl and 2Pl morphemes precede the verb; I incline to take them as proclitic to the verb but there is no strong argument against particle status and I transcribe them as separate words. Likewise for the 1Sg, 2Sg, 3Sg, and 3Pl preverbal subject pronominals in nonsubject relative clauses.

A similar case is existential  $\acute{e} \sim \acute{e}$  and its specifically distant counterpart  $y\grave{a} \sim y\acute{a}$  (§11.2.2.1), which precedes inflected verbs and quasi-verbs. Based on its linear position it could be considered a proclitic to the verb. It has no segmental phonological interactions with the stem, but it does affect the form of the ‘be (somewhere)’ quasi-verb. Again, I prefer to transcribe it as a separate word.

The past-time forms of verbs involve replacement of the final vowel of the nonpast form by  $\epsilon$ , sometimes with a similar change in the penult. I take this to be suffixation, or better yet as vocalic mutation (ablaut), rather than as cliticization (§10.6).

I accept clitic status for the ‘it is’ morpheme, usually  $=\dot{w}^n$ , which is added at the end of NPs and related constituents (§11.2.1.1). In favor of clitic (rather than particle) status is the fact that it has allomorphs that depend on the form of the host. I extent this to the negative counterpart  $=l\grave{a}$  ‘it is not’ (§11.2.1.2).

I take plural  $-g\acute{e}$  and  $-\eta g\acute{e}$  to be suffixes rather than clitics or particles since they may occur two or more times within an NP, suggesting that they are parts of individual words. This contrasts with e.g. definite  $ri$ , accusative  $gi$ , and postpositions, which can occur only once in a NP.

## 3.6 Tones

### 3.6.1 Lexical tone melodies

#### 3.6.1.1 Lexically /L/-melody stems allowed

In nouns and numerals, and to a lesser extent adjectives, stems have a lexical tone melody. I sometimes write specifically lexical melodies in slashes, e.g. /HL/, though curly brackets as in {HL} are used for stem-/word-level tone overlays and can be used informally whenever the specifically lexical element is not at issue.

Tiranige belongs to the subset of Dogon languages that allow lexically /L/-toned stems, so there is no requirement that all stems have at least one H-tone.

### 3.6.1.2 Lexical tones of verbs

Verbs have no lexical tone melodies, and there are no “bare” verb stems. Verbs occur in several vocalism stems (E/I-stem, A/O-stem, etc.), either with or without further inflectional suffixes. The tones of the stem depend on the inflectional category.

### 3.6.1.3 Lexical tone→melodies for unsegmentable noun stems

Nouns do have lexical melodies. The majority are /H→H/, /H→L/ (explained below), /L/, /LH/, and /HL/, along with a few more complex or shifting melodies especially in trisyllabic and longer stems. Because the lexical melodies can be modified, erased, or inverted in specific grammatical contexts, it is necessary to “peek” ahead into NP tonal grammar in order to tease apart the lexical melody.

In one set of contexts, the distinguishable melodies are /H/, /L/, /LH/, and /HL/. The forms in (xx1) and similar arrays below show the **phonetic** tone in prepausal position. Using x as dummy,  $\acute{x}$  is H,  $\grave{x}$  is L,  $\check{x}$ : is <LH>,  $\hat{x}$ : is <HL>,  $\bar{x}$  is M[id] tone, and  $\tilde{x}$  is <HM>. Phonetic M-tone is a realization of phonemic H-tone in prepausal position in words that also have another H syllable. For example, phonemic HH is realized as HM, and HLH as HLM, in this position. These data are from Ningo for which I have fuller information (Boui variations are mentioned at the end of this section).

(xx1)	isolation	‘it isn’t a _’	plural	gloss
a. /H/				
	tê:	té: = là	té:-gē	‘tea’
	yē:	yé: = là	yé:-gē	‘woman’
	gí <b>b</b> ā	gí <b>b</b> á = là	gí <b>b</b> á-gē	‘house’
	tóngíyē	tóngíyé = là	tóngíyé-gē	‘foot’
	númíyē	númíyé = là	númíyé-gē	‘hand’
b. /L/				
	wè:	wè: = là	wè:-gè	‘thing’
	ìjò	ìjò = là	ìjò-gè	‘village’
c. /LH/				
	tě:	tě: = là	tě:-ngē	‘firewood’
	<b>kwě:</b>			‘gourd/calabash vine’
	gàbú	gàbú = là	gàbú-gē	‘onion’
	gùlùmbá	gùlùmbá = là	gùlùmbá-gē	‘pigeon’

d. /HL/

níyè	níyè = là	níyè-gē	‘bird’
kúmìyè	kúmìyè = là	kúmìyè-gē	‘calabash’

If some additional morphosyntactic contexts (definite singular, singular or plural noun plus numeral) are added, the result is (xx2). The /L/, /LH/, and /HL/ melodies are still clearly distinguishable. However, the /H/ category in (xx1a) above must now be split into two subtypes, which I label /H→H/ and /H→L/. The /H→H/ type is phonologically unproblematic, except that nonmonosyllabics dissimilate to a following H-toned numeral (here ‘three’), becoming L-toned. The /H→L/ type shifts its H-tones onto a following L-toned numeral (here ‘one’ and ‘two’), but fails to dissimilate (alternatively, it re-assimilates) to a following H-toned numeral. Another difference between /H→H/ and /H→L/ is that the /H→H/ type merges with /L/ melody before the definite marker, ending up as LH-toned.

(xx1)	DefSg	‘one _’	‘two _s’	‘three _s’	gloss
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a. /H/

*subtype /H→H/*

té: rì	té: tò:mà	té:-gé nì:ngà	té:-gē tá:ndī	‘tea’
tòngìyè rì	tóngìyè tò:mà	tóngìyè-gé nì:ngà	tòngìyè-gè tá:ndī	‘foot’

*subtype /H→L/*

yé: rì	yè: tó:mā	yè:-gè ní:ngā	yé:-gé tá:ndī	‘woman’
gíbà rì	gìbà tó:mā	gìbà-gè ní:ngā	gíbà-gé tá:ndī	‘house’
númìyè rì	nùmìyè tó:mā	nùmìyè-gè ní:ngā	númìyè-gé tá:ndī	‘hand’

b. /L/

wě: rì	wè: tò:mà	wè:-gè nì:ngà	wè:-gè tá:ndī	‘thing’
ìjò rì	ìjò tò:mà	ìjò-gè nì:ngà	ìjò-gè tá:ndī	‘village’

c. /LH/

tě: rì	tě: tò:mà	(tě:-ngé nì:ngà)	tè:-ngè tá:ndī	‘firewood’
		[tones variable]		
gàbú rì	gàbú tò:mà	gàbú-gé nì:ngà	gàbú-gè tá:ndī	‘onion’
gùlùmbá rì	gùlùmbá tò:mà	gùlùmbá-gé nì:ngà	gùlùmbá-gè tá:ndī	‘pigeon’

d. /HL/

níyè rì	níyè tò:mà	níyè-gé nì:ngà	níyè-gè tá:ndī	‘bird’
kúmìyè rì	kúmìyè tò:mà	kúmìyè-gé nì:ngà	kúmìyè-gè tá:ndī	‘calabash’



Based on a preliminary working lexicon, the distribution of these nominal melodies for three common stem shapes is summarized in (xx3).

- (xx3) a. Cv:            /H→L/ dominant  
                          /LH/, /L/ attested  
                          /H→H/ attested in a borrowing ('tea')
- b. CvCv        /H→L/ and /L/ co-dominant  
                          /LH/ attested (borrowings, cultural vocab)  
                          /HL/ attested (old diminutive)  
                          /H→H/ unattested
- c. trisyllabics /H→H/, /H→L/, /HL/ attested for at least two stems  
                          /LH/ attested in cultural vocab  
                          /L/ unattested

Overall, /H→H/ and /HL/ are largely confined, in native vocabulary, to extra-heavy (e.g. trisyllabic) stems, and /LH/ is strong associated with loanwords (especially from Fulfulde) and with regionally widespread cultural vocabulary of variable origin. /L/ is unattested in trisyllabics and uncommon in monosyllabics. Therefore /H→L/ is the most productive melody overall, with strong competition from /L/ in bisyllabics.

Two melodies other than /H→H/, /H→L/, /L/, /LH/, and /HL/ are attested for trisyllabics. One is /LHL/, attested in àlpú:jù 'lung', plural àlpú:jì-gē. This stem appears to be a hybrid between a widespread Dogon iterated onomatopoeic term, e.g. Yanda Dom *pú:zù-pá:zù* 'lung', and the set of borrowings from Arabic via Fulfulde beginning with àl-.

The second unusual trisyllabic melody might be represented either as /HLH/ or as /HL/+H, i.e. /HL/ plus a floating H-tone that is variably realized on a following morpheme or on the final syllable of the stem itself. This is 'mango', which is realized prepausally as singular mángòrō (H.L.H) and plural mángòrò-gē (H.L.L-M). This differs tonally only in the singular from regular /HL/ trisyllabics, as in tángìlè (H.L.L) 'split nut', plural tángìlè-gē (H.L.L-M).

My Boui assistant pronounced *gùlùmbà-gé* 'pigeons' versus Ningo *gùlùmbá-gē* (xx1c), and *gàw-gé* 'onions' for Ningo *gàbú-gè*, shifting a final H-tone onto the plural suffix.

All lexical melodies of noun stems are erased in connection with stem-wide {L} overlay (before a modifying adjective) or {LH} overlay (after a possessor).

#### 3.6.1.4 Lexical tone melodies for adjectives and numerals

Adjectives do not have lexical tone melodies, except for a few that can also be used as nouns. Modifying adjectives appear with {H} overlay when immediately following a noun, and with {L} overlay when following another adjective.

The independent forms of numerals, also heard in some complex numerals, bring out the lexical tones. *tò:mà* ‘1’, *nì:ngà* ‘2’, *cè:jò* ‘4’, *kùlèy<sup>n</sup>* ‘6’, and *piyòlù* ‘10’ have lexical /L/ melodies. Numerals with /H/ melody are *tá:ndí* ‘3’, *nú:* ‘5’5, *só:y* ‘7’, *sé:lé* ‘8’, and *tó:wá* ‘9’.

#### 3.6.1.5 Tone-Component location for bitonal noun stems

The tone break is generally between penult and ultimate for nonmonosyllabic stems: *tángílè* ‘side’, *gùlùmbá* ‘pigeon’.

#### 3.6.1.6 Tone-Component location for tritonal noun stems

There are few uncompound tritonal nouns (likewise for other stem-classes). For /LHL/ I can cite *àlpús(ù)* ‘lung’ (§4.1.1.1), *gùyéngè* ‘aquatic tortoise’, and *sánásà* ‘paper wasp’. *mángòró* ‘mango’ and *dólélé* ‘circle’ are among the few /HLH/ cases.

### 3.6.2 Grammatical tone patterns

#### 3.6.2.1 Grammatical tones for verb stems

Verb stems have no intrinsic (lexical) tones. The tone of a stem depends on a combination of a) the inflectional category (e.g. perfective negative) and b) the person and number of the subject. Details are given in the relevant sections of chapter 10.

The regular tone patterns for each inflection/subject combination can then be overridden by a {LH} overlay applicable to defocalized predicates (i.e. predicates in clauses containing a more or less focalized constituent) and to relative clauses.

#### 3.6.2.2 Grammatical tones for noun stems

Nouns become {LH} toned when preceded by a possessor, erasing lexical tones (§6.2.1-2).

Nouns drop tones to {L} when followed by a modifying adjective (§6.3.1), and as initials in some types of compound (§5.1.2-3, §5.1.4).

There are changes limited to final-syllable tones of noun stems when followed by definite *rì* (§4.4.4.1) or plural suffix *-gè* (64.1.1.1). These changes affect the final syllable of the noun, and do not erase the entire lexical tone melody. They belong to fairly ordinary tonology rather than to abstract tonosyntax.

### 3.6.2.3 Grammatical tones for adjectives and numerals

Within NPs, the tones of modifying adjectives are determined by their linear position: {H} for the first adjective after a noun, {L} for the second (§4.5.1, §6.3.3.1). A minor exception is that diminutive adjectives like *wéni'-wè* have a final L-tone as first modifying adjective.

Numerals do distinguish lexical tones. However, the distinction is suppressed in simple N-Num combinations, where the numeral drops to {L} (§4.7.1.2).

## 3.6.3 Low-level tone rules

### 3.6.3.1 Contour-Tone Resyllabification

A final falling-toned syllable that is followed by a *Cv̇* clitic merges its L-tone element with the L-tone of the clitic.

- (xx1) a. prohibitive *-lá* plus quotative *wà* → *-lá wà*  
 b. imperfective negative 3Sg *-rá-Ø* plus *wà* → *-rá wà*

### 3.6.3.2 Contour-Tone Mora-Addition

A word-final *Cv̇* syllable that acquires a rising tone contour is extended to *Cv̇:*. The best examples of this are forms of *bò-* ‘be (somewhere)’ and *sà-* ‘have’.

*bò-* ‘be (somewhere)’ used with locational phrases has conjugated forms like 1Sg *bò-y<sup>n</sup>* and 1Pl *nì bò-Ø* (§11.2.2.2). There is also a rising-toned variant *bǒ:-* used in the progressive (§10.2.2.3) and in adjectival predicates (§11.4.1.1). *bǒ:-* has conjugated forms like 1Sg *bǒ-y<sup>n</sup>* and 1Pl *nì bǒ:*. A reasonable underlying form for this variant is */bǒ-/. No lengthening is needed in 1Sg *bǒ-y<sup>n</sup>* since the semivowel constitutes a second mora (tone-bearing unit). However, 1Pl *nì bǒ:* and other forms with no suffix are lengthened to allow the rising tone to be articulated.*

The ‘have’ quasi-verb (§11.5.1) has forms like 1Sg *è sâ-y<sup>n</sup>* and 1Pl *nì è sâ:* (shown with existential *è*). The underlying form is */sâ-/. The suffixed 1Sg form is unproblematic, but the*

unsuffixed forms like 1Pl require a lengthened vowel. The rising-toned variant *sǎ:* in relative clauses (§14.4.2) likewise has a long vowel.

### 3.6.3.3 Rightward L-Spreading

When a word ending in a rising pattern, either a L.H syllable sequence or a single <LH>-toned syllable, is followed by a word beginning with a H-tone, the final H-tone element of the first word is deleted. One way to formulate this is as spreading of the L-tone component in the first word to its boundary with the next word.

This process routinely affects {LH}-toned nouns, whether lexically so as with *sàydú* ‘Seydou (man’s name)’, or whether due to a {LH} overlay, such as that of possessed nouns like *mì bàwá* ‘my father’. The final H-tone is audible prepausally, and when the following word begins with a L-tone.

- (xx1) a. *sàydú* / [*mì*<sup>LH</sup> *bàwá*]                      *gwè:-Ø*  
 Seydou / [1Sg<sup>LH</sup> father]                      go.out.Pfv-3SgSbj  
 ‘Seydou / My father has gone out.’ (Boui)
- b. *sàydù* / [*mì*<sup>LH</sup> *bàwà*]                      *gó:-wò-Ø*  
 Seydou / [1Sg<sup>LH</sup> father]                      go.out-Ipfv-3SgSbj  
 ‘Seydou / My father will go out.’ (Boui)  
 (Ningo [*mì*<sup>L</sup> *bà:*] *gó:-bò-Ø*)

In such cases the interlinear includes <sup>LH</sup> even when the H-tone is not overtly realized.

### 3.6.3.4 Rightward H-Spreading

Inconsistently, and often partially, the first L-toned syllable in a [...HL][L...] sequence can be tone-raised. In other words, the H-tone of the preceding syllable can spread rightward. This is parallel to Rightward L-Spreading but it is less systematic.

For example, *cé:mbè* ‘rock, mountain’ is a lexically {HL}-toned noun. When it is followed by a L-tone (including <LH>), as in *cé:mbè mǎ:* ‘my stone’, the pitch of the stem-final *e* is variably raised, so it can be heard as [tʃé:mbèǎǎ:], [tʃé:mbēmǎǎ:] (with mid-level pitch), or [tʃé:mbémǎǎ:] (with higher pitch).

Postpositions like locative *ɲà* can also be affected: *bòmàkó ɲà* ‘in Bamako’, but sometimes [*bòmàkó ɲá*] *bǎ:-Ø* ‘he/she is in Bamako’.

This spreading is distinct from the process where a floating H-tone jumps from one syllable to another, leaving a L-tone in its original location.

### 3.7 Grammaticalized intonation

#### 3.7.1 Morphemes with lexically specified prolongation (→)

Some elements relevant to grammar that regularly have terminal prolongation are *bà*→ ‘than’ (§12.1.-2), *mà*→ ‘or’ (§7.2.1.1), *wá*→ ‘or’ (§7.2.2), and *kùnú*→ ‘a lot’. There are also some examples of expressive adverbials with final prolongation (§8.4.5).

## 4 Nominal, pronominal, and adjectival morphology

### 4.1 Nouns

#### 4.1.1 Simple nouns

Most ordinary singular nouns are monomorphemic. There are no synchronic gender or noun-class morphemes, though there are some frozen vestiges of class suffixes (§4.1.1.2). There are also some suffixal derivations and some reduplicated or iterated stems (§4.1.4, §4.1.6 below). There are also some suffixally derived nouns, both adnominal and deverbal (§4.2).

For the lexical tone contours of nouns, see §3.6.1.3. The lexical tone plays an important role in the phonology of suffixed plurals (§4.1.1.1 just below). Lexical tones of nouns may be overridden by syntactically controlled tonosyntactic overlays.

Most nouns are bisyllabic or longer. Monosyllabic *CvC* and *Cv:C* nouns include *bèl* ‘animal’, *kóy* ‘grass’, *á:y* ‘yawn(n)’ and *bé:w* ‘belching’ (cognate nominal). There are a few examples of *Cv:*, as in *bé:* ‘child’, *yé:* ‘woman’ (but often compounded *ndà-yé:*), *gó:<sup>n</sup>* ‘body’, *mó:* ‘neck’, *dó:* ‘back of skull’, *só:* ‘fabric’, and *yé:* ‘fart’. *gwí:* ‘skin’ is similar in structure.

##### 4.1.1.1 Singular (zero) and plural (-gè)

Plurality of nouns (and of noun-adjective combinations) is marked by suffix *-gè*, whose surface tone depends on the tone class of the noun and the presence of a following numeral or definite marker. *-gè* pluralizes human, animate, and inanimate nouns. There is no synchronically recognizable singular morpheme.

Singular/plural pairs showing the basic tonology are in (xx1).

(xx1)	singular	plural	gloss
a. lexically /H/-toned noun	<i>ámá</i>	<i>ámá-gé</i>	‘sheep’ (Boui)
b. lexically /HL/-toned noun	<i>níyè</i>	<i>níyè-gé</i>	‘bird’
c. lexically /LHL/-toned noun (rare)	<i>àpús</i>	<i>àpús(ù)-gè</i>	‘lungs’

d. lexically /LH/-toned noun

*gùlùmbá*    *gùlùmbà-gé*    ‘pigeon’ (Ningo Pl *gùlùmbá-gè*)

e. lexically /L/-toned noun

*ìjò*    *ìjò-gè*    ‘village’

Since *-gè* is tone-raised to *-gé* after /H/ and /LH/ lexical melodies, but not after /HL/, /LHL/, or /L/, clearly the tone-raising happens by spreading from the final H-tone of the stem. In (xx1d), the final H-tone appears to jump from the stem to the suffix for the Boui assistant, leaving the stem {L}-toned; see Rightward L-Spreading §3.6.3.2. This did not happen with the Ningo assistant.

*-gè* is also used after modifying adjectives and relative-clause verbs. Numerals have a different allomorph *-ηgè*.

#### 4.1.1.2 Frozen classifying suffixes (\*-ηge, \*-ge, \*-ηgɔ)

There are many nouns that appear to end in a **frozen** animacy-number suffix *-ηge*, *-ge*, or *-ηgɔ*, which matches a segmentable **inanimate singular** classifying suffix in Najamba. For each of the items in (xx1) there are cognates in other Dogon languages that lack any trace of the original suffix. The tone of *-ηge* or *-ge* is spread from the preceding syllable in almost all cases. Most of the words in question are level {H}- or {L}-toned.

(xx1) a. frozen \*-ηge (alphabetical)

<i>béηgé</i>	‘grass’	(Ningo <i>béηgé</i> )
<i>kè:lèηgè</i>	‘horn’	
<i>dé:ηgé</i>	‘hip’	
<i>è:lèηgè</i>	‘peanut’	
<i>èmèηgè</i>	‘milk’	<i>émó-</i> ‘milk (a cow)’
<i>íníηgé</i>	‘tooth’	
<i>jé:ηgé</i>	‘blood’	
<i>kùlèηgè</i>	‘hair’	
<i>kàjìηgè</i>	‘tendon’	
<i>nà:ηgè</i>	‘meal’	<i>ηó:-</i> ‘eat (meal)’
<i>pégíηgé</i>	‘button’	<i>pégé-</i> ‘button (a shirt)’
<i>pólíηgé</i>	‘egg’	
<i>pùnàηgè</i>	‘flour, powder’	<i>póri pùnàηgé</i> ‘nére-tree flour’, <i>póri-pùnà</i> ‘yellow’
<i>séηgé</i>	‘grain, seed’ (especially millet grain)	

*tè:ŋgè* ‘wood’  
*yìlŋgè* ‘root’

b. frozen \*-ge after nasal other than *ŋ* (could reflect \*-ge or \*-ŋge)

*béngé* ‘fodder’  
*yángé* ‘supper’

c. frozen \*-ge after vowel (alphabetical)

*ámúgé* ‘reddish fuzz (flowers) on millet spike’  
*í:gé* ‘honey’  
*órógé* ‘millet cakes’  
*sò:gè* ‘dried wild grape seeds or cow-peas’  
*ùnjìgè* ‘breast’

d. frozen \*-ŋgɔ

*tíŋgɔ* ‘tree’

Segmentation is synchronically possible in a few cases based on a cognate verb or other form. One can argue that segmentation is possible in all cases, at least for trisyllabic stems, and especially with *-ŋge* because of its frequency, its lexical semantic associations (vegetation, food, body parts), and its invariant (nonharmonizing) +ATR vowel. However, the Tiranige nouns in (xx6) are morphologically invariant as nouns in the senses indicated, and may combine with plural morpheme *-ge*, e.g. *pólŋgé-gé* ‘eggs’. In addition, *-ŋge* and *-ge* do not appear on adjectives: *pòlŋgè mɔ́*: ‘a good egg’, *èrègè mɔ́*: ‘good rice’.

Because *-gé ~ -gè* is the plural suffix in Tiranige, and is not limited to animates, one can easily imagine how nouns ending in this syllable could be reanalysed as plurals with collective sense. This does seem to have happened with several names of cultivated cereals and other seed crops, for which the singular-plural distinction would be difficult to apply (individual grains, grain spikes, fruits, and plants are expressed as compounds). The nouns in (xx2) are examples. Although some of them do not occur in a distinct singular form, they have 3Pl agreement on verbs when they function as clausal subjects. I suspect that there is some variation among speakers regarding verbal agreement for some of the terms in (xx1) and (xx2).

(xx2) *nù:ŋ-gè* ‘cow-pea’  
*pàlèŋ-gé* (Boui) ‘sesame’ (Ningo *pàlyéŋgé*, cf. Tebul Ure *pàlé*; Najamba *pǎ:lè*)  
*ánjí-gé* ‘roselle (bissap)’  
*èrè-gè* ‘rice’  
*yò:-gè* ‘millet’



*émá-gé* ‘sorghum’ (Ningo)

#### 4.1.2 High-frequency nouns (‘woman’, ‘man’, ‘child’, ‘person’, ‘thing’)

*ndà*: ‘person’, with regular plural *ndà:-gè* ‘people’, is the basis for *ndà-báná* ‘man’ and *ndà-yé*: ‘woman’, with adjectives ‘male’ and ‘female’ respectively. Uncompounded *yé*: ‘woman’ and (low-toned) *bànà* ‘man’ are also in use.

*bé*: ‘child’ has a slightly irregular plural *bé-gé* with shortened vowel.

*wè*: ‘thing’ has a regular plural *wè:-gè*.

#### 4.1.3 Initial *Cv*-reduplication in nouns rare

Initial *Cv*-reduplication is not common or conspicuous in Tiranige noun stems. The nouns (‘grasshopper’, ‘beetle’, ‘hyena’, etc.) that often show initial reduplication in other Dogon languages either lack Tiranige cognates or have unreduplicated cognates (*kà*: ‘grasshopper’, *tá*: ‘hyena’).

A few nouns and compound finals that have a reduplicative appearance are in (xx1). Forms are from Boui.

(xx1)	a.	<i>gógójé</i>	‘tree gecko’
		<i>bòbòrí</i>	‘colubrid snake sp. ( <i>Psammophis</i> )’
		<i>gógóró</i>	‘padlock’
		<i>gúgúlú</i>	‘kneading stick’
	b.	<i>kà:-dú:dù</i>	‘grasshopper sp. ( <i>Kraussaria</i> )’

#### 4.1.4 Final reduplication in nouns

Final reduplication is also not a clearly definable type in Tiranige noun stems.

#### 4.1.5 Nouns with full-stem iteration

Several noun stems are full-stem iterations in form, though the stem does not occur in unreduplicated form. In a few cases there is a nasal or *a*: extension at the end of the first iteration. Forms are from Boui.

- (xx1) a. LL-LH
- |                    |   |
|--------------------|---|
| <i>kù:-kǔ:</i>     | ‘machete blade’ (local Fr. <i>coupe-coupe</i> ) |
| <i>kùlà-kùlá</i>   | ‘hump (cow, camel)’                             |
| <i>kùnù-kùnù</i>   | ‘white acacia’                                  |
| <i>ìní-ìní</i>     | ‘scorpion’                                      |
| <i>tùmbù-tùmbù</i> | ‘mistletoe’                                     |
| <i>tìmi-tìmi</i>   | ‘bush sp. ( <i>Scoparia</i> )’                  |
| <i>bùlà-bùlá</i>   | ‘blue (dye or color)’                           |
- b. H-HL
- |                                       |                               |
|---------------------------------------|-------------------------------|
| <i>sé<sup>n</sup>-séw<sup>n</sup></i> | ‘shrub sp. ( <i>Cassia</i> )’ |
|---------------------------------------|-------------------------------|
- c. LL-HL
- |                                |  |
|--------------------------------|--|
| <i>wèlè-wélè</i>               | ‘sandgrouse’   |
| <i>pèlè-pélè</i>               | ‘dove’   |
| <i>kòndò-kòndò</i>             | ‘long-tailed starling’                                       |
| <i>kòjì-kójì</i>               | ‘viper sp. ( <i>Echis</i> )’                                 |
| <i>màyè-máyè</i>               | ‘zorilla (mammal)’   |
| <i>kìyà-kíyà</i>               | ‘lightning flash’  |
| <i>kìrì-kírì</i>               | ‘epilepsy’   |
| <i>yùgù-yùgù</i>               | ‘used-clothing pile in market’                               |
| <i>kàlàṅ-kàlàw<sup>n</sup></i> | ‘hail (stones)’ or ‘tall herb sp. ( <i>Cassia</i> )’         |
| <i>with medial nasal</i>       |  |
| <i>tìlà-<sup>n</sup>-tílà</i>  | ‘thick-knee (bird)’  |
| <i>with medial à:</i>          |  |
| <i>pìlà:-píli</i>              | ‘butterfly’ and ‘winged termite’                             |
| <i>tòṅgà:-tóngò</i>            | ‘woodpecker’                      verb <i>tóngó-</i> ‘drill’ |

Some iterations involve vocalic mutations, with a-vowels favored in the second iteration. Triple iterations are always of this type, with the third iteration reverting to the vowel quality of the first.

- (xx2) a. LL-LH
- |                  |               |
|------------------|---------------|
| <i>kòlò-kàlá</i> | ‘tree locust’ |
|------------------|---------------|
- b. L-L-H
- |  |   |
|--|---|
| <i>tò:-tà:-tó:</i>                                   | ‘Vieillot’s barbet (bird)’ onomatopoeic |
| <i>tè<sup>n</sup>-tà<sup>n</sup>-têw<sup>n</sup></i> | ‘tree sp. ( <i>Cassia</i> )’            |
- c. H-H-H

*dín-dán-díw<sup>n</sup>* (sound of footsteps)

#### 4.1.6 Frozen initial *a-* or *aN-* in nouns

I have not found any examples that suggest segmentation of initial *a-* or variant.

## 4.2 Derived nominals

### 4.2.1 Characteristic derivative (*-ngá, -gá*)

A few cases involving a suffix *-ngá* have been observed (xx1).

(xx1)	characteristic	gloss	input noun	gloss
	a. {H}-toned			
	<i>ké:lé-ngá</i>	‘having a horn’	<i>kè:lè-ngè</i>	‘horn’
	<i>kùlà-kùlá-ngá</i>	‘humped’	<i>kùlà-kùlá</i>	‘hump’
	<i>kó:ní-ngá</i>	‘sorcerer’	<i>kó:ní</i>	‘evil spell’
	<i>dé:ní-ngá</i>	‘crazy person’	<i>dè:nì-ngè</i>	‘craziness’
	<i>yóré-ngá</i>	‘stingy person’	<i>yóré</i>	‘avarice’ (Ningo <i>jó:ré</i> )
	b. {L}-toned			
	<i>bàná-ngà</i>	‘fearless person’	<i>bàná</i>	‘man’

*-ngá* recurs in *tó:má-ngá = w<sup>n</sup>* ‘is the same’ (§12.2.2). L-toned *-ngà* in *áná-ngà* ‘when?’ is obscure.

In (xx2), *-gá* seems to have a similar function.

(xx2)	<i>úú-gá</i>	‘sick person’	<i>úú</i>	‘illness’
	<i>gólónjí-gá</i>	‘lazy person’	<i>gólónjó</i>	‘laziness’

Elicitation of other hoped-for examples usually produced a periphrasis with *sâ:-* ‘have’ in participial form *sâ:* (plural *sâ:-gè*): [*yéná kùlèngé*] *sâ:* ‘one who has a beard, bearded one’.

### 4.2.2 Deverbal *-ngo* nominals

The examples in (xx1) are from Ningo. The nominals denote either places or objects. *óbó-ngó* is morphologically closer to stative *óbà* ‘be sitting (=seated)’ than to mediopassive *óbí-yó*.

(xx1)	verb	gloss	nominal	gloss
	óbí-yó	‘sit down’	óbó-ηgó	‘sitting place, seat; chair’
	bí-yó	‘lie down’	bí:-ηgó	‘mat’

For other verbs, like ‘sleep’, that might lend themselves to such a formation (‘sleeping place’), my Ninggo assistant rejected this construction in favor of a relative clause with *gélé* ‘place’ as head. However, *-ηgo* can appear in various semantic functions with some verbs other than ‘sit’ and ‘lie down’. In (xx2), my Ninggo assistant suggested that *yógi-ηgó* means something like ‘reason for coming’.

(xx2)	[yógi-ηgó	[ò	<sup>LH</sup> wě:]]	ndé	kàn-á:	<sup>LH</sup> yògè-ów
	[come-Nom	[2Sgposs	<sup>LH</sup> thing]]	what?	do-Purp	<sup>LH</sup> come.Pfv-2SgSbj
	‘Your-Sg (reason for) coming, why did you come?’					

#### 4.2.3 Abstractive deverbal nominals

By “abstractive” I refer to nominalizations that primarily denote an event type or an instantiation of such an event type. Cf. English *-ing* and some (but not all) cases of *-tion* and the like.

##### 4.2.3.1 Productive verbal noun (-wà ~ -bà)

An abstractive verbal noun is freely formed by suffixing *-wà* (Boui) or *-bà* (Ningo) to the {H}-toned O-stem of the verb. The (morpho-)phonology is the same as for imperfective *-wò* (§10.2.2.1). In other words, a final *u* is syncopated before the suffix, a final {*o* *ɔ*} is syncopated after an unclustered {*m w*}, the suffixal *w* in Boui hardens to *b* after syncope, /*mb*/ assimilates to *mb*, and in Boui some stems lengthen *Cým-bà* to *Cý:m-bà*.

(xx1)	O-stem	verbal noun (Boui forms)	gloss
	a. final nonhigh vowel, +ATR		
	<i>gó:-</i>	<i>gó:-wà</i>	‘going out’
	<i>yógó-</i>	<i>yógó-wà</i>	‘coming’
	b. final nonhigh vowel, -ATR		

<i>tónó-</i>	<i>tónó-wà</i>	‘butchering’
<i>yégó-</i>	<i>yégó-wà</i>	‘falling’
<i>émó-</i>	<i>é:m-bà</i>	‘milking (cows)’
<i>ḡó:-</i>	<i>ḡó:-wà</i>	‘eating (meals); drinking’

c. final nonhigh vowel, unclustered medial *w* or *m*

<i>áwó-</i>	<i>áb-bà</i>	‘accepting’
<i>sémó-</i>	<i>sé:m-bà</i>	‘slaughtering’

c. final high vowel

<i>dámú-</i>	<i>dá:m-bà</i>	‘speaking’
<i>kán(ú)-</i>	<i>kám-bà</i>	‘do’

It is not clear whether verbal noun *-wà* has any historical or synchronic relationship to *-wá* in nonsubject imperfective relative clauses (the H-tone of *-wá* is part of a {LH} tone overlay). See §14.4.2.

#### 4.2.3.2 Deverbal *-ḡé*~*-ḡè* nominals

Suffix *-ḡe* may have originally been an inanimate singular class suffix (cf. Najamba). The deverbal nominals with *-ḡe* that have been observed are in (xx1). Some of them have {HL}-toned stem plus H-toned *-ḡé*. Others have word-level {H} melody. Semantically, they are similar to verbal nouns in many cases.

(xx1)	nominal	gloss	verb	gloss
	a. {HL-H}-toned			
	<i>túmù-ḡé</i>	‘measurement’	<i>túmó-</i>	‘measure (tr)’
	<i>nónì-ḡé</i>	‘writing’	<i>nónó-</i>	‘write’
	<i>úlè-ḡé úló-</i>	‘drop seeds’ (noun-verb collocation)		
	b. {H}-toned			
	<i>á:rí-yá-ḡé</i>	‘fatigue’	<i>á:rí-yó-</i>	‘become tired’
	<i>álándí-yá-ḡé</i>	‘rest (n)’	<i>álándí-yó-</i>	‘rest, have a rest’

#### 4.2.3.3 Minor deverbal abstractive nominals

The nominal *nó:-gú* ‘(re-)entry’, attested in the compound *nó:-gú* <sup>LH</sup>*dèní* ‘(re-)entry day’ (Ningo dialect), refers to the re-entry of circumcision novices into the village after 30-40 days of seclusion while their wounds heal. It is derived from the verb *nó:-gó* ‘(re-)enter’ (§9.3).

*[yè-kìndò]-[sígí-rí]* ‘sunset’ and *[yè-kìndò]-[túmí-rí]* ‘sunrise’, cf. *yé-kìndó* ‘sun’, are derived from *sígó* ‘descend’ and *túmú* ‘(sun) rise’. The *-rí* may be a resegmented definite marker.

There are a number of similar nominals ending in *i* or *u*, now functioning mostly as cognate nominals in collocations with the cognate verb (§11.1.2.5).

#### 4.2.4 Instrument nominals with *-yé*

I can cite the uncompounded examples in (xx1). Forms are from Boui.

(xx1)	nominal	gloss	verb	gloss
	a. input already +ATR compatible			
	<i>yígír-yé</i>	‘stirring stick’	<i>yígíró-</i>	‘stir (with stick)’
	<i>bímbí-yé</i>	‘file (tool)’	<i>bímbó-</i>	‘file (sth), scrape with a file’
	<i>tóngí-yé</i>	‘mortar ax’	<i>tóngó-</i>	‘chop out (interior of a mortar)’
	<i>ó:ndí-yé</i>	‘hooked hammer’	<i>ó:ndí-yó-</i>	‘bend over, bow’
	b. overt shift to +ATR			
	<i>wélí-yé</i>	‘scraper’	<i>wélí-yó-</i>	‘scrape out (interior of calabash or mortar)’
	<i>pégí-yé</i>	‘hobbles (rope)’	<i>pégé-</i>	‘hobble (animal)’ (by tying its front legs together)
	<i>cénjí-yé</i>	‘chisel, wedge’	<i>cénjé-</i>	‘apply chisel or wedge to’
	<i>yémbí-yé</i>	‘fan(n)’	<i>yémbé</i>	‘fan (something)’

*-yé* here is +ATR even with a lexically -ATR verb (xx1b). It is therefore distinct from *-yé* ~ *-yé* in product-of-action nominals, which preserves the lexical ATR class (§5.1.11).

In some other cases there are noun/verb pairs but no obvious derivational suffix: *íjílí* ‘broom’, *íjíló-* ‘sweep’, perhaps *tìmbì-rì* ‘lid (e.g. of waterjar)’, *tìmbí-ró-* ‘put lid on, cover with lid’.

For compounds including *-yé* see §5.1.11.

#### 4.2.5 Uncompounded agentives

The attested agentives are nearly all compounds; see §5.1.5.

*ká:ngá* ‘thief’ is obscurely related to verbs *kám(ú)-* ‘steal (something)’ and *kámú-ró-* ‘rob (someone)’. *-ngá* is found in a few characteristic derivatives (§4.2.1).

### 4.3 Pronouns

#### 4.3.1 Basic personal pronouns

The forms of personal pronouns, excluding postposed possessor forms, are in (xx1). There are no special inanimate pronouns or anaphoric pronouns, except that possessed ‘my head’, ‘your head’, etc. is used for reflexive objects.

The “independent” forms shown are not very common in texts. In main clauses, subject pronominal category is indicated by a mix of suffixes (1Sg, 2Sg, 3Pl), proclitics (1Pl, 2Pl), and zero (3Sg). Proclitic forms for all pronouns are used in most other combinations, including the accusative (shown), and to mark pronominal subjects of nonsubject relatives (also shown). These proclitics are L-toned in most contexts. In the independent” form and certain other combinations, such as with *là* ‘also’ the pronouns are H-toned.

#### (xx1) Personal pronouns

	Indep	‘also’	Acc	proclitic	subject	
					main clause	relative clause
1Sg	<i>mí-w<sup>n</sup></i>	<i>mí là</i>	<i>mì-gí</i>	<i>mì</i>	VERB- <i>y<sup>n</sup></i>	<i>mì</i> VERB
1Pl	<i>ní-w<sup>n</sup></i>	<i>ní là</i>	<i>nì-gí</i>	<i>nì</i>	<i>ní/mì</i> VERB	<i>nì</i> VERB
2Sg	<i>ó:</i>	<i>ó là</i>	<i>ò-gí</i>	<i>ò</i>	VERB- <i>w</i>	<i>ò</i> VERB
2Pl	<i>é-w<sup>n</sup></i>	<i>é là</i>	<i>è-gí</i>	<i>è</i>	<i>é/è</i> VERB	<i>è</i> VERB
3Sg	<i>ná-w<sup>n</sup></i>	<i>ná là</i>	<i>nà-gí</i>	<i>nà</i>	VERB-∅	<i>nà</i> VERB
3Pl	<i>cé-w<sup>n</sup></i>	<i>cé là</i>	<i>cè-gí</i>	<i>cè</i>	[variable]	<i>kè</i> VERB

My Boui assistant affricated the initial consonant of the 3Pl, except as relative-clause subject. In Ningo the 3Pl begins with *k* in all positions (*ké là*, etc.).

The ‘also’ series with H-toned pronoun and L-toned *là* is distinct from the combination of L-toned subject proclitic with future *-lá* (dropped to *-là* before an H-tone), as in 1Sg future *mì-lá*.

### 4.3.2 Personal pronouns as possessors

Pronominal possessors are usually postposed to alienably possessed nouns, and have special forms (original ‘my thing’, ‘your thing’, etc.), see §6.2.1.2. With inalienables (kin terms), and optionally with alienables, pronominal possessors are preposed, and have their regular, morphologically simple form, see §6.2.2.

## 4.4 Definite and deictic words

### 4.4.1 Determiners

#### 4.4.1.1 Definite marker (*rì*)

A clitic-like definite morpheme *rì* can be added after a noun and any modifiers (adjective, numeral, pronominal possessor). It follows plural *-ge* if present, and requires plural *-nge* on an immediately preceding numeral. It is followed by *címà* ‘all’, accusative *gì*, and of course postpositions. For my Ningo assistant, plural *-ge rì* can be elaborated as *-ge r-gè*, i.e. with the plural suffix repeated on the definite marker.

*rì* is L-toned. In a preceding nonmonosyllabic word ending in two H-toned syllables, the final syllable drops to L-tone (xx1ab). A monosyllabic stem is not affected (xx1c). A preceding entirely {L}-toned word adds a final H-tone. This is indicated in interlinears by “.+H”. The effect of these final-syllable tone changes is to reduce nonmonosyllabic preceding words to contoured {LH} or {HL} melodies.

- (xx1) a. *ná:-gè*            *rì*  
cow-Pl                Def  
‘the cows’ (< *ná:-gé*) (Boui)  
(Ningo *ná:-ngé rì*)
- b. *kónjè*            *rì*  
beer                Def  
‘the beer’ (< *kónjé*) (Boui)  
(Ningo *kónjé rì*)
- c. *bé:*                *rì*  
child                Def  
‘the child’ (*bé:*) (Boui = Ningo)
- d. *ìjó*                *rì*



village            Def  
 ‘the village’ (< *ɲò*) (Boui = Ningo)

e. *ná:-gé*            *mè:-gé*            *rì*  
 cow-Pl            1SgPoss-Pl        Def  
 ‘my cows (definite)’ (Boui)

f. *[[bùní      rì]      gì]      <sup>L</sup>ìwè-Ø*  
 [[red        Def]        Acc]        <sup>L</sup>catch.Pfv-3SgSbj  
 ‘He/She caught the white (“red”) person.’ (< *bùní*)

e. *[ná:-gè<sup>L</sup>      tá:ndí-ɲgè      rì      címə]      ùn-íyè*  
 [cow-Pl<sup>L</sup>        three-Pl        Def    all]        go.Pfv-3PlSbj  
 ‘All three (of the) cows went away.’ (Boui)  
 [Ningo: *[ná:-ɲgè<sup>L</sup>      tá:ndí-gé      rí      póy]      ùnì-yè* ]

In the combination of *rì* with plural *-gè* (~ *-ɲgè*), when the preceding noun is {H}-toned, I hear *-gè rì* (~ *-ɲgè rì*) instead of #*-gé rì* (~ #*-ɲgé rì*), and in (xx1e) above and (xx2a). Other nouns have the same tone on *-gè* with or without *rì* (xx2b). This is consistent with the usual phonology of *rì*, which requires contour tone melodies on preceding nonmonosyllabic nouns.

(xx2)	noun	gloss	‘Xs’	‘the Xs’
a.	<i>ná:</i>	‘cow’	<i>ná:-gé</i>	<i>ná:-gè rì</i>
b.	<i>gùlùmbá</i>	‘pigeon’	<i>gùlùmbà-gé</i>	<i>gùlùmbà-gé rì</i>
	<i>níyè</i>	‘bird’	<i>níyè-gè</i>	<i>níyè-gè rì</i>
	<i>àlpús</i>	‘lung’	<i>àlpús-gè</i>	<i>àlpús-gè rì</i>

Postposed pronominal possessors show rising tone before *rì* even when they would be heard with {L} tone elsewhere. *séɲgé mǎ:* ‘my millet’, *séɲgé mǎ: rì* ‘all my millet’.

#### 4.4.1.2 ‘This/that’ (deictic demonstrative pronouns)

The basic deictic demonstratives are in (xx1). They make no distinction between human, animate, and inanimate. They take the normal plural morpheme *-gè*. Demonstrative *mbó* is used for distant as well as proximal deixis. It does not combine with definite *rì*. In the proximate, there is a dialectal difference.

The explicitly near-distant and far-distant demonstratives are really specialized definite relative clauses. *-wò* is a form of *bò-* ‘be (somewhere)’. In these combinations, *é-* functions as near-distant marker and *yá-* as far-distant marker. Elsewhere, *é wò-* (with existential clitic *é*) means ‘be present (here/there)’ with no explicit spatial circumscription.

Discourse-definite *éri* occurs in contexts like *éri = w<sup>n</sup>* ‘that’s it’ (e.g. confirming an interlocutor’s statement). It may contain definite *rì* etymologically, but the plural *éri-gè* shows that *rì* is now fused to the stem.

(xx1)	unmarked	definite	gloss
a. General deictic			
<i>Boui</i>			
	<i>mbó</i>	—	‘this’
	<i>mbó-gè</i>	—	‘these’
<i>Ningo</i>			
	<i>éni</i>	—	‘this’
	<i>éni-gè</i>	—	‘these’
b. Near-Distant			
	—	<i>é-wò rì</i>	‘that (near)’
	—	<i>é-wò-gé rì</i>	‘those (near)’
	[Ningo: <i>-bò</i> instead of <i>-wò</i> ]		
c. Far-distant			
	—	<i>yá-wò rì</i>	‘that (far)’
	—	<i>yá-wò-gé rì</i>	‘those (far)’
	[Ningo: <i>-bò</i> instead of <i>-wò</i> ]		
d. Discourse-definite			
	<i>éri</i>	—	‘that (aforementioned)’
	<i>éri-gè</i>	—	‘those (aforementioned)’
	[plural in Ningo often contracted to <i>ég-gè</i> ]		

A demonstrative may be used absolutely, or it may follow a noun, core NP (N-Adj), or a numeral-final phrase N(-Adj)-Num. *mbó* drops its tones to *mbò* (plural *mbò-gè*) in these combinations, but the other demonstratives do not drop tones; see §6.5.

#### 4.4.2 Demonstrative adverbs

##### 4.4.2.1 Locative adverbs

The basic locational demonstrative adverbs are in (xx1). *gì* and *ɲà* are locative postposition allomorphs but are here written as suffixes since the forms are rather fused.

(xx1)	form	gloss
	<i>mbé:</i>	‘here’ (Boui = Ningo)
	<i>mó-ɲà</i>	‘here’ (Boui)
	<i>éni-gì</i>	‘here’ (Ningo)
	<i>é-ɲà</i>	‘over there (nearby)’ (Boui)
	<i>éri-ɲà</i>	‘over there (nearby)’ (Boui)
	<i>é-bó-r-gì</i>	‘over there (nearby)’ (Ningo)
	<i>yá:</i>	‘over there (farther away or discourse-definite) (Boui = Ningo)

*é-bó-r-gì* can be parsed as ‘at/in what is there (nearby)’, with definite *ri*.

##### 4.4.2.2 Emphatic and approximative modifiers of adverbs

Modifiers of spatial adverbs are in (xx1). *tòrò* has a basic sense ‘like’ but here it can mean ‘around, approximately’.

(xx1)	form	gloss
a.	<i>mó-ɲà yèré</i>	‘right here’
	<i>mó-ɲà jà:tí</i>	‘right here’ (Ful <i>jaati</i> )
b.	<i>mó-ɲà tòrò</i>	‘around here’
	<i>é-ɲà tòrò</i>	‘around there (nearby)’
	<i>yá: tòrò</i>	‘around there (farther away)’
c.	<i>mbé: tètʷ<sup>n</sup></i>	‘this way’
	<i>yá: tètʷ<sup>n</sup></i>	‘around (over) there’

#### 4.4.2.3 ‘Like this/that’ (*mbórɔ̀*)

Manner adverbial ‘like this/that, thus, so’ is *mbórɔ̀* in Boui. It is obscurely related to *mbó* ‘this/that’. The predicative form is *mbórɔ̀ wò-∅* ‘it’s like that, that’s how it is’, with the same lenition of *bò-* ‘be’ seen in existential *é wò-* ‘be present’ (§11.2.2.2). The negative predicate is *mból-là* ‘it’s not like that’.

For the Ningo assistant, *én-dò* ‘like this’ is used in deictic contexts (pointing or showing), and *é-rò* means ‘thus’ in discourse-definite sense. Compare *éni* ‘this’ and *éri* ‘that (definite)’ in Ningo dialect.

#### 4.4.3 Presentatives (‘here’s ...!’) (*-ni*)

Presentatives distinguish three spatial categories: proximal, near-distant, and far-distant. The presentative word may precede or follow the relevant NP.

(xx1)	form	category	gloss
	<i>mbó-ni</i>	proximal	‘here’s X’
	<i>é-wò-ni</i>	near-distant	‘there’s X (nearby)’
	<i>yá-wò-ni</i>	far-distant	‘there’s X (far away)’

### 4.5 Adjectives

Adjectives can be postnominal modifiers, or they can be predicates. This section describes their forms as modifiers. For adjectival predicates see §11.4.1.

Within the NP, adjectives follow nouns and precede numerals. Sequences of two or more adjectives are possible. Adjectives induce tone-dropping on the preceding noun, hence [N<sup>L</sup> Adj]. A second adjective is itself tone-dropped: [N<sup>L</sup> Adj <sup>L</sup>Adj]. See §6.3 for the syntax.

#### 4.5.1 Morphologically simple adjectives

Morphologically simple adjectives are illustrated in (xx1). Forms are from Boui.

(xx1) simple adjectives

dimensions

*báy*

‘big (house, tree); wide (passageway); spacious (courtyard)’

<i>bíní</i>	‘big, fat, stout (animal, person, mountain); thick (wall)’
<i>yá lá</i>	‘long, tall’
<i>nímí</i>	‘deep (well, hole)’
<i>íjígó</i>	‘empty’ = ‘deserted’
<i>né:ngó:</i>	‘heavy’ (for ‘lightweight’ see §4.6.1)
age and state	
<i>kúnjú</i>	‘old (man, woman)’
<i>kándá</i>	‘new’
<i>yógóró</i>	‘ruined, kaput’
<i>éw<sup>n</sup></i>	‘fresh (vegetation)’ (also ‘wet’)
<i>íló</i>	‘ripe (grain, fruit); cooked, done (meat); sour, curdled (milk)’
<i>kóló</i>	‘fresh (milk); unripe; raw (meat)’
<i>yánjá</i>	‘lean (animal, meat)’
temperature	
<i>númá</i>	‘hot (water, food)’
<i>témúm</i>	‘cold, cool (water); slow-moving’
speed	
<i>númá</i>	‘fast-moving, rapid’ (for ‘slow’ see §4.5.4)
texture and hardness	
<i>búrádá</i>	‘smooth, sleek (surface)’
<i>yágára</i>	‘coarse (surface)’
<i>málání</i>	‘soft (skin), fragile (string, dry leaf, i.e. snaps if pulled)’
taste and smell	
<i>ámámú</i>	‘sour, acrid (like lemon)’
<i>kújájá</i>	‘rotten (meat, fruit)’
<i>ní:njí</i>	‘sweet, delicious’ (also ‘sharp’)
<i>gálágá</i>	‘bitter’
sharpness	
<i>ní:njí</i>	‘sharp’ (also ‘delicious, sweet’)
<i>dúmbú</i>	‘blunt (blade)’
evaluation	
<i>mó:</i>	‘good’ (for ‘bad’ see §4.5.4)

<i>yágá</i>	‘pretty’
difficulty (for ‘easy’ see §4.5.4)	
<i>má:gá</i>	‘difficult (work)’
color	
<i>búní</i>	‘red (brown)’
<i>jémé</i>	‘black (dark)’
<i>púlé</i>	‘white (light-colored)’
moisture	
<i>máy<sup>n</sup></i>	‘dry’
<i>éw<sup>n</sup></i>	‘wet’

Of semantic interest is the syncretism of ‘sweet (taste)’ and ‘sharp (blade)’, which has a regional distribution (some Dogon languages, Songhay, Bangime, Bozo-Jenaama), and that of ‘hot’ and ‘fast’.

#### 4.5.2 Iterated adjective stems

A few adjectives are optionally iterated with no clear change in sense (even with singular reference), though perhaps slightly emphatic: *bíní-bíní*, *báy-báy*, *númá-númá* (in the sense ‘fast-moving’), *yálá-yálá*. For other adjectives in the section above, an assistant rejected iterations.

Another adjective is always iterated (xx1). It is a borrowing, probably originally from the name of a soap product.

(xx1) *bùlà-bùlá* ‘blue’

#### 4.5.3 Phrasal adjectives (exemplars)

Two complex adjectives, perhaps pressed into service to fill out a European color-adjective system, are in (xx1). They denote exemplars of the colors in question. They have parallels in other languages of the zone.

(xx1)	adjective	gloss	literal sense
a.	<i>pórí-pùnà</i>	‘yellow’	<i>pórí pùnàngé</i> ‘nére-tree flour’ (bright yellow)

- b. *kòy-kóló* ‘green’ ‘fresh grass’

#### 4.5.4 Negative adjectives (-ná)

Suffix *-ná* can be added to adjectives to reverse their polarity. This is possible for any adjective denoting an asymmetrical bipolar scale, i.e. one with an unmarked pole. English pairs like *helpful, unhelpful* might give the flavor, but the semantics are somewhat different here. An assistant rejected #*kándá-ná* ‘not new, un-new’, presumably since ‘new’ does not really satisfy the semantic criteria.

Certain adjectival senses rendered by a simple lexical item in English are expressed by the negation of the polar adjective (xx1). Forms are from Boui.

(xx1) Pairs of positive and negative (polarized) adjectives

a. evaluation

*mó:* ‘good’  
*mó:-ná* ‘bad, no good’

*yágá* ‘pretty’  
*yágá-ná* ‘ugly’

b. difficulty

*má:gá* ‘difficult (work)’  
*má:gá-ná* ‘easy (work)’

c. dimension

*nímí* ‘deep’  
*nímí-ná* ‘shallow’

d. speed

*númá* ‘fast-moving, rapid’  
*númá-ná* ‘slow-moving’

For predicative forms see §11.4.1.1 and §11.4.1.3 (‘good’).

#### 4.5.5 Diminutive adjectives (-wè)

A few adjectives end in a kind of diminutive suffix *-wè* (Boui) or *-bè* (Ningo), undoubtedly derived from *bé*: ‘child’. The adjectives in question denote relatively low valued on zero-to-infinity scales (as opposed to bipolar scales with a neutral midpoint).

(xx1)	form	gloss
	(Boui)	
	<i>wéní-wè</i>	‘small (house); narrow (passage)’ (Ningo <i>wéní-bè</i> )
	<i>ménjí-wè</i>	‘thin, slender (person, tree); thin (wall)’ (Ningo <i>ménjí</i> or <i>ménjí-bè</i> )
	<i>déjí-wè</i>	‘short (rope, person)’ (Ningo <i>déjí</i> or <i>déjí-bè</i> )

The Boui assistant allows no nondiminutive counterpart in the singulars. However, *-wè* is optionally omitted before plural *-ge*, hence *wéní-wè-gé* or *wéní-gé*. Plural suffix *-gé* is H-toned in both variants. The Ningo assistant requires *-bè* in singular ‘small’, but allows both nondiminutive and diminutive forms for the two others. He produced plurals like *tùmà-gè<sup>L</sup>* *ménjí-gé<sup>LH</sup>* *bè-gé* ‘thin sticks’, where the diminutive is treated like a possessed form of *bé-gé* ‘children’ with {LH} overlay. This plural construction occurs even in Boui for morphologically similar nominal diminutives (§5.1.6).

#### 4.6 Participles

The main section of participles (i.e. forms of verbs used in relative clauses) is §14.4.

Some simple English adjectives have derivational features, including participle-like features, in Tiranige (xx1). The most common is that in *-sá* (xx1a), cf. *-sá* in resultative participles, but the adjectives in (xx1a) are {H}-toned whereas true participles have {LH} melody. It is possible that the {H}-toned stems with *-sá* in (xx1a) are relics of an original {H} overlay on verbs in subject relatives (§14.4). Forms are from Boui.

(xx1) Derived adjectives

a. with <i>-sá</i>	
<i>sómbé-sá</i>	‘wet, moistened (clothing)’
<i>kúné-sá</i>	‘hard (rock)’
<i>málé-sá</i>	‘supple, stretchable
<i>máníyé-sá</i>	‘dry, dried (clothing, wood)’
<i>yám-sá</i>	‘spoiled, rotten (fruit, meat)’, ‘damaged (implement)’
<i>síyé-sá</i>	‘plump, fatty (animal)’



<i>pílé-sá</i>	‘plump (animal)’
<i>ywé-sá</i>	‘full (container)’
<i>kúré-sá</i>	‘undiluted (milk, cream of millet)’
<i>tíwé-sá</i>	‘dead’

b. with *-má*

<i>dú:rú-yó-má</i>	‘fast’ (< ‘run’)
<i>dú:rú-yó-má-ná</i>	‘slow’

c. with *-ní*

<i>tíwá-ní</i>	‘alive, living’
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d. with *-yé*

<i>súlí-yé</i>	‘slightly diluted (milk, cream of millet)’
<i>mángámí-yé</i>	‘heavily diluted, watery’

Some other “adjectival” senses are expressed by perfective participles of *kándí-yó-* ‘make’ or ‘fix’, irregularly related to *kán(ú)-* ‘do’, following an expressive adverbial (xx2).

(xx2)	<i>sèl-sèl kàndi-yé</i>	‘pointed’
	<i>tòpé-tòpé kàndi-yé</i>	‘spotted’
	<i>òlú-òlú kàndi-yé</i>	‘easily broken (infected sore etc.)’

#### 4.6.1 Negative participial adjectives (*-rá*)

In the polar adjective-like pairs in (xx1), the negatively defined quality is expressed as a negative form (with suffix *-rá*) of the positively defined quality. Forms are from Boui.

(xx1)	a.	<i>né:ngó:</i>	‘heavy’
		<i>né:ngó-rá</i>	‘lightweight’
	b.	<i>gálágá</i>	‘bitter’
		<i>gálágó-rá</i>	‘bland-tasting’

## 4.7 Numerals

### 4.7.1 Cardinal numerals

Counting sequence (‘1’ to ‘10’): *tò:mà, nì:ngà, tá:ndí, cè:jò, nú, kùlèy<sup>n</sup>, só:y, sé:lé, tó:wá, pìyòl(ù)*. In the middle section from ‘2’ to ‘7’ the alternation of /L/ and /H/ melodies gives the sequence an incantational quality. However, ‘8’ breaks the pattern.

#### 4.7.1.1 ‘One’ (*tò:mà*), ‘same (one)’ (*tò:mà*), and ‘other’ (*tó:*)

*tò:mà* is used in the counting sequence, absolutely, and as modifier after a noun or core NP: *í:njé tò:mà* ‘one dog’, *ìjò tò:mà* ‘one village’. It is {L}-toned in such combinations, and does not affect the lexical tone melody of the noun.

As predicate, in the sense ‘be (one and) the same, be identical’, *tómá-ηgá* hosts the ‘it is’ clitic (xx1). See also plural *tómá-ηgá-gé = w<sup>n</sup>* in §12.2.2.

(xx1) *[mbó yà] [mbó yà] tómá-ηgá = w<sup>n</sup>*  
 [Dem and] [Dem and] one=it.is  
 ‘This and that are one (=the same).’ (Boui)

*tó:* ‘other’ is a regular adjective morphosyntactically. It controls tone-dropping on the noun: *í:njé<sup>L</sup> tó:* ‘another dog’ (< *í:njé*)

#### 4.7.1.2 ‘2’ to ‘10’

The numerals from ‘2’ to ‘10’ are shown in (xx1). After a noun, or a N-Adj combination, the tones of the numeral are {L}, except that the only monosyllabic stem (‘5’) fluctuates between H- and L-tone. Lexical tones appear in the independent form, used as a one-word NP. ‘2’, ‘4’, and ‘10’ have lexical /L/ melodies.

Numerals ‘2’ and up are added to plural forms of nouns with *-gè* (except for ‘\_ hundred’ and ‘\_ thousand’, see below). There is no tonal interaction between the numeral and the preceding string. For Ningo, there is no tonal difference between numerals ‘2’ to ‘10’ in modifying function and the isolation/independent forms. My Boui assistant generally dropped all of these numerals to L-toned in modifying function, but his isolation/independent forms showed an /L/ versus /H/ distinction as in Ningo.

(xx1)	gloss	after N(-Adj)	independent	
		Boui	Ningo	Boui Ningo

‘2’	<i>nì:ngà</i>	<i>nì:ngà</i>	<i>nì:ngà</i>	<i>nì:ngà</i>
‘3’	<i>tà:ndì</i>	<i>tà:ndì</i>	<i>tá:ndí</i>	<i>tá:ndí</i>
‘4’	<i>cè:jò</i>	<i>kè:jò</i>	<i>cè:jò</i>	<i>kè:jò</i>
‘5’	<i>nù: (~ nú:)</i>	<i>nú:.</i>	<i>nú:.</i>	<i>nú:.</i>
‘6’	<i>kùlèy<sup>n</sup></i>	<i>kùlèy<sup>n</sup></i>	<i>kùlèy<sup>n</sup></i>	<i>kùlèy<sup>n</sup></i>
‘7’	<i>sò:y</i>	<i>só:y</i>	<i>só:y</i>	<i>só:y</i>
‘8’	<i>sè:lè</i>	<i>síyélé</i>	<i>sé:lé</i>	<i>síyélé</i>
‘9’	<i>tò:wà</i>	<i>tó:wá</i>	<i>tó:wá</i>	<i>tó:wá</i>
‘10’	<i>pìyàlù</i>	<i>pìyàlù</i>	<i>pìyàlù</i>	<i>pìyàlù</i>

When followed by a demonstrative, definite marker, and/or a pronominal possessor, plural -(ng)é is added to the numeral, which has {H} overlay. Boui examples are *nì:ngá-ngé mbò-gè* ‘these/those two’, and *nì:ngá-ngé mè:-gé* ‘my two’. Ningo has *ení-gè nì:ngá* ‘these two’ with ‘2’ as modifier rather than head, but definite *nì:ngá-ngé rì* ‘the two’ and *nì:ngá-ngé mè:-ngé* ‘my two’.

A numeral may follow a pronoun. In this case, the numeral gets a {LH} overlay, like a possessed noun: *nì<sup>LH</sup> nì:ngá* ‘us two’ (Boui & Ningo), *cè<sup>LH</sup> cè:jò* (Boui) ‘the four of them’. As usual, the final H of {LH} is dropped if the following word begins with an H-tone.

#### 4.7.1.3 Decimal multiples (‘20’, ...) and combinations (‘11’, ‘59’, ...)

The multiples of ‘10’ are given in (xx1). Forms are from Boui.

(xx1)	gloss	form
‘10’		<i>pìyàlù</i>
‘20’		<i>pé-néngà</i>
‘30’		<i>pé-rá:ndí</i>
‘40’		<i>dé:</i>
‘50’		<i>dé: pìyàlù</i>
‘60’		<i>pél-kúlèy<sup>n</sup></i>
‘70’		<i>síngí-gí pìyàlù òrá</i>
‘80’		<i>síngí</i>
‘90’		<i>síngí yá pìyàlù</i>

*pé-néngà* ‘20’, *pé-rá:ndí* ‘30’, and *pél-kúlèy<sup>n</sup>* ‘60’ are composite, with a variant of *pìyàlù* ‘10’ followed by a variant of the single-digit numeral.

*síngí* ‘80’ is the so-called ‘Dogon hundred’, and ‘70’ and ‘90’ are phrases subtracting or adding ‘10’.

Decimal plus single-digit numerals like ‘47’ consist of the decimal numeral followed by the single-digit numeral, in some cases with *sùgó* ‘plus’ or *yà* ‘and’ intervening. Forms are from Boui.

- (xx2) a. *dé:*     *só:y*  
           40     seven  
           ‘47’
- b. *pé-néngá*   *sùgó*   *nú:*  
           10-two     plus     five  
           ‘25’
- c. *síngí*       *yà*       *tá:ndí*  
           80-plus     and       three  
           ‘83’

The Boui forms of the various decimal numerals in such combinations are given in (xx3).

(xx3)	independent	before single-digit numeral X
‘10’	<i>pìyòlù</i>	<i>pè-sùgó X</i>
‘20’	<i>pé-néngá</i>	<i>pé-néngá sùgó X</i>
‘30’	<i>pé-rá:ndí</i>	<i>pé-rá:ndí sùgó X</i>
‘40’	<i>dé:</i>	<i>dé: X</i>
‘50’	<i>dé: pìyòlù</i>	<i>[dé: pìyòlù] sùgó X</i>
‘60’	<i>pél-kúlêy<sup>n</sup></i>	<i>pél-kúlêy<sup>n</sup> sùgó X</i>
‘70’	<i>síngí-gí pìyòlù òrá</i>	<i>[síngí-gí pìyòlù òrá] sùgó X</i>
‘80’	<i>síngí</i>	<i>síngí yà X</i>
‘90’	<i>síngí-yá pìyòlù</i>	<i>[síngí-yá pìyòlù] sùgó X</i>

For ‘50’, my Ningo assistant produced *dé: yà pìyòlù*, with *yà* ‘and’ separating ‘40’ from ‘10’. Except for the irregularly contracted *[pè-sùgó X]* with “teen” numerals, the decimal term always has the same form in independent and composite contexts. Most are followed by the ‘plus’ morpheme *sùgó*, but *dé:* ‘40’ allows no ‘plus’ morpheme, and *síngí* ‘80’ takes *yà* ‘and’ instead of *sùgó*.

#### 4.7.1.4 Large numerals (‘100’, ‘1000’, ...) and their composites

The stems in (xx1) are usually noun-like morphosyntactically. Forms are from Boui.

(xx1)	gloss	independent form	modifying a plural noun <i>[X ge]</i>
a.	‘hundred’	<i>tè:mdèré</i> <i>tè:mèdèré</i>	<i>[X ge] tè:mdèrè</i> (Boui) <i>[X ge] tè:mèdèré</i> (Ningo)
b.	‘thousand’	<i>mújú-silà:mú</i> or:	<i>[X ge] mújú-silà:mú</i> <i>mújú-silà:mú [X ge]</i>
c.	‘million’	<i>milyôw<sup>n</sup></i> (<French)	<i>milyôw<sup>n</sup> [X ge]</i>

These are noun-like syntactically and can be followed by single-digit numerals (‘two hundred’, ‘three thousand’, etc.). *tè:mdèré* is contracted in Boui to *tè:mè* before another numeral, which has its lexical tones (*tè:mè nú:* ‘five hundred’). The composite *mújú-silà:mú* reduces to {H}-toned *mújú* in such combinations, before a {L}-toned single-digit numeral (*mújú nù:* ‘five thousand’, Ningo *mújú* <sup>LH</sup>nũ:).

The Ningo forms for ‘hundred’ and ‘thousand’ are in (xx2a-b). In (xx2a), *tè:mèdèré* is usually truncated before the single-digit term, though fuller, untruncated pronunciations are possible in careful speech. The two single-digit terms beginning with n (‘2’ and ‘5’) have geminated nn. The extra n is transcribed here as though a suffix on ‘hundred’; it is likely a vestige of the d or r of an older partially contracted form of *tè:mèdèré*. In (xx2b), there are no segmental issues, but note the tones of the single-digit numeral.

(xx2)	a. ‘_ hundred’		tones of single-digit numeral
	<i>tè:mèdèré</i>	‘100’	
	<i>tè:mé-n nì:ngà</i>	‘200’	L
	<i>tè:mè tá:ndí</i>	‘300’	H
	<i>tè:mé kè:jò</i>	‘400’	L
	<i>tè:mè-n nú:</i>	‘500’	H
	<i>tè:mé kùlèy<sup>n</sup></i>	‘600’	L
	<i>tè:mè só:y</i>	‘700’	H
	<i>tè:mè síyéle</i>	‘800’	H
	<i>tè:mè tó:wà</i>	‘900’	H
	b. ‘_ thousand’		tones of single-digit numeral
	<i>mújú</i>	‘1000’	
	<i>mújú <sup>H</sup>ní:ngá</i>	‘2000’	H

mújú	<sup>LH</sup> tà:ndí	‘3000’	LH
mújú	<sup>H</sup> ké:jó	‘4000’	H
mújú	<sup>LH</sup> nú:	‘5000’	LH
mújú	<sup>H</sup> kúlèy <sup>n</sup>	‘6000’	H
mújú	<sup>LH</sup> sǎ:y	‘7000’	LH
mújú	<sup>LH</sup> síyèlé	‘8000’	LH
mújú	<sup>LH</sup> tò:wá	‘2000’	LH

Combining the isolation form with the tone formulae in (xx2a) and (xx2b) results in (xx3). Clearly the tonal form of the numeral used with ‘hundred’ is the regular tone. With ‘thousand’, on the other hand, lexical /H/ has {LH} overlay and lexical /L/ has {H}.

(xx3)	digit	isolation	lexical	‘_ hundred’	‘_ thousand’
	‘2’	nì:ngà	L	L	H
	‘3’	tá:ndí	H	H	LH
	‘4’	kè:jò	L	L	H
	‘5’	nú:	H	H	LH
	‘6’	kùlèy <sup>n</sup>	L	L	H
	‘7’	sǎ:y	H	H	LH
	‘8’	síyèlé	H	H	LH
	‘9’	tò:wá	H	H	LH

‘Million’ is rarely used except in connection with currency.

#### 4.7.1.5 Currency

The currency unit in Mali and several other Francophone West African states is the CFA franc (FCFA). As of 2012, one US dollar was worth about 500 FCFA. In the native languages, counting is based on a unit equal to five FCFA, except for amounts of one million FCFA or greater. In Tiranige this unit is called *m̀b̀ù:d̀ú-ẁè* in the singular, with diminutive *-ẁè*, and as plural *m̀b̀ù:d̀ù-g̀é* before numerals ‘2’ and up.

- (xx1) a. *m̀b̀ù:d̀ú-ẁè*  
 currency.unit-Dim  
 ‘5 FCFA’ (Boui)
- b. *m̀b̀ù:d̀ù-g̀é*      *nì:ngà*  
 currency.unit-Pl      two

## ‘10 FCFA’ (Boui)

### 4.7.1.6 Distributive numerals

Numerals are iterated to make distributives (‘two by two’, ‘two currency units each’, etc.). The numerals ‘1’ to ‘10’ divide into two tonal types, one having L-LH tones (i.e. {L} on the initial and {LH} on the final), the other having H-L tones (i.e. {H} on the initial and {L} on the final. The initial {H} in the latter case may just be the lexical melody, if we assume that lexical /HL/ surfaces as {H} after the H-tone extends rightward to the boundary. ‘100’ clearly shows the lexical /LH/. Forms are from Boui.

(xx1)	gloss	simple	distributive	tones
‘1’		<i>tò:mà</i>	<i>tò:mà-tò:má</i>	L-LH
‘2’		<i>nì:ngà</i>	<i>nì:ngà-nì:ngá</i>	L-LH
‘3’		<i>tá:ndí</i>	<i>tá:ndí-tà:ndí</i>	H-LH
‘4’		<i>cè:jò</i>	<i>cè:jò-cè:jó</i>	L-LH
‘5’		<i>nú:</i>	<i>nú:-nú:</i>	H-LH
‘6’		<i>kùlèy<sup>n</sup></i>	<i>kùlèy<sup>n</sup>-kùlèy<sup>n</sup></i>	L-LH
‘7’		<i>só:y</i>	<i>só:y-sǎ:y</i>	H-L
‘8’		<i>sé:lé</i>	<i>sé:lé-sè:lé</i>	H-L
‘9’		<i>tó:wá</i>	<i>tó:wá-tò:wá</i>	H-L
‘10’		<i>pìyòlù</i>	<i>pìyòl(ù)-pìyòlù</i>	L-LH
‘20’		<i>pé-néngà</i>	<i>[pé-néngá]-[pè-nèngà]</i>	H-L
‘40’		<i>dé:</i>	<i>dé:-dè:</i>	H-L
‘80’		<i>síngí</i>	<i>síngí-sìngì</i>	H-L
‘100’		<i>tè:mdèré</i>	<i>tè:mdèré-tè:mdèrè</i>	LH-L

The negative predicative form is with *=là* ‘it is not’, as in *nì:ngà-nì:ngá=là* ‘it isn’t two by two’.

### 4.7.2 Ordinal adjectives

For interrogative *ángá-n* ‘how many-eth?’ see §13.2.7. Other ordinals are covered below.

#### 4.7.2.1 ‘First’ (*díló, gó:*) and ‘last’ (*kùgùrìyàngé*)

Ordinal adjective ‘first’ is *díló* (Ningo), as in *nwè:<sup>L</sup> díló* ‘(the) first song’, and *gó:* in Boui, as in *bè:<sup>L</sup> gó: mǎ:* ‘my first child’. Both forms can also be used adverbially to mean ‘(in) the old days; in the past’.

Adjective ‘last’ is *kùgùrìyàngé*, as in *bè: kùgùrìyàngé mǎ:* ‘my last (i.e. most recent) child’.

For adverbial ‘first(ly), at first’, see §8.4.6.2

#### 4.7.2.2 Other ordinals (suffix *-n*)

Other ordinal adjectives are formed by adding suffix *-n* (Boui) or *-nù* (Ningo) to the numeral, whose tones are raised to {H}. This raising affects only the final word in composite numerals, i.e. it does not extend to *[X sùgó]* or *[X yà]*. In fact, *sùgó* takes {L}-toned form as *sùgò* in ordinals. There are slight segmental irregularities in ‘third’ (stem-final *e* for *ɪ*) and in ‘fifth’ (a kind of reduplication, cf. independent *nú:* ‘5’). Forms are from Boui.

(xx1)	form	gloss
	a. single-digit numeral	
	<i>ní:ngá-n</i>	‘second’
	<i>tá:ndé-n</i>	‘third’
	<i>cé:jé-n</i>	‘fourth’
	<i>nú:nú-n</i>	‘fifth’
	<i>kúlé-n</i>	‘sixth’
	<i>só:y-n</i>	‘seventh’
	<i>sé:lé-n</i>	‘eighth’
	<i>tó:wá-n</i>	‘ninth’
	<i>píyólú-n</i>	‘tenth’
	b. decimal	
	<i>pé-nángá-n</i>	‘twentieth’
	<i>dé:-n</i>	‘fortieth’
	c. decimal plus single-digit numeral	
	<i>pè-sùgò tó:má-n</i>	‘eleventh’
	<i>dé: tó:má-n</i>	‘forty-first’



d. hundred

*té:mdéré-n*

‘hundredth’

e. hundred plus ‘1-99’ numeral (two levels)

*[tè:mdère yà] pénángá-n*

‘hundred and twentieth’

#### 4.7.3 Fractions and portions

Fraction terms are *pècì-kámà* ‘half’, which assumes a binary division, and *pècère* ‘portion, division’, which can be anything from binary on up.

## 5 Nominal and adjectival compounds

The compound types in this chapter are distinguished by the word-classes of the initial and final, and by tone-contour. Using *n* for noun, *a* for adjective, *num* for numeral, *v* for verb, and *x* for a variable word class (noun, adjective, perhaps adverb), one can represent the types with notation like [*x n*], [*n n*], [*n v*], and (with a suffix) [*n v-VblN*], with diacritics to mark tones ( $\acute{x}$  = all high tone,  $\hat{x}$  = falling melody,  $\check{x}$  = rising melody,  $\grave{x}$  = all low tone,  $\bar{x}$  = regular lexical tone). Example: [ $\grave{n} \bar{n}$ ] is a noun-noun compound whose initial is dropped to {L} tone contour and whose final has its lexical tones.

### 5.1 Nominal compounds

#### 5.1.1 Compounds of type [ $\bar{n} \bar{n}$ ]

This type, which involves no tonal change on either initial or final, is not attested.

#### 5.1.2 Compounds of type [ $\grave{n} \bar{n}$ ]

In this type, the initial drops tones, while the final keeps its regular tones. The tonosyntax is therefore the same as for noun-adjective combinations. In Tiranige, this type is occasionally indistinguishable from possessive-type compounds, viz., when the initial is lexically {L}-toned and the final is lexically {LH}-toned. Forms are from Boui.

(xx1) compound	gloss	initial and final
<i>jìwà<sup>L</sup>-jíró</i>	‘storage structure’	<i>jíwá</i> ‘house’, <i>jíró</i> ‘eye’
<i>jìrò<sup>L</sup>-úmbúlú</i>	‘face’	<i>jíró</i> ‘eye’ (final obscure)
<i>àmò<sup>L</sup>-págá</i>	‘Ramadan (fasting)’	<i>àmò</i> ‘mouth’, cf. <i>págó-</i> ‘tie’

#### 5.1.3 Compounds with final verbal noun, type [ $\grave{n} \acute{v}$ -VblN]

The noun is {L}-toned as compound initial. The verbal noun has its regular form, i.e. {H}-toned verb plus suffix *-wà*. The noun may be a cognate nominal, although in this case the compound is somewhat superfluous when the cognate nominal by itself can denote the action (e.g. *tà:nì* ‘hunt’).

(xx1) a. with cognate nominal

*tà:ní<sup>L</sup>-[tá:ní-wà]* *tà:nì* ‘hunt’ ‘hunting’

b. with noncognate noun

*kògò<sup>L</sup>-[púló-wà]* *kógó* ‘head’ ‘undoing old braids (before braiding)’

#### 5.1.4 Possessive-type compounds [ḡ ṅ]

In this type, the initial behaves morphologically like a possessor, and the final has the possessor-controlled {LH} contour. This compound pattern is very productive in Tiranige.

(xx1) compound                      gloss                      initial and final

<i>nú má<sup>LH</sup> dù jé</i>	‘bracelet’	<i>nú má</i> ‘hand’, <i>dù jé</i> ‘necklace’
<i>sé ṅ gé<sup>LH</sup> pùn à ṅ gé</i>	‘millet flour’	<i>sé ṅ gé</i> ‘(millet) grain’, <i>pùn à ṅ gé</i> ‘flour’
<i>kà:gè<sup>LH</sup> mí:</i>	‘swill’	<i>kà:gè</i> ‘bran’, <i>mí:</i> ‘water’

Although the compound has possessive form, it functions syntactically as a common noun. With a real possessor is added, as in *nú má<sup>LH</sup> dù jé mè:* ‘my bracelet’ or *à:màdú<sup>LH</sup> [nùmà dù jé]* ‘Amadou’s bracelet’, there is no tonal indication of internal bracketing (recursive possession) of the type [[Poss<sup>LHN</sup>] <sup>LHN</sup>], and a pronominal possessor follows the entire compound: one says ‘my hand-necklace’ rather than ‘[my hand’s] necklace’.

#### 5.1.5 Agentive compounds of type [ḡ ṽ]

The agentive form of the verb is {H}-toned, shifts -ATR to +ATR in nonfinal syllables, and ends in *i*. It normally occurs in compounds with initials denoting characteristic objects. A cognate nominal can serve as a default initial. Monosyllabic *Cí:-* verbs appear as *-Cí:* or as *-Cwí:* depending on the point of articulation of the consonant, as with the simple perfective, see ‘singer’ (xx1a) and ‘millet-cake eater’ (xx1b). Forms are from Boui.

(xx1) compound gloss initial (glossed) and final

a. cognate nominal as initial

<i>nwè:-nwí</i>	‘singer’	<i>nwé:</i> ‘song’, <i>nó:-</i>
<i>twè:-twí</i>	‘liar’	<i>twé:</i> ‘falsehood’, <i>tó:-</i>
<i>tà:nì-tá:ní</i>	‘hunter’	<i>tà:nì</i> ‘hunt’, <i>tá:nó-</i>
<i>yèwù-yéwí</i>	‘dancer’	<i>yèwù</i> ‘dance’, <i>yéwó-</i>
<i>kùwò-kúwí</i>	‘farmer’	<i>kùwò</i> ‘farming’, <i>kúwó-</i>
<i>tà:nì-tá:ní</i>	‘hunter’	<i>tà:nì</i> ‘hunt(n)’, <i>tá:n(ú)</i>

b. noncognate noun as initial

<i>òrògè-ní:</i>	‘millet-cake eater’	<i>òrógé</i> ‘millet cake’, <i>nó:-</i>
<i>kògò-múndí</i>	‘braiding lady’	<i>kógó</i> ‘head’, <i>múndó-</i>
<i>jèjì-tí:</i>	‘weaver’	<i>jéjì</i> ‘cotton thread’, <i>tíyó-</i>
<i>nàmà-témí</i>	‘meat-eater’	<i>námá</i> ‘meat’, <i>témú-</i>

The plural of *-Cwí* agentives is *-Cúy-gé*, often heard as *-Cu:-gé* or as [Cý:ge] with high front rounded vowel.

5.1.6 Compounds with *bé:* or *-bè ~ -wè* ‘child’

For lexicalized diminutive *-wè* with some adjectives denoting relatively low values on zero-to-infinity scales (‘small’, ‘thin’, ‘short’), see §4.5.5. Diminutive *-wè* is related etymologically to *bé:* ‘child’, plural *bé-gé* ‘children’.

*bé:* ‘child’ itself occurs as final in possessive-type compounds, denoting a fruit or similar product associated with the larger entity (xx1).

(xx1)	<i>tíṅgó</i>	<sup>LH</sup> <i>bě:</i>
	tree	<sup>LH</sup> child
	‘tree’s child (i.e. fruit)’ (Boui)	
	[plural <i>tíṅgó</i> <sup>LH</sup> <i>bè-gé</i> ]	

There are also some compounds where the ‘child’ term is reduced to *-wè ~ -bè* in the singular, resembling a suffix. Compare the three adjectival diminutives in *-wè* (§4.5.5). However, for the nouns in (xx2), plural *-ge* is added to both the noun stem and to ‘child’, which takes the possessed plural form <sup>LH</sup>*bè-gé*. Forms are from Boui.

(xx2)	compound	plural	gloss	initial	gloss
a.	<i>bów<sup>n</sup>-bè</i>	<i>bów<sup>n</sup> LH bè-gé</i>	‘key’	<i>bów<sup>n</sup></i>	‘door’
	<i>númáŋgé-bè</i>	<i>númáŋgé LH bè-gé</i>	‘twin’	<i>númáŋgé</i>	‘pair of twins’
b.	<i>dégé-wè</i>	<i>dégé-gé LH bè-gé</i>	‘kidney’	—	—
c.	<i>bè-báná-wè</i>	<i>bè-báná-gé LH bè-gé</i>	‘boy’	<i>bànà</i>	‘man’
	<i>bé-yé-wè</i>	<i>bé-yé-gé LH bè-gé</i>	‘girl’	<i>yé:</i>	‘woman’

The plurals have the form of possessive-type compounds with plural possessor and {LH}-toned possessed noun. In (xx2c), ‘child’ occurs both as the initial (with *báná* ‘male’ and *yé:* ‘female’) and as the final.

For ‘eye(s)’ I recorded *jíró* in Boui and *gíríyé* in Ningo. The latter form resembles ‘child’ or diminutive compounds in some other Dogon languages, e.g. Yanda Dom *gid-íyè* alongside *gidè* ‘eye(s)’.

#### 5.1.7 Compounds with ‘man’ (*bànà*) and ‘woman’ (*yé:*)

For *bànà* or *ndà-báná* ‘man’ and for *yé:* or *ndà-yé:* ‘woman’ as nouns (cf. *ndà:* ‘person’), see §4.1.2. As adjectives, ‘male’ is *báná* and ‘female’ is *yé:*; for example following a name for an animal species.

For the compounds ‘boy’ and ‘girl’ see (xx2c) in §5.1.6 above.

I have not noticed any other irregularities for ‘woman’ in compounds or in noun-adjective combinations. In e.g. *yè:<sup>L</sup> kándá* ‘new bride’ and *ndà-yè:<sup>L</sup> kúnjú* ‘old woman’, for example, there are no irregularities in segmental form.

#### 5.1.8 Compounds with *tìngà* or *gùnàrí* ‘owner’

A possessive-type compound of the type *X LH tìngá* or *X LH gùnàrí* means ‘owner of X’. *LH tìngá* and *LH gùnàrí* have the {LH} overlay of possessed nouns. The initial noun X has its regular tones, as in *jíwá LH tìngá* or *jíwá LH gùnàrí* ‘homeowner, head of household’. The lexical melodies are /L/: *tìngà, gùnàrí*. These nouns can also be used in the sense ‘master (of a slave)’, where they pattern as inalienables (in Boui, where alienability is more clearly demarcated than Ningo). ‘My master’ is *mì LH tìngá, mì LH gùnàrí*.

*X LH tìngá* can also be used abstractly to define an individual by reference to a medical condition or other attribute: *kìrì-kíri-gè LH tìngá* ‘epileptic (person)’.

### 5.1.9 Natural-species compounds (*X-nà(:)-X*)

This pattern, with a medial linker like *-nà(:)-* or *-mà(:)-* flanked by an iterated stem, occurs in a small number of flora-fauna terms in several Dogon languages. For Tiranige I can cite the two examples in (xx1), which denote small but unpleasant species. The medial element is short-voweled in ‘spider’ and long-voweled in ‘burry herb’.

- (xx1) *kòbì-nà-kòbì* ‘spider’  
*nòngè-nà:-nòngè* ‘burry herb sp. (*Pupalia*)’ (burrs stick to clothing)

For ‘spider’, the apparent stem *kòbì-* is not otherwise known. For *Pupalia*, the collocation *nòngè-nòngè-w<sup>n</sup> bò:-* ‘be sticky (adherent)’ is related. Terms for *Pupalia* are also of this iterative pattern, but with a different iterated stem, in a number of other Dogon languages.

### 5.1.10 Instrumental compounds (*-wà, -yé*)

In (xx1), two functionally distinct types of water are expressed by adding a verbal noun with *-wà* that denotes the associated activity. The noun ‘water’ is not tone-dropped, so the verbal noun is not treated as an adjectival modifier.

- (xx1) a. *mí:*            *ɲó:-wà*  
           water        drink-VblN  
           ‘drinking water, water for drinking’ (Boui)
- b. *mí:*            *dú-yó-wà*  
           water        bathe-MP-VblN  
           ‘water for bathing’ (Ningo)

Another construction is exemplified in (xx2). Here the noun ‘stick’ is syntactically possessed, as shown by its rising tone melody. It is preceded by a compound describing the instrumental function of the stick, consisting of an object noun (‘donkey’) and a form of the verb with *-yé* added to a +ATR form of the verb (contrast *tèw-ìyè* ‘they hit’ with the lexical -ATR vocalism). We have seen this morphological formation in uncompounded form in §4.2.4.

- (xx2) [*kólóŋò*        *téw(i)-yé*]        <sup>LH</sup>*tùmá*  
           [donkey        hit-Inst]            <sup>LH</sup>stick  
           ‘stick for beating donkeys’ (verb *téwó-* ‘hit’) (Boui)

(xx3) has a similar syntactic structure, but the verb ‘pick’ appears to occur in an otherwise unattested nominal form, with {LH} overlay consistent with it being possessed by ‘tooth’. As in (xx2) above, this compound itself functions as the possessor of the final noun (‘wood’).

- (xx3) *[íníngé*            <sup>LH</sup>*tòngòjé]*            <sup>LH</sup>*tè:ngé*  
 [tooth            <sup>LH</sup>pick[ing]]            <sup>LH</sup>wood  
 ‘twig used as toothpick’ (verb *tóngójó* ‘pick [teeth]’) (Boui)

#### 5.1.11 Product-of-action compounds (-yé ~ -yé)

A product-of-action expression can be generated by adding a form of the action verb with suffix *-yé ~ -yé* to a noun denoting the type of entity. The noun is tone-dropped to {L}, indicating that the verb with *-yé ~ -yé* functions morphosyntactically as a modifying adjective.

- (xx2) a. *è:lèngè<sup>L</sup> / nàmà<sup>L</sup>*            *áńání-yé*  
 peanut<sup>L</sup> / meat<sup>L</sup>            dry.roast-Prod  
 ‘roasted peanuts/meat’ (*è:lèngè, nàmá*) (Boui)
- b. *è:lèngè<sup>L</sup> / sèngè<sup>L</sup>*            *dú:-yé*  
 peanut<sup>L</sup> / millet<sup>L</sup>            pound-Prod  
 ‘pounded peanuts/millet’ (*è:lèngè, séngé*) (Boui)
- c. *sèngè<sup>L</sup>*            *námí-yé*  
 millet<sup>L</sup>            stone.grind-Prod  
 ‘(stone-)ground millet’ (< *séngé*) (Boui)
- d. *bèlèngè<sup>L</sup>*            *sémí-yé*  
 fodder<sup>L</sup>            cut-Prod  
 ‘the (already) cut grass’ (Ningo)

The suffix *-yé ~ -yé* resembles passive stative *-yé = w̃<sup>n</sup> ~ -yé = w̃<sup>n</sup>* (§10.4.2.1), as well as perfective 3Pl subject *-iyè ~ -iyè*. The passive stative is the most compelling connection. *-yé ~ -yé* is distinct from *-yé* in instrument nominals (§4.2.3, §5.1.11), which requires stem-wide conversion to +ATR vocalism.

## 5.2 Adjectival compounds

### 5.2.1 Bahuvrihi (“Blackbeard”) compounds

#### 5.2.1.1 With adjectival compound final [n̄ ǎ]

An adjectival bahuvrihi like ‘big-bellied’ takes the form of the underlying noun-adjective combination with tone-dropped noun and with rising melody on the adjective. The compound may itself function as an independent noun. It may also follow a noun as a kind of modifier, but it does not control tone-dropping on the noun in the fashion of ordinary modifying adjectives. Overall the tones are identical to those of possessives (and possessive-type compounds).

In (xx1a,c) we have simple noun-adjective combinations. These are converted into bahuvrihis (xx1b,d). The adjectives (‘fat’, ‘black’) differ tonally in the two constructions.

- (xx1) a. *pìndi*<sup>L</sup>      *bíní*  
belly<sup>L</sup>      fat  
‘(a) big belly’ (*pìndi*) (Boui)
- b. *yé:*      *pìndi*<sup>L-LH</sup> *bíní*  
woman      belly<sup>L-LH</sup> fat  
‘pot-bellied (big-bellied) woman’ (Boui)
- c. *kògò*<sup>L</sup>      *jémé*  
head<sup>L</sup>      black  
‘(a) black head’ (*kògò*) (Boui)
- d. *déjì-wè*      *kògò*<sup>L-LH</sup> *jémé*  
snake-Dim      head<sup>L-LH</sup> black  
‘black-headed snake’ (Boui)

#### 5.2.1.2 With numeral compound final

I was not able to elicit a similar bahuvrihi compound for numerals from the Boui assistant. Instead, a relative clause with the regular NP (e.g. ‘one eye’) as object of *kándí-yó* ‘make’ or ‘fix’ was produced; compare (xx2) in §4.6. In (xx1), both ‘man’ and ‘one eye’ have the same forms they have elsewhere as NPs.

- (xx1) *ndà-báná*    [*jíró*    *tò:mà*]    *kàndì-yé*



man [eye one] make-MP.Pfv.Rel  
'a man with (lit. "who made") one eye' (Boui)

For the Ningo assistant, a similar construction was found but without the final verb.

(xx2) a. *ndâ:* [gíríyé tò:mà]  
person [eye one]  
'one-eyed person' or 'one eye' (Ningo)

b. *ná:* [kògò-gè nì:ngà]  
cow [head-Pl two]  
'a two-headed cow' (Ningo)

## 6 Noun Phrase structure

### 6.1 Organization of NP constituents

#### 6.1.1 Linear order

The basic linear order of elements is (xx1). The plural morpheme is omitted from the formulae since it may occur after two or more words within the same NP.

- (xx1) -2 **pronominal demonstrative** (e.g. *è*)  
 -1 preposed possessor (nonpronominal or pronominal)  
 0 noun  
 +1 modifying adjective  
 +2 cardinal numeral  
 +3 postposed pronominal possessor  
 +4 determiner (demonstrative or definite)  
 +5 universal quantifier (*címà* ‘all’)

Adjectives and numerals optionally invert in the presence of a preposed possessor, see §6.2.4.

Examples illustrating the relative ordering of adjacent elements are in (xx2). The overall linear ordering in (xx1) is cobbled together from such examples. In the “type” formulae, n = noun and a = adjective.

- | (xx2)  | type        |
|--|-------------|
| a. <i>jìwà</i> <sup>L</sup> <i>wéní-wè</i><br>house <sup>L</sup> small<br>‘(a) small house’  | [n-a]       |
| b. <i>jìwà</i> <sup>L</sup> <i>wéní(-wè)-gé</i> <i>nì:ngà</i><br>house <sup>L</sup> small(-Dim)-Pl    two<br>‘two small houses’          | [n-a-num]   |
| c. <i>jíwá-gé</i> <i>tà:ndì-ngé</i> <sup>L</sup> <i>mbò-gè</i><br>house-Pl    three-Pl <sup>L</sup> Dem-Pl<br>‘these/those three houses’ | [n-num-dem] |

- d. *jíwá-gé* <sup>L</sup>*mbò-gè* <sup>L</sup>*cimà* [n-dem-'all']  
house-Pl <sup>L</sup>Dem-Pl <sup>L</sup>all  
‘all of these/those houses’
- e. *à:màdú* <sup>LH</sup>*jìwá* [poss-n]  
A <sup>LH</sup>house  
‘Amadou’s house’
- f1. *à:màdú* <sup>LH</sup>[*jìwà wèni-gè tà:ndi-ŋgé*] [poss-n-a-num]  
A <sup>LH</sup>[house small-Pl three-Pl]  
‘Amadou’s three small houses’
- or:
- f2. *à:màdú* <sup>LH</sup>[*jìwà tà:ndi-ŋgé wèni-gé*] [poss-n-num-a]  
A <sup>LH</sup>[house three-Pl small-Pl]  
‘Amadou’s three small houses’
- g1. *à:màdú* <sup>L</sup>[*jìwà wèni-gè tà:ndi-ŋgé*] *mbó-gè* [poss-n-a-num-dem]  
A <sup>L</sup>[house small-Pl three-Pl] Dem-Pl  
‘these/those three small houses of Amadou’s’
- or:
- g2. *à:màdú* <sup>L</sup>[*jìwà tà:ndi-ŋgé wèni-gé*] *mbó-gè* [poss-n-num-a-dem]  
A <sup>L</sup>[house three-Pl small-Pl] Dem-Pl  
‘these/those three small houses of Amadou’s’
- h. *jíwá-gé* *tà:ndi-ŋgé* *mè:-gé* [n-num-poss]  
house-Pl three-Pl 1SgPoss-Pl  
‘my three houses’
- i. *jìwà*<sup>L</sup> *wéni-gé* *tà:ndi-ŋgé* *mè:-gé* [n-a-num-poss]  
house<sup>L</sup> small-Pl three-Pl 1SgPoss-Pl  
‘my three small houses’
- l. *jíwá* *mè:* *mbó* [n-poss-dem]  
house 1Sg Dem  
‘this/that house of mine’
- m. *jíwá-gé* *mè:-gè* *mbó-gè* [n-poss-dem]  
house-Pl 1SgPoss-Pl Dem-Pl

‘these/those houses of mine’

### 6.1.2 Headless NPs (absolute function of non-noun NP constituents)

A NP component may (apparently) head the NP if the noun slot is empty. The examples in (xx1) are shown with definite *rì* where possible, and can function as NPs in clauses, as in ‘give me \_\_!’.

- (xx1) a. *bùní rì* ‘the red one’  
b. *tá:ndí-ḡgè rì* ‘the three’  
c. *mbó* ‘that (one)’  
d. *címà* ‘all, everything’

Plural *-gè* and definite *rì* cannot be used in isolation; they must follow a noun or similar element.

### 6.1.3 Apparent bifurcation of relative-clause head NP

In a relative clause, the head NP is (seemingly) divided into two parts. The core, consisting maximally of Poss-N-Adj-Num, remains internal to the relative clause. Determiners and ‘all’ quantifiers, as well as any discourse-function markers, are separated from this internal head NP and appear after the verb. See §14.6.

### 6.1.4 Internal bracketing and tone-dropping within an NP

A noun is tone-dropped to {L} before a modifying adjective, see §6.3.1 below.

A plural noun or noun-adjective combination (with plural *-gè*) undergoes no tonal change when followed by a NP-final numeral from ‘2’ up. See §6.4.1 below.

A demonstrative like *mbó* ‘this/that’ does not affect the tones of preceding words in the NP (except when combined with a numeral), but the demonstrative itself is tone-dropped (§6.5.2). The definite morpheme *rì*, which is already L-toned, does not interact tonally with preceding words (unless combined with a numeral).

Adding a demonstrative or definite marker to a numeral results in tonal changes. The numeral shifts to {H} tone, and an immediately preceding noun shifts to {L}-tone.

‘All’ quantifiers do not interact tonally with preceding words in a NP (§6.6).

Postposed pronominal possessors do not interact tonally with preceding words. However, preposed possessors control a {LH} contour on the following possessed NP, as described in the following section.

## 6.2 Possessives

Kin terms and a few other relationship terms (inalienables) differ from ordinary nouns in requiring that all possessors, including pronouns, be preposed. Alienable nouns may have preposed or postposed possessors, and the two series differ in form. The distinction between inalienable and alienable is less sharp than in some other Dogon languages.

There is no genitive morpheme on the possessor, and no genitive linker between possessor and possessed NP.

### 6.2.1 Alienable possession

Nonpronominal alienable possessors are always preposed. Pronominal alienable possessors are usually postposed but can be preposed. Preposed possessors but not postposed possessors control {LH} overlay on the possessed NP.

#### 6.2.1.1 Nonpronominal NP as prenominal alienable possessor

A nonpronominal possessor precedes the possessed NP with no explicit Genitive morpheme. The possessor has the same form it would have as a self-standing NP. The possessor-controlled tone contour is {LH}, erasing the lexical tone contour. Examples with unmodified possessed nouns, singular and plural, are in (xx1). When the possessed NP ends in plural *-gè*, the floating H-tone of the {LH} overlay is realized on it (*-gé*).

(xx1)	noun (X)	gloss	‘Amadou’s X’	‘Amadou’s Xs’
	a. X is lexically {H}			
	<i>ná:</i>	‘cow’	<i>à:màdú<sup>LH</sup> nǎ:</i>	<i>à:màdú<sup>LH</sup> nà:-gé</i>
	<i>jíwá</i>	‘house’	<i>à:màdú<sup>LH</sup> jìwá</i>	<i>à:màdú<sup>LH</sup> jìwà-gé</i>
	b. X is lexically {L}			
	<i>è:</i>	‘jaw’	<i>à:màdú<sup>LH</sup> ě:</i>	<i>à:màdú<sup>LH</sup> è:-gé</i>
	<i>gà:nà</i>	‘cat’	<i>à:màdú<sup>LH</sup> gà:ná</i>	<i>à:màdú<sup>LH</sup> gà:nà-gé</i>
	c. X is lexically {HL}			

*níyè* ‘bird’    *à:màdú<sup>LH</sup>nìyé*    *à:màdú<sup>LH</sup>nìyè-gé*

d. X is lexically {LH}

*gàndiré* ‘yoke’    *à:màdú<sup>LH</sup>gàndiré*    *à:màdú<sup>LH</sup>gàndirè-gé*  
*sìjá* ‘chicken’    *à:màdú<sup>LH</sup>sìjá*    *à:màdú<sup>LH</sup>sìjà-gé*

#### 6.2.1.2 Pronominal alienable possessor

The postposed pronominal possessor forms for alienables follow the noun along with any adjective and/or numeral. The forms in (xx1) occur with unmodified possessed nouns. These postposed possessor forms do not change the tone of the preceding word(s). Alienables may alternatively use the preposed forms discussed below in connection with kin terms.

(xx1) Postposed pronominal possessors

	category	basic form	tone-dropped
a.	1Sg	<i>mě:</i>	<i>mè:</i>
	1Pl	<i>nì-wé</i>	<i>nì-wè</i>
b.	2Sg	<i>jà-wé</i>	<i>jà-wè</i>
	2Pl	<i>è-wé</i>	<i>è-wè</i>
c.	3Sg	<i>nè-wé</i>	<i>nè-wè</i>
	3Pl	<i>cè-wé</i>	<i>cè-wè</i>

For one assistant, the rising tone of the basic form is always audible in clear pronunciation. For another, the tone-dropped form is usual after a noun that contains a H-tone. For this speaker, the rising tone of the basic form is most clearly audible after a true {L}-toned noun. However, there is little doubt that the rising tone is lexically basic in these forms.

If the possessed noun is nonsingular, the plural suffix *-gè* is added both to the noun and to the possessor, suggesting a semi-appositional structure with *-we* reduced from the noun *wè:* ‘thing’ (xx2b,d). After the pronominal possessor, Plural *-gè* always becomes H-toned *-gé*, suggesting that even superficially {L}-toned pronominal possessors like *mè:* (xx2a) are covertly {LH} toned, cf. plural *mè:-gé*.

(xx2) a. *gùlùmbá* *mě:*  
pigeon    1SgPoss  
‘my pigeon’

- b. *gùlùmbà-gé*      *mè:-gé*  
 pigeon-Pl          1SgPoss-Pl  
 ‘my pigeons’
- c. *ìjò*              *mě:*  
 village          1SgPoss  
 ‘my village’
- d. *ìjò-gè*          *mè:-gé*  
 village-Pl      1SgPoss-Pl  
 ‘my villages’

The syntactic distinction between alienable possession (pronominal possessor is postposed) and inalienable possession (pronominal possessor is preposed) is not consistent across all contexts. In elicitation, an assistant allows preposed pronominal possessors for alienables as an alternative to postposed possessors. He appears to favor preposed pronominal possessors when the NP is predicative, i.e. with the ‘it is’ clitic or the homophonous focus clitic. While he regularly gives (xx2a) above for ‘my pigeon’ as an argument in a clause (‘my pigeon flew away’, ‘I found my pigeon’), he regularly shifts to a preposed possessor with the ‘it is’ or focus clitic, as in (xx3a), though he also accepts the postposed construction (xx3b).

- (xx3) a. *mbó*          [*mì*          <sup>LH</sup>*gùlùmbá*] = *w̃<sup>n</sup>*  
 Dem          [1SgPoss      <sup>LH</sup>pigeon]=it.is  
 ‘That’s my pigeon.’
- b. *mbó*          [*gùlùmbá*      *mě*] = *w̃<sup>n</sup>*  
 Dem          [pigeon          1SgPoss]=it.is  
 ‘That’s my pigeon.’

### 6.2.1.3 Tone contour of modifiers following an alienably possessed noun

This section considers combinations involving an alienable possessor (preposed or proposed) and an adjective, a numeral, or both. Combinations involving a determiner are dealt with in §6.5 below.

In the sequence Poss-N-Adj(-Pl), the possessor-controlled contour {LH} is realized on the N-Adj(-Pl) sequence taken as a whole, not just on the noun.

- (xx1) a. *nà:<sup>L</sup>*          *jémé(-gé)*

cow<sup>L</sup>      black(-Pl)  
 ‘black cow(s)’

b. *à:màdú*      LH [*nà:*    *jèmé*]  
 A              LH [cow    black]  
 ‘Amadou’s black cow’

c. *à:màdú*      LH [*nà:*    *jèmè-gé*]  
 A              LH [cow    black-Pl]  
 ‘Amadou’s black cows’

Likewise, the possessor-controlled {LH} is realized on the entire sequence N-Pl-Num (xx2b) or N-Adj-Num-Pl (xx2d) when a numeral is added to the mix. Observe that the plural morpheme (allomorph *ngé*) follows the numeral when both a possessor and an adjective are present (xx2d). This suggests that the bracketing in (xx2c) breaks down when a possessor is added, fusing the N-Adj and numeral into a more tightly-knit unit, in both linear syntax and tonosyntax. Perhaps related to this fusion is the fact that Adjective-Numeral Inversion optionally applies (xx2e). In (xx2e), the full roster of three plural morphemes seems to be the ideal, but in multiple repetitions by an assistant one or both of the nonfinal plural morphemes was sometimes omitted.

xxx

(xx2) a. *ná:-gé*              *tà:ndi*  
 cow-Pl                  three  
 ‘three cows’

b. *à:màdú*      LH [*nà:-gè*      *tà:ndi-ngé*]  
 A              LH [cow-Pl      three-Pl]  
 ‘Amadou’s three cows’

c. [*nà:*<sup>L</sup>      *jémé-gé*]      *tà:ndi*  
 [cow<sup>L</sup>      black-Pl]      three  
 ‘three black cows.’

d. *à:màdú*      LH [*nà:*      *jèmè*      *tà:ndi-ngé*]  
 A              LH [cow      black      three-Pl]  
 ‘Amadou’s three black cows.’

e. *à:màdú*      LH [*nà:(-gè)*      *tà:ndi(-ngè)*      *jèmè-gé*]



A  
 [= (d)]

A postposed pronominal possessor follows N-Adj and may precede or follow a numeral. The possessor has no effect on the tones of these other words, consistent with its basically appositional nature. However, when a numeral precedes, the presence of a possessor forces the numeral to add an overt plural morpheme; contrast (xx3b) with (xx2a) above. When both an adjective and a numeral are present, the linear order may be N-Adj-Num-Poss (xx3c) or N-Adj-Poss-Num (xx3d). Interestingly, an assistant rejected Adjective-Numeral Inversion (xx3e), regardless of tones on the words preceding the adjective, though he freely allowed inversion with a preposed nonpronominal possessor, see (xx2e) above. A possible explanation for the badness of (xx3e) is that such a sequence forces the speaker to decide whether to allow the adjective to control tone-dropping on the numeral and (at a distance) on the noun. This issue does not arise with a preposed possessor, which itself controls tones on the following words.

xxx

- (xx3) a. *[nà:<sup>L</sup> jémé] mǎ:*  
 [cow<sup>L</sup> black] 1SgPoss  
 ‘my black cow’
- b. *ná:-gé tá:ndí-ŋgé mǎ:-gé*  
 cow-Pl three-Pl 1SgPoss-Pl  
 ‘my three cows’
- tone c. *[nà:<sup>L</sup> jémé-gé] mǎ:-gé tá:ndí*  
 [cow<sup>L</sup> black-Pl] 1SgPoss-Pl three  
 ‘my three black cows’
- d. *[nà:<sup>L</sup> jémé-gé tá:ndí-ŋgé mǎ:-gé]*  
 [cow<sup>L</sup> black-Pl three-Pl 1SgPoss-Pl]  
 [= (c)]
- e. *#[ná:(-ge) ta:ndi(-nge) jémé-gé] mǎ:-gé*  
 [cow(-Pl) three(-Pl) black-Pl] 2SgPoss-Pl  
 [ungrammatical regardless of tones on ‘cow’ and ‘three’]

## 6.2.2 Inalienable possession

Kin terms and other inalienables differ from ordinary (alienable) nouns in that a pronominal (as well as nonpronominal) possessor must precede the possessed NP. Alienable nouns allow both preposed and postposed possessors, so it is not clear how sharp the alienability distinction is.

A preposed pronominal possessor controls the same {LH} overlay on the possessed NP as does a preposed nonpronominal possessor: *mì*<sup>LH</sup> *kògó* ‘my head’ (alternative to *kògò mǎ:*), *ò*<sup>LH</sup> *tùmá* ‘your-Sg stick’ (alternative to *tùmá ò-wé*).

### 6.2.2.1 Kin terms and similar relationship terms

The basic forms of inalienable relationship terms are given in (xx1). The older/younger sibling terms are also used for parallel cousins and for siblings-in-law. All noncomposite kin terms are lexically /L/-toned, and have {LH} tone when possessed. The terms in (xx1a) are more or less unsegmentable. In (xx1b), the possessed form appears to be reduplicative. In (xx1c), the stem (possessed or not) looks like a frozen reduplication. In (xx1d), the final *-yò* is clearly segmentable in *nèjì-yò* ‘nephew/niece’, compare *nèjì* ‘mother’s brother’, and one might extend this to *sèjì-yò* ‘grandchild’ (another descending genealogical category) in spite of the absence of an unsuffixed counterpart. The terms in (xx1e) are optional composite kin terms, combining ‘father’ or ‘mother’ with ‘small’ (*wéní-wè*) or *páy*, cf. *báy* ‘big’. Father’s brothers may also be called just ‘father’, and mother’s sisters may also be called just ‘mother’.

#### (xx1) Kin terms (Boui)

unpossessed	‘my X’	gloss
a. simple kin terms		
<i>bò:</i>	<i>mì</i> <sup>LH</sup> <i>bǎ:</i>	‘agemate’
<i>mbò:</i>	<i>mì</i> <sup>LH</sup> <i>mbǎ:</i>	‘grandfather’
<i>èlà</i>	<i>mì</i> <sup>LH</sup> <i>èlá</i>	‘co-wife’
<i>màmà</i>	<i>mì</i> <sup>LH</sup> <i>mámá</i>	‘grandmother’
<i>nèjì</i>	<i>mì</i> <sup>LH</sup> <i>nèjí</i>	‘mother’s brother’
<i>nènjè</i>	<i>mì</i> <sup>LH</sup> <i>nènjé</i>	‘father’s sister; mother’s co-wife’
<i>sìjò</i>	<i>mì</i> <sup>LH</sup> <i>sìjó</i>	‘father’s younger brother’
<i>tìyè</i>	<i>mì</i> <sup>LH</sup> <i>tìyé</i>	‘cross-cousin’
<i>wàyà</i>	<i>mì</i> <sup>LH</sup> <i>wáyé</i>	‘friend’
<i>nè:wè</i>	<i>mì</i> <sup>LH</sup> <i>nè:wé</i>	‘younger sibling’
<i>àmàlì</i>	<i>mì</i> <sup>LH</sup> <i>àmàlí</i>	‘parent-in-law’

	<i>nòmòlì</i>	<i>mì</i> <sup>LH</sup> <i>nòmòlì</i>	‘person with the same name’
b.	<i>bà:</i>	<i>mì</i> <sup>LH</sup> <i>bàwá</i>	‘father’
	<i>dè:</i>	<i>mì</i> <sup>LH</sup> <i>dèdè</i>	‘elder sibling’
c.	<i>nè:</i>	<i>mì</i> <sup>LH</sup> <i>ně:</i>	‘mother’
	<i>nènè</i>	<i>mì</i> <sup>LH</sup> <i>nènè</i>	
d.	<i>sèjì-yò</i>	<i>mì</i> <sup>LH</sup> <i>sèjì-yó</i>	‘grandchild’
	<i>nèjì-yò</i>	<i>mì</i> <sup>LH</sup> <i>nèjì-yó</i>	‘nephew/niece’
e.	<i>bà: páy</i>	<i>mì</i> <sup>LH</sup> <i>[bà: páy]</i>	‘father’s elder brother’
	<i>nè: páy</i>	<i>mì</i> <sup>LH</sup> <i>[nè: páy]</i>	‘mother’s elder sister’
	<i>nè: wéní-wè</i>	<i>mì</i> <sup>LH</sup> <i>[nè: wèní-wé]</i>	‘mother’s younger sister’

(xx2) Kin terms (Ningo)

unpossessed ‘my X’ gloss

a. simple kin terms

{LH} possessum overlay as in Boui

<i>bò:</i>	<i>mì</i> <sup>LH</sup> <i>bõ:</i>	‘agemate’
<i>dè:</i>	<i>mì</i> <sup>LH</sup> <i>dě:</i>	‘elder sibling’
<i>mbó:</i>	<i>mì</i> <sup>LH</sup> <i>mbõ:</i>	‘grandfather’ (either side)
<i>èlà</i>	<i>mì</i> <sup>LH</sup> <i>èlá</i>	‘co-wife’
<i>màmà</i>	<i>mì</i> <sup>LH</sup> <i>màmá</i>	‘grandmother’ (either side)
<i>nàlì</i>	<i>mì</i> <sup>LH</sup> <i>nàlí</i>	‘friend’ (more common)
<i>nènjè</i>	<i>mì</i> <sup>LH</sup> <i>nènjé</i>	‘father’s sister; mother’s co-wife’
<i>nòbè</i>	<i>mì</i> <sup>LH</sup> <i>nòbé</i>	‘younger same-sex sibling’
<i>tìyè</i>	<i>mì</i> <sup>LH</sup> <i>tìyé</i>	‘cross-cousin’
<i>wàyè</i>	<i>mì</i> <sup>LH</sup> <i>wàyé</i>	‘friend’ (less common word)
<i>àmàlì</i>	<i>mì</i> <sup>LH</sup> <i>àmàlí</i>	‘parent-in-law’
<i>nòmòlì</i>	<i>mì</i> <sup>LH</sup> <i>nòmòlì</i>	‘person with the same name’
<i>pògìyè</i>	<i>mì</i> <sup>LH</sup> <i>pògìyé</i>	‘cross-sex sibling’

{L} possessum overlay versus {H} in Boui

<i>nèjì</i>	<i>mì</i> <sup>L</sup> <i>nèjì</i>	‘mother’s brother’
<i>sìjò</i>	<i>mì</i> <sup>L</sup> <i>sìjò</i>	‘father’s younger brother’
<i>sèjì</i>	<i>mì</i> <sup>L</sup> <i>sèjì</i>	‘grandmother’ (either side)

b. *bà:* *mì*<sup>L</sup>*bà:*, *mì*<sup>L</sup>*bàbá* ‘father’

- c. *nì:*                      *mì* <sup>LH</sup>*nì:*                      ‘mother’
- d. *sèjì-yò*                      *mì* <sup>LH</sup>*sèjì-yó*                      ‘grandchild’  
*nèjì-yò*                      *mì* <sup>LH</sup>*nèjì-yó*                      ‘nephew/niece’
- e. parents siblings (noun plus adjective)  
*parent term with shortened vowel*  
*bà páy*                      *mì* <sup>LH</sup>*[bà pǎy]*                      ‘father’s elder brother’  
*parent term with long vowel*  
*nì: páy*                      *mì* <sup>LH</sup>*[nì: pǎy]*                      ‘mother’s elder sister’  
*nì: <sup>L</sup>ségé*                      *mì* <sup>LH</sup>*[nì: sègé]*                      ‘mother’s younger sister’

Certain close kin terms may be used as **vocatives**, in the possessed-noun tonal form but without an overt 1Sg possessor. The reduplicated forms of ‘father’ and ‘mother’ are required in this context. ‘(Hey) Dad!’ is *bàwá* (Boui) or *bàbá* (Ningo). ‘(Hey) Mom!’ is *nènéné* (Boui = Ningo). Boui also has *dèdè* ‘hey (elder sibling)!’ versus unreduplicated Ningo vocative *dè:*. Other vocatives are *mbǎ:* ‘(hey) Grandpa!’ and *mámá* ‘(hey) Grandma!’ These forms may also be used to address nonrelatives of the appropriate age relative to the speaker.

*bé:* ‘child’, *bànà* ‘man’, and *yé:* ‘woman’ are basically alienable nouns, though they can take possessors in kin-term contexts, in which case *bànà* means ‘husband’ and *yé:* means ‘wife’. In Boui, a pronominal possessor may be preposed (inalienable pattern) or postposed (alienable pattern), e.g. *mì* <sup>LH</sup>*bě:* or *bé: mǎ:* ‘my child’, *mì* <sup>LH</sup>*bàná* ‘my husband’, *mì* <sup>H</sup>*yé:* ‘my wife’.

#### 6.2.2.2 Tone contour of modifiers following an inalienably possessed noun

There is a bracketing difference between Poss-N in alienable and inalienable constructions. The difference has consequences both for tones and for morphology (presence/absence of plural suffix). Consider (xx1).

- (xx1) a. *sàydú*                      <sup>LH</sup>*[jìwà-gè*                      *kùlèy<sup>n</sup>-ngé]*  
Seydou                      <sup>LH</sup>[house-Pl                      six-Pl]  
‘Seydou’s six houses’
- b. *[sàydú*                      <sup>LH</sup>*sìjǎ-gé]*                      *kùlèy<sup>n</sup>*  
[Seydou                      <sup>LH</sup>uncle-Pl]                      six  
‘Seydou’s six uncles’

In (xx1a), the phrase [house six] as a whole is subject to the {LH} possessor-controlled overlay. In addition, since the numeral is part of the possessor-controlled domain, it must have the plural suffix *-ŋge*. By contrast, in (xx1b), only ‘uncle’ is subject to the {LH} overlay, and the following numeral lacks the plural suffix, just as in simple N-Num combinations like *jíwá-gé kùlèy* ‘six houses’.

There is no bracketing difference between alienable and inalienable when the possessed NP is just a N-Adj combination (xx2).

- (xx2) a. *sàydú*      <sup>LH</sup>*[jìwà*      *bày-gé]*  
 Seydou      <sup>LH</sup>[house      big-Pl]  
 ‘Seydou’s big houses’
- b. *sàydú*      <sup>LH</sup>*[sìjò*      *bày-gé]*  
 Seydou      <sup>LH</sup>[uncle      big-Pl]  
 ‘Seydou’s big uncles’

There is no overt difference between alienably and inalienably possessed N-Dem sequences. However, the domain of the {LH} overlay is not transparent in these combinations (it could be analysed as ending with the noun, or as including *mbó*), and a covert bracketing distinction cannot be ruled out.

- (xx2) a. *sàydú*      <sup>LH</sup>*jìwà-gè*      *mbó-gè*  
 Seydou      <sup>LH</sup>house-Pl      Dem-Pl  
 ‘these houses of Seydou’s’
- b. *sàydú*      <sup>LH</sup>*sìjò-gè*      *mbó-gè*  
 Seydou      <sup>LH</sup>uncle-Pl      Dem-Pl  
 ‘these uncles of Seydou’s’

### 6.2.3 Recursive possession

Recursive possession of the type [[X’s Y]’s Z] is possible. It comes out as [[X <sup>LH</sup>Y] <sup>LH</sup>Z] with both Y and Z marked by the possessor-controlled {LH} overlay, as in (xx1c). Kin terms have the same structure (xx1d).

- (xx1) a. *í.ŋjé*      <sup>LH</sup>*díló*  
 dog      <sup>LH</sup>tail  
 ‘(the) dog’s tail’

- b. *à:màdú* <sup>LH</sup>*ì:njé*  
 Amadou <sup>LH</sup>dog  
 ‘Amadou’s dog’
- c. [*à:màdú* <sup>LH</sup>*ì:njé* *rì*] <sup>LH</sup>*díló* *rì*  
 [Amadou <sup>LH</sup>dog Def] <sup>LH</sup>tail Def  
 ‘Amadou’s dog’s tail’
- d. [*sàydú* <sup>LH</sup>*sìjó*] <sup>LH</sup>*bàwá*  
 [Seydou <sup>LH</sup>uncle] <sup>LH</sup>father  
 ‘Seydou’s uncle’s father’

However, when Y is indefinite in form, Y and Z are sometimes treated as a unit. In effect, Y behaves like a compound initial in this case (xx2). Compare the bracketing difference in English (audible prosodically and visible orthographically even without brackets) between [*Henry’s girls’*] school and *Henry’s [girls school]*.

- (xx2) *à:màdú* <sup>LH</sup>[*ì:njè* *díló*]  
 Amadou <sup>LH</sup>[dog tail]  
 ‘Amadou’s dog’s tail’

### 6.3 Noun-adjective

#### 6.3.1 Noun plus regular modifying adjective

A noun can be followed by one or more modifying adjectives (including ordinals) within the NP. The noun is tone-dropped to {L} before an adjective. The first adjective retains its lexical tones. Plural *-gè*, if present, follows the adjective only (xx1b). The tonosyntactic formula (<sup>L</sup> marks tone-dropping), disregarding the tone of the plural morpheme, is therefore [N<sup>L</sup> Adj(-Pl)].

- (xx1) a. *ì:njé* ‘dog’  
*ì:njè<sup>L</sup> jémé* ‘black dog’  
*ì:njè<sup>L</sup> bíní-bíní* ‘big dog’
- b. *ì:njé-gé* ‘dogs’  
*ì:njè<sup>L</sup> jémé-gé* ‘black dogs’  
*ì:njè<sup>L</sup> bíní-bíní-gé* ‘big dogs’

If a second modifying adjective is added, it drops to {L} tones. See §6.3.3.1 below.

### 6.3.2 Numeral-like *àmbilè-gè* ‘certain (ones)’

This stem occurs in {L}-toned form after a lexically-toned noun (or N-Adj combination). This tonal pattern is regular for N-Num combinations, so *àmbilè-gè* is arguably a numeral rather than an adjective syntactically. Both the noun and *àmbilè* have plural suffix *-gè*. This differs both from true N-Adj combinations (plural *-gè* only on the adjective) and from true N-Num combinations (plural *-gè* only on the noun, in the absence of a determiner). Definite *ri* is frequently added to the quantifier (rather than to the noun) as in (xx1) below.

*àmbilè-gè* is commonly used in parallel paired clauses. The two NPs with *àmbilè-gè* carve up a large set into two, usually exhaustive, subsets with different properties (xx1a). The noun denoting the set need not be repeated in the second clause. The first clause may end with high pitch (intonational mark of noncompletion), the second in very low pitch (completion), symbols ↗ and ↘.

- (xx1) *[yé:-gé                    àmbilè-gé    ri]*                    *ùn-iyè* ↗,  
           [woman-Pl                certain-Pl    Def]                    go.Pfv-3PlSbj,  
           *[àmbilè-gé    ri]*                    *ànj-iyè* ↘  
           [certain-Pl            Def]                    remain.Pfv-3PlSbj  
           ‘Some women went away, some (i.e. the others) stayed.’

My assistants rejected singular NPs with #*àmbilè* ‘a certain (one)’.

For the Ningo assistant, *àmbilè-gè* is in free variation with *àmbilè-gé-r-gè*. Etymologically, this consists of definite *àmbilè-gé ri*, reanalysed as an unsegmentable stem without morpheme boundaries, plus another occurrence of plural *-gè* (which normally cannot follow the definite marker).

### 6.3.3 Expansions of adjective

#### 6.3.3.1 Adjective sequences

§6.3.1 illustrated the noun-adjective construction, i.e. [N<sup>L</sup> Adj (Pl)]. When a second adjective is added, it is tone-dropped, leaving the first adjective as the only tonosyntactically free word. The plural morpheme, if relevant, follows each adjective (xx1b), so the formula (disregarding the tones of the plural morphemes) is [N<sup>L</sup> Adj (Pl) <sup>L</sup>Adj (Pl)].

- (xx1) a. *ì:njè*<sup>L</sup>            *bíní(-bíní)*            <sup>L</sup>*jèmè*

dog<sup>L</sup>      big-big      <sup>L</sup>black  
 ‘big black dog’

b. *ìnjè<sup>L</sup>*      *bíní-bíní-gé*      <sup>L</sup>*jèmè-gè*  
 dog<sup>L</sup>      big-big-Pl      <sup>L</sup>black-Pl  
 ‘big black dogs’

c. *jìwà<sup>L</sup>*      *báy*      <sup>L</sup>*pùlè*  
 house<sup>L</sup>      big      <sup>L</sup>white  
 ‘a big white house’

### 6.3.3.2 Adjectival intensifiers

Adjectival intensifiers are a subset of expressive adverbials that are associated with adjectival senses and may co-occur with an adjective. See §8.4.5.

### 6.3.3.3 ‘Good to eat’

A verbal noun of the relevant verb (here ‘eat’) is preposed to an adjectival predicate. The construction is therefore of the literal type ‘[eating X] is good’. For positive ‘be good’, the predicative form used here is (3Sg) *m̀̀:-w<sup>n</sup> bó-Ø* rather than the usual *m̀̀:-Ø* ‘it is good’ (§11.4.1.3).

(xx1) a. [*tílngó*      <sup>LH</sup>*p̀̀nì-gé*]      *ǹ̀:-wà*      *m̀̀:-w<sup>n</sup> bó-Ø*  
 [tree      <sup>LH</sup>flower-Pl]      eat-VblN      good      be-3PlSbj  
 ‘The flowers of (the) tree are good to eat.’

b. *ǹ̀:-wà*      *m̀̀:-nà-Ø*  
 eat-VblN      good-StatNeg-3SgSbj  
 ‘It isn’t good to eat.’

## 6.4 NPs containing a numeral

For the forms of cardinal numerals see §4.7.1. Ordinals are not considered here since they are syntactically like other adjectives.



#### 6.4.1 Ordinary N-(Adj-)Num sequences

Examples of nouns with numerals are in (xx1). Plural *-gè* is required by numerals greater than ‘1’. In these nonsingular combinations, the noun retains its lexical tone and the numeral is {L}-toned.

- (xx1) a. *í:ɲjé*      *tò:mà*  
 dog            one  
 ‘one dog’
- b. *í:ɲjé-gé*    *nì:ɲgà* / *tà:ndì* / *nù:/* *pìyàlù*  
 dog-Pl      two / three / five / ten  
 ‘two/three/five/ten dogs’

If a determiner (demonstrative or definite) is added, a nonsingular numeral now requires plural *-ɲge* (xx2b,d). Demonstrative *mbó* retains its lexical H-tone after *tò:mà* ‘1’ (xx2a). After a nonsingular numeral, plural *mbó-gè* drops to *mbò-gè*, and the preceding numeral gets a {LH} overlay, with the H-tone appearing on the plural suffix *-ɲgé* (xx2b). In (xx2b), regardless of which of the numerals is chosen, the NP has three occurrences of the plural suffix (on the noun, on the numeral, and on the demonstrative). For Ningo dialect, the noun drops to {L}, the numeral is {H}-toned, and the demonstrative has its regular tones (xx2c)

- (xx2) a. *í:ɲjé*      *tò:mà*      *mbó*  
 dog            one            Dem  
 ‘this/that one dog’ (Boui)
- b. *í:ɲjé-gé*    *nì:ɲgà-ɲgé* / *tà:ndì-ɲgé* / *nù:-ɲgé* / *pìyàlù-ɲgé*    *mbò-gè*  
 dog-Pl      two-Pl / three-Pl / five-Pl / ten-Pl                    Dem-Pl  
 ‘these two/three/five/ten dogs’ (Boui)
- c. *ì:ɲgè-gè*      *ní:ɲgá-ɲgé*      *éni-gè*  
 dog-Pl            two-Pl            Dem-Pl  
 ‘these two dogs’ (Ningo)

When definite *rì* is added to *tò:mà* ‘1’, we get the expected output *tò:má rì* (xx3a), consistent with the usual addition of a final H-tone to a {L}-toned word before *rì*. When *rì* is added to a nonsingular numeral, the numeral is treated as {H}-toned, so the regular dropping of the final H-toned syllable of a {H}-toned word before *rì* takes place, the effect being that the plural suffix drops to *-ɲgè* before *rì* (xx3b).

- (xx3) a. *í:ɲjé*      *tò:má*    *rì*  
 dog            one        Def  
 ‘the one dog’ (Boui)

check tone (Boui)

- b. *í:ɲjé-gé*      *ní:ɲgá-ɲgè*      *rì*  
 dog-Pl        two-Pl            Def  
 ‘the two dogs’ (Boui)

- c. *ì:ɲgè-gè*      *ní:ɲgá-ɲgè*      *rì*  
 dog-Pl        two-Pl            Def  
 ‘the two dogs’ (Ningo)

As shown in §6.3.1 above, if a modifying adjective is added to a noun, the noun drops tones to {L} and the adjective preserves its lexical tone. *bíní* ‘big’ is included in the NPs in (xx4), beginning with the simple N-Adj combination (xx4a). The tone pattern for the N-Adj sequence in (xx4a) is preserved when a numeral is added (xx4b-c), when a numeral and a demonstrative are added (xx4d), and when a numeral and definite *rì* are added (xx4e). The morphological and tonal form of the Num-Dem sequence (xx4d) and that of the Num-Def sequence (xx4e) are identical to those seen in (xx2b) and (xx3b) above, respectively.

- (xx4) a. *ì:ɲjè<sup>L</sup>*      *bíní*  
 dog<sup>L</sup>            big  
 ‘a big dog’
- b. *ì:ɲjè<sup>L</sup>*      *bíní*      *tò:má*  
 dog<sup>L</sup>            big        one  
 ‘one big dog’
- c. *ì:ɲjè<sup>L</sup>*      *bíní-gé*      *nì:ɲgà*  
 dog<sup>L</sup>            big-Pl        two  
 ‘two big dogs’
- d. *ì:ɲjè<sup>L</sup>*      *bíní-gé*      *nì:ɲgá-ɲgè*      *mbò-gè*  
 dog<sup>L</sup>            big-Pl        two-Pl            Dem-Pl  
 ‘these two big dogs’
- e. *ì:ɲjè<sup>L</sup>*      *bíní-gé*      *ní:ɲgá-ɲgè*      *rì*  
 dog<sup>L</sup>            big-Pl        two-Pl            Def  
 ‘the two big dogs’

When a N-(Adj-)Num sequence functions as internal head NP in a relative, it undergoes no further tonal changes. For example, (xx3c) above reappears as relative head in (xx5). (Determiners do not occur in internal head NPs.)

(xx5) [i:njê<sup>L</sup> bíní-gé nì:ngà] mî-gí cêrê-gé rì  
 [dog<sup>L</sup> big-Pl two] 1Sg-Acc bite.Pfv.Rel-Pl Def  
 ‘the two big dogs that bit me’

The form of numerals and their effects on other words in unpossessed NPs can be summarized as (xx6) for the Boui dialect. The various numerals are lexically either /L/ or /H/-toned, but in all combinations discussed in this section the lexical tones are overridden by tonosyntactic overlays.

- (xx6) a. Numerals greater than ‘1’ end in plural *-nge* only when followed within the NP by a determiner (demonstrative or definite).
- b. Numerals greater than ‘1’ require plural marking on the preceding N(-Adj).
- c. In the absence of a determiner, a numeral has no tonal effect on a preceding N(-Adj) combination, and the numeral itself drops to {L} tones if not already lexically /L/-toned.
- d. In a Num-Dem sequence, if the numeral is *tò:mà* ‘1’ the demonstrative retains its H-tone (*mbô*); if the numeral is nonsingular, the demonstrative drops to {L} and the numeral is subject to {LH} with the H-tone on the plural suffix.
- e. In a Num-Def sequence, nonsingular numerals are treated as {H}-toned if not already lexically /H/-toned, and the tonal changes on the final syllable of the numeral (singular or nonsingular) are those that are regular before definite *rì*.

#### 6.4.2 Adj-Num Inversion

In the presence of a possessor or demonstrative, the sequence N-Adj-Num is optionally reordered as N-Num-Adj.

Examples involving a possessor (‘Amadou’) were given as (xx2f1/f2) and (xx2f1/g2) in §6.1.1 above.

An assistant rejected this inversion in relative-clause heads. He accepted (xx1a) but not (xx1b). # means ungrammatical.

- (xx1) a. *[jìwà<sup>L</sup> wéní(-wè)-gé nì:ngà]* <sup>LH</sup>*dùmbè-sà-gé rì*  
 [house<sup>L</sup> small(-Dim)-Pl two] <sup>LH</sup>fall-Reslt-Pl Def  
 ‘the two small houses that fell’
- b. #*[jìwà<sup>L</sup> ní:ngá-ngé<sup>L</sup> wèni(-wè)-gè]* <sup>LH</sup>*dùmbè-sà-gé rì*  
 [house<sup>L</sup> two-Pl <sup>L</sup>small(-Dim)-Pl] <sup>LH</sup>fall-Reslt-Pl Def  
 [intended sense = (a)]

He likewise rejected inversion in N-Adj-Num combinations with a following demonstrative.

- (xx2) a. *jìwà<sup>L</sup> wéní(-wè)-gé ní:ngá-ngé mbò-gè*  
 house<sup>L</sup> small-(Dim-)Pl two-Pl Dem-Pl  
 ‘these two small houses’
- b. #*jìwà<sup>L</sup> ní:ngá-ngé wéní(-wè)-gé mbò-gè*  
 house<sup>L</sup> two-Pl small-(Dim-)Pl Dem-Pl  
 [intended sense = (a)]

While grammaticality judgements in elicitation sessions need checking, the present data suggest that inversion is associated with possessed NPs for the Boui assistant.

The Ningo assistant allowed inversion in the combination with a demonstrative. Both uninverted N-Adj-Num and inverted N-Num-Adj have {L}-toned noun, {H}-toned first modifier, and {L}-toned second modifier before the demonstrative (xx3a-b).

- (xx2) a. *gìbà-gè<sup>L</sup> wéní-ngé<sup>L</sup> nì:ngà-ngè<sup>L</sup> éni-gè*  
 house-Pl<sup>L</sup> small-Pl <sup>L</sup>two-Pl Dem-Pl  
 ‘these two small houses’ (Ningo)
- b. *gìbà-gè<sup>L</sup> ní:ngá<sup>L</sup> wèni-ngè<sup>L</sup> éni-gè*  
 house-Pl<sup>L</sup> two <sup>L</sup>small-Pl Dem-Pl  
 [= (a)] (Ningo)

## 6.5 NP including a determiner

### 6.5.1 Prenominal demonstratives absent

For the Ningo speaker (at least), an impersonal morpheme *é* can precede a noun (or a noun-like postposition), the common expression being [*é* <sup>LH</sup>*tùnú*] *gì* ‘behind/after that’, hence ‘in

addition to that, moreover'. *é* is treated as a possessor (note the {LH} tones on the noun), so there is no additional prenominal slot aside from possessor.

### 6.5.2 Noun plus demonstrative

For demonstratives including *mbó* 'this' and its plural *mbó-gè*, see §4.4.1.1. This demonstrative may follow a noun, N-Adj, or N-(Adj)-Num. It drops tones to *mbò* (plural *mbò-gè*) in these combinations. It has no tonal effect on the preceding elements. It does, however, force a preceding numeral to add plural suffix *-ngé* (xx1c). This suffix is H-toned whether the numeral stem itself is {L}-toned (i.e. after a noun or N-Adj) or {H}-toned (absolute function).

- (xx1) a. *í.njé mbò* 'this/that dog'  
*í.njé-gé mbò-gè* 'these/those dogs'
- b. *ì.njè<sup>L</sup> jémé mbò* 'this/that black dog'  
*[ì.njè<sup>L</sup> jémé-gé] mbò-gè* 'these/those black dogs'
- c. *[í.njé-gé tà.ndì-ngé] mbò-gè* 'these/those three dogs'

In (xx1a-b), *mbò* has no tonal or other effect on the preceding NP-internal string. In (xx1c), it again has no tonal effect, but it does require the additional plural morpheme (here *-ngé*) after the numeral, compare *í.njé-gé tà.ndì* 'three dogs'.

When the noun is possessed (alienably or inalienably), *mbó* recovers its lexical H-tone (xx2).

- (xx2) a. *à:màdú* <sup>LH</sup>*ì.njè* *mbó*  
A <sup>LH</sup>dog Dem  
'this/that dog of Amadou's'
- b. *à:màdú* <sup>LH</sup>*sijò-gè* *mbó-gè*  
A <sup>LH</sup>uncle-Pl Dem-Pl  
'these/those uncles of Amadou's'

One could alternatively attempt to account for H-toned singular *mbó* in (xx2a) as subject to the H-tone component of the {LH} overlay controlled by the possessor. In this analysis, the tonosyntactic bracketing of (xx2a) would be *à:màdú* <sup>LH</sup>*[ì.njè mbó]*. However, the fact that we get plural *mbó-gè* rather than #*mbò-gé* in (xx2) shows that the demonstrative is external to the domain of the {LH} overlay. Therefore 'dog' in (xx2a) and 'uncles' in (xx2b) must constitute

the domains of the {LH} contour; the final H-tone is eventually lost by phonological rule before H-toned *mbó*. Contrast (xx2b) above with (xx3ab) below, where plural *-gè* on the adjective does become H-toned, and is therefore clearly within the domain of the {LH} overlay controlled by the possessor.

- (xx3) a. *à:màdú* <sup>LH</sup>[*i:njè* *jèmè-gé*]  
 Amadou <sup>LH</sup>[dog black-Pl]  
 ‘Amadou’s black dogs’
- b. *à:màdú* <sup>LH</sup>[*i:njè* *jèmè-gè*] *mbó-gè*  
*Amadou* <sup>LH</sup>[dog black-Pl] Dem-Pl  
 ‘these/those black dogs of Amadou’s’

A noun may also be followed by a composite demonstrative, near-distant *é-wò rì* or far-distant *yá-wò rì* (§4.4.1.2). These are specialized, slightly irregular relative clauses and include definite *rì*. The definite morpheme is not used after *mbó*.

- (xx4) a. *i:njè*<sup>L</sup> *jémé-gé* *é-wò-gé* *rì*  
 dog<sup>L</sup> black-Pl NearDist-Pl Def  
 ‘those black dogs (nearby)’
- b. *à:màdú* <sup>LH</sup>[*i:njè* *jèmè*] *yá-wò* *rì*  
 Amadou <sup>LH</sup>[dog black] FarDist Def  
 ‘that black dog of Amadou’s (distant)’

### 6.5.3 Noun plus definite *rì*

Definite *rì* (§4.4.1.1) can be added to a singular or plural noun, N-Adj, or N-(Adj-)Num combination. It cannot be used absolutely (i.e. as one-word pronoun-like NP). It is always itself L-toned. It has no tonal effect on a preceding noun or N-Adj combination, except that a directly preceding {L}-toned word gets a final H-tone. This happens when *rì* follows a lexically /L/-toned noun (xx1a), or when it follows a N-Adj-Adj combination where the second adjective has {L} melody (xx1b). If the preceding word already has at least one H-tone, its tone is not affected by adding *rì* (xx1c-f).

- (xx1) a. *nà:ngé* *rì*  
 meal Def  
 ‘the meal’ (*nà:ngè*)

- b. *ì:njè<sup>L</sup> wéní-wè<sup>L</sup> jèmé<sup>L</sup> rì*  
 dog<sup>L</sup> small-Dim <sup>L</sup>black Def  
 ‘the small black dog’ (*ì:njè wéní-wè jèmé*)
- c. *í:njé rì*  
 dog Def  
 ‘the dog’ (*í:njé*)
- d. *í:njé-gé rì*  
 dog-Pl Def  
 ‘the dogs’
- e. *ì:njè<sup>L</sup> wéní-wè<sup>L</sup> rì*  
 dog<sup>L</sup> small-Dim Def  
 ‘the small dog’
- f. *sàydú<sup>LH</sup> jìwá<sup>LH</sup> rì*  
 Seydou <sup>LH</sup>house Def  
 ‘Seydou’s house (definite)’

The high-frequency ontological noun *gélé* ‘place’ (plural *gélé-gé*) has /H/ melody, but has {LH} overlay before the definite marker: [ <sup>LH</sup>gèlé r ] *gì* ‘in the place’, plural [ <sup>LH</sup>gèlè-gé r ] *gì* ‘in the places’. In effect, there is a covert possessor that triggers the {LH} possessum overlay. [ <sup>LH</sup>gèlè-gé r ] *gì* ‘in the places’ is frequent in the pragmatic sense ‘in our country/zone’. See T7 @ 09:34 and @ 14:36.

Like demonstratives, definite *rì* forces plural suffix *-ngé* on a preceding numeral. Unlike demonstrative, definite *rì* also forces {H} overlay on the numeral stem, not just on the plural suffix.

- (xx2) *ì:njè<sup>L</sup> jémé-gé<sup>LH</sup> cè:jó-ngé<sup>H</sup> rì*  
 dog<sup>L</sup> black-Pl four-Pl<sup>H</sup> Def  
 ‘the four black dogs’ (*ì:njè jémé-gé cè:jò*)

Definite *rì* is not added to demonstrative *mbó*, but it is a fixed part of the alternative, relative-clause-like demonstratives *é-wò rì* and *yá-wò rì*.

Definite *rì* is very common after the verb in relative clauses (chapter 14).

## 6.6 Universal and distributive quantifiers

### 6.6.1 ‘All’ (*cimà*, *póy*)

The universal quantifier *cimà* (Boui) or *póy* ~ *pós* (Ningo) ‘all’ occurs at the end of a NP, following even definite *rì*. When it follows a noun or other NP component, it is {L}-toned, like numerals. It does not “float” away from its NP (cf. “floating quantifiers” in English). The NP is generally determined (definite or demonstrative). If the quantified-over NP is countable, plural *-gè* is present.

- (xx1) a. *[sàgàdàlà-gé rì cimà] [jèlè ɲá] ùní-yè*  
 [young.person-Pl Def all] [exodus Loc] go.Pfv-3PlSbj  
 ‘All the young people have gone away (to work).’ (Boui)
- b. *[nà:-gè<sup>L</sup> tá:ndí-ɲgé mè:-gé rì cimà] túlé-y<sup>n</sup>*  
 [cow-Pl<sup>L</sup> three-Pl 1SgPoss-Pl Def all] sell.Pfv-1SgSbj  
 ‘I sold all three of my cows.’ (Boui)  
 [confirmed by Ningo *nà:-ɲgè tá:ndí-ɲgé mè:-ɲgé rì*]
- c. *[[séɲgé mǎ: rì] cimà] túlé-y<sup>n</sup>*  
 [[millet 1SgPoss Def] all] sell.Pfv-1SgSbj  
 ‘I sold all my millet.’

In absolute form (i.e. as a one-word NP), we get {H}-toned *címá*.

- (xx2) *sàydù címá ɲè:-Ø*  
 Seydou all eat.meal.Pfv-3SgSbj  
 ‘Seydou ate everything.’

## 6.7 Accusative (*gi*)

Accusative *gi* occurs optionally with human nouns and pronouns that function as direct objects. The form is L-toned *gi* after a word (or compound final) containing a H-tone, including {LH} toned nouns, but it is raised to H-toned *gí* after an all {L}-toned word, such as a lexically /L/-toned noun (xx1c) or the second adjective in N-Adj-Adj (xx2).

- (xx1) noun with *gi* gloss
- a. {H}-toned  
*dú: gi* ‘(a/the) blacksmith’



*ndâ-yé:*    *ndâ-yé: gí*    ‘(a/the) woman’

b. {LH}-toned

*à:màdú*    *à:màdú gí*    ‘Amadou’ (man’s name)

c. {HL}-toned

*bó:wò*    *bó:wò gí*    ‘Bobo (ethnic group) person’

c. {L}-toned

*bùni*    *bùni gí*    ‘(a/the) white person’

(xx2) [*bè:*<sup>L</sup>    *bíní-bíní*    <sup>L</sup>*jèmè*    *gí*]    *mì*    <sup>LH</sup>*tèwé*  
[child<sup>L</sup>    fat-fat    <sup>L</sup>black    Acc]    1SgSbj    <sup>LH</sup>hit.Pfv.Rel  
‘I hit-Past the fat black child [focus].’

The accusative marker cannot be combined with the focus clitic (which is identical to the ‘it is’ predicative clitic). When the object is focalized, one or the other but not both may occur.

## 7 Coordination

### 7.1 NP coordination

#### 7.1.1 NP conjunction (*X yà Y yà*)

The conjunction particle *yà* ‘and’ is added to both left and right conjuncts.

- (xx1) a. *[bànà-gè yà] [yé:-gé yà]*  
[man-Pl and] [woman-Pl and]  
‘men and women’
- b. *[â:màdú yà] [nà<sup>LH</sup> bàwá yà]*  
[Amadou and] [3SgPoss<sup>LH</sup> father and]  
‘Amadou and his father’

This construction can be used to conjoin NPs (including pronouns) and adverbial phrases (including PPs).

- (xx2) *[bàmòkó ñà yà] [sègù ñá yà] <sup>L</sup>b-à:*  
[Bamako Loc and] [Segou Loc and] <sup>L</sup>be-3PlSbj  
‘They are in Bamako and Segou (cities).’

#### 7.1.1.1 Ordering of conjuncts

The order of the conjuncts is usually free. In cases like ‘Amadou and his father’ just given, where one referent is defined with respect to the other, the central referent normally precedes the other.

When both conjuncts are pronouns, an assistant preferred ordering based on 1st > 2nd > 3rd (xx1), but the order is not rigid.

- (xx1) a. *[mì yà] [ò yà]*  
[1Sg and] [2Sg and]  
‘you-Sg and me’
- b. *[ò yà] [nà yà]*

[2Sg and] [3Sg and]  
 ‘you-Sg and him/her’

#### 7.1.1.2 ‘X and Y’ with internally complex conjuncts

NP-internal modifiers that have scope over both conjuncts are normally repeated to form parallelistic NPs. For example, ‘fat men and women’ is expressed as ‘fat men and fat women’ (if that is the sense intended). Likewise, ‘my sheep and goats’ is expressed as ‘my sheep and my goats’ (xx1). Even a nonpronominal possessor NP can be repeated, though it can alternatively be replaced by a resumptive third person possessor pronoun (xx1).

(xx1) [sàydú<sup>LH</sup> àmbá yà] [sàydú / nà<sup>LH</sup> ùná yà]  
 [Seydou<sup>LH</sup> sheep and] [Seydou / 3SgPoss<sup>LH</sup> goat and]  
 ‘Seydou’s sheep and goats’

(xx1) also shows that *yà* is external to the domain of the {LH} overlay controlled by the possessor.

Accusative *gì* and postpositions are added once, after the entire conjoined NP.

(xx2) [[yé:-gé yà] [bànà-gè yá] *gì* bálí-yé-ỳ<sup>n</sup>  
 [[woman-Pl and] [man-Pl and] Acc] see-MP.Pfv-1SgSbj  
 ‘I saw (the) women and (the) men.’

*yà* is basically L-toned. However, it is raised to H-tone before accusative *gì* (xx2), even though lexically /L/-toned nouns remain low-toned before *gì*, as in *bànà gì* ‘(a) man (accusative)’. In addition, the left conjunct optionally has an intonational pitch rise on the final syllable, i.e. on *yà*, so it may sound H-toned.

For conjoined NPs as relative heads, see §14.2.4.

#### 7.1.1.3 List “intonation” with *yâ*: in longer conjoined NPs

Extended conjunctions with three or more conjuncts may be treated prosodically as open-ended lists. The ‘and’ conjunction occurs after each conjunct, but now takes the form *yâ*: with prolonged vowel and <HL> tone (or falling pitch). One can argue that this is a special intonational modification of *yà*, but it is distinct from the simple terminal pitch rise typical of “incompleteness” intonation, as in simple two-part [X *yà*] [Y *yà*] conjunctions (preceding subsection).

- (xx1) nà:-ngè-gír-gé yâ:, ùnà-gír-gé yâ:,  
 cow-Pl-herder-Pl **and**, goat-tend.Agent-Pl **and**,  
 à:nà-gír-gé yâ:, kàlmà-kání-gé yâ:,  
 sheep-tend.Agent-Pl **and**, clear.field-do.Agent-Pl **and**,  
 tèn-tómí-gé yâ:, érdò nì <sup>LH</sup>bǒ:  
 planting(n)-plant(v).Agent-Pl **and**, thus 1Pl <sup>LH</sup>be  
 ‘(They are) cowherds, and goatherds, and sheep-herds, and field clearers, and  
 planters. That [focus] is how we are.’ (Ningo, T7 @ 09:52)

### 7.1.2 “Conjunction” of verbs or VP’s

The rough equivalent of conjunction for verbs, VPs, and clauses (including subjects) is direct or loose chaining, see chapter 15. Verbs, VPs, and clauses are not conjoined by *yâ*. However, terminal high pitch (symbol ↗), marking incompleteness, can function somewhat like conjunction (‘and’ or ‘then’).

- (xx1) a. nǎ: bǐjǐ ↗, kǐ-lá àlǎndì-yè,  
 3SgSbj.Fut store(v).Pfv, 3Pl-Fut rest(v)-MP.Pfv,  
 ‘He will store it (=clothing) away, (then) they (=novices) will rest.’  
 (Ningo T7 @ 08:56)

- b. nǎ: ùnjǐgǐ ↗, nǎ: pángá dǐnǐ ↘  
 3Sg.Fut get.up.Pfv, 3SgSbj.Fut granary take.out.ration.Pfv  
 ‘He will get up and he will take out the daily ration from the granary.’  
 (Ningo T7 @ 12:01)

## 7.2 Disjunction

### 7.2.1 ‘Or’ particles

‘Or’ disjunctive particles are unrelated in Tiranige to the polar interrogative clitic *lè* and its variants (§xxx).

#### 7.2.1.1 *mà*→ ‘or’ preceding second disjunct in indicative context

*mà*→ ‘or’ is added before the second NP coordinand in (xx1). The ‘or’ phrase is added after a complete clause, in the fashion of an afterthought.

(xx1) [dèw<sup>n</sup> címə] [ámá ní sé:m-bò] [mə→ ùnà]  
 [day all] [sheep 1PlSbj slaughter-IPfv] [or goat]  
 ‘Every day we slaughter a sheep or a goat.’

### 7.2.1.2 wá after each disjunct in interrogative context

In interrogative contexts, *wá* ‘or’ is added at the end of both disjuncts if they are clause-internal constituents (NPs, adverbial phrases).

(xx1) [ámá wá] [ùnà wá] <sup>LH</sup>sè:m-bǒ-w  
 [sheep or] [goat or] <sup>LH</sup>slaughter-IPfv-2Sg  
 ‘Will you-Sg slaughter a sheep or a goat [focus]?’

### 7.2.1.3 Numerical range (e.g. ‘one or two’)

When the “disjunction” is really a range from a low number to a slightly higher number, there is no disjunctive particle. In textual excerpt (xx1), the lower value comes first, and is marked by nonterminal intonation (final pitch rise).

(xx1) [yà:gú tò:mà↗] [yà:g-gé ní:ngà] kè-lá nàyé  
 [night one] [night-Pl two] 3Pl-Fut spend.night.Pfv  
 ‘They will spend one or two nights (there).’ (Ningo T7 @ 09:17)

### 7.2.2 Clause-level disjunction

If the choice is between two entire propositions, *wá* is added once, after the first alternative. In this position it is intonationally prolonged (xx2).

(xx1) [bòmàkó ñà] <sup>LH</sup>ùm-bò-w wá→,  
 [Bamako Loc] <sup>LH</sup>go-IPfv-2Sg or,  
 [sègù ñá] <sup>LH</sup>ùm-bǒ-w  
 [Segou Loc] <sup>LH</sup>go-IPfv-2Sg  
 ‘Is it to Bamako [focus] that you-Sg will go, or is it to Segou [focus] that you-Sg will go?’

## 8 Postpositions and adverbials

Tiranige has postpositions for spatiotemporal relations, and for instrumental and purposive. accusative *gi* can also be considered to be a postposition since it follows complete NPs.

### 8.1 Dative and instrumental

#### 8.1.1 Dative absent

No dative postposition occurs with ditransitives like ‘give’ and ‘say’. Such verbs use the regular accusative marking for indirect objects (xx1a-b). The same ditransitive syntax is used with the interesting verb *ká:n-dó-* ‘do (sth) for (sb)’, which replaces *kán(ú)-* ‘do (sth)’ when a beneficiary is expressed (xx1c).

- (xx1) a. *[â: gi céléngé<sup>L</sup> ndê-w*  
[who? Acc] money <sup>L</sup>give.Pfv-2SgSbj  
‘To who(m) did you-Sg give the money?’ (Boui)
- b. *[mì gi wé:-wè gúná-nú-w*  
[1Sg Acc] anything say-PfvNeg-2SgSbj  
‘You didn’t say anything to me.’ (Boui)
- c. *[hàl wé:-wè] [mì gi] ká:n-dá-nù-w*  
[even anything] [1Sg Acc] do-for-PfvNeg-2SgSbj  
‘You-Sg didn’t do anything for me.’ (Boui)

An assistant rephrased some French cues with possessives instead of dative PPs with simple transitives wherever this made sense, e.g. ‘I will cook [your meals]’ instead of ‘I will cook meals [for you]’. Where this does not work, a purposive PP can be used (§8.3).

#### 8.1.2 Instrumental (*yà*)

Examples are in (xx1). *yà* does not interact tonally with the complement NP and is always itself L-toned.

- (xx1) a. *[íjílí yà] ijilè-Ø*

[broom Inst] sweep.Pfv-3SgSbj  
 ‘He/She swept with a broom.’ (Boui)

b. [tànà yà] tɛ̀là [námá rì]  
 [knife Inst] cut.Imprt [meat Def]  
 ‘Cut-2Sg the meat with a knife!’ (Boui)

c. [[dúwá mɛ́:] yá] <sup>L</sup>kùb-bò-Ø  
 [[daba 1SgPoss] Inst] <sup>L</sup>do.farming-Ipfv-3SgSbj  
 ‘He/She will farm with my daba.’ (Boui)

‘By force’ is *sɛ̀mbɛ̀ yà*.

*yà* after a NP can also function as an ‘and’ conjunction.

## 8.2 Locational postpositions

### 8.2.1 Locative, allative, and ablative functions

As in other languages of the zone, the burden of expressing allative ‘to’ and ablative ‘from’ falls on verbs rather than on postpositions. For example, ablative sense is expressed by *gó:-* ‘go out, leave’, perhaps chained with another verb. Therefore all adverbial phrases, including PPs, that denote locations or positions can be used in (static) locative, allative, or ablative contexts.

### 8.2.2 Simple and composite PPs

In addition to simple (monomorphemic) postpositions, there are several composite postpositions. These are generally transparent combinations of the general locative postposition *ɲa* with a possessed [X’s Y], where Y is a body part term or similar noun with spatial reference. The Y noun has the usual possessor-controlled {LH} tone contour in this construction. It is therefore followed by L-toned *ɲà* ‘in’, though this is raised to *ɲá* before a L-toned syllable.

A difference between such composite postpositions and simple PPs that happen to have a possessed noun as complement (e.g. ‘in my head’) is that pronominal possessors are always preposed to the Y noun in the composite postpositions. Thus [*mì* <sup>LH</sup>*dànà*] *ɲá* ‘on me’ (composite postposition), but usually [*dànà mɛ́:*] *ɲà* ‘in/on my head’.

### 8.2.3 Locative ‘in, at, on’

#### 8.2.3.1 Locative suffix -à

There are a handful of lexicalized locative forms of high-frequency bisyllabic nouns that likely represent contraction from a PP with postposition \*Cà (such as \*ɲà). Known examples from Ningo are in (xx1).

(xx1)	noun	gloss	locative	gloss
a.	gíbá	‘house’	gíb-à:	‘at home, at the house’
b.	gúló	‘the bush, the outback’	gúl-à:	‘out in the bush’

This is not productive. For example, ìjò ‘village’ has locative ìjò gí.

Boui has *jíwá* ‘house’, locative *jíw-â:* with final <HL>-toned syllable, cf. (xx1a). However, ‘out in the bush’ was recorded as *góló ɲà*.

Jamsay and Togo Kan “tonal locatives” expressed by changing a final H-tone to <HL> (with lengthening as needed) likely originated in the same way, but independently of Tiranige.

#### 8.2.3.2 Locative postposition (*ɲà, yà, gí*)

For the Boui assistant, the primary locative postposition ‘in, at’ (occasionally ‘on’) is *ɲà* (for other variants see below).

The postposition is common with place names as well as with common nouns denoting objects or spaces. It is H-toned after a {L}-toned word, and L-toned (in isolation or before H-tone) after words that include a H-tone element.

(xx1)	noun	locative	gloss
-------	------	----------	-------

xxx

- a. H-toned *ɲá* (Ningo dialect *gí*)
- |            |               |                    |
|------------|---------------|--------------------|
| <i>ìjò</i> | <i>ìjò ɲá</i> | ‘in the village’   |
| <i>òmò</i> | <i>òmò ɲá</i> | ‘in the mouth’     |
| <i>èwà</i> | <i>èwà ɲá</i> | ‘in/at the market’ |
- b. L-toned *ɲà* (Ningo dialect *gí*)
- |               |                  |                    |
|---------------|------------------|--------------------|
| <i>bòmòkó</i> | <i>bòmòkó ɲà</i> | ‘in Bamako (city)’ |
| <i>pà:ndé</i> | <i>pà:ndé ɲà</i> | ‘in the trap’      |



<i>né:ndè</i>	<i>né:ndè ñà</i>	‘in the tongue’
<i>yálá</i>	<i>yálá ñà</i>	‘in the field(s)’
<i>órí</i>	<i>órí ñà</i>	‘in the waterjar’
<i>góló</i>	<i>góló ñà</i>	‘in the bush (outback)’
<i>mí:</i>	<i>mí: ñà</i>	‘in the water’
<i>númá</i>	<i>númá ñà</i>	‘on/in the arm’

c. possessed nouns

<i>yálá mè:</i>	<i>[yálá mǝ:] ñà</i>	‘in my field’
<i>X yálá</i>	<i>[X yàlá] ñà</i>	‘in X’s field’

d. determined and quantified nouns

<i>ìjò rì</i>	<i>[ìjò rì] ñà</i>	‘in the village’ (definite)
<i>ìjò mbó</i>	<i>[ìjò mbó] ñà</i>	‘in this/that village’
<i>ìjò-gé rì címà</i>	<i>[ìjò-gé rì címà] ñà</i>	‘in all (the) villages’

The H-toned variant *ñá* in (xx1a) reverts to L-toned *ñà* when followed by a H-tone. This is attributable to Rightward L-Spreading (§3.6.3.2).

*ñà* is not common with temporal NPs, which are used adverbially without overt locative marking (xx2).

- (xx2) a. *yà:gù*      *wàlè*      *kán-dâ-y<sup>n</sup>*  
 night      work(n)      do-IPfvNeg-1SgSbj  
 ‘I do not work at night.’
- b. *yéná:gú*      *[ìjò*      *ñá]*      <sup>LH</sup>*ùm-bǝ-y*  
 rainy.season      [village      Loc]      <sup>LH</sup>go.IPfv-1SgSbj  
 ‘In the rainy season, I go to the village.’

*ñà* is also part of some complex postpositions described below.

A variant *yà* is used with many local place names: *móti yà* ‘in Mopti’, *sèwàré yà* ‘in Sevaré’, *kárí yá* ‘in Konna’, *bùrì yà* ‘in Boui’. More distant communities (Bamako, Segou, Outer Mongolia) have *ñà*.

With unmodified *jíwá* ‘house’, the locative is *jíwâ*: ‘(at/to) home’.

The older Ningo assistant used *gi* as the common locative postposition, along with *yà* as in Boui. He explained that *gi* is used by leatherworkers versus *ñà* for Dogon. In his speech, ‘(at/to) home’ is *gíwâ*.

8.2.3.3 ‘Chez X’ (*X ɲâ:* or *X ɲà:*)

With a human complement, this postposition means ‘at the place of, *chez*’ or more abstractly ‘around (someone)’

The tone is <HL> after an L-toned syllable (xx1a-b), and L after a an H-toned syllable (xx1c). The examples in (xx1) are from my Ningo assistant.

(xx1) a. L-toned pronouns (Ningo)

<i>mì ɲâ:</i>	‘at my place, <i>chez moi</i> ’
<i>nì ɲâ:</i>	‘at our place, <i>chez nous</i> ’
<i>ò ɲâ:</i>	‘at your place, <i>chez toi</i> ’
<i>è ɲâ:</i>	‘at your-Pl place, <i>chez vous</i> ’
<i>nà ɲâ:</i>	‘at his/her place, <i>chez lui/elle</i> ’
<i>kè ɲâ:</i>	‘at their place, <i>chez eux/elles</i> ’

b. NPs ending in L-tone (Ningo)

<i>[mí bà:] ɲâ:</i>	‘at my father’s place’
<i>[mí nèjì] ɲâ:</i>	‘at my uncle’s place’

c. NPs ending in H-tone (Ningo)

<i>sé:dú ɲà:</i>	‘at Seydou’s place’
<i>[mì nàlí] ɲà:</i>	‘at my friend’s place’

8.2.4 ‘Inside X’ or ‘under X’ (*[X<sup>LH</sup> kùlyé] ɲà*)

From noun *kùlyè* ‘interior’ and PP *kùlyè ɲá* ‘in the interior, on the inside’, we get complex postposition *[X<sup>LH</sup> kùlyé] ɲà* ‘inside X’, literally ‘in [X’s interior]’. Prototypically, X is ‘house’.

(xx1) a. *[té: rì] [[jíwá<sup>LH</sup> kùlyé] ɲá] bǒ-Ø*  
 [tea Def] [house<sup>LH</sup>interior] Loc] be-3SgSbj  
 ‘The tea is in(side) the house.’

b. *[kúné rì] [[[té:nì rì] <sup>LH</sup>kùlyé] ɲá]*  
 [calabash Def] [[[well Def] <sup>LH</sup>interior] Loc]  
*dùmbè* <sup>LH</sup>*sìgé-Ø*  
 fall <sup>LH</sup>go.down.Pfv-3SgSbj  
 ‘The calabash fell to the bottom of the well.’

This postposition is also used in the sense ‘under X’ if X more or less completely encloses the trajector.

- (xx2) *[kílé rì] [[[bĩ: rì] <sup>LH</sup>kùlyé] ɲá] <sup>LH</sup>tùná-Ø*  
 [key Def] [[[mat Def] <sup>LH</sup>interior] Loc] <sup>LH</sup>be.laid.Stat-3SgSbj  
 ‘The key is under the mat.’

The Ningo assistant pronounced *kùliyè* as a trisyllabic, and used *gì* rather than *ɲà*.

When X is not a containing structure, a dedicated ‘under X’ expression is used (§8.2.10).

### 8.2.5 ‘At the bottom/base of X’ (*[X<sup>LH</sup>sígí] ɲà*)

This expression denotes a position just next to the base of an entity (tree, mountain), but not directly under it.

- (xx1) *[íjó rì] [[[cé:mbè rì] <sup>LH</sup>sígí] ɲá] bõ:-Ø*  
 [village.+H Def] [[[stone Def] <sup>LH</sup>base] Loc] be-3SgSbj  
 ‘The village is at the base of the mountain.’

Adverb *sígí-yá* means ‘at the base’.

### 8.2.6 ‘On (the head of) X’, ‘over X’ (*[X<sup>LH</sup>dàná] ɲà*)

The postposition ‘on (a more or less horizontal surface)’ or ‘over, above’ is *[X<sup>LH</sup>dàná] ɲà*. It consists of a possessed form of noun *dànà* ‘head’ (synonym of *kògò*) plus locative *ɲà*. In the sense ‘on X’, *[X<sup>LH</sup>dàná] ɲà* may be followed by the simple predicate *bò-* ‘be’ or, for inanimates, by a form (e.g. stative) of *ságí-yó-* ‘(object) be on (a surface)’.

- (xx1) a. *[yòmbú rì] [[[bĩ: rì] <sup>LH</sup>dàná] ɲá] <sup>LH</sup>sàgá-Ø*  
 [blanket Def] [[[mat Def] <sup>LH</sup>head] Loc] <sup>LH</sup>be.on.Stat-3SgSbj  
 ‘The blanket is on the mat.’ (*yòmbù, bì*)
- b. *[[tèmbè] <sup>LH</sup>dàná] ɲá] bò-y*  
 [[roof] <sup>LH</sup>head] Loc] be-1SgSbj  
 ‘I am on the roof.’ (Boui)

- c. *[mì<sup>LH</sup> dǎná] ɲá<sup>LH</sup> dǔmbé-∅*  
 [1Sg<sup>LH</sup>head] **Loc** <sup>LH</sup>fall.Pfv-3SgSbj  
 ‘It fell on me (=on my head).’ (Boui)
- d. *[níyè gé rì] [nì<sup>LH</sup> dǎná] ɲá<sup>LH</sup> pìliyò mb-á:*  
 [bird Pl Def] [1Pl<sup>LH</sup>head] **Loc** fly Prog-3PlSbj  
 ‘The birds are flying above us (=over our heads).’ (Boui)

Other verbs that make reference to position on surfaces, *dǎngí-yó-* ‘be on (horizontal or vertical surface)’ and *bí-yó-* ‘lie down’, take simple locative PPs with *ɲa* (xx2).

- (xx2) a. *[bóló rì] [jíwá<sup>LH</sup> bǎngá] ɲà<sup>LH</sup> dǎngá-∅*  
 [agama Def] [house<sup>LH</sup>wall] in] <sup>LH</sup>be.on.Stat-3SgSbj  
 ‘The agama lizard is on the wall.’ (Boui)
- b. *[bì: ɲá] <sup>LH</sup>bì-y-â:*  
 [mat in] <sup>LH</sup>lie.down-MP.Stat-3PlSbj  
 ‘They are lying down on a mat.’ (Boui)

Without a possessor, the simple PP *dǎnà ɲá* means ‘on top, above, overhead’.

### 8.2.7 ‘Next to, beside X’ (*[X<sup>LH</sup> è:lé] ɲà*, *[X<sup>LH</sup> jèlé] ɲà*)

When a person is the reference point, ‘next to/beside X’ is expressed by a composite postposition based on *é:lé* ‘flank, side (of body, at ribs)’, viz., *[X<sup>LH</sup> è:lé] ɲà* (xx1a).

From (Boui dialect) noun *jé lé* ‘place’, a composite postposition *[X<sup>LH</sup> jè lé] ɲà* is formed. Ningo has *gè lé* ‘place’ and postposition *[X<sup>LH</sup> gè lé r(i)] gì* including the definite marker. The composite postposition can mean ‘next to, in the vicinity of’, with reference to e.g. a landmark (xx1b). Close proximity to the landmark is not required as long as the zone in question is defined in some sense by the landmark.

- (xx1) a. *[[mì<sup>LH</sup> è:lé] ɲà] bò-∅*  
 [[1SgPoss<sup>LH</sup>side] in] be-3SgSbj  
 ‘He/She is beside (=next to) me.’ (Boui)
- b. *[[[mínjìlì rì] <sup>LH</sup>jè lé] ɲà]*  
 [[[mosque Def] <sup>LH</sup>side] in]  
*[mì gí] sǐgò-m*  
 [1Sg Acc] go.down-Caus.Imprt

‘Let-2Sg me off (this vehicle) next to (=in the area of) the mosque!’ (Boui)

*è:ngó* ‘proximity, vicinity’, locative *è:ngó ñà* ‘nearby, in the vicinity’, can also form a composite postposition when distance as such is relevant:  $[[X^{LH} \textit{è:ngó ñà}]$  ‘in the vicinity of X’.

#### 8.2.8 ‘In front of’ ( $[X \textit{jíró}] \textit{ñà}$ )

From *jíró ñà* ‘in front, forward, ahead’ we get  $[X \textit{jíró}] \textit{ñà}$  ‘in front of X’. The Ningo counterpart is  $[X \textit{gíró}] \textit{gì}$ . The tones are incorrect for the usual  $[[X^{LH} \text{noun}] \textit{ñà}]$  composite postposition type. ‘In front of X’ has the same spatial parameters as in English.

- (xx1) a.  $[[\textit{ni} \quad \textit{jíró}] \quad \textit{ñá}] \quad \textit{bò-}\emptyset$   
 [[1Pl front] in] be-3SgSbj  
 ‘He/She is in front of us.’ (Boui)
- b.  $[[\textit{tù} \textit{ngó} \quad \textit{rì}] \quad \textit{jíró}] \quad \textit{ñá}] \quad \textit{L} \textit{bì-y-ìyè}$   
 [[tree Def] front] in] <sup>L</sup>lie.down-MP.Pfv-3PlSbj  
 ‘They lay down in front of the tree.’ (Boui)
- c.  $\textit{àmí} \quad [[\textit{jámá} \quad \textit{rì}] \quad \textit{címà}] \quad \textit{jíró}] \quad \textit{ñá}]$   
 chief [[[[community Def] all] front] in]  
<sup>LH</sup> $\textit{dámí-}\emptyset$   
<sup>LH</sup>speak.Pfv-3SgSbj  
 ‘The chief spoke in front of the (whole) community.’ (< *jámá*) (Boui)

#### 8.2.9 ‘Behind/after X’ ( $[X^{LH} \textit{tù:}^n] \textit{ñà}$ or $[X^{LH} \textit{tùnù}] \textit{gì}$ )

‘Behind X’ is  $[X \textit{tù:}^n] \textit{ñà}$  for the younger Boui speaker, and  $[X \textit{tùnù}] \textit{gì}$  for the older Ningo speaker. Its core sense is spatial (xx1a), but it can be used in temporal senses as well (xx1b-c). The related noun is *tù:.<sup>n</sup> ~ túnù* ‘rear (of sth)’. In  $[X \textit{tù:}^n] \textit{ñà}$ , the nasalization of *tù:.<sup>n</sup>* is difficult (perhaps impossible) to hear separately because of the following *ŋ*.

- (xx1) a.  $[[\textit{mì} \quad \textit{L}^H \textit{tù:}^n] \quad \textit{ñá}] \quad \textit{bǒ-}\emptyset$   
 [[1Sg <sup>LH</sup>behind] in] be-3SgSbj  
 ‘He/She is behind me.’ (Boui)
- b.  $[\textit{sà:ní} \quad \textit{L}^H \textit{tù:}^n] \quad \textit{ñá}] \quad \textit{L}^H \textit{yògò-wǒ-y}$

[[holy.day <sup>LH</sup>behind] in] <sup>LH</sup>come-Ipfv-1SgSbj  
 ‘I will come (back) after the holy day.’ (Boui)

- c. *[[jɪwá rì] [[nì <sup>LH</sup>tù:ʔ] ɲá] <sup>LH</sup>imbò-w-â:*  
 [[house Def] [[1Pl <sup>LH</sup>behind] in] <sup>LH</sup>close-Ipfv-3PlSbj  
 ‘They will close up the house after us (=after we leave).’ (Boui)

*[é <sup>LH</sup>tùnù] gì* (Boui) or *[ét <sup>LH</sup>tùnù] gì* (Ningo) means ‘thereafter, afterwards, after that’, with reference to a contextually understood event. The full form is *[éɾí <sup>LH</sup>tùnù] gì* (Ningo) with demonstrative *éɾì*.

#### 8.2.10 ‘Under X’ (*[X dùṅó] ɲà*)

‘Under X’ is conflated with ‘inside X’ when X is a house or similar containing structure that is closed on the top and sides (§8.2.4). If X is an object that does not contain the trajector, the pure ‘under X’ construction is *[X dùṅó] ɲà* based on noun *dùṅó* ‘bottom, below’, or with a pronominal complement e.g. *[dùṅó mɛ:] ɲà* ‘under me’.

- (xx1) *[[tíṅɔ́ <sup>LH</sup>dùṅó] ɲà] nì <sup>LH</sup>òw-yò-wó*  
 [[tree <sup>LH</sup>under] Loc] 1PlSbj <sup>LH</sup>sit-MP-Ipfv  
 ‘We will sit under (the) tree [focus].’ (Boui)

#### 8.2.11 ‘Between’ (*[X Y] <sup>LH</sup>bèná] ɲà*)

‘Between X and Y’ or ‘between X-Pl’ is expressed with the composite postposition *[X <sup>LH</sup>bèná] ɲà*, cf. noun *bèná-ɲá* ‘(the) middle’.

- (xx1) a. *bùrù [[[sèwàré yá] [dwánzá yà]] <sup>LH</sup>bèná] ɲá]*  
 Boui [[[[S and] [D and]] <sup>LH</sup>middle] in]  
*bò:-Ø*  
 be-3SgSbj  
 ‘Boui (village) is located between Sevare and Douentza.’ (Boui)
- b. *[nì <sup>LH</sup>bèná] ɲà*  
 [1Pl <sup>LH</sup>middle] in  
 ‘between us’ (Boui)

### 8.2.12 ‘From X to Y’

‘All the way to X’ or ‘until X’ is expressed with *hàli* before the locational phrase. It becomes *hàli* before a H-tone, and the final *i* is subject to apocope. The verb of the ‘until’ clause has {LH} overlay.

- (xx1) *dù:rù-yò-w<sup>n</sup>* [*hàl* [*móti* *yà*] <sup>LH</sup>*ùnì-ý<sup>n</sup>*]  
 run-MP-while [until [Mopti Loc] <sup>LH</sup>go.Pfv-1SgSbj]  
 ‘I ran all the way to Mopti.’ (Boui)  
 (lit. “I went all the way to Mopti while running.”)

The starting point can also be expressed. This is done using a subordinated clause with *gó:-* ‘go out, leave, depart’.

- (xx2) [*mbé: gwè:-sà-w<sup>n</sup>*] [*hàl* *yá:* <sup>LH</sup>*ùnì-ý<sup>n</sup>*]  
 [here go.out-Reslt-while] [until there.Def <sup>LH</sup>go.Pfv-1SgSbj]  
 ‘I walked all the way from here to there.’ (Boui)  
 (lit. “After going from here, I went all the way to there.”)

### 8.3 Purposive-causal ‘for’ (*dàgá*)

[*X*<sup>LH</sup> *dàgá*] means ‘for X’, in a prospective sense (e.g. ‘in order to get X’), as in (xx1).

- (xx1) [*i:gé* <sup>LH</sup>*dàgá*] <sup>LH</sup>*yògè-s-â:*  
 [honey <sup>LH</sup>for] <sup>LH</sup>come-Reslt-3PlSbj  
 ‘They have come for honey.’ (Boui)

The sense can also be retrospective (‘because of, due to, as a result of’), as in (xx2a), or abstract ‘on account of’, as in (xx2b-c).

- (xx2) a. [*á:mì* <sup>LH</sup>*dàgá*] *jíwâ:* *nì* <sup>LH</sup>*nwè:-sá*  
 [rain(n) <sup>LH</sup>for] house.in 1PlSbj <sup>LH</sup>go.in-Reslt  
 ‘We went into the house because of the rain (outside).’ (Boui)
- b. [*mì* <sup>LH</sup>*dàgá*] <sup>LH</sup>*yògè-s-â:*  
 [1Sg <sup>LH</sup>for] <sup>LH</sup>come-Reslt-3PlSbj  
 ‘They have come for (i.e. to visit) me.’ (Boui)
- c. [*á:* <sup>LH</sup>*dàgá*] [*ò* *gí*] <sup>LH</sup>*bàrò-wò-ý<sup>n</sup>*

[God <sup>LH</sup>for] [2Sg Acc] <sup>LH</sup>help-IPfv-1SgSbj  
 ‘I will help you-Sg on account of God (i.e. as a charitable act).’ (Boui)

#### 8.4 Other adverbs (or equivalents)

##### 8.4.1 Similarity (<sup>LH</sup>*tàró* ‘like’)

‘Like (similar to) X’ is [*X* <sup>LH</sup>*tàró*].

- (xx1) a. [*mì* <sup>LH</sup>*tàró*] *bǒ:-Ø*  
 [1Sg <sup>LH</sup>like] be-3SgSbj  
 ‘He/She is like me.’ (Boui)
- b. [*bé:* <sup>LH</sup>*tàró*] <sup>LH</sup>*kà:m-bǒ-w*  
 [child <sup>LH</sup>like] <sup>LH</sup>weep-IPfv-2SgSbj  
 ‘You-Sg weep like a child.’ (Boui)

Note also *mbórà* ‘like this/that’ (cf. *mbó* ‘this/that’).

##### 8.4.2 Extent (*kùnú*→ ‘a lot’, *cêw<sup>n</sup>* ‘a little’)

*kùnú*→ ‘a lot’ can function as a NP argument (xx1a), or as an adverb (xx1b).

- (xx1) a. *mì-gì* *kùnú*→ *ndè-Ø*  
 1Sg-Acc a.lot give.Pfv-3SgSbj  
 ‘He/She gave me a lot.’ (Boui)
- b. [*jèlè* *ŋá*] *kùnú*→ <sup>LH</sup>*ùm-bǒ-y*  
 [travel(n) Loc] a.lot <sup>LH</sup>go-1SgSbj  
 ‘I travel a lot.’ (Boui)

The antonym is *cêw<sup>n</sup>* ‘a little’.

- (xx2) a. *mì-gì* *cêw<sup>n</sup>* *ndè-Ø*  
 1Sg-Acc a.little give.Pfv-3SgSbj  
 ‘He/She gave me a little.’ (Boui)
- b. *cêw<sup>n</sup>* [*jèlè* *ŋá*] <sup>LH</sup>*ùm-bǒ-y*  
 a.little [travel(n) Loc] <sup>LH</sup>go-1SgSbj



‘I travel a little (i.e. occasionally).’ (Boui)

### 8.4.3 Specificity

#### 8.4.3.1 ‘Approximately’ (*béléwò*)

To indicate that a number is approximate, *béléwò* can be added. This looks vaguely like an imperfective verb but it is unanalysable.

- (xx1) *ámhá*     *dé:*     *béléwò*  
sheep     40     roughly  
‘approximately forty sheep’ (Boui)

#### 8.4.3.2 ‘Exactly’ (*kák*)

With numbers, *kák* can be used (xx1).

- (xx1) *ámhá*     *dé:*     *kák*  
sheep     40     exactly  
‘exactly forty sheep’ (Boui)

To emphasize identity, *nényè<sup>n</sup>* can be used. In (xx2) the speaker points at an object in a context where it might not be obvious to the addressee which object is intended. *nényè<sup>n</sup>* follows the focal constituent.

- (xx2) a. *éni=yò*                      *nényè<sup>n</sup>*  
Dem.Near=it.is                      **exactly**  
‘It’s precisely that (over there)’ (Ningo)
- b. [*érò*                      *nényè<sup>n</sup>*]                      <sup>LH</sup>*bìyò-bò-Ø*  
[thus                      **exactly**]                      <sup>LH</sup>be-Ipfv-3SgSbj  
‘It may (=should) be exactly like that.’ (Ningo)

To confirm that what the addressee has just said is exactly correct, the widespread (e.g. Fulfulde) *já:tì* occurs, either alone (cf. English *precisely!*) or clause-finally.

- (xx3) *érò*                      <sup>LH</sup>*bìyò-bò-Ø*                      *já:tì*,  
thus                      <sup>LH</sup>be-Ipfv-Ø-3SgSbj                      indeed

‘That (=what you just said) is exactly how it should be!’ (Ningo, T7 @ 09:40)

#### 8.4.4 Spatiotemporal adverbials

##### 8.4.4.1 Temporal adverbs

Some of the major temporal adverbs are in (xx1).

- |          |                                  |  |
|----------|----------------------------------|--|
| (xx1) a. | <i>yò:</i>                       | ‘today’  |
|          | <i>ájá là</i>                    | ‘again’  |
|          | <i>kòndè</i>                     | ‘again’  |
|          | <i>níjá</i>                      | ‘yesterday’                                    |
|          | <i>nìjà-mólí</i>                 | ‘day before yesterday’                         |
|          | <i>ájá</i>                       | ‘now’  |
| b.       | <i>á:gá</i>                      | ‘tomorrow; in the future’                      |
|          | <i>à:gà déné</i>                 | ‘day after tomorrow’                           |
|          | <i>à:gà déné yàlàngé</i>         | ‘second day after tomorrow’ (third from today) |
|          | <i>à:gà déné yàlàngé-yàlàngé</i> | ‘third day after tomorrow’ (fourth from today) |
| c.       | <i>gólí</i>                      | ‘last year’                                    |
|          | <i>wáyé</i>                      | ‘next year’                                    |
|          | <i>nò:</i>                       | ‘this year’                                    |

As in other languages of the zone, ‘today’ and ‘yesterday’ can expand to ‘nowadays’ and ‘in the past, formerly’.

##### 8.4.4.2 ‘First’ (*tápòw<sup>n</sup>*)

*tápòw<sup>n</sup>* ‘at first, firstly, to begin with’ is illustrated in (xx1).

- |       |   |              |            |                               |
|-------|---|--------------|------------|-------------------------------|
| (xx1) | <i>tápòw<sup>n</sup></i>  | <i>[sègù</i> | <i>ɲá]</i> | <sup>LH</sup> <i>ùm-bǒ-y,</i> |
|       | firstly   | [Segou       | Loc]       | <sup>LH</sup> go-Ipfv-1SgSbj  |
|       | <i>mè:</i>  | <i>[tú:</i>  | <i>ɲà]</i> | <i>[[jèl<sup>L</sup></i>      |
|       | but   | [behind      | Loc]       | <i>[[place<sup>L</sup></i>    |
|       |   |              | other]     | Loc]                          |
|       |   |              |            | <sup>LH</sup> go-Ipfv-1SgSbj  |
|       | ‘First I’ll go to Segou (city), but later on I’ll go somewhere else.’ |              |            |                               |

### 8.4.4.3 Spatial adverbs

The following are the main nondemonstrative spatial adverbs. Some contain locative postposition *ɲa*.

- |          |                   |                            |
|----------|-------------------|----------------------------|
| (xx1) a. | <i>dàná ɲá</i>    | ‘above, on top, overhead’  |
|          | <i>sígíyá</i>     | ‘(down) below, underneath’ |
| b.       | <i>à:-dúǵó</i>    | ‘east’                     |
|          | <i>à:-sélé</i>    | ‘west’                     |
|          | <i>bàlèrí</i>     | ‘south’                    |
|          | <i>kòròm-báná</i> | ‘north’                    |
| c.       | <i>tú: ɲà</i>     | ‘in the rear; afterward’   |
|          | <i>jíró ɲà</i>    | ‘forward; in front’        |

For demonstrative locative adverbs, see §4.4.2.1.

‘Left’ (*nó:ndó*) and ‘right’ (*ɲó:*) are adjectives that modify e.g. ‘hand’ and ‘foot’. *ɲó:* may be related to *ɲó:-* ‘eat’.

### 8.4.5 Expressive adverbials (EAs)

Expressive adverbials (aka ideophones) are basically one-word adverbial phrases, sometimes with colorful senses. They do not combine into other words into phrases like NP, they cannot be focalized, and they have no tonosyntactic interactions with other elements. There are, however, ways to make them predicative, see §11.1.3.1.

Expressive adverbials are often marked phonologically. Some have intonational prolongation (xx1a), others are iterated (xx1b), and others look more like normal stems (xx1c).

- |          |  |  |
|----------|--|--|
| (xx1) a. | <i>dúru→</i>                               | ‘sticking out’                         |
| b.       | <i>téy<sup>n</sup>-téy<sup>n</sup></i>     | ‘(looking) straight at’                |
|          | <i>tè:-tè:</i>                             | ‘silent’                               |
|          | <i>díǵàw<sup>n</sup>-díǵàw<sup>n</sup></i> | ‘(walking) awkwardly’                  |
|          | <i>yélí-yélí</i>                           | ‘flapping (in the wind)’               |
|          | <i>áǵálá-áǵálá</i>                         | ‘(walking) with legs widely separated’ |
| c.       | <i>dóróy</i>                               | ‘wide-eyed, gaping’                    |

Some expressive adverbials function as adjectival intensifiers. They combine with ordinary adjectives, cf. *jet black* and *snow-white*, but the Tiranige intensifiers do not denote exemplars. The intensifier is usually treated as a compound final following the adjective, which appears with {L} tones. Intensifiers are iterative in form, and may be {H}- or {L}-toned.

(xx2)	adjective	gloss	intensifier
	<i>jémé</i>	‘black’	<i>jèmè-[kàri-kàri]</i>
	<i>pùlé</i>	‘white’	<i>pùlè-[taw-taw]</i>
	<i>búní</i>	‘red’	<i>bùnì-[déy<sup>n</sup>-déy<sup>n</sup>]</i>

#### 8.4.5.1 ‘Apart, separate’ (*tõw<sup>n</sup>~tõ:*)

*tõw<sup>n</sup>* (Boui) and *tõ:* (Ningo) are frequently used in parallelistic constructions, with NPs denoting the two separate sets. Intonation marks incompleteness by final high pitch on the first element, and completion by final low pitch on the final one. In either case the ‘apart’ EA can be prolonged.

(xx1)	<i>[ámhá-gè</i>	<i>rì]</i>	<i>tõw<sup>n</sup>↗,</i>	<i>[ùnà-gé</i>	<i>rì]</i>	<i>tõw<sup>n</sup>↘</i>
	[sheep-Pl	Def]	apart,	[goat-Pl	Def]	apart
	‘The sheep apart (e.g. on one side), the goats apart (e.g. on the other side).’ (Boui)					

When not spelled out in this parallelistic fashion, the sense can be expressed by the iteration *tõw<sup>n</sup>-tõw<sup>n</sup>* (Ningo *tõ:-tõ:*) ‘separately, apart (in distinct locations)’

#### 8.4.5.2 ‘Always’ (*wàkàtì címà*), ‘never’ (*àbádá*)

‘Always’ is the uninteresting collocation *wàkàtì címà* ‘(at) all times’.

Emphatic ‘never!’ is *àbádá*, a ubiquitous Arabic loanword. It can be used as a one-word expression with a pragmatic sense similar to ‘not on your life!’. As part of a clause, ‘never’ can often be translated by using the experiential perfect negative (‘have never VPed’), see §10.2.3.2.

#### 8.4.6 ‘Together’ (*bó:gù*)

Adverb *bó:gù* ‘together’ is illustrated in (xx1).

xxx

- (xx1) [nì **címá**] bɔ:gù wàlè nì <sup>LH</sup>kàm-bó  
[1Pl all] together work(n) 1PlSbj <sup>LH</sup>do-Ipfv.Rel  
'We will all work together.'

#### 8.4.6.1 'All, entirely' (*címà*)

*címà* 'all' can be made into an adverb-like phrase by following a pronoun. In (xx1), 3Sg *nà* is resumptive for 'vehicle'.

- (xx1) [mówéì rì] [nà *címà*] yàmì-Ø  
[vehicle Def] [3SgPoss all] be.ruined.Pfv-3SgSbj  
'The vehicle was completely ruined.'

## 9 Verbal derivation

The productive suffixal derivations (stem to stem) for verbs are the reversive (‘un-...’), the causative, the inchoative and factitive of adjectives, and in many languages the alternation of mediopassive (*-yv*) and transitive (*-tv*, *-dv*, *-rv*, or *-lv*). In some languages the mediopassive/transitive alternation is vestigial.

For a passive stative (*-yé = w̃<sup>n</sup>* and variants), see §10.4.1.2

### 9.1 Reversive verbs (*-ló- ~ -l̃-*)

The reversive suffix is *-lv-*, in the O-stem *-lo-* or *-l̃-* depending on ATR type. The majority of reversives are from bisyllabic inputs. The medial syllable in *CvCv-ló-* is weakened to a high vowel, appearing as *i* or *u* depending on adjacent consonants and on flanking syllable vowels (including inflectional suffix vowels). Front vowels and palatoalveolars favor *i*. The citation form (the O-stem) generally has medial *u* unless the preceding syllable has *{i e}*, but the E/I-stem (perfective), not shown here, often has *i*.

A preceding action (e.g. ‘tie’) that produces a resulting state is presupposed. The reverse action brings back the original state. The range of senses can be observed in the data in (xx1).

The medial vowel is not syncopated after an obstruent or *m*, or after a *CC* cluster (xx1a), but does syncopate after unclustered *y*, *l*, and (usually) *w* (xx1b).

The reversive suffix replaces mediopassive and transitive suffixes (xx1c).

(xx1)	input	gloss	reversive	gloss
a.	simple inputs, no syncope			
	<i>béjó-</i>	‘bury’	<i>béj̃í-ló-</i>	‘disinter’
	<i>dágó-</i>	‘attach blade’	<i>dágú-ló-</i>	‘remove blade’
	<i>págó-</i>	‘tie (up)’	<i>págú-ló-</i>	‘untie’
	<i>pégó-</i>	‘button’	<i>pégú-l̃-</i>	‘unbutton’
	<i>dúngó-</i>	‘bury’	<i>dúngú-ló-</i>	‘disinter’
	<i>púndó-</i>	‘roll up (mat)’	<i>púndú-ló-</i>	‘unroll (mat)’
	<i>yámbó-</i>	‘cover (object)’	<i>yámbú-ló-</i>	‘uncover (object)’
	<i>ímbó-</i>	‘shut (door)’	<i>ímb̃í-l̃-</i>	‘open (door)’
	<i>púndó-</i>	‘tangle’	<i>púndú-ló-</i>	‘untangle’
	<i>kóngó-</i>	‘roll up (pants)’	<i>kóngú-l̃-</i>	‘unroll (pants)’
	<i>dángó-</i>	‘affix, post’	<i>dángú-ló-</i>	‘un-post’

b. syncope after {y w l}

<i>tíyó-</i>	‘lock’	<i>tíy-lo-</i>	‘unlock’
<i>śyś-</i>	‘braid (rope)’	<i>śy-lś-</i>	‘unbraid (rope)’
<i>tśyś-</i>	‘step on’	<i>tśy-lś-</i>	‘remove foot from’
<i>gúwś-</i>	‘hook, hang’	<i>gúw-lś-</i>	‘unhook’
<i>pélś-</i>	‘fold’	<i>pél-lś-</i>	‘unfold’

c. mediopassive and transitive inputs, no syncope

*mediopassive, from Cv-*

<i>dú-yś-</i>	‘carry on head’	<i>dú:-lś-</i>	‘take (load) off head’
---------------	-----------------	----------------	------------------------

*mediopassive, from bisyllabic*

<i>dómí-yś-</i>	‘put on (hat)’	<i>dómú-lś-</i>	‘take off (hat)’
<i>kúmí-yś-</i>	‘shut (eye)’	<i>kúmú-lś-</i>	‘open (eye)’
<i>págí-yś-</i>	‘get dressed’	<i>págú-lś-</i>	‘get undressed’
<i>kúmbí-yś-</i>	‘clench (fist)’	<i>kúmbú-lś-</i>	‘unclench (fist)’

*transitive*

<i>túmbí-ró</i>	‘put lid on’	<i>túmbí-lś-</i>	‘take lid off’
<i>kóndú-ró-</i>	‘bend’	<i>kóndí-lś-</i>	‘unbend’

d. no syncope after w (in some cases)

<i>íwí-yś-</i>	‘put on (wrap)’	<i>íwí-lś-</i>	‘take off (wrap)’
----------------	-----------------	----------------	-------------------

Transitive reversives can be chained to a following *gó-m(ú)-* ‘remove’. The nonfinal verb takes perfective form (§15.2.2.2), as in *tùnì-lè gó-m(ú)-* ‘get undressed’. Intransitive reversives can be chained to *gó:-* ‘go out’, as in *màngì-lè gó:-* ‘(sth) unfold (itself)’.

I have one example where the reversive suffix follows a transparently segmentable causative suffix *-m(ú)-*. In (xx2), X denotes a group. The key form is *mángá-m-lś-*.

- (xx2) a. *mángó-* ‘X assemble, X come together’  
*mángá-m(ú)-* ‘Y assemble X, Y have X assemble’
- b. *mángí-lś-* ‘X break up (after assembling)’  
*mángá-m-lś-* ‘Y break up X (after assembling them)’

Some synchronically unsegmentable trisyllabic stems ending in *-lv-* may have originated as reversives.

## 9.2 Deverbal causative verbs

### 9.2.1 Productive causative with suffix *-m(ú)-*

The productive causative suffix added to verb inputs is *-m(ú)-*. It can be added to a wide variety of verbs, including transitives, in a range of causative senses ('force X to VP', 'have X VP', 'let X VP').

Partial paradigms of *sígó-m(ú)-* 'take down' and of *yégá-m(ú)-* 'cause to fall', with tones based on 3Sg forms, are in (xx1). The final /u/ of the O-stem is regularly syncopated/apocopated except before *r*. The verb takes the A/O-stem of the input verb. However, stem-final *o* in nonmonosyllabics often shifts to *e* in the perfective before *-mì-*, as in *sìgè-mì-*. It is difficult to tell whether this is low-level assimilation (to the *i* in *-mì-*) or a morphologically significant ablaut-like alternation.

(xx1)	category	'take down'	'cause to fall'
	perfective	<i>sìgè-mì-</i>	<i>yègà-mì-</i>
	imperfective	<i>sígó-m-bò-</i>	<i>yégá-m-bò-</i>
	imperfective neg	<i>sígó-mú-râ-</i>	<i>yégá-mú-râ-</i>
	capacitative	<i>sígó-m-mâ-</i>	<i>yégá-m-mâ-</i>
	imperative	<i>sìgò-m</i>	<i>yègà-m</i>

Further examples of causatives are in (xx2). Note in particular the -ATR input stems in (xx2b).

(xx2)	input	gloss	causative	gloss
	a. monosyllabic			
	<i>ɲó:-</i>	'eat, drink'	<i>ɲá:-m(ú)-</i>	'give drink to'
	<i>nó:-</i>	'enter'	<i>nó:-m(ú)-</i>	'make enter, take in'
	<i>yó:-</i>	'(sth) fill up'	<i>yó:-m(ú)-</i>	'fill (sth)'
	<i>ndó-</i>	'give'	<i>ndá:-m(ú)-</i>	'cause to give'
	<i>irregular</i>			
	<i>gó:-</i>	'go out'	<i>gó-m(ú)-</i> ~ <i>gó:-gó-m(ú)-</i>	'take out, remove'
	b. bisyllabic			
	<i>input already +ATR compatible</i>			
	<i>táŋgó-</i>	'go past'	<i>táŋgá-m(ú)-</i>	'take past'
	<i>dám(ú)-</i>	'speak'	<i>dámá-m(ú)-</i>	'make speak'



<i>yógó-</i>	‘come’	<i>yógó-m(ú)-</i>	‘cause to come’
<i>sígó-</i>	‘go down’	<i>sígó-m(ú)-</i>	‘take down’
<i>input -ATR</i>			
<i>yégó-</i>	‘fall’	<i>yégá-m(ú)-</i>	‘cause to fall’
<i>sémó-</i>	‘slaughter’	<i>sémá-m(ú)-</i>	‘cause to slaughter’
<i>kómó-</i>	‘weep, cry’	<i>kómá-m(ú)-</i>	‘make cry’

c. input already has derivational suffix

*reversive*

<i>ímbí-ló-</i>	‘open (door)’	<i>ímbí-lá-m(ú)-</i>	‘have (sb) open (door)’
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*mediopassive*

<i>ów-yó-</i>	‘sit’	<i>ów-yó-m(ú)-</i>	‘cause to sit’
<i>dú:rú-yó-</i>	‘run’	<i>dú:rú-yó-m(ú)-</i>	‘cause to run’
<i>bándíli-yó-</i>	‘go back’	<i>bándíli-yá-m(ú)-</i>	‘take/send back’

*transitive*

<i>ígí-rí-</i>	‘stop (sth)’	<i>ígí-rá-m(ú)-</i>	‘have (sb) stop (sth)’
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*causative -gó-*

<i>pájá-gó-</i>	‘tear, rip’	<i>pájá-gá-m(ú)-</i>	‘have (sb) rip (sth)’
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*causative -mú-*

<i>sígó-m(ú)-</i>	‘take down’	<i>sígó-má-m(ú)-</i>	‘have (sb) take down (sth)’
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To my knowledge, causative *-m(ú)-* cannot be followed by other derivational suffixes except itself and the reciprocal.

9.2.2 Minor causative suffix *-gó-*

Several causative-like action verbs, generally involving destructive impact, have a suffix *-gó-* added to that A/O-stem. The causative is often as common as, or more common than, the intransitive counterpart.

(xx1) Causative *-gó-* (all known examples)

input	gloss	causative	gloss
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a. nonhigh vowel before suffix

<i>yám(ú)-</i>	‘malfunction’	<i>yámá-gó-</i>	‘ruin (sth)’
<i>páró-</i>	‘(sth) snap’	<i>párá-gó-</i>	‘snap, break (sth)’
<i>pájó-</i>	‘be torn’	<i>pájá-gó-</i>	‘tear, rip’
<i>pújó-</i>	‘expode’	<i>pújó-gó-</i>	‘detonate’

- |               |                |                  |                    |
|---------------|----------------|------------------|--------------------|
| <i>káwó-</i>  | ‘be cut open’  | <i>káwá-gó-</i>  | ‘cut open (belly)’ |
| <i>cémbó-</i> | ‘be broken up’ | <i>cémbó-gó-</i> | ‘break up (bread)’ |
- with overt ATR alternation
- |              |               |                 |                 |
|--------------|---------------|-----------------|-----------------|
| <i>pójó-</i> | ‘be crumbled’ | <i>pójá-gó-</i> | ‘crumble (sth)’ |
|--------------|---------------|-----------------|-----------------|
- b. mediopassive suffix dropped
- |                 |                 |                 |                 |
|-----------------|-----------------|-----------------|-----------------|
| <i>téwí-yó-</i> | ‘(sth) shatter’ | <i>téwá-gó-</i> | ‘shatter (sth)’ |
|-----------------|-----------------|-----------------|-----------------|
- c. high vowel or syncope before suffix
- |                |                 |                  |                            |
|----------------|-----------------|------------------|----------------------------|
| <i>múró-</i>   | ‘be punctured’  | <i>múú-gó-</i>   | ‘puncture’                 |
| <i>ním(ú)-</i> | ‘(fire) go out’ | <i>ním-gó-</i>   | ‘extinguish (fire)’        |
| <i>púnjó-</i>  | ‘lump break up’ | <i>púnjú-gó-</i> | ‘break up (lump of flour)’ |
- d. *-ngó-* variant
- |              |               |                  |              |
|--------------|---------------|------------------|--------------|
| <i>jínó-</i> | ‘hide [intr]’ | <i>jíná-ngó-</i> | ‘hide (sth)’ |
|--------------|---------------|------------------|--------------|

In some other cases, like *píyágó-* ‘chase away, drive out, expel’, we can suspect that the same suffix is present etymologically, but there is no unsuffixed counterpart, so segmentation is questionable.

### 9.3 *-gv-* suffix with ‘enter’ and ‘exit’

‘Enter, go/come in’ has two variants, *nó:-* and *nó:-gó-*. Similarly, ‘exit, go/come out’ has two variants, *gó:-* and *gó:-gó-*. The short forms are semantically as well as morphologically unmarked, typically denoting single events (xx1a). The suffixed forms suggest repetitive entry and exit, including re-entry after an exit or re-exit after an entry (xx1b).

- (xx1) a. *nwà:*  
 enter.Imprt  
 ‘Come/Go in!’
- b. [*gwè:*      *ɲá*]                      *nò:-gò-bó-y<sup>n</sup>*  
 [exit(v)      and.Nonpast.SS]      enter-Repet-Ipfv-1SgSbj  
 ‘I’ll go out and come/go (back) in.’

A similar *gv* syllable occurs in some other motion verbs: *yógó-* ‘come’, *sígó-* ‘descend’, *únjúgó-* ‘get up, arise’, and *élégó-* ‘go up on (sth)’ (cf. *ilé* ‘ascend’), but not *ún(ú)* ‘go’ or *áyó* ‘arrive’. This syllable is etymologically just part of the stem in *sígó-* ‘descend’ as shown by multiple bisyllabic cognates, but in the other cases it might reflect an original suffix. It is

possible that the suffix was originally related to *gó:-* ‘exit’ in a reversive (‘un-’) rather than directional sense, which has clear parallels in Jamsay and other eastern Dogon languages.

## 9.4 Mediopassive and transitive

### 9.4.1 Mediopassive *-yó- ~ -yǒ-* and transitive *-ró- ~ -rǒ-* (*-dó- ~ -dǒ-*)

There is a fairly productive alternation of mediopassive *-yó- ~ -yǒ-* and transitive *-ró- ~ -rǒ-*. The latter becomes *-dó- ~ -dǒ-* after certain consonants following syncope. The mediopassive denotes an internally experienced event (voluntary or not), while the corresponding transitive requires an external agent. The transitive is therefore essentially the causative of the mediopassive.

Transitive *-ró- ~ -rǒ-* is clearly distinct phonologically from reversive *-ló- ~ -lǒ-*, which can occur with some of the same verb stems. However, mediopassive *-yó- ~ -yǒ-* is arguably the same morpheme as reciprocal *-yó- ~ -yǒ-* (§9.5). Both mediopassive and reciprocal are intransitivizing derivations.

(xx1)	MP	gloss	Tr	gloss
	a. stance			
	<i>bí-yó-</i>	‘lie down’	<i>bí:-ró-</i>	‘have lie down, put to sleep’
	<i>ów-yó-</i>	‘sit down’	<i>ów-ró-</i>	‘have (sb) sit, seat (sb)’
	<i>ígí-yó-</i>	‘stand up, stop’	<i>ígí-ró-</i>	‘stop (sth)’
	<i>yáŋ(i)-yó-</i>	‘kneel’	<i>yáŋú-ró-</i>	‘cause to kneel’
	<i>sómbí-yó-</i>	‘squat’	<i>sómbú-ró-</i>	‘cause to squat’
	b. wearing clothes			
	<i>págí-yó-</i>	‘get dressed’	<i>págú-ró-</i>	‘dress (sb)’
	<i>yámbí-yó-</i>	‘put on (boubou)’	<i>yámbú-ró-</i>	‘put (boubou) on (sb)’
	<i>túní-yó-</i>	‘put on (clothes)’	<i>tú:n-dó-</i>	‘put (clothes) on (sb)’
	<i>dómí-yó-</i>	‘put on (headware)’	<i>dómú-ró-</i>	‘put (headware) on (sb)’
	<i>íwí-yó-</i>	‘tie on (belt)’	<i>íwí-ró-</i>	‘tie belt on (sb)’
	c. carrying/holding			
	<i>kúmí-yó-</i>	‘carry on back’	<i>kúmú-ró-</i>	‘put on (sb’s) back’
	<i>dú-yǒ-</i>	‘carry on head’	<i>dú:-rǒ-</i>	‘put on (sb’s) head’
	d. other			
	<i>mí: dú-yǒ-</i>	‘bathe’	<i>mí: dú:-rǒ-</i>	‘bathe (sb)’

*kóndú-yó-* ‘become crumpled’    *kóndú-ró-* ‘crumple (sth)’

Phonologically, *bí:-ró-* from *bí-yó-* in (xx1a) and *dú:-rɔ́-* from *dú-yɔ́-* in (xx1d) suggest lengthening of *Cv-* to *Cv:-* before the transitive but not mediopassive suffix. *tú:n-dó-* from *túní-yó-* in (xx1b) requires syncope of a medial-syllable short high vowel and lengthening of the initial-syllable vowel (§3.4.3.1).

From underived *nóyó-* ‘sleep’ we get transitive *nóyú-ró-* ‘cause (sb) to sleep, put (sb) to sleep’.

#### 9.4.2 Benefactive function of transitive derivative

##### 9.4.2.1 Benefactive *-ró-* ~ *-rɔ́-* (*-dó-* ~ *-dɔ́-*)

As shown above, in most cases the transitive derivative with suffix *-ró-* ~ *-rɔ́-* adds an agent who creates, or helps to create, the state denoted by the mediopassive.

The same transitive suffix can be added to verbs to promote a benefactive to direct-object status. Simple intransitive (xx1a) becomes transitive with accusative-marked but semantically benefactive object in (xx1b).

- (xx1) a. *ílɔ́-bò-y<sup>n</sup>*  
 go.up-Ipfv-1SgSbj  
 ‘I will go up.’
- b. [*sé:dù*    *gì*]    *ìl-dò-bò-y<sup>n</sup>*  
 [S Acc] go.up-Tr-Ipfv-1SgSbj  
 ‘I will go up for Seydou.’

(xx2a) is already transitive. In (xx2b) a semantically benefactive accusative-marked argument is added.

- (xx2) a. *á:ná*    *sémé-y<sup>n</sup>*  
 sheep    slaughter.Pfv-1SgSbj  
 ‘I slaughtered a sheep.’
- b. *á:ná*    [*sé:dú*    *gì*]    *sémí-ré-y<sup>n</sup>*  
 sheep    [S    Acc]    slaughter-Tr.Pfv-1SgSbj  
 ‘I will slaughter a sheep for Seydou.’

With ‘bring’ and ‘convey’, what is expressed as a dative in English is phrased as possessor of the theme (entity transferred). The possessum classifier

- (xx3) a.  $[\text{ò} \quad \text{}^{\text{LH}}\text{wě:}] \quad \text{sógó-vò-y}^n$   
 [2SgPoss  $\text{}^{\text{LH}}$ Psm] bring-Ipfv-1SgSbj  
 ‘I have brought it for you.’ (lit. ‘I have brought yours.’)
- b.  $[\text{ò} \quad \text{}^{\text{H}}\text{té:}] \quad \text{sógó-vò-y}^n$   
 [2SgPoss  $\text{}^{\text{H}}$ tea] bring-Ipfv-1SgSbj  
 ‘I have brought your tea.’ (= ‘I have brought some tea for you.’)

#### 9.4.2.2 *kán(ú)-* ‘do (sth)’ and *ká:-ndó-* ‘do (sth) for (sb)’

The common verb *kán(ú)-* ‘do’ is replaced by *ká:-ndó-* when a beneficiary is expressed. *ká:-ndó-* has the form of a transitive suffixal derivative with *-ró- ~ -dó-* (§9.4.1). The semantics are those of benefactives in §9.4.2.1 above. For the phonology (syncope, vowel-lengthening, /r/ to *d*), compare the mediopassive/transitive pair *túní-yó-* ‘put on (one’s shoes, pants)’ and *tú:n-dó-* ‘put (shoes/pants) on (sb)’ (§9.4.1).

### 9.5 Reciprocal (*-yó- ~ -yó-*)

A derivation identical in form to the mediopassive in *-yó- ~ -yó-* can be used as a reciprocal derivative.

- (xx1) a.  $nì \quad \text{tèwì-yè}$   
 1PISbj hit-Recip.Pfv  
 ‘we hit-Past each other’
- b.  $\text{á:gá} \quad nì \quad \text{téwí-yó-wò}$   
 tomorrow 1PISbj hit  
 ‘Tomorrow we will hit each other’

Some verbs can take both the mediopassive and the reciprocal. An example is *bálf-yó-* which can mean ‘see’ (mediopassive form) or ‘see each other’. Since verbs that can take the reciprocal are necessarily transitive, one can usually distinguish mediopassive from reciprocal since the mediopassive remains syntactically transitive while the reciprocal intransitivizes the verb.

## 9.6 Deadjectival inchoative and factitive verbs

Many adjectives X correspond to an intransitive verb ‘become X’ that I call inchoative. Morphologically, it is not always clear that the verb is derived from the adjective, so “deadjectival” should be taken loosely. Glosses are of the type ‘become small’, but other nuanced glosses such as ‘become smaller’ are also possible in context.

In one type, attested with mono- and bisyllabic adjectives, the inchoative verb has essentially the same shape as the adjective (xx1a). The vocalism and especially the final vowel of the verb is affected by the vocalism stem (the O-stem is the citation form). In another type, a suffix *-ndó-* is added to the adjective (xx1b). The three adjectives with diminutive *-wè* belong to this class. The *-wè* of the adjective is dropped. The only case of *-ndó-* with a -ATR stem is *ménjí-ndó-* ‘become thin’ from adjective *ménjí-wè* (xx1b). It may be that the deleted *-wè* covertly determines the ATR value of *-ndó-*.

(xx1) a. zero derivational suffix

<i>yáŋgá</i>	<i>yáŋgó-</i>	‘become lean’
<i>né:ŋgó:</i>	<i>né:ŋgó-</i>	‘become heavy’
<i>kúnjú</i>	<i>kúnjǒ-</i>	‘get old, age’
<i>dúmbú</i>	<i>dúmbó-</i>	‘become blunt (blade)’

b. suffix *-ndó-* ~ *-ndǒ-*

<i>báy</i>	<i>báy-ndó-</i>	‘become big, wide’
	~ <i>bá:-ndǒ-</i>	
<i>nímí</i>	<i>nímí-ndó-</i>	‘become deep’
<i>yálá</i>	<i>yálá-ndó-</i>	‘become long, tall’
<i>yágá</i>	<i>yágá-ndó-</i>	‘pretty’
<i>nj ~ ɲ, diminutive -wè dropped</i>		
<i>ménjí-wè</i>	<i>ménjí-ndó-</i>	‘become thin’
<i>syncopated</i>		
<i>bíní</i>	<i>bín-dó-</i>	‘become fat’
<i>diminutive -wè dropped</i>		
<i>wéní-wè</i>	<i>wén-dó-</i>	‘become small’
<i>déjǐ-wè</i>	<i>déjǐ-ndó-</i>	‘become short’

Many inchoatives are in mediopassive form, with suffix *-yó-* ~ *-yǒ-*. The preceding vowel is weakened to *i* and may syncopate. Mediopassive inchoatives are usual for trisyllabic adjectives but there are also some bisyllabics. ‘Become white’ shifts the stem from bi- to trisyllabic by reduplicating a syllable (xx2e).

(xx2) a. phonologically regular

<i>númá</i>	<i>númí-yó-</i>	‘hot, fast’
<i>jémé</i>	<i>jémí-yó-</i>	‘black’
<i>ní:njí</i>	<i>ní:njí-yó-</i>	‘sweet, delicious; sharp’
<i>má:gá</i>	<i>má:gí-yó-</i>	‘difficult (work)’
<i>búrádá</i>	<i>búrádí-yó-</i>	‘smooth, sleek (surface)’
<i>yágára</i>	<i>yágári-yó-</i>	‘coarse (surface)’
<i>gálágá</i>	<i>gálági-yó-</i>	‘bitter’
<i>ámámú</i>	<i>ámámí-yó-</i>	‘sour, acrid’
<i>kújájá</i>	<i>kújájí-yó-</i>	‘rotten (meat, fruit)’

b syncopated

<i>íló</i>	<i>íl-yó-</i>	‘ripe; cooked’
<i>búní</i>	<i>bún(i)-yó-</i>	‘red, brown’ (optional syncope)

c. C-final adjective adds a vowel

<i>témúm</i>	<i>témémí-yó-</i>	‘cold, cool (water); slow-moving’
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d. switch in ATR harmonic class

<i>yógóró</i>	<i>yógári-yó-</i>	‘ruined, kaput’
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e. irregular

<i>mó:</i>	<i>móy-yó-</i>	‘become good, improve’
<i>púlé</i>	<i>púlá-lí-yó-</i>	‘white’
<i>máy<sup>n</sup></i>	<i>mání-yó-</i>	‘dry’

Factitive (transitive) versions, as in ‘X whitened Y, X made Y white’, are the regularly formed causatives in *-m(ú)-* of these inchoatives: *púlá-lí-yá-m(ú)* ‘whiten (something)’. Examples are *yálá-ndá-m(ú)-* ‘lengthen (sth)’, *nímí-ndó-m(ú)-* ‘deepen (sth)’. In *mépi-ndó-m(ú)-* ‘make slender’, we see that inchoative *-ndó-* protects the adjectival stem from conversion to +ATR (otherwise required by the causative suffix).

Adjectives that do not correspond to an inchoative verb can be verbalized by adding *bíló-* ‘become’ to the form in *-w<sup>n</sup>*, which is usually pronounced *-m* before *b*. This construction can also be used as an alternative to any of the inchoative verbs listed above.

(xx3)	<i>éw<sup>n</sup></i>	<i>é-w<sup>n</sup> bíló-</i>	‘wet’
	<i>íjígó</i>	<i>íjígó-w<sup>n</sup> bíló-</i>	‘become empty’
	<i>kándá</i>	<i>kándá-w<sup>n</sup> bíló-</i>	‘become new’
	<i>kóló</i>	<i>kóló-w<sup>n</sup> bíló-</i>	‘fresh (milk); unripe; raw (meat)’
	<i>málá-ní</i>	<i>málá-ní-w<sup>n</sup> bíló-</i>	‘soft’

### 9.7 *-lǎ-* for multiplicity

The forms in (xx1) show a derivational suffix *-lǎ-*, semantically unrelated to the reversive, in contexts involving multiple subjects (or, in the causative, objects).

- (xx1) a. *mǎngó* ‘(two entities) come together, assemble’  
*mǎngá-lǎ-yó* ‘(several entities) come together, assemble’
- b. *mǎngá-m(ú)* ‘put (two entities) together, assemble (two entities)’  
*mǎngá-lǎ-m(ú)* ‘put (several entities) together, assemble (several entities)’



## 10 Verbal inflection

### 10.1 Inflection of regular indicative verbs

For indicative categories, the verb occurs in a vocalism stem form, which is followed by an aspect-negation suffix (except that perfective positive is unmarked suffixally). Verbs have a similar structure in deontic modal categories such as imperative and hortative, with imperative (singular) being unmarked.

The aspect-negation system is effectively doubled by superimposing a past-time marker (with characteristic vowel *ɛ*) on the regular aspect-negation forms.

Pronominal subject category for indicative categories is marked by suffixes for 1Sg, 2Sg, and 3Pl, by proclitics for 1Pl and 2Pl, and by zero for 3Sg (represented as *-∅*). For the deontic moods, plural addressee is marked suffixally.

Verbs in relative clauses undergo some tonal and morphological changes; see §14.4.

#### 10.1.1 Overview of indicative (aspect-negation) categories

The main inflectional categories (other than pronominal subject) marked on verbs in indicative clauses are those in (xx1), which is organized into four groups based on aspect and polarity.

(xx1) a. perfective positive system	
perfective	E/I-stem, no other aspect-negation suffix
experiential perfect	E/I-stem plus <i>-tèy ~ -tê-</i>
recent perfect	E/I-stem plus <i>-sé-</i>
resultative	E/I-stem plus <i>sâ-</i> ‘have’
b. imperfective positive system	
imperfective	O-stem plus <i>-wò ~ -bò</i>
progressive	A/O-stem plus aux <i>mbó ~ -bó</i>
c. perfective negative system	
perfective negative	A/O-stem plus <i>-ni-</i>
experiential perfect negative	E/I-stem plus <i>-té:-ni-</i>
recent perfect negative	A/O-stem plus <i>-ni-yé-</i>

d. imperfective negative system

imperfective negative

O-stem plus *-râ-*

progressive negative

A/O-stem plus aux *órâ-*

Other indicative categories not fitting into these four systems are the derived stative (e.g. ‘be sitting’ from active verb ‘sit down’), which is marked primarily by vocalic ablaut, and the capacitative (‘can VP’) with suffix *-má-*.

The recent perfect is morphologically the past form of the perfective. The other categories listed above, including stative and imperfective, also have past-time forms involving the vowel *ɛ*.

10.1.2 Verb stem shapes

Since some aspects of inflectional morphology depend on the syllabic shape (as well as vocalism) of the stem, I begin with the syllabic shapes themselves.

10.1.2.1 *Cv:* verb stems

The known monosyllabic verb stems are listed in (xx1) in the most important vocalic stem forms. Tones are omitted. All known examples have {*e ɛ*} rather than *i* in the E/I-stem; i.e. there are no final-high-vowel *Cv:* stems. I know of no *Cv:<sup>n</sup>* stems with nasalized vowel. I know of no irregular *Cv:* stems. The consonantal onset of the E/I-stem for -ATR verbs (*Cwɛ:-* versus *Cɛ:-*) depends on the point of articulation of the initial *C*, palatoalveolar {*y ɲ*} versus other. For +ATR stems, even *y* does not prevent the following *w*, see ‘fill up’ in (xx1c), where *yw* is pronounced as IPA [yw] with front rounded [y].

(xx1) Monosyllabic with final vowel

	stems		gloss
O	A/O	E/I	
a. <i>Cv:</i> with long oral vowel, -ATR			
<i>ɔ</i> in A/O-stem			
<i>dɔ:-</i>	<i>dɔ:-</i>	<i>dwe:-</i>	‘pound’ or ‘insult’
<i>sɔ:-</i>	<i>sɔ:-</i>	<i>swɛ:-</i>	‘douse (fire)’
<i>tɔ:-</i>	<i>tɔ:-</i>	<i>twe:-</i>	‘pour’ or ‘tell a lie’ or ‘make bunches’
<i>nɔ:-</i>	<i>nɔ:-</i>	<i>nwe:-</i>	‘sing’ or ‘go in’
<i>a</i> in A/O-stem			

<i>yɔ:-</i>	<i>ya:-</i>	<i>yɛ:-</i>	‘pick up’, ‘(day) break’ ‘eat (meal)’
<i>ʝɔ:-</i>	<i>ʝa:-</i>	<i>ʝɛ:-</i>	

b. *Cv:-* with long oral vowel, +ATR

*o* in *A/O-stem*

<i>go:-</i>	<i>go:-</i>	<i>gwe:-</i>	‘go out’
<i>so:-</i>	<i>so:-</i>	<i>swe:-</i>	‘dip’
<i>wo:-</i>	<i>wo:-</i>	<i>we:-</i>	‘sip’
<i>yo:-</i>	<i>yo:-</i>	<i>ywe:-</i>	‘(sth) fill up’

c. *Cv:<sup>n</sup>*- with long nasal vowel

[none]

d. *ci:-* in E/I-stem

[none]

*Ca:-* verbs in other Dogon languages appear have bisyllabic Tiranige cognates of the shape *Cay-* (*nayo-* ‘spend the night’, *kayo-* ‘shave’).

#### 10.1.2.2 *CvC* verb stems

No lexically *CvC-* stems have been observed. The surface shape *CvC-* can appear due to syncope of a short high vowel in /*CvCi-*/ or /*CvCu-*/.

#### 10.1.2.3 *nCv-* verbs

There is one lexically *nCv-* verb (‘give’). It is slightly irregular in having both -ATR and +ATR variants of the O-stem. The A/O-stem (with *a:* rather than *o:*) and the E/I-stem (with *ɛ:*) are -ATR features.

(xx1) *nCv-* stem

O	stems		gloss
	A/O	E/I	
<i>ndo-</i> ~ <i>ndɔ-</i>	<i>nda:-</i>	<i>nde:-</i>	‘give’

The paradigm is (xx2). The two variants of the O-stem are seen in (xx2a-b). The forms in (xx2a) are +ATR. Those in (xx2b-d) point to lexical -ATR.

(xx2) a. O-stem (+ATR version)	
<i>̀̀dó-râ-</i>	imperfective negative
<i>̀̀dó-má-</i>	capacitative
<i>̀̀dó-lá-</i>	prohibitive
<i>̀̀dó-wà</i>	verbal noun
b. O-stem (-ATR version)	
<i>̀̀dó-wò-</i>	imperfective
c. A/O-stem	
<i>̀̀dâ:</i>	imperative
d. E/I-stem	
<i>̀̀dê:-</i>	perfective
<i>̀̀ni ̀̀dê-y<sup>n</sup></i>	hortative
e. I/U-stem	
<i>̀̀dí:</i>	quoted imperative

This is a ditransitive verb. Both the theme and the recipient are treated morphologically as objects. The effect is that the recipient, which is normally animate, is often followed by the accusative marker; see §11.1.3.3-4.

#### 10.1.2.4 Regular bisyllabic stems

Bisyllabic stems may be *CvCv*, *CvCCv*, *Cv:Cv*, and rarely *Cv:NCv* (with nasal consonant N). The initial C position is vacant for vowel-initial stems. It is necessary to distinguish final-high-vowel from final-nonhigh-vowel types.

**Final-nonhigh-vowel** stems are illustrated in (xx1). The {H}-toned O-stem is the citation form. One example of each vocalism pattern is given. For stems with high vowel {*u i*} in the penult, the ATR value must be calculated from the final *ɔ* or *o* in the O-stem. Stems with *a* in the penult are +ATR.

(xx1) Final-nonhigh-vowel class (one example per vowel sequence)

stem	gloss
------	-------

- a. *CvCv*
- |              |            |
|--------------|------------|
| <i>yégó</i>  | ‘fall’     |
| <i>tógó</i>  | ‘pick up’  |
| <i>CeCo</i>  | —          |
| <i>yógó</i>  | ‘come’     |
| <i>nájó</i>  | ‘have fun’ |
| <i>cíjó</i>  | ‘reply’    |
| <i>dú-yó</i> | ‘bathe’    |
| <i>bí-yó</i> | ‘lie down’ |
| <i>gújó</i>  | ‘dig’      |
- b. *CvCCv*
- |              |                  |
|--------------|------------------|
| <i>émbó</i>  | ‘winnow in wind’ |
| <i>dónjó</i> | ‘throw’          |
| <i>CeCCo</i> | —                |
| <i>tómbó</i> | ‘jump’           |
| <i>dámbó</i> | ‘push’           |
| <i>CiCCo</i> | —                |
| <i>CuCCo</i> | —                |
| <i>ímbó</i>  | ‘pull’ or ‘shut’ |
| <i>búnjó</i> | ‘bump’           |
- c. *Cv:Cv*
- |              |             |
|--------------|-------------|
| <i>Ce:Có</i> | —           |
| <i>Có:Có</i> | —           |
| <i>sé:gó</i> | ‘come down’ |
| <i>Co:Có</i> | —           |
| <i>á:gó</i>  | ‘reach’     |
| <i>Ci:Có</i> | —           |
| <i>Cu:Có</i> | —           |
| <i>Ci:Có</i> | —           |
| <i>Cu:Có</i> | —           |
- d. (uncommon) *Cv:NCv*
- |               |        |
|---------------|--------|
| <i>yú.ndó</i> | ‘find’ |
|---------------|--------|

The major ablauted stems are illustrated for representative *CvCv* verbs in (xx2). *CvCCv* and *Cv:Cv* verbs follow the same pattern.

(xx2) Final-nonhigh-vowel *CvCv* vocalism stems

	stems			gloss
O	A/O	E/I		
a. -ATR				
	<i>dɔnɔ</i>	<i>dona</i>	<i>dɔnɛ</i>	‘buy’
	<i>cijɔ</i>	<i>cija</i>	<i>cijɛ</i>	‘reply’
b. +ATR (vowel other than <i>a</i> in penult)				
	<i>yogo</i>	<i>yogo</i>	<i>yoge</i>	‘come’
	biyo	biyo	biye	‘lie down’
c. +ATR ( <i>a</i> in penult)				
	<i>najo</i>	<i>naja</i>	<i>naje</i>	‘have fun’

For discussion of the vocalism stems, see §3.4.6.

Undersived stems with **final high vowel** (*i* in the E/I-stem, *u* in the O-stem) are illustrated in (xx3). Except for causatives, only a few *CvCv* stems belong to this type, but they are high-frequency verbs. The final *ú* in the O-stem is parenthesized, since it is normally syncopated.

(xx3) Final-high-vowel class (excluding causatives)

stem	gloss
a. <i>CvC(u)</i> , all known examples	
<i>with high-vowel in penult</i>	
<i>ún(ú)</i>	‘go’
<i>ním(ú)</i>	‘(fire) die out’
<i>sín(ú)</i>	‘convey, take away’
<i>tún(ú)</i>	‘put (object) in’
<i>túm(ú)</i>	‘(sun) rise’
<i>with a in penult</i>	
<i>gán(ú)</i>	‘put (grain, liquid) in’
<i>kán(ú)</i>	‘do’
<i>ám(ú)</i>	‘sprinkle’
<i>dám(ú)</i>	‘speak’
<i>bám(ú)</i>	‘beat (tomtom)’
<i>kám(ú)</i>	‘steal’
<i>ním(ú)</i>	‘(fire) go out’

*náŋ(ú)* ‘lay across’

b. *CvCCu*  
[none]

c. *Cv:Cu*  
[none]

d. *Cv:NCu*  
[none]

Causative *-m(ú)-* combines with *Cv:* stems to create bisyllabic verbs, e.g. *jà:-mì* (perfective) ‘cause to eat, feed’.

The vocalism stems for final-high-vowel verbs are illustrated in (xx4).

(xx4) Final-high-vowel *CvCv* vocalism stems

	stems		gloss
O	A/O	E/I	
a. with high vowel in penult			
<i>ún(ú)</i>	<i>únó</i>	<i>uni</i>	‘go’
b. with <i>a</i> in penult			
<i>kán(ú)</i>	<i>káná</i>	<i>kani</i>	‘do’

In the imperative, verbs like *ún(ú)* with high-vowel penult use the O-stem rather than the A/O-stem: *ùnù* ‘go!’, *sìnù* ‘take (away)!’, *tùnù* ‘put (object) in!’. For these few verbs, the main-clause imperative is identical in form to the quoted imperative. By contrast, those like *kán(ú)* with *a* in the penult join the majority final-nonhigh-vowel verb class in using the A/O-stem in the imperative: *kànà* ‘do!’, *gànà* ‘put (grain/liquid) in!’.

#### 10.1.2.5 Syncopating final-nonhigh-vowel bisyllabics (*Cvww-*, *Cvmmv-*)

*CvCv-* stems with medial {*w m*} syncopate the stem-final vowel in the O-stem before another labial {*w m*}. My Boui assistant appears to have no *Cvbw-* or *Cvfv-* verb stems, and no nonalternating *-bv* or *-fv* verbal suffixes, so the generalization is that syncope occurs between labials. Under very limited conditions these stems simultaneously lengthen the first vowel.

Syncope produces consonant clusters that must then undergo various assimilation and fortition processes.

The verbs in (xx1a) that also occur in Ningo have medial *b* (perfectives *kùbè-*, *tìbè-*, *gùbè-*, *yèbè-*, *ìbè-*, *sùbì-yè-*, *àbè-*, *tàbè-*). Ningo shares the forms in (xx1b) except that the vowel-lengthening in the imperfective does not occur (*tém-bò-*, etc.).

(xx1)	Pfv	Imprt	IpfvNeg	Ipfv	Capac	gloss
a. <i>Cvww-</i> (Boui)						
	<i>kùwè-</i>	<i>kùwà</i>	<i>kúwó-râ-</i>	<i>kúb-bò-</i>	<i>kúm-mâ-</i>	‘do farming’
	<i>tìwè-</i>	<i>tìwà</i>	<i>tíwó-râ-</i>	<i>tíb-bò-</i>	<i>tám-mâ-</i>	‘die’
	<i>gùwè-</i>	<i>gùwà</i>	<i>gúwó-râ-</i>	<i>gúb-bò-</i>	<i>gúm-mâ-</i>	‘hang’
	<i>yèwè-</i>	<i>yèwà</i>	<i>yéwó-râ-</i>	<i>yéb-bò-</i>	<i>yém-mâ-</i>	‘dance’
	<i>tèwè-</i>	<i>tèwà</i>	<i>téwó-râ-</i>	<i>téb-bò-</i>	<i>tém-mâ-</i>	‘hit’
	<i>ìwè-</i>	<i>ìwò</i>	<i>íwó-râ-</i>	<i>íb-bò-</i>	<i>ím-mâ-</i>	‘catch’
	<i>sùwè-</i>	<i>sùwò</i>	<i>súwó-râ-</i>	<i>súb-bò-</i>	<i>súm-mâ-</i>	‘point at’
	<i>àwè-</i>	<i>àwà</i>	<i>áwó-râ-</i>	<i>áb-bò-</i>	<i>ám-mâ-</i>	‘accept’
	<i>tàwè-</i>	<i>tàwà</i>	<i>táwó-râ-</i>	<i>táb-bò-</i>	<i>tám-mâ-</i>	‘touch’
b. <i>Cvmv-</i> (Boui)						
	<i>émè-</i>	<i>èmà</i>	<i>émó-râ-</i>	<i>é:m-bò-</i>	<i>ém-mâ-</i>	‘milk (cow)’
	<i>tèmè-</i>	<i>tèmà</i>	<i>témó-râ-</i>	<i>té:m-bò-</i>	<i>tém-mâ-</i>	‘eat (meat)’
	<i>sèmè-</i>	<i>sèmà</i>	<i>sémó-râ-</i>	<i>sé:m-bò-</i>	<i>sém-mâ-</i>	‘cut off; slaughter’

The O-stem forms in (xx1) are the imperfective negative (*-râ-*), the imperfective, and the capacitive. No syncope occurs in the imperfective negative. There is likewise no syncope before prohibitive *-lá* (*yéwó-lá* ‘don’t dance!’, *témó-lá* ‘don’t eat [meat]!’). However, the imperfective and capacitive suffixes begin with labials and induce syncope. The imperfective is *-wò-* for all other verbs, and the capacitive suffix is *-mâ-*. Given a *w ~ b* alternation in the imperfective suffix, the obvious choice is between underlying *w* subject to fortition, and underlying *b* subject to lenition. The latter is probably correct historically, but given the broad distribution of the *-wò-* variant, a good case can be made for synchronic underlying *w* subject to fortition. In this view, the consonantal changes following syncope are those in (xx2).

(xx2)	<i>w-w</i>	→	<i>b-b</i>	double fortition
	<i>w-m</i>	→	<i>m-m</i>	assimilation
	<i>m-w</i>	→	<i>m-b</i>	fortition of <i>w</i> to <i>b</i> after nasal



In addition to syncope and consonantal adjustments, we observe lengthening of the first vowel in the imperfective (but not capacitative) of *Cv<sub>m</sub>v-* stems only, as in *é:m-bò-* ‘will milk’ in (xx1b). *Cv<sub>w</sub>v-* stems do not lengthen: *kúb-bò-* ‘will do farming’. This lengthening is somewhat irregular synchronically, but there are several other examples where original \**Cv<sub>m</sub>NCv* (with \**NC* a homorganic nasal plus voiced stop sequence like *mb*) has lengthened to *Cv:NCv*, see §xxx.

The verbal noun suffix *-wà* behaves phonologically like imperfective *-wò*, including vowel-lengthening, as we see in *é:m-bà* ‘milking cows’.

#### 10.1.2.6 Syncopating final-nonhigh-vowel bisyllabics (*Cv<sub>m</sub>v-*, *Cv<sub>l</sub>v-*, *Cv<sub>r</sub>v-*)

Parallel to syncope between labial consonants (preceding section), we observe syncope between stem and suffixal alveolars. The attested examples involve *Cv<sub>m</sub>v-*, *Cv<sub>l</sub>v-*, and *Cv<sub>r</sub>v-* verbs, before imperfective negative *-râ-* (which hardens to *-dâ-*). I know of no *Cv<sub>d</sub>v-*, *Cv<sub>s</sub>v-*, or *Cv<sub>t</sub>v-* verb stems, so the generalization is that syncope occurs between alveolars.

Data are in (xx1). Syncope occurs in the imperfective negative only. There is no vowel-lengthening.

(xx1)	Pfv	Imprt	IpfvNeg	Ipfv	Capac	gloss
a.	<i>Cv<sub>m</sub>v-</i>					
	<i>mìnè</i>	<i>mìnà</i>	<i>mín-dâ-</i>	<i>mínó-wò-</i>	<i>mínó-mâ-</i>	‘taste’
	<i>dònè</i>	<i>dònà</i>	<i>dón-dâ-</i>	<i>dónó-wò-</i>	<i>dónó-mâ-</i>	‘buy’
	<i>tònè</i>	<i>tònà</i>	<i>tón-dâ-</i>	<i>tónó-wò-</i>	<i>tónó-mâ-</i>	‘butcher’
b.	<i>Cv<sub>l</sub>v-</i>					
	<i>ìlè-</i>	<i>ilà</i>	<i>íl-dâ-</i>	<i>íló-wò-</i>	<i>íló-mâ-</i>	‘go up’
	<i>tùlè-</i>	<i>tùlà</i>	<i>túl-dâ-</i>	<i>túló-wò-</i>	<i>túló-mâ-</i>	‘sell’
	<i>nàlè-</i>	<i>nàlà</i>	<i>nál-dâ-</i>	<i>náló-wò-</i>	<i>náló-mâ-</i>	‘give birth’
	<i>yòlè-</i>	<i>yòlà</i>	<i>yól-dâ-</i>	<i>yóló-wò-</i>	<i>yóló-mâ-</i>	‘look for’
	<i>tèlè-</i>	<i>tèlà</i>	<i>tél-dâ-</i>	<i>téló-wò-</i>	<i>téló-mâ-</i>	‘cut’
c.	<i>Cv<sub>r</sub>v-</i>					
	<i>bàrè-</i>	<i>bàrà</i>	<i>bár-dâ-</i>	<i>báró-wò-</i>	<i>báró-mâ-</i>	‘increase’
	<i>pòrè-</i>	<i>pòrà</i>	<i>pór-dâ-</i>	<i>póró-wò-</i>	<i>póró-mâ-</i>	‘throw’
	<i>òrè-</i>	<i>òrà</i>	<i>ór-dâ-</i>	<i>óró-wò-</i>	<i>óró-mâ-</i>	‘draw water’
	<i>ìrè-</i>	<i>ìrà</i>	<i>ír-dâ-</i>	<i>író-wò-</i>	<i>író-mâ-</i>	‘get’

The main consonant-cluster adjustment is that /r/ hardens to *d* after {*n l r*}. The combination r-d is optionally assimilated to d-d.

#### 10.1.2.7 Syncopating final-high-vowel bisyllabics (*Cvrv-*, *Cvmv-*)

There are several *Cvrv-* and a few *Cvmv-* verb stems of the final high-vowel class. I know of no *Cvrv-* stems in this class. The *Cvrv-* stems syncopate not only before alveolar-initial suffixes, but also before labial-initial suffixes. The *Cvmv-* verbs undergo syncope before labial-initial suffixes, but only one of them lengthens its vowel. Overall, then, final-high-vowel verbs differ considerably in their phonology from the final-nonhigh-vowel verbs covered in the preceding sections.

The irregular verb ‘say’, which has a final nonhigh vowel in the perfective (*gùnè-*), is treated as a final-high-vowel verb in the O-stem and therefore syncopates in the relevant inflections.

(xx1)	Pfv	Imprt	IpfvNeg	Ipfv	Capac	gloss
a.	<i>Cvrv-</i>					
	<i>kàni-</i>	<i>kàná</i>	<i>kán-dâ-</i>	<i>kám-bò-</i>	<i>kám-mâ-</i>	‘do’
	<i>gàni-</i>	<i>gàná</i>	<i>gán-dâ-</i>	<i>gám-bò-</i>	<i>gám-mâ-</i>	‘put in’
	<i>tùni-</i>	<i>tùnò</i>	<i>tún-dâ-</i>	<i>túm-bò-</i>	<i>túm-mâ-</i>	‘put in’
	<i>ùni-</i>	<i>ùnù</i>	<i>ún-dâ-</i>	<i>úm-bò-</i>	<i>úm-mâ-</i>	‘go’
	<i>sini-</i>	<i>sìnù</i>	<i>sín-dâ-</i>	<i>sím-bò-</i>	<i>sím-mâ-</i>	‘take, convey’
	<i>irregular</i>					
	<i>gùnè-</i>	<i>gùnà</i>	<i>gún-dâ-</i>	<i>gúm-bò-</i>	<i>gúm-mâ-</i>	‘say’
b.	<i>Cvmv-</i>					
	<i>lengthen vowel in imperfective</i>					
	<i>dàmi-</i>	<i>dàmà</i>	<i>dámú-râ-</i>	<i>dá:m-bò-</i>	<i>dám-mâ-</i>	‘speak’
	<i>no lengthening imperfective</i>					
	<i>kàmi-</i>	<i>kàmà</i>	<i>kámú-râ-</i>	<i>kám-bò-</i>	<i>kám-mâ-</i>	‘steal’
	<i>bàmi-</i>	<i>bàmà</i>	<i>bámú-râ-</i>	<i>bám-bò-</i>	<i>bám-mâ-</i>	‘beat tomtom’

For the *Cvrv-* stems (xx1a), syncope occurs in the imperfective negative before an alveolar, and in the imperfective and capacitative before a labial. The *n* assimilates to the point of articulation (labial) of the suffixal consonant. Suffix *-râ-* hardens to *-dâ-* as usual after *n*. The *Cvmv-* stems (xx1b) syncopate only before labial-initial suffixes. Imperfective *-wò-* hardens to *-bò-* after the nasal in both (xx1a) and (xx1b). The consonantal adjustments are therefore those in (xx2).

(xx2)	<i>n-w</i>	→	<i>m-b</i>	fortition and assimilation
	<i>n-m</i>	→	<i>m-m</i>	assimilation
	<i>m-w</i>	→	<i>m-b</i>	fortition of <i>w</i> to <i>b</i> after nasal

(xx1b) shows that the first vowel is lengthened in only one verb (‘speak’), and does not occur with ‘steal’ or ‘beat (tomtom)’. In the case of ‘steal’ (xx1b), the failure of first-vowel lengthening to occur results in homophony with ‘do’ (xx1a) in the imperfective and capacitative.

#### 10.1.2.8 Trisyllabic stems

Causatives in *-m(ú)* and *-gó* are treated separately below. For other trisyllabic stems, including other suffixal derivatives, the medial syllable (which is in a weak metrical position) is realized as *i* or *u*, and the final vowel is nonhigh. The variable vowels are the initial and the final. (xx1) gives one example for each attested vowel sequence.

#### (xx1) Trisyllabic stems (excluding causatives)

stem	gloss
a. initial high vowel	
<i>tímbí-ró</i>	‘close (mouth)’
<i>CuCiCə</i>	—
<i>ígí-yó</i>	‘stand, stop’
<i>kúmí-yó</i>	‘shut (eye)’
b. initial mid-height vowel	
<i>bégíló</i>	‘winnow (by shaking)’
<i>CəCiCə</i>	—
<i>jélíyó</i>	‘hold’
<i>kóndú-ró</i>	‘crumple’
c. initial <i>a</i> (treated as +ATR)	
<i>bálí-yó</i>	‘see’
<i>págú-ló</i>	‘untie’

Trisyllabic causatives with suffix *-m(ú)* or *-gó* have different vocalism, frequently with a nonhigh vowel in the middle syllable: *yógó-m(ú)* ‘cause to come’, *téwá-gó* ‘shatter (sth)’. See §9.2.1-2 for discussion.

## 10.2 Positive indicative AN categories

### 10.2.1 Perfective positive system (including perfect)

Perfective positive categories are associated with the E/I-stem.

#### 10.2.1.1 (Simple) perfective (E/I-stem)

The basic perfective form is characterized by {*e* *ɛ*} replacing the stem-final {*o* *ɔ*} for most verbs, and by final *i* replacing *u* (or zero after apocope/syncope) for the remaining minority. This is the **E/I-stem**, with no further aspect-negation suffix (compare the recent perfect, described below). In the 3Pl, the stem-final vowel is *i* even for verbs with E-stem perfectives in the other categories. (xx1) illustrates the paradigms for a -ATR stem (‘fall’), a +ATR stem (‘come’), and an *i*-final stem (‘rob’), all of *CvCv-* shape, and one monosyllabic stem.

(xx1)	category	form	‘fall’	‘come’	‘rob’	‘go in’
	1Sg	{H} - <i>y<sup>n</sup></i>	<i>yégé-y<sup>n</sup></i>	<i>yógé-y<sup>n</sup></i>	<i>kámí-y<sup>n</sup></i>	<i>nwé-y<sup>n</sup></i>
	1Pl	<i>nì</i> {L}	<i>nì yègè</i>	<i>nì yògè</i>	<i>nì kàmì</i>	<i>nì nwè:</i>
	2Sg	{H} - <i>w</i>	<i>yégé-w</i>	<i>yógé-w</i>	<i>kámí-w</i>	<i>nwé-w</i>
	2Pl	<i>è</i> {L}	<i>è yègè</i>	<i>è yògè</i>	<i>è kàmì</i>	<i>è nwè:</i>
	3Sg	{L} - <i>∅</i>	<i>yègè-∅</i>	<i>yògè-∅</i>	<i>kàmì-∅</i>	<i>nwè:-∅</i>
	3Pl	a. {L} - <i>iyè/-iyè</i>	<i>yèg-iyè</i>	<i>yòg-iyè</i>	<i>kàm-iyè</i>	<i>nùy-è:</i>
		b. {LHL} - <i>íyè/-íyè</i>	<i>yèg-íyè</i>	<i>yòg-íyè</i>	<i>kàm-íyè</i>	<i>nǔy-yè:</i>

The variant tone patterns for the 3Pl were those of the younger Boui assistant (a) and the older Ningo assistant (b).

For **monosyllabic** stems, the stem vowel is long in the zero-suffix form, and short before nonzero suffixes (1Sg *-y<sup>n</sup>*, 2Sg *-w*). For example, the perfective of *gó:-* ‘go out’ is *gwè:-∅* or suffixed *gwé-y<sup>n</sup>* (1Sg), *gwé-w* (2Sg). The 3Pl form *gw-íyè* also has short vowels.

A sample of verbs with *-e* or *-ɛ* (depending on ATR type of the stem) is given in (xx2). The 3Sg form is given. Verbs of this type are the majority. They include all monosyllabics, all trisyllabic and longer stems, all heavy bisyllabics (*CvCCv-*, *Cv:Cv-*, *Cv:CCv-*), all light

bisyllabics (*CvCv-*) with a mid-height vowel {*ɛ e ɔ o*} in the first syllable, and some light bisyllabics with high or low vowel {*i u a*} in the first syllable. Monosyllabics are shown in the long-voweled form (used with zero suffix).

(xx2) Simple perfective in *-ɛ/-e*

stem	Perfective	gloss
a. monosyllabic <i>Cv-</i>		
<i>-ATR stems, initial C not palatoalveolar</i>		
<i>dɔ́:-</i>	<i>dwè:-</i>	‘pound’ or ‘insult’
<i>tɔ́:-</i>	<i>twè:-</i>	‘pour’
<i>nɔ́:-</i>	<i>nwè:-</i>	‘sing’ or ‘go in’
<i>sɔ́:-</i>	<i>swè:-</i>	‘douse (fire)’
<i>-ATR stems, initial C palatoalveolar</i>		
<i>ɲɔ́:-</i>	<i>ɲè:-</i>	‘eat, drink’ <b>add 3PI</b>
<i>yɔ́:-</i>	<i>yè:-</i>	‘pick up’ <b>add 3PI</b>
<i>+ATR stems</i>		
<i>gɔ́:-</i>	<i>gwè:-</i>	‘go out’
<i>sɔ́:-</i>	<i>swè:-</i>	‘dip’
<i>yɔ́:-</i>	<i>ywè:-</i>	‘(sth) fill up’
<i>wɔ́:-</i>	<i>wè:-</i>	‘sip’
b. <i>NCv(:)-</i>		
<i>-ATR stems</i>		
<i>̀ndɔ́-</i>	<i>̀ndè:-</i>	‘give’ <b>add 3PI</b>
c. bisyllabic		
<i>-ATR stems</i>		
<i>cíjɔ́-</i>	<i>cijè-</i>	‘reply’
<i>ímɔ́-</i>	<i>imbè-</i>	‘pull’ or ‘shut’
<i>gúwɔ́-</i>	<i>gùwè-</i>	‘hang up’
<i>tɔ́gɔ́-</i>	<i>tògè-</i>	‘gather (wood)’
<i>jéyɔ́-</i>	<i>jèyè-</i>	‘kill’
<i>mínɔ́-</i>	<i>mìnè-</i>	‘taste’
<i>+ATR stems</i>		
<i>áwó</i>	<i>àwè-</i>	‘accept’
<i>gújɔ́-</i>	<i>gùjè-</i>	‘dig’
<i>bí-yɔ́-</i>	<i>bì-yè-</i>	‘lie down’
<i>sé:gɔ́-</i>	<i>sè:gè-</i>	‘come down’

*dámbo-*      *dàmbè-*      ‘push’

d. trisyllabic and longer

-ATR stems

*ígí-yó-*      *ìgì-yè-*      ‘stand, stop’

+ATR stems

*bálí-yó-*      *bàli-yè-*      ‘see’

*bàngílí-yó-*      *bàngìli-yè-*      ‘go back’

Stems with perfective ...*i-* are in (xx3). Again the 3Sg form is used. The verbs in question have the shapes *Cámú-*, *Cán(ú)-*, *Cín(ú)-*, and *Cún(ú)-*.

(xx3) Simple perfective in ...*i*

stem	Perfective	gloss
bisyllabic		
<i>CaCv-</i>		
<i>dámú-</i>	<i>dàmì-</i>	‘speak’ add 3Pl
<i>kámú-</i>	<i>kàmì-</i>	‘steal’
<i>bámú</i>	<i>bàmì-</i>	‘beat (tomtom)’
<i>gán(ú)</i>	<i>gànì-</i>	‘put (grain, liquid) in’
<i>kán(ú)</i>	<i>kànì-</i>	‘do’
<i>CuCv-, CiCv-</i>		
<i>ún(ú)</i>	<i>ùnì-</i>	‘go’
<i>sín(ú)</i>	<i>sìnì-</i>	‘take (convey)’
<i>tún(ú)</i>	<i>tùnì-</i>	‘put (sth) in (sth)’

The perfective can be used with or without preceding constituents (i.e. it does not require defocalization of the verb). It does not change form before clause-final particles such as *mè* ‘if/when’ (xx4b) and interrogative *le* (xx4d).

(xx4) a. *dwè:-Ø*

pound.Pfv-3SgSbj

‘She pounded.’

b. [*dwè:-Ø*      *mè]*      *kándíyó-wò-Ø*

[pound.Pfv-3SgSbj      if]      cook-Ipfv-3SgSbj

‘When she has pounded (the grain), she will cook.’

- c. *ndà-yé*      *dwè:-Ø*  
 woman      pound.Pfv-3SgSbj  
 ‘a woman pounded.’
- d. *dwè:-Ø*                      *lé*  
 pound.Pfv-3SgSbj      Q  
 ‘did he/she pound?’
- e. *yò:*              *dwè:-Ø*  
 today      pound.Pfv-3SgSbj  
 ‘he/she pounded today.’
- f. *yò:*              *dwè:-Ø*                      *lé*  
 today      pound.Pfv-3SgSbj      Q  
 ‘Did he/she pound today?’

#### 10.2.1.2 Perfective-1a and -1b absent

Suffixally marked perfectives (as opposed to perfects) have not been observed.

#### 10.2.1.3 Experiential perfect ‘have ever’ (*-tèy* ~ *-té-*)

This form is used in contexts like ‘have you ever (been to Paris, seen an elephant, etc.)?’ *-tèy* ~ *-té-* is added to the E/I-stem of the verb. The shortened form *-té-* presumably reflects loss of /y/ before a suffixal semivowel. The paradigm is (xx1).

#### (xx1) Experiential perfect

category	form	‘see’	‘go’
1Sg	{L} <i>-té-y<sup>n</sup></i>	<i>bàli-yè-té-y<sup>n</sup></i>	<i>ùni-té-y<sup>n</sup></i>
1Pl	<i>nì</i> {L} <i>-tèy</i>	<i>nì bàli-yè-tèy</i>	<i>nì ùni-tèy</i>
2Sg	{L} <i>-té-w</i>	<i>bàli-yè-té-w</i>	<i>ùni-té-w</i>
2Pl	<i>è</i> {L} <i>-tèy</i>	<i>è bàli-yè-tèy</i>	<i>è ùni-tèy</i>
3Sg	{L} <i>-tèy-Ø</i>	<i>bàli-yè-tèy-Ø</i>	<i>ùni-tèy-Ø</i>
3Pl	{L} <i>-tèy-â:</i>	<i>bàli-yè-tèy-â:</i>	<i>ùni-tèy-â:</i>

The low tone of the 3Sg form is supported by the interrogative combination *-tèl-Ø lé*, contrast 2Sg *-té-1 lè*. The past-time counterpart is likewise *-tèy-yé-Ø* (§10.6.1.5).

For the combination of an unconjugated perfect verb with clause-initial subject pronominal and particle *là* in habitual sense, see §10.xxx.

The negative counterpart is common ('have never VPed'); see §10.2.3.2.

#### 10.2.1.4 Recent perfect (-sɛ́-)

This category has suffix *-sɛ́-* ~ *-sɛ́-*, added to a {L}-toned form of the E/I-stem of the verb. *-sɛ́-* can be analysed morphologically as the **past-time form of resultative -sà-** (see the following section). Another way to phrase this is that *-sɛ́-* could be connected with *sɛ́:-* 'had', past form of *-sà:-* 'have' (§10.6.1.3). Since resultative *-sà-* functions in some contexts (notably relative clauses) as a suffixally marked equivalent of the perfective, one could expand on this by analysing *-sɛ́-* ~ *-sɛ́-* as the past-time form of the perfective itself. The perfective (E/I-stem, no suffix) has no other past-time form. Further support for this idea comes from the recent perfect negative, which is morphologically the past-time form of the perfective negative (§10.2.3.3).

The paradigm is (xx1).

#### (xx1) Recent perfect

category	form	'has gone'
1Sg	<i>{L}-sɛ́-y<sup>n</sup></i>	<i>ùnì-sɛ́-y<sup>n</sup></i>
1Pl	<i>nì {L}-sɛ́</i>	<i>nì ùnì-sɛ́</i>
2Sg	<i>{L}-sɛ́-w</i>	<i>ùnì-sɛ́-w</i>
2Pl	<i>è {L}-sɛ́</i>	<i>è ùnì-sɛ́</i>
3Sg	<i>{L}-sɛ́</i>	<i>ùnì-sɛ́</i>
3Pl	<i>{L}-s-ɛ́:</i>	<i>ùnì-s-ɛ́:</i>

The tone contour of the suffixes (other than 3Pl) is LH, with just the final mora H-toned. Accordingly, there is no distinction between regular and defocalized forms of this inflectional category. When polar interrogative *lè* is added, the H-tone is realized on this particle: 3Sg *-sɛ́ lé*, 2Sg *-sɛ́-1 lé*, 1Sg *-sɛ́-n ní*.

A sample of 3Sg recent perfect forms for stems with final nonhigh vowels are in (xx2). There is no special phonology (syncope does not occur).

#### (xx2) Recent perfect (final-nonhigh-vowel class)



stem	Recent perfect 3Sg	gloss
a. <i>Cv</i> :		
<i>nó:-</i>	<i>nwè:-sé</i>	‘go in’
<i>gó:-</i>	<i>gwè:-sé</i>	‘go out’
<i>ɲó:-</i>	<i>ɲè:-sé</i>	‘eat’
b. <i>NCv(:)</i>		
<i>ndó-</i>	<i>ndè:-sé</i>	‘give’
c. <i>CvCv</i>		
<i>gújó-</i>	<i>gùjè-sé</i>	‘dig’
<i>cíjó-</i>	<i>cìjè-sé</i>	‘reply’
<i>dú-yó-</i>	<i>dù-yè-sé</i>	‘carry on head’
<i>táwó-</i>	<i>tàwè-sé</i>	‘touch’
<i>témó-</i>	<i>tèmè-sé</i>	‘eat (meat)’
<i>tónó-</i>	<i>tònò-sé</i>	‘butcher’
<i>túló-</i>	<i>tùlè-sé</i>	‘sell’
d. <i>CvCCv</i>		
<i>émbó-</i>	<i>émbó-wò</i>	‘winnow in wind’
<i>tómbó-</i>	<i>tòmbè-sé</i>	‘jump’
e. <i>Cv:Cv</i>		
<i>sé:gó-</i>	<i>sè:gè-sé</i>	‘come down’
f. trisyllabic		
<i>yígíjó-</i>	<i>yìgìjè-sé</i>	‘shake’
<i>ígí-yó-</i>	<i>ìgì-yè-sé</i>	‘stand, stop’
g. irregular		
<i>gún(u)-</i>	<i>gùnè-sé</i>	‘say’

Forms for verbs ending in a high vowel are in (xx3).

(xx3) Recent perfect (final-high-vowel class)

stem	Recent perfect 3Sg	gloss
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a. <i>CaC(ú)-</i>			
<i>dámú-</i>	<i>dàmì-sé</i>		‘speak’
<i>kámú-</i>	<i>kàmì-sé</i>		‘steal’
<i>Cán(ú)-</i>			
<i>kán(u)-</i>	<i>kàni-sé</i>		‘do’
b. <i>CíC(ú)-, CúC(ú)-</i>			
<i>Cvn(ú)-</i>			
<i>ún(u)-</i>	<i>ùnì-sé</i>		‘go’

This inflectional form appears to add a recent perfect nuance (‘has already VPed’). An assistant regularly produced *yògè-Ø* ‘he/she came’ as the perfective form in unmarked contexts, but suggested that *yògè-sé* ‘he/she has come’ might be used when the person in question has recently come and gone. He likewise suggested that *ɲè:-sé* ‘he/she has eaten’ could be used in the context of having recently eaten (and therefore not hungry).

No special past-time form of this category could be elicited. The regular form, however, can be used in past perfect as well as (present) perfect contexts (e.g. ‘they had gone’, ‘I had eaten’).

#### 10.2.1.5 Resultative (-sà-)

This forms contains a {H}-toned E/I form of the verb stem (segmentally equivalent to the 3Sg simple perfective), plus *-sà-*, which is probably related to the ‘have’ quasi-verb *sâ:-* (§11.5.1).

The sense is resultative, i.e. denoting both an event and the resulting state or situation. It competes to some extent with the stative inflection for stance verbs, e.g. *ígí-yé-sà-Ø* ‘he/she has stood up (and is standing)’ versus the more purely stative *ígà-Ø* ‘he/she is standing (French *debout*)’. However, the resultative can be used with a wider range of verbs than the stative, and it may describe a general situation. For example, a visitor asks ‘is Amadou there?’, and the answer is ‘he has gone out’ (*gwé:-sà-Ø*), the point being that he is not present. Statives are not used in such situations and are not formed from motion verbs.

The paradigm is (xx1).

#### (xx1) Resultative

category	form	‘go out’	‘fall’
1Sg	{H}-sà-y	<i>gwé:-sà-y<sup>n</sup></i>	<i>yégé-sà-y<sup>n</sup></i>
1Pl	<i>nì {H}-sà</i>	<i>nì gwé:-sà</i>	<i>nì yégé-sà</i>
2Sg	{H}-sà-w	<i>gwé:-sà-w</i>	<i>yégé-sà-w</i>

2Pl		<i>è {H}-sà</i>	<i>è gwé:-sà</i>	<i>è yéyé-sà</i>
3Sg		{H}-sà-Ø	<i>gwé:-sà-Ø</i>	<i>yéyé-sà-Ø</i>
3Pl	a.	{H}-s-â:	<i>gwé:-s-â:</i>	<i>yéyé-s-â:</i>
	b.	{H}-s-à:	<i>gwé:-s-à:</i>	<i>yéyé-s-à:</i>

The (a) pattern for 3Pl was from the younger Boui assistant, the (b) pattern was from the older Ningo assistant

. Representative 3Sg forms for stems ending in a nonhigh vowel are in (xx2).

(xx2) Resultative (final-nonhigh-vowel type)

stem	Resultative 3Sg	gloss
a. Cv:		
<i>nó:-</i>	<i>nwé:-sà-Ø</i>	‘go in’
<i>gó:-</i>	<i>gwé:-sà-Ø</i>	‘go out’
<i>ɲó:-</i>	<i>ɲé:-sà-Ø</i>	‘eat’
b. NCv(:)		
<i>ndó-</i>	<i>ndé:-sà-Ø</i>	‘give’
c. bisyllabic		
<i>gújó-</i>	<i>gújé-sà-Ø</i>	‘dig’
<i>túló-</i>	<i>tulé-sà-Ø</i>	‘sell’
<i>sé:gó-</i>	<i>sé:gé-sà-Ø</i>	‘come down’
d. trisyllabic		
<i>yígíjó-</i>	<i>yígíjé-sà-Ø</i>	‘shake’
<i>ígí-yó-</i>	<i>ígí-yé-sà-Ø</i>	‘stand, stop’
e. irregular		
<i>gún(u)-</i>	<i>gúné-sà-Ø</i>	‘say’

Forms for verbs ending in a high vowel are in (xx3).

(xx3) Resultative (final-high-vowel type)

stem	Resultative 3Sg	gloss
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- a. *CaC(ú)*-  
*dámú-*            *dámí-sà-∅*            ‘speak’  
*kámú-*            *kámí-sà-∅*            ‘steal’  
*Cán(ú)*-  
*kán(ú)-*            *kání-sà-∅*            ‘do’
- b. *CíC(ú)*-, *CúC(ú)*-  
*Cvn(ú)*-  
*ún(ú)-*            *úní-sà-∅*            ‘go’

An assistant rejected a negative version, i.e. with *sà:-nà-* ‘not have’. Depending on the verb type, the stative negative (‘is not standing’) or the ordinary perfective negative (‘did not go out’ = ‘has not gone out’) may be used to convey the intended sense.

The resultative tends to replace the simple perfective in relative clauses.

#### 10.2.1.6 Reduplicated perfective absent

Reduplicated perfectives have not been observed.

#### 10.2.2 Imperfective positive system

##### 10.2.2.1 Imperfective (-wò- ~ -bò-)

The basic imperfective (positive) verb form has suffix *-wò-* or *-bò-* (Boui) or invariant *-bò-* (Ningo) added to a {H}-toned version of the **O-stem**. The Boui form is normally *-wò-* but hardens to *-bò-* after a consonant. The same alternation was observed with the verbal noun suffix *-wà* (§4.2.2). For the Boui assistant, the imperfective paradigm is (xx1).

##### (xx1) Imperfective paradigm

category	form	‘go in’ (< <i>nó:</i> )	‘dance’ (< <i>yéwó</i> )	‘go out’ (< <i>gó:</i> )
1Sg	{H} <i>-wò-y</i>	<i>nó:-wò-y</i>	<i>yé<b>b</b>-bò-y</i>	<i>gó:-wò-y</i>
1Pl	<i>nì</i> {H} <i>-wò</i>	<i>nì nó:-wò</i>	<i>nì yé<b>b</b>-bò</i>	<i>nì gó:-wò</i>
2Sg	{H} <i>-wò-w</i>	<i>nó:-wò-w</i>	<i>yé<b>b</b>-bò-w</i>	<i>gó:-wò-w</i>
2Pl	<i>è</i> {H} <i>-wò</i>	<i>è nó:-wò</i>	<i>è yé<b>b</b>-bò</i>	<i>è gó:-wò</i>

3Sg	{H} -wò-∅	<i>nó:-wò-∅</i>	<i>yéb-bò-∅</i>	<i>gó:-wò-∅</i>
3Pl	{H} -w-à:	<i>nó:-w-à:</i>	<i>yéb-b-à:</i>	<i>gó:-w-à:</i>

For my older assistant from Boui, the form is *-bò-* after vowels as well as after consonants, e.g. *nó:-bò-∅* ‘he/she will go in’, *gó:-bò-∅* ‘he/she will go out’.

The imperfective undergoes syncope of stem-final vowels after {*w m*} and in one case (‘say’) after *n*, in *CvCv* stems. For the younger speaker from Boui, after syncope /*ww*/ surfaces as *bb* and /*mw*/ surfaces as *mb*. The older speaker from Ningo has *b* rather than *w* in the relevant verbs (*tábó-*, *tíbé-*, etc.) as well as in the imperfective morpheme *-bò-*, and the imperfective forms have *bb* and *mb* as for the other speaker. *Cvmv-* stems lengthen the first vowel in connection with syncope in Boui, resulting in *Cv:m-bò-*.

(xx2) Imperfective (final-nonhigh-vowel class)

stem	imperfective	gloss
a. <i>Cv:</i>		
<i>nó:-</i>	<i>nó:-wò</i>	‘go in’
<i>gó:-</i>	<i>gó:-wò</i>	‘go out’
<i>ɲó:-</i>	<i>ɲó:-wò</i>	‘eat’
b. <i>NCv(:)</i>		
<i>ndó-</i>	<i>ndó-wò</i>	‘give’
c. <i>CvCv</i>		
<i>gújó-</i>	<i>gújó-wò</i>	‘dig’
<i>cíjé-</i>	<i>cíjé-wò</i>	‘reply’
<i>dú-yó-</i>	<i>dú-yó-wò</i>	‘carry on head’
<i>Cvww</i> (Ningo dialect <i>Cvbw</i> )		
<i>táwó-</i>	<i>táb-bò</i>	‘touch’
<i>tíwó-</i>	<i>tíb-bò</i>	‘die’
<i>áwó-</i>	<i>áb-bò</i>	‘accept’
<i>yéwó-</i>	<i>yéb-bò</i>	‘dance’
<i>kúwó-</i>	<i>kúb-bò</i>	‘do farming’
<i>súwó-</i>	<i>súb-bò</i>	‘point at’
<i>Cvmv</i> (imperfectives short-voweled in Ningo: <i>tém-bò</i> , <i>sém-bò</i> )		
<i>témó-</i>	<i>té:m-bò</i>	‘eat (meat)’
<i>sémó-</i>	<i>sé:m-bò</i>	‘slaughter’
<i>Cvnv</i> , nonsyncopeating		
<i>tónó-</i>	<i>tónó-wò</i>	‘butcher’

<i>dónó-</i>	<i>dónó-wò</i>	‘buy’
<i>mínó-</i>	<i>mínó-wò</i>	‘taste’
d. <i>CvCCv</i>		
<i>émbó-</i>	<i>émbó-wò</i>	‘winnow in wind’
<i>tómbó-</i>	<i>tómbó-wò</i>	‘jump’
e. <i>Cv:Cv</i>		
<i>sé:gó-</i>	<i>sé:gó-wò</i>	‘come down’
f. trisyllabic		
<i>yígíjó-</i>	<i>yígíjó-wò</i>	‘shake’
<i>ígí-yó-</i>	<i>ígí-yó-wò</i>	‘stand, stop’

Stems with final high vowel are in (xx3). *Cvnu-* stems syncope, unlike *Cvnv-* with final {*o ɔ*}. After syncope, /*n*/ assimilates in position, producing *mb*. This assimilation creates accidental homophonies such as imperfectives of ‘steal’ and ‘do’. Vowel-lengthening occurs in connection with syncope in the case of ‘speak’ but not for other verbs of this class.

(xx3) Imperfective (final-high-vowel class)

a. <i>CaC(ú)-</i>		
<i>dámú-</i>	<i>dá:m-bò-</i>	‘speak’ (Ningo <i>dám-bò-</i> )
<i>kámú-</i>	<i>kám-bò-</i>	‘steal’
<i>Cán(ú)-</i>		
<i>kán(u)-</i>	<i>kám-bò-</i>	‘do’
b. <i>CíC(ú)-, CúC(ú)-</i> <i>Cvn(ú)-</i>		
<i>gún(u)-</i>	<i>gúm-bò-</i>	‘say’
<i>ún(u)-</i>	<i>úm-bò-</i>	‘go’
c. causatives		
<i>yógó-mú-</i>	<i>yógó-m-bò-</i>	‘send here’
<i>málámú-</i>	<i>málám-bò-</i>	‘squeeze’

This is a broad imperfective that translates in different contexts as a general (i.e. habitual) present (‘I work here’) or as a future (‘I will go there tomorrow’). With reference to eventualities whose time interval spans the moment of speaking, its use is circumscribed by

the stative ('I am sitting'), the resultative ('I am sitting, I have sat' or 'he is gone'), and the progressive ('I am sweeping').

Imperfectives with suffix *-wá* or *-bá* are participial in form and occur prototypically in relative clauses.

### 10.2.2.2 Reduplicated imperfective absent

Reduplicated imperfectives have not been observed.

### 10.2.2.3 Progressive (*-w<sup>n</sup> bǒ:-*)

The progressive ('be VP-ing') is expressed by adding an auxiliary verb *bǒ:-*, a variant of 'be (somewhere)' with rising tone, to a {L}-toned A/O form of the stem with imperfective suffix *-w<sup>n</sup>*. Except in careful speech, the combination of *-w<sup>n</sup>* with *b* is heard as lengthening of the preceding vowel plus [mb]. For example, *kànà-w<sup>n</sup> bǒ:-* 'be doing' is often heard as [kànà:mbǒ:-].

The paradigm is (xx1).

#### (xx1) Progressive paradigm

	category	form	'eat'	'do'
	1Sg	{L} <i>bǒ-y<sup>n</sup></i>	<i>jà:-w<sup>n</sup> bǒ-y<sup>n</sup></i>	<i>kànà-w<sup>n</sup> bǒ-y<sup>n</sup></i>
	1Pl	{L} <i>nì bǒ:</i>	<i>jà:-w<sup>n</sup> nì bǒ:</i>	<i>kànà-w<sup>n</sup> nì bǒ:</i>
	2Sg	{L} <i>bǒ-w</i>	<i>jà:-w<sup>n</sup> bǒ-w</i>	<i>kànà-w<sup>n</sup> bǒ-w</i>
xxx	2Pl	{L} <i>è bǒ:</i>	<i>jà:-w<sup>n</sup> è bǒ:</i>	<i>kànà-w<sup>n</sup> è bǒ:</i>
	3Sg	{L} <i>bǒ:-∅</i>	<i>jà:-w<sup>n</sup> bǒ:-∅</i>	<i>kànà-w<sup>n</sup> bǒ:-∅</i>
	3Pl	{L} <i>bà-â:</i>	<i>jà:-w<sup>n</sup> bà-â:</i>	<i>kànà-w<sup>n</sup> bà-â:</i>

For Ningo, the verbal suffix is lengthening and nasalization of the final vowel, as heard most clearly in 2Pl forms like *jà:-<sup>n</sup> è bǒ:* [ja:<sup>n</sup>èbǒ:].

Representative 3Sg forms for verbs ending in nonhigh vowel are displayed in (xx2).

#### (xx2) Progressive (final-nonhigh-vowel class)

stem	Progressive	gloss
------	-------------	-------

- a. *Cv*:
- with *ɔ*:
- nɔ́:-*                    *nò:-w<sup>n</sup> bǒ:-∅*                    ‘go in’
- with *o*:
- gó:-*                    *gò:-w<sup>n</sup> bǒ:-∅*                    ‘go out’
- with *a*:
- ɲó:-*                    *ɲà:-w<sup>n</sup> bǒ:-∅*                    ‘eat, drink’
- b. *NCv*:
- with *a*:
- ndó-*                    *ndà-w<sup>n</sup> bǒ:-∅*                    ‘give’
- c. *CvCv*
- with *o*
- gùjǒ-*                    *gùjò-w<sup>n</sup> bǒ:-∅*                    ‘dig’
- with *a* from *CaCv-*
- náló-*                    *nàlà-w<sup>n</sup> bǒ:-∅*                    ‘give birth’
- with *a* from *-ATR stem*
- dú-yó-*                    *dù-yà-w<sup>n</sup> bǒ:-∅*                    ‘carry on head’
- tíwó-*                    *tìwà-w<sup>n</sup> bǒ:-∅*                    ‘die’
- yéwó-*                    *yèwà-w<sup>n</sup> bǒ:-∅*                    ‘dance’
- kúwó-*                    *kùwà-w<sup>n</sup> bǒ:-∅*                    ‘do farming’
- témó-*                    *tèmà-w<sup>n</sup> bǒ:-∅*                    ‘eat (meat)’
- dónó-*                    *dònà-w<sup>n</sup> bǒ:-∅*                    ‘buy’
- c. *CvCCv*
- with *o*
- tómbó-*                    *tòmbò-w<sup>n</sup> bǒ:-∅*                    ‘jump’
- with *a* from *CaCCv-*
- dámbo-*                    *dàmbà-w<sup>n</sup> bǒ:-∅*                    ‘winnow in wind’
- with *a* from *-ATR stem*
- émbó-*                    *èmbà-w<sup>n</sup> bǒ:-∅*                    ‘winnow in wind’
- d. *Cv:Cv*
- with *o*
- sé:gó-*                    *sè:gò-w<sup>n</sup> bǒ:-∅*                    ‘come down’
- with *a* from *Ca:Cv-*
- jà:ló-*                    *jà:là-w<sup>n</sup> bǒ:-∅*                    ‘build’ or ‘look’
- e. trisyllabic



with *o*

*yígíjǒ-*      *yìgìjǒ-w<sup>n</sup> bǒ:-∅*      ‘shake’

with *a* from -ATR stem

*ígí-yǒ-*      *ìgì-yà-w<sup>n</sup> bǒ:-∅*      ‘stand, stop’

f. irregular

*gún(u)-*      *gùnà-w<sup>n</sup> bǒ:-∅*      ‘say’

Forms from verbs with final high vowel are in (xx3).

(xx3) Progressive (final-high-vowel class)

stem	Progressive	gloss
a. <i>CáC(ú)-</i>		
<i>dámú-</i>	<i>dàmà-w<sup>n</sup> bǒ:-∅</i>	‘speak’
<i>kámú-</i>	<i>kàmà-w<sup>n</sup> bǒ:-∅</i>	‘steal’
b. <i>CíC(ú)-, CúC(ú)-</i>		
<i>ún(u)-</i>	<i>ùnà-w<sup>n</sup> bǒ:-∅</i>	‘go’
<i>kán(u)-</i>	<i>kànà-w<sup>n</sup> bǒ:-∅</i>	‘do’
c. causatives		
<i>ná:-mú-</i>	<i>nà:-mà-w<sup>n</sup> bǒ:-∅</i>	‘let/make (sb) drink’
<i>yógó-mú-</i>	<i>yògò-mò-w<sup>n</sup> bǒ:-∅</i>	‘send here’
<i>málámú-</i>	<i>màlà-mà-w<sup>n</sup> bǒ:-∅</i>	‘squeeze’

Examples are in (xx4).

(xx4) a.	<i>nà:ngè</i>	<i>nà:-w<sup>n</sup></i>	<i>bǒ-y<sup>n</sup></i>	
	meal	eat-IPfv	Prog-1SgSbj	
	‘I am eating.’			
b.	<i>wàlè</i>	<i>kànà-w<sup>n</sup></i>	<i>nì</i>	<i>bǒ:</i>
	work(n)	do-IPfv	1PlSbj	Prog
	‘We are working.’			
c.	<i>sà:ní</i>	<i>kànà-w<sup>n</sup></i>	<i>bǒ:-∅</i>	
	prayer	do-IPfv	Prog-3SgSbj	
	‘He/She is praying.’			

For the past progressive with *bě̃-*, see §10.6.1.4.

#### 10.2.2.4 Future with *-lá* and perfective

A future construction that occurs repeatedly in the Ningo texts consists of a subject pronoun with suffix *-lá*, followed by an unconjugated {L}-toned perfective verb, with or without intervening constituents. For 3Sg, contracted *nǎ:* occurs alongside uncontracted *nà-lá*. The contraction is likely favored by the identical flanking *a*-vowels. The paradigm is therefore (xx2).

(xx1)	1Sg	<i>mì-lá</i>
	1Pl	<i>nì-lá</i>
	2Sg	<i>ò-lá</i>
	2Pl	<i>è-lá</i>
	3Sg	<i>nà-lá</i> ~ <i>nǎ:</i>
	3Pl	<i>kè-lá</i>

Before an H-tone, the combinations in (xx1) flatten to L-tone. This does not happen when these forms are immediately followed by the {L}-toned perfective, but it can happen when there is an intervening constituent.

If the subject is expressed as a nonpronominal NP, it is resumed as a 3Sg or 3Pl pronoun plus *-lá*.

(xx2)	<i>[[kéléngé</i>	<i>ri]</i>	<i>nǎ:</i>	<i>tàngè</i>
	[marriage	Def]	<b>3SgSbj.Fut</b>	pass.Pfv
	‘the marriage ceremony will pass (=be over)’ (Ningo, T7 @ 02:37)			

The context is a general or habitual present, but my Ningo assistant states that the reference is future. It occurs in texts describing regularly occurring activities, such as the sequence of events in a week-long marriage ceremony. Typically each succeeding new event is presented in this future form, then it is echoed in a conditional antecedent clause with a conjugated perfective verb in the sense ‘when ...’. For example, (xx2) was immediately followed by (xx3), which sets up the next event.

(xx3)	<i>kéléngé</i>	<i>tàngè-Ø</i>	<i>mè-nè, ...</i>
	marriage	pass.Pfv	if, ...
	‘When the marriage ceremony has passed, ...’ (Ningo, T7 @ 02:40)		

The Ningo assistant sometimes adds a clause-final *ó* to the *lá* construction. He glosses this construction with ‘now’ or ‘first(ly)’.

- (xx1) a. *nì-lá*            *ɲè:*            *ó*  
 1PlSbj            eat.Pfv            first  
 ‘We/I will eat first.’ (Ningo)
- b. *sěydù*            *nà-lá*            *ɲè:*            *ó*  
 Seydou            3SgSbj            eat.Pfv            first  
 ‘Seydou will eat first.’ (Ningo)

#### 10.2.2.5 Future tense absent

There is no distinct future inflectional category, apart from the broad imperfective.

#### 10.2.3 Negation of indicative verbs

##### 10.2.3.1 Perfective negative (*-nì-*)

The perfective negative suffix is *-nì-*. The stem is in the A/O-stem, with +ATR vocalism. The stem is {L}-toned in the 3Sg, 1Pl, and 2Pl, {H}-toned in the 1Sg and 2Sg, and {HL}-toned in the 3Pl. The stem-final vowel is lengthened in the 3Pl form if not already long. The paradigm is (xx1).

##### (xx1) Paradigm of perfective negative

category	PfvNeg form	‘go in’	‘dance’	‘go out’
1Sg	{H} <i>-ní-ỳ<sup>n</sup></i>	<i>nó:-ní-ỳ<sup>n</sup></i>	<i>yéwá-ní-ỳ<sup>n</sup></i>	<i>gó:-ní-ỳ<sup>n</sup></i>
1Pl	<i>nì</i> {L} <i>-nì</i>	<i>nì nò:-nì</i>	<i>nì yèwà-nì</i>	<i>nì gò:-nì</i>
2Sg	{H} <i>-ní-w̃ ~ -nú-w̃</i>	<i>nó:-nú-w̃</i>	<i>yéwá-nú-w̃</i>	<i>gó:-nú-w̃</i>
2Pl	<i>è</i> {L} <i>-nì</i>	<i>è nò:-nì</i>	<i>è yèwà-nì</i>	<i>è gò:-nì</i>
3Sg	{L} <i>-nì-∅</i>	<i>nò:-nì-∅</i>	<i>yèwà-nì-∅</i>	<i>gò:-nì-∅</i>
3Pl	{HL} <i>:-n-î:</i>	<i>nô:-n-î:</i>	<i>yéwà:-n-î:</i>	<i>gô:-n-î:</i>

Examples of stems with final nonhigh vowel in the 3Sg perfective negative are in (xx2).

(xx2) Perfective negative (final-nonhigh-vowel class)

stem	PfvNeg 3Sg	gloss
a. <i>Cv</i> :		
with <i>ɔ̀</i> :		
<i>nɔ̀:-</i>	<i>nɔ̀:-nì-∅</i>	‘go in’
with <i>ò</i> :		
<i>gò:-</i>	<i>gò:-nì-∅</i>	‘go out’
with <i>à</i> :		
<i>ɲà:-</i>	<i>ɲà:-nì-∅</i>	‘eat, drink’
b. <i>NCv(:)</i>		
with <i>à</i> :		
<i>ndà-</i>	<i>ndà:-nì-∅</i>	‘give’
c. <i>CvCv</i>		
with stem-final <i>o</i>		
<i>yógó-</i>	<i>yògò-nì-∅</i>	‘come’
<i>súwɔ̀-</i>	<i>sùwò-nì-∅</i>	‘point at’
<i>íwó-</i>	<i>ìwò-nì-∅</i>	‘catch’
with stem-final <i>a</i> , <i>CaCv-</i>		
<i>áwó-</i>	<i>àwà-nì-∅</i>	‘accept’
<i>táwó-</i>	<i>tàwà-nì-∅</i>	‘touch’
<i>náló-</i>	<i>nàlà-nì-∅</i>	‘give birth’
with stem-final <i>a</i> from <i>-ATR stem</i>		
<i>tíwɔ̀-</i>	<i>tìwà-nì-∅</i>	‘die’
<i>yégɔ̀-</i>	<i>yègà-nì-∅</i>	‘fall’
<i>ílɔ̀-</i>	<i>ilà-nì-∅</i>	‘go up’
<i>gúwɔ̀-</i>	<i>gùwà-nì-∅</i>	‘hang up’
<i>pórɔ̀-</i>	<i>pòrà-nì-∅</i>	‘throw’
d. <i>CvCCv</i>		
with stem-final <i>o</i>		
<i>ów-yó-</i>	<i>òw-yò-nì-∅</i>	‘sit’
with stem-final <i>a</i> , <i>CaCCv-</i>		
<i>dámbo-</i>	<i>dàm̀bà-nì-∅</i>	‘push’
with stem-final <i>a</i> from <i>-ATR stem</i>		
<i>ímbo-</i>	<i>ìmbà-nì-∅</i>	‘pull’ or ‘shut’
<i>émbɔ̀-</i>	<i>èmbà-nì-∅</i>	‘winnow (in wind)’

<i>dónjǒ-</i>	<i>dònjà-nì-Ø</i>	‘throw’
e. <i>Cv:Cv</i>		
with stem-final <i>o</i>		
<i>sé:gó-</i>	<i>sè:gò-nì-Ø</i>	‘come down’
with stem-final <i>a</i> , <i>Ca:Cv-</i>		
<i>já:ló</i>	<i>jà:là-nì-Ø</i>	‘build’ or ‘look’
f. trisyllabic		
with stem-final <i>o</i>		
<i>yígíjǒ-</i>	<i>yìgìjò-nì-Ø</i>	‘shake’
with stem-final <i>a</i> , <i>CvCaCv-</i>		
<i>téwá-gó-</i>	<i>tèwà-gà-nì-Ø</i>	‘shake’
with stem-final <i>a</i> from -ATR stem		
<i>ígí-yǒ-</i>	<i>ìgì-yà-nì-Ø</i>	‘stand, stop’
<i>bégílǒ-</i>	<i>bègilà-nì-Ø</i>	‘winnow by shaking’

The class of verbs with stem-final high vowel has final *a* if the penult has a, and *u* if the penult has *i/i*, before *-nì* (xx3).

(xx3) Perfective negative (final-high-vowel class)

bare stem	PfvNeg 3Sg	gloss
a. <i>CáC(ú)-</i>		
<i>kán(ú)-</i>	<i>kànà-nì-Ø</i>	‘do’
<i>bámú-</i>	<i>bànà-nì-Ø</i>	‘beat (tomtom)’
b. <i>CíC(ú)-, CúC(ú)</i>		
<i>ún(ú)-</i>	<i>ùnù-nì-Ø</i>	‘go’
<i>sín(ú)-</i>	<i>sìnù-nì-Ø</i>	‘convey’
c. causatives		
<i>yógó-mú-</i>	<i>yògò-mò-nì-Ø</i>	‘send here’
<i>málámú-</i>	<i>màlà-mà-nì-Ø</i>	‘squeeze’

### 10.2.3.2 Experiential perfect negative (-tè:-nì)

Experiential perfect *-tèy* is negated as *-tè:-nì-*, with the familiar perfective negative *-nì-*. The stem is {L}-toned throughout. The paradigm is (xx1). The 3Pl form ends in *-n-â:* with different output vowel than in regular perfective negative *-n-î:*.

(xx1) Experiential perfect negative

category	suffix	‘see’	‘go’
1Sg	{L} <i>-té:-nî-y<sup>n</sup></i>	<i>bàli-yè-té:-nî-y<sup>n</sup></i>	<i>ùni-té:-nî-y<sup>n</sup></i>
1Pl	<i>nì</i> {L} <i>-tè:-nì</i>	<i>nì bàli-yè-té:-nì</i>	<i>nì ùni-tè:-nì</i>
2Sg	{L} <i>-té:-nî-w</i>	<i>bàli-yè-té:-nî-w</i>	<i>ùni-té:-nî-w</i>
2Pl	<i>è</i> {L} <i>-tè:-nì</i>	<i>è bàli-yè-té:-nì</i>	<i>è ùni-tè:-nì</i>
3Sg	{L} <i>-tè:-nì-Ø</i>	<i>bàli-yè-tè:-nì-Ø</i>	<i>ùni-tè:-nì-Ø</i>
3Pl	{L} <i>-tè:-n-â:</i>	<i>bàli-yè-tè:-n-â:</i>	<i>ùni-tè:-n-â:</i>

This is the normal way to express ‘have never VP-ed’, denying any occurrence of the VP event type during the lifetime of the subject (xx2).

- (xx2) a. *nígé* *bàli-yè-tè:-nì-Ø*  
 elephant see-MP-ExpPf-PfNeg-3SgSbj  
 ‘He/She has never seen an elephant.’
- b. *[bòmàkó nà]* *ùni-té:-nî-y<sup>n</sup>*  
 [B in] go-ExpPf-PfNeg-1SgSbj  
 ‘I have never gone to Bamako.’

### 10.2.3.3 Recent perfect negative or past perfect negative (-nì-yé-)

Morphologically, this is the past-time version of the perfective negative (*-nì-*). For the Boui assistant, it functions as the **negation of the recent perfect**, whose morphology is likewise a kind of past-time of the perfective. An example is (xx1).

- (xx1) *gò:-nì-yé-Ø*  
 go.out-PfvNeg-Past-3SgSbj  
 ‘He/She has not gone out (i.e. is still inside).’

The paradigm is (xx2)

(xx2) Recent perfect negative

category	form	‘has not gone/come out’
1Sg	{H} <i>-ni-yê-y<sup>n</sup></i>	<i>gó:-ni-yê-y<sup>n</sup></i>
1Pl	<i>ni</i> {L} <i>-ni-yé</i>	<i>ni gò:-ni-yé</i>
2Sg	{H} <i>-ni-yê-y<sup>n</sup></i>	<i>gó:-ni-yê-w</i>
2Pl	<i>è</i> {L} <i>-ni-yé</i>	<i>è gò:-ni-yé</i>
3Sg	{L} <i>-ni-yé-Ø</i>	<i>gò:-ni-yé-Ø</i>
3Pl	{HL} <i>-ni-y-ê:</i>	<i>gô:-ni-y-ê:</i>

For the Ningo speaker, the form in *-ni-yê* has the expected sense past perfect negative (xx3).

(xx3) *ɲà:-ni-yê-y<sup>n</sup>*  
 eat.meal-PfvNeg-Past-1SgSbj  
 ‘I hadn’t eaten’ (Ningo)

For this speaker, a ‘not yet’ form, functioning semantically as a kind of negative of the recent perfect, is produced by chaining the perfective negative of a verb *síjó* to the main verb (xx4a). The positive counterpart ‘have (already/just now) VPed’, has a positive perfective form of the verb *gímó* (xx4b).

(xx4) a. *ɲè: síjó-ní-y<sup>n</sup>*  
 eat.meal have.yet-PfvNeg-1SgSbj  
 ‘I haven’t eaten yet.’ (Ningo)

b. *ɲè: gímé-y<sup>n</sup>*  
 eat.meal have.just.Pfv-1SgSbj  
 ‘I have (already/just now) eaten.’ (Ningo)

#### 10.2.3.4 Imperfective negative (-*râ*- ~ -*dâ*-)

The imperfective negative has a suffix *-ra* (3Sg *-râ-Ø* in Boui) after the O-stem. The tone of the stem depends on the pronominal-subject category: {H} for 1Sg/2Sg/3Sg, {L} for 1Pl/2Pl, {HL} for 3Pl. In nonmonosyllabic stems, syncope occurs after unclustered {*n l r*}. After syncope, *-ra* hardens to *-da* postconsonantly. The paradigm is (xx1).

## (xx3) Paradigm of imperfective negative

category	IpfvNeg	‘go in’	‘lie down’	‘shake’
1Sg	{H} -râ-y <sup>n</sup>	nó:-râ-y <sup>n</sup>	bí-yó-râ-y <sup>n</sup>	yígíjò-râ-y <sup>n</sup>
1Pl	nì {L} -rá	nì nò:-rá	nì bì-yò-rá	nì yìgìjò-rá
2Sg	{H} -râ-w	nó:-râ-w	bí-yó-râ-w	yígíjò-râ-w
2Pl	è {L} -rá	è nò:-rá	è bì-yò-rá	è yìgìjò-rá
3Sg	a. {H} -râ-Ø	nó:-râ-Ø	bí-yó-râ-Ø	yígíjò-râ-Ø
	b. {H} -râ-Ø	nó:-râ-Ø	bí-yó-râ-Ø	yígíjò-râ-Ø
3Pl	a. {HL} -r-â:	nô:-r-â:	bí-yò-r-â:	yígíjò-r-â:
	b. {HL} -r-â:	nô:-r-â:	bí-yò-r-â:	yígíjò-r-â:

The (a) pattern for 3Sg and 3Pl is from the Boui assistant, the (b) pattern is from the Ningo assistant.

The final H-tone on *-rá* in 1Pl/2Pl forms is of the LH type, and the H-tone appears on a following polar interrogative particle, as in *-râ lé* (§13.2.1).

A sample of 3Sg imperfective negative forms from stems ending in nonhigh vowels is in (xx2). Forms are from Boui.

## (xx2) Imperfective negative (final-nonhigh-vowel class)

stem	IpfvNeg	gloss
a. <i>Cv</i> :		
<i>dó:-</i>	<i>dó:-râ</i>	‘pound’ or ‘insult’
<i>gó:-</i>	<i>gó:-râ</i>	‘go out’
<i>nó:-</i>	<i>nó:-râ</i>	‘eat, drink’
b. <i>NCv</i> :		
<i>ndó-</i>	<i>ndó-râ</i>	‘give’
c. <i>CvCv</i>		
<i>gújó-</i>	<i>gújó-râ</i>	‘dig’
<i>cíjó-</i>	<i>cíjó-râ</i>	‘reply’
<i>yégó-</i>	<i>yégó-râ</i>	‘fall’
<i>sémó-</i>	<i>sémó-râ</i>	‘slaughter’
<i>dú-yó-</i>	<i>dú-yó-râ</i>	‘carry on head’



<i>téwó-</i>	<i>téwó-râ</i>	‘hit’
<i>Cvrv</i>		
<i>dónó-</i>	<i>dón-dâ</i>	‘buy’
<i>mínó-</i>	<i>mín-dâ</i>	‘taste’
<i>Cvlv</i>		
<i>íló-</i>	<i>íl-dâ</i>	‘go up’
<i>yóló-</i>	<i>yól-dâ</i>	‘look for’
<i>náló-</i>	<i>nál-dâ</i>	‘give birth’
<i>Cvrv &gt; Cvr-dâ</i>		
<i>póró-</i>	<i>pór-dâ</i>	‘throw’
<i>óró-</i>	<i>ór-dâ</i>	‘draw (water)’
<i>Cvrv &gt; Cvd-dâ</i>		
<i>író-</i>	<i>í(d)-dâ</i>	‘get’
d. <i>CvCCv</i>		
<i>ów-yó-</i>	<i>ów-yó-</i>	‘sit’
<i>dámbó-</i>	<i>dámbó-râ</i>	‘push’
<i>émbó-</i>	<i>émbó-râ</i>	‘winnow in wind’
e. <i>Cv:Cv</i>		
<i>sé:gó-</i>	<i>sé:gó-râ</i>	‘come down’
<i>já:ló-</i>	<i>já:ló-râ</i>	‘build’ or ‘look’
f. trisyllabic and longer		
<i>sómbí-yó</i>	<i>sómbí-yó-râ</i>	‘squat’
<i>téwá-gó-</i>	<i>téwá-gó-râ</i>	‘shatter’
<i>CvCvlv-</i>		
<i>bégíló-</i>	<i>bégíl-dâ</i>	‘winnow by shaking’
<i>ígíló-</i>	<i>ígíl-dâ</i>	‘sweep’
g. irregular		
<i>gún(ú)-</i>	<i>gún-dâ</i>	‘say’

Stems ending in high vowels are in (xx3).

(xx3) Imperfective negative (final-high-vowel class)

bare stem	IpfvNeg	gloss
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a. *CaC(ú)-*

<i>dámú-</i>	<i>dámú-râ</i>	‘speak’
<i>kámú-</i>	<i>kámú-râ</i>	‘steal’
<i>Cán(ú)-</i>		
<i>kán(ú)-</i>	<i>kán-dâ</i>	‘do’

b. *CiC(ú)-, CuC(ú)-*

<i>Cún(ú)-, Cín(ú)-</i>		
<i>ún(ú)-</i>	<i>ún-dâ</i>	‘go’
<i>sín(ú)-</i>	<i>sín-dâ</i>	‘take (convey)’

c. causatives

<i>yógó-mú-</i>	<i>yógó-mú-râ</i>	‘send here’
<i>málámú-</i>	<i>málámú-râ</i>	‘squeeze’

### 10.2.3.5 Progressive negative (*órâ-*)

The progressive negative replaces *mbó* ~ *-bó* ‘be’ in the positive progressive by *órâ-* (3Sg *órâ*), the ‘not be (somewhere)’ predicate, which may contain a variant of imperfective negative *-râ-*. The verb stem has the same form, including {L} tone contour and imperfective *-w<sup>n</sup>*, as in the positive. The paradigm is (xx1).

(xx1) Paradigm of progressive negative

category	ProgNeg	‘do work’
1Sg	{L} <i>órâ-y<sup>n</sup></i>	<i>wàlè kànà-w<sup>n</sup> órâ-y<sup>n</sup></i>
1Pl	{L} <i>nì òrà</i>	<i>wàlè kànà-w<sup>n</sup> nì òrà</i>
2Sg	{L} <i>órâ-w</i>	<i>wàlè kànà-w<sup>n</sup> órâ-w</i>
2Pl	{L} <i>è òrà</i>	<i>wàlè kànà-w<sup>n</sup> è òrà</i>
3Sg	{L} <i>órâ-Ø</i>	<i>wàlè kànà-w<sup>n</sup> órâ-Ø</i>
3Pl	{L} <i>ór-â:</i>	<i>wàlè kànà-w<sup>n</sup> ór-â:</i>

An example is (xx2).

(xx2)	<i>íjílí</i>	<i>ìjìlò:</i>	<i>órâ-y<sup>n</sup></i>
	sweeping(n)	sweep	not.be-IpfvNeg-1SgSbj
	‘I am not (engaged in) sweeping.’		

### 10.3 Pronominal paradigms for non-imperative verbs

#### 10.3.1 Subject pronominal suffixes

1Pl and 2Pl are expressed by proclitics *ní/nì* and *é/è*, respectively. These proclitics are usually in immediate preverbal position. However, existential proclitic *è ~ é* (or distant *yà ~ yá*) intervenes between 1Pl/2Pl proclitics and the verb. I write proclitics as separate words in my normal orthography.

1Sg is expressed by suffix *-y<sup>n</sup>*. The nasalization is not distinctively audible in the sequence *Ni-y<sup>n</sup>* (*N* a nasal or nasalized consonant) due to monophthongization to phonetic [Ni:]. The 2Sg counterpart is *-w*. If the preceding vowel is *u*, monophthongization produces phonetic [Nu:], where the nasalization of the final semivowel is not distinctively audible.

3Sg is the zero category. 3Pl is expressed by a variable suffix, depending on the particular AN category, involving a long vowel or a syllable *ya*.

(xx1) category	affixes
1Sg	STEM- <i>y<sup>n</sup></i>
1Pl	<i>nì</i> STEM
2Sg	STEM- <i>w̃</i>
2Pl	<i>è</i> STEM
3Sg	STEM
3Pl	STEM plus variable suffix

Depending on the AN category, the stem may have different tone contours associated with subject categories. 1Sg and 2Sg always share a stem tone contour, as do 1Pl and 2Pl. In some categories, 1Pl and 2Pl also have the same stem tone as the 3Sg.

1Sg *-y<sup>n</sup>* and 2Sg *-w̃* are subject to phonological modification before yes/no interrogative particle *lè*, resulting in *n nì* and *l lè*, respectively.

3Pl is expressed by a variable ending (xx2), generally with falling tone.

(xx2) 3Pl	category
<i>-iyè ~ -iyê</i>	perfective
<i>-w-â:</i>	imperfective
<i>-n-î:</i>	perfective negative
<i>-r-â:</i>	imperfective negative
<i>-â:</i>	stative

*-mà-â:*            capacitative

### 10.3.2 Tones of subject pronominal suffixes

In the pronominal-subject paradigms of the various aspect-negation categories, 1Sg/2Sg are usually opposed tonally to 1Pl/2Pl. The relationship of 3Sg and 3Pl to each other and to the 1st/2nd person categories is variable. The summary formulae below show the stem melody in curly brackets. Tones are marked on x (aspect-negation suffix), y (1Pl/2Pl proclitic), and z (1Sg/2Sg/3Pl suffix). Unhyphenated xz in 3Pl forms indexes fusion into one syllable.

(xx1)	category	1Sg/2Sg	1Pl/2Pl	3Sg	3Pl
a. 1Sg/2Sg falling, all others {L}					
	Pfv	{H} -ẑ	ẏ {L}	{L}	{L} -ẑ
	‘know’/‘want’ ( <i>yey-/cey-</i> )	{H} -ẑ	ẏ {L}	{L}	{L} -ẑ
	StatNeg ( <i>-na-</i> )	{H} -x̂-ẑ	ẏ {L} -x̂	{L} -x̂	{L} -x̂ẑ
	PfvNeg ( <i>-ni-</i> )	{H} -x̂-ẑ	ẏ {L} -x̂	{L} -x̂	{L} -x̂ẑ
b. 1Sg/2Sg rising, others {L}					
	ExpPf ( <i>-tey-</i> )	{L} -x̂-ẑ	ẏ {L} -x̂	{L} -x̂	{L} -x̂-ẑ
c. 1Sg/2Sg falling, 1Pl/2Pl {L}, 3rd persons falling					
	IpfvNeg ( <i>-ra-</i> )	{H} -x̂-ẑ	ẏ {L} -x̂	{H} -x̂	{HL} -x̂ẑ
d. all 1st/2nd falling, 3rd person {L}					
	Result ( <i>-sa-</i> )	{H} -x̂-ẑ	ẏ {H} -x̂	{L} -x̂	{L} -x̂ẑ
e. all rising					
	RecPf ( <i>-se-</i> )	{L} -x̂-ẑ	ẏ {L} -x̂	{L} -x̂	{L} -x̂ẑ
	‘resemble’ ( <i>mola-</i> )	{LH} -ẑ	ẏ {LH}	{LH}	{L(H)} -x̂ẑ
f. all falling					
	stative (final <i>a</i> )	{HL} -ẑ	ẏ {HL}	{HL}	{HL} -ẑ
	imperfective ( <i>-wò-</i> )	{H} -x̂-ẑ	ẏ {H} -x̂	{H} -x̂	{HL} -x̂ẑ

We observe a broad association of 1Sg/2Sg with {H}-toned stem, and of 1Pl/2Pl and third person with {L}-toned stem. The experiential perfect (xx1b) can be merged into (xx1a) if the “suffix” *-tey-* itself is equated with the stems in (xx1a). Aside from the cases in (xx1de) where the stem-tones are constant, the remaining irregularities are the H-tone in the stem in

3rd person forms for the imperfective negative (xx1c), and the {H}-toned stem in the 1Pl/2Pl in the resultative (xx1d).

## 10.4 Stative form of verbs (reduplicated and unreduplicated)

This section covers stative forms derived from regular (active) verbs. For defective stative quasi-verbs that do not have active forms, notably ‘be (somewhere)’, ‘have’, ‘want’, and ‘know’, see Chapter 11.

### 10.4.1 Stative positive

#### 10.4.1.1 Type with final *a*

Statives are derived from regular verbs to denote a continuing state that has resulted from an event of motion, of taking hold, or the like. Statives do not distinguish perfective from imperfective. Tiranige differs from several other Dogon languages in also forming statives from perception verbs (‘see’, ‘hear’). There is no initial reduplication.

Stative forms are normally bisyllabic, have {HL} tone contour (unless defocalized with {LH}), and end in *a*. Nonfinal vowels shift to +ATR. Many of the relevant verbs elsewhere have mediopassive suffix *-yv*, but this is dropped in the stative (unless the verb would otherwise be monosyllabic). The paradigm is (xx1). Data are from Boui unless otherwise noted.

(xx1) Stative

category	form	‘stand’
1Sg	{HL} <i>-y<sup>n</sup></i>	<i>ígà-y<sup>n</sup></i>
1Pl	<i>nì</i> {HL}	<i>nì ígà</i>
2Sg	{HL} <i>-w</i>	<i>ígà-w</i>
2Pl	<i>è</i> {HL}	<i>è ígà</i>
3Sg	{HL} <i>-∅</i>	<i>ígà-∅</i>
3Pl	{HL} <i>-â:</i>	<i>ígà-â:</i>

Representative pairs of regular and stative stem are in (xx2).

(xx2) gloss stem stative

a. from a bisyllabic stem that is not obviously segmentable

‘hear’	<i>nú:ndó-</i>	<i>nú:ndà-</i>	
‘be hung’	<i>gúwó-</i>	<i>gúwà-</i>	(Ningo gùbì-yè, gúbà-)
‘sleep’	<i>nóyó-</i>	<i>nóyà-</i>	(cf. <i>nóyú-ró-</i> ‘make sleep’)

b. from bisyllabic mediopassive (-*yv-* omitted in stative)

‘sit’	<i>ów-yó-</i>	<i>ówà-</i>	(Ningo óbì-yó-, óbà-)
‘stand’	<i>ígí-yé-</i>	<i>ígà-</i>	
‘squat’	<i>sómbí-yó-</i>	<i>sómbà-</i>	
‘carry on back’	<i>bámbí-yó-</i>	<i>bámbà-</i>	
‘see’	<i>bálí-yó-</i>	<i>bálà-</i>	
‘be on’	<i>ságí-yó-</i>	<i>ságà-</i>	
‘be on (wall)’	<i>dángí-yó-</i>	<i>dángà-</i>	
	-ATR vowel in penult shifts to +ATR		
‘be tilted’	<i>jéngí-yó-</i>	<i>jéngà-</i>	

c. from frozen mediopassive *Cv-yv-* (-*yv-* retained in the stative)

‘lie down’	<i>bí-yó-</i>	<i>bí-yà-</i>
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For ‘hear’, a distinction is made between two stative forms: intransitive *nú:ndà-* ‘hear, be able to hear’ and transitive *nú:ndú-rà-* ‘hear of (sb)’.

Existential particle *è* (or distant *yà*) is not required with statives, but it can occur with some of them in unfocalized positive main clauses (xx3).

(xx3) a.	<i>nì</i>	<i>è</i>	<i>nú:ndà</i>
	1PISbj	Exist	hear.Stat
	‘We hear (i.e. are not deaf).’ (Boui)		

b.	<i>[yé:</i>	<i>rì]</i>	<i>yà</i>	<i>ówà-Ø</i>
	[woman	Def]	Exist.Dist	sit.Stat-3SgSbj
	‘The woman is sitting (some distance away).’ (Boui)			

Existential particles are not allowed in combination with a focalized constituent, negation, or relativization.

Statives have a past-time form with *ε* replacing the final *a*, see §10.6.1.3.

For the negative stative see §10.4.3 below.

#### 10.4.1.2 Passive stative with $-y\acute{e} = \grave{w}^n \sim -y\acute{e} = \grave{w}^n$

For ‘shut (door)’ and other transitive verbs, a different intransitive stative-like construction is attested (xx1a). I call this the passive stative. Its form resembles that of a 3Pl subject perfective verb as in (xx1b), but it is used impersonally and the two differs both tonally and in the final  $= \grave{w}^n$ , a variant of the ‘it is’ clitic. (Ningo has unnasalized  $= \grave{w}$ .) If  $= \grave{w}^n$  is correctly identified as the ‘it is’ enclitic, which follows NPs, this implies that the form in  $-y\acute{e}$  is syntactically nominal. I gloss  $-y\acute{e}$  as “Pass[ive]” in interlinears.

- (xx1) a.  $[b\acute{o}w^n \quad r\grave{i}] \quad \acute{i}mb\acute{i}-y\acute{e} = \grave{w}^n$   
 [door Def] shut-Pass=it.is  
 ‘The door is shut.’ (Boui)  
 (Ningo:  $[b\acute{o}n \quad d\grave{i}] \quad j\acute{a}y-y\acute{e} = \grave{w}$  )
- b.  $[b\acute{o}w^n \quad r\grave{i}] \quad \acute{i}mb-\grave{y}\grave{e}$   
 [door Def] shut.Pfv-3PlSbj  
 ‘They shut-Past the door.’ (Boui)

Consistent with the analysis of  $-y\acute{e} \sim -y\acute{e}$  as a nominal, the plural of (xx1a) is (xx2). Plural suffix  $-g\grave{e}$  intervenes between  $-y\acute{e}$  and  $= \grave{w}^n$ .

- (xx2)  $[b\acute{o}w^n-g\grave{e} \quad r\grave{i}] \quad \acute{i}mb\acute{i}-y\acute{e}-g\acute{e} = \grave{w}^n$   
 [door-Pl Def] shut-Pass-Pl=it.is  
 ‘The doors are shut.’ (Boui)  
 (Ningo:  $[b\acute{o}\eta-g\acute{e} \quad r\grave{i}] \quad j\acute{a}y-y\acute{e}-g\acute{e} = \grave{w}^n$  )

The reversive of  $\acute{i}mb\acute{e}$ - ‘shut (door)’ is  $\acute{i}mb\acute{i}-l\acute{e}$ - ‘open (door)’. Its passive stative form is  $\acute{i}mb\acute{i}-l\acute{i}-y\acute{e} = \grave{w}^n$  ‘it is open’ (Boui). The Ningo equivalent is  $j\acute{a}y-l\acute{i}-y\acute{e} = \grave{w}^n$  ‘it is open’.

From  $p\acute{a}g\acute{o}$ - ‘tie (up)’, we get passive stative  $p\acute{a}g\acute{i}-y\acute{e} = \grave{w}^n$  ‘it (e.g. cow) is tied up’.

For  $-y\acute{e} \sim -y\acute{e}$  in product-of-action compounds with a preceding noun, see §5.1.12.

#### 10.4.1.3 ‘Be known’ ( $y\grave{e}y\acute{y}-\acute{a}$ : plus ‘it is’ enclitic)

The stative quasi-verb  $y\grave{e}y$  ‘know’ (§11.2.5.1) has a passive form consisting of  $y\grave{e}y\acute{y}-\acute{a}$ : plus either ‘it is’ enclitic  $= w\grave{o}$  or its negative  $= l\grave{a}$ . Thus  $y\grave{e}y\acute{y}-\acute{a} = w\grave{o}$  ‘is known’ or  $y\grave{e}y\acute{y}-\acute{a} = l\grave{a}$  ‘is not known’. The positive form is attested in a text with an NP “subject” (xx1a). Follow-up elicitation shows that  $y\grave{e}y\acute{y}-\acute{a}$ : is nominal and can take plural  $-g\acute{e}$  (xx1b), and that the “subject” may really be an object.

- (xx1) a. pàṅgà-déní                      yèyy-á: = wò  
 granary-taking.out              know-Pass=it.is  
 ‘The person charged with taking out the day’s grain rations from the granary is known (to everyone).’ (Ningo, T7 @ 12:01)
- b. bé-gé                      yèyy-á:-gé = wò  
 child-Pl                      know-Pass-Pl=it.is  
 ‘The children are known.’ (Ningo)
- c. mì-gí                      yèyy-á: = wò  
 1Sg-Acc                      know-Pass=it.is  
 ‘I am known.’ (Ningo)

yèyy-á: is phonologically similar to 3Pl subject yèyy-â: ‘they know’, which likewise takes objects and which can be used in nonspecific indefinite contexts that resemble the present construction. However, yèyy-á: = wò does not fit precisely into any regular morphosyntactic construction (e.g. relative clause, agentive) that would account for the ‘it is’ enclitic.

#### 10.4.2 Stative negative

##### 10.4.2.1 Basic stative negative (-nâ-)

Stative negative suffix (or enclitic) *-nâ-* is added to the stative stem (which is always bisyllabic and ends in *a*). The stem and suffix are {L}-toned, except in the 1Sg and 2Sg. Data are from Boui.

##### (xx1) Stative negative

category	form	‘not be standing’
1Sg	{H} -ná-ỳ <sup>n</sup>	ígá-ná-ỳ <sup>n</sup>
1Pl	nì {L} -nâ	nì ìgà-nâ
2Sg	{H} -ná-Ẁ	ígá-ná-Ẁ
2Pl	è {L} -nâ	è ìgà-nâ
3Sg	{L} -nâ	ìgà-nâ
3Pl	{L} -n-â:	ìgà-n-â:

For past forms with *-nê-*, see §10.6.1.3.



Stative negative *-nà-* is also found in *sà:-nà-* ‘not have’. A variant *-là-* occurs in *cè-là-* ‘did not want’. Unusually, *yé-nì-* ‘not know’ has the regular perfective negative suffix.

For adjectives with *-ná* negating another adjective (e.g. ‘not good’ = ‘bad’), see §4.5.4 and §11.4.1.3.

#### 10.4.2.2 Passive stative negative

The passive stative in *-yé=w<sup>n</sup> ~ -yé=w<sup>n</sup>* has negative counterparts as in (xx1). The verb stem now ends in *-à:-* and is followed by a H-toned variant of the perfective negative suffix *-ní-*. Just as *-yé* resembles a 3PI subject suffix for the perfective, so the *-à:-* resembles some other 3PI subject suffix allomorphs, though here the construction is an impersonal passive. There is no clear indication that the form is nominal syntactically, and there is no plural *-gè-* in examples like (xx1b) with plural subject.

- (xx1) a. *[bów<sup>n</sup> rì] ímb-à:-ní*  
 [door Def] shut-Pass-PfvNeg  
 ‘The door is shut.’ (Boui)
- b. *[ná:-gè rì] pág-à:-ní*  
 [cow-Pl Def] tie-Pass-PfvNeg  
 ‘The cow is tied up.’ (Boui)

### 10.5 Capacitative (‘can, be able’)

#### 10.5.1 Derivational suffix (*-má-*)

*-má-* is added to the O-stem of the verb, which has {H} melody except in 1Pl/2Pl. The negative form is *-má-nâ-*, cf. stative negative *-nà* (§10.4.2). The paradigms are in (xx1).

(xx1)	‘can sweep’	‘cannot sweep’
1Sg	<i>ígíló-má-y<sup>n</sup></i>	<i>ígíló-má-ná-y<sup>n</sup></i>
1Pl	<i>nì ìgìlò-má</i>	<i>nì ìgìlò-mà-ná</i>
2Sg	<i>ígíló-má-w</i>	<i>ígíló-má-ná-w</i>
2Pl	<i>è ìgìlò-má</i>	<i>è ìgìlò-mà-ná</i>
3Sg	<i>ígíló-mâ-Ø</i>	<i>ígíló-má-nâ-Ø</i>
3Pl	<i>ígíló-mâ-â:</i>	<i>ígíló-mà-n-â:</i>

From -ATR *dónó-* ‘buy’ we get 3Sg *dónó-mâ-Ø* ‘he/she can buy’ and so forth, showing that this is the O-stem, not the A/O-stem.

For past-time counterparts (*-mê-* or negative *-mê-nê-* following the E/I-stem), see §10.6.1.6.

### 10.5.2 Verb *ímá-* ‘be capable’

The stative stem *ímá-* ‘be capable, have (enough) strength or capability’, negative *ímá-ná-* ‘not be capable’, is a kind of default, corresponding to English *X can/cannot* or *X is (un)able*, without specifying the domain of capability. Most often it means more specifically ‘(not) have the power, (not) be strong enough’. *má-* might be analysed as containing the derivational suffix *-má-*, or it may have been the etymological source of the suffix. The form *ímí-yó*, with apparent mediopassive suffix, means ‘be stronger than, be able to defeat’ or simply ‘defeat’ (e.g. in wrestling or a political election).

## 10.6 Nonpast versus past time

### 10.6.1 Past-time forms (ablaut to *ε* or suffixation of *-yε-*)

Past-time forms are especially common with statives (‘was sitting’), compensating for their lack of a perfective/imperfective aspectual distinction. They are also common with imperfectives (‘was dancing’), displacing the temporal reference point from the moment of speaking to some time in the past. I use the label **past time** rather than past tense since the eventuality in question is not itself specified as having occurred prior to the moment of speaking. The normal translation equivalent of the English past tense (*he jumped*) is a simple perfective verb in Tiranige, i.e. part of the unmarked non-past inflectional system. Rather, past-time forms shift the abstract temporal reference point into the past.

The past-time form is consistently **marked by *ε*-vowels**, regardless of the ATR harmonic class of the stem. *-yê* is suffixed to the simple form if the latter ends in *i* or *y*, which includes the shape *Cey-* (‘want’, ‘know’, experiential perfect), see also *-ni-yê-* in §10.2.3.3. In other cases, we seem to have an ablaut process by which vowels are mutated to *ε*. Unlike the E/I-stem, this mutation can extend over into the penult in negative forms, see for example ‘had not’ in §10.6.1.3.

The recent perfect *-sé* (§10.2.1.4) has suffixal vocalism compatible with the other explicitly past forms. Morphologically, it might be considered to be the past form of the perfective. Since the perfective already ends in *ε* for many verbs, it is necessary to add a syllabic suffix. Such a suffix is already available, since the resultative in *-sâ-* can replace the perfective in relative clauses. However, *-sé* is mainly used synchronically as a present perfect (‘has eaten’, etc.) rather than as a specifically past perfect (‘had eaten’).

10.6.1.1 Past *bè:-* ~ *wè:-* ‘was’

Locational *bò- ~ wò-* ‘be (somewhere)’, see §11.2.2.2, has a past form *bè:- ~ wè:-*. In both cases the form with *w* is used after existential *é* (in this combination harmonized to *é*), which again functions as the obligatory default in the absence of another locational phrase. The paradigm is (xx1). 3Sg and 3Pl differ tonally.

(xx1) Past ‘was/were (in a place)’ or ‘existed’

category	after locational	with existential
1Sg	<i>bè-y<sup>n</sup></i>	<i>é wè-y<sup>n</sup></i>
1Pl	<i>nì bè:</i>	<i>nì é wè:</i>
2Sg	<i>bè-w</i>	<i>é wè-w</i>
2Pl	<i>è bè:</i>	<i>è é wè:</i>
3Sg	<i>bè:-Ø</i>	<i>é wè:-Ø</i>
3Pl	<i>bè-é:</i>	<i>é wè-é:</i>

Examples are in (xx2).

- (xx2) a. *gólí* [*bòmòkò* *ɲà*] *bè-y<sup>n</sup>*  
 last.year [B in] be.Past-1SgSbj  
 ‘Last year I was in Bamako (city).’
- b. *mó-ɲà* *bè:-Ø* *lé*  
 here be.Past-3SgSbj Q  
 ‘Was he/she here?’
- c. *mó-ɲà* *bè-é:*  
 here be.Past-3PlSbj  
 ‘They were here.’

### 10.6.1.2 Past *śrè-* ‘was not’

The past form of *óra-* ‘is not (in a place)’, see §11.2.2.3, is *śrè-*. As always in negative clauses, the existential morpheme is not allowed. The paradigm is (xx1). 3Sg and 3Pl differ only in vowel length.

(xx1) Past ‘was/were not (in a place)’ or ‘did not exist’

category	form (with or without locational)
1Sg	<i>śrè-y<sup>n</sup></i>
1Pl	<i>nì śrè-Ø</i>
2Sg	<i>śrè-w</i>
2Pl	<i>è śrè-Ø</i>
3Sg	<i>śrè-Ø</i>
3Pl	<i>śr-è:</i>

Examples are in (xx2). In (xx2a), 2Sg *-w* assimilates to the *l* of the interrogative particle.

- (xx2) a. *śrè-l*                      *lè*  
 not.be.Past-2SgSbj Q  
 ‘Weren’t you-Sg present?’ (< /*śrè-w lè*/)
- b. *gólí*              *té:*              *śrè-Ø*  
 last.year      tea              not.be.Past-3SgSbj  
 ‘Last year there was no tea.’
- c. [*bòmàkó*    *ŋà*]              *śrè-y<sup>n</sup>*  
 [Bamako    Loc]      not.be.Past-1SgSbj  
 ‘I was not in Bamako.’

### 10.6.1.3 Past forms of other statives

Past forms of ‘have’ and ‘have not’ (§11.5.1) are in (xx2). There are slight differences in the forms elicited from the Boui and Ningo assistants

(xx1)              ‘had’              ‘had not’

	Boui	Ningo	Boui	Ningo
1Sg	<i>è sé-ỳ<sup>n</sup></i>	<i>é sè-ỳ<sup>n</sup></i>	<i>sé:-nè-y<sup>n</sup></i>	<i>sé:-né-ỳ<sup>n</sup></i>
1Pl	<i>nì-è sê:</i>	<i>nì é sê:</i>	<i>nì-sè:-né</i>	<i>nì sè:-nè</i>
2Sg	<i>è sé-Ẁ</i>	<i>é sè-Ẁ</i>	<i>sé:-nè-w</i>	<i>sé:-né-Ẁ</i>
2Pl	<i>è-è sê:</i>	<i>è é sè:</i>	<i>è sè:-né</i>	<i>è sè:-nè</i>
3Sg	<i>è sê:-∅</i>	<i>é sè-∅</i>	<i>sè:-né-∅</i>	<i>sè:-nè-∅</i>
3Pl	<i>è sè-ê:</i>	<i>é sỳ<sup>n</sup>-yè</i>	<i>sè:-n-ê:</i>	<i>sè:-níy-yè</i>

For the Ningo speaker, the tones are different from regular ‘have’ (xx2a) to past-time ‘had’ (xx2b). In the latter, the existential morpheme (*ε* unmarked, *ya* distant) is H-toned and the verb is L-toned.

- (xx2) a. *gí bá*      *è / yà*      *sá-ỳ<sup>n</sup>*  
house      Exist / Exist.Dist      have-1SgSbj  
‘I have a house (here/there).’ (Ningo)
- b. *gí bá*      *é / yá*      *sè-y<sup>n</sup>*  
house      Exist / Exist.Dist      have.Past-1SgSbj  
‘I had (used to have) a house (here/there).’ (Ningo)

Past forms of ‘know’ (§11.2.5.1) are in (xx3). In ‘know’ and ‘want’ (see just below), *-yé-* is suffixed to the regular positive form, where the *e*-vowel of the stem is shifted (Ningo assistant) or remains *e* (Boui assistant). In the negative, for Boui the shift to *ε* applies twice, to the stem-vowel /*e*/ and to the vowel of the suffix *-nì-*. For Ningo the suffix keeps its *i*-vowel.

(xx3) category	‘knew’		‘did not know’	
	Boui	Ningo	Boui	Ningo
1Sg	<i>yéy-yè-y<sup>n</sup></i>	<i>yéy-yé-ỳ<sup>n</sup></i>	<i>yè-nè-y<sup>n</sup></i>	<i>yé-ní-ỳ<sup>n</sup></i>
1Pl	<i>ní yèy-yé</i>	<i>ní yèy-yè:</i>	<i>nì yè-né</i>	<i>nì yè-nì</i>
2Sg	<i>yéy-yè-w</i>	<i>yéy-yé-Ẁ</i>	<i>yè-nè-w</i>	<i>yé-nú-Ẁ</i>
2Pl	<i>é yèy-yé</i>	<i>é yèy-yè:</i>	<i>è yè-né</i>	<i>è yè-nì</i>
3Sg	<i>yèy-yé-∅</i>	<i>yèy-yè:-∅</i>	<i>yè-né-∅</i>	<i>yè-nì-∅</i>
3Pl	<i>yèy-y-ê:</i>	<i>yěy-y-è:</i>	<i>yè-n-ê:</i>	<i>yè-n-â:</i>

Past forms of ‘want’ and ‘not want’ (§11.2.5.2) and of ‘resemble’ and ‘not resemble’ (§11.2.5.3) are in (xx4). The ‘resemble’ forms are from the Ningo assistant. The morphophonology is similar to that for ‘knew’ and ‘did not know’.

(xx4)	category	‘wanted’	‘did not want’
	1Sg	<i>céy-yê-y<sup>n</sup></i>	<i>cé-lê-y<sup>n</sup></i>
	1Pl	<i>nì cèy-yé</i>	<i>nì cè-là-Ø</i>
	2Sg	<i>céy-yê-w</i>	<i>cé-lê-w</i>
	2Pl	<i>e cèy-yé</i>	<i>è cè-là-Ø</i>
	3Sg	<i>cèy-yé-Ø</i>	<i>cè-lé-Ø</i>
	3Pl	<i>cèy-yê:</i>	<i>cè-l-ê:</i>
		‘resembled’	‘did not resemble’
	1Sg	<i>mòlé-y<sup>n</sup></i>	<i>mólé-né-y<sup>n</sup></i>
	1Pl	<i>nì mòlé</i>	<i>nì mòlê-nè</i>
	2Sg	<i>mòlê-w</i>	<i>mólé-né-w</i>
	2Pl	<i>è mòlé</i>	<i>è mòlê-nè</i>
	3Sg	<i>mòl-é:-Ø</i>	<i>mòlê-nè-Ø</i>
	3Pl	<i>mòlíy-yè</i>	<i>mòlê-níy-yè</i>

Derived statives like *bámbà-* ‘be carrying (on back)’, see §10.4.1, form the past by changing the stem-final *a* to *ε*, and making the same change in the vowel of stative negative *-na-* (xx5).

(xx5)	category	‘was carrying on back’	‘was not carrying on back’
	1Sg	<i>bámbè-y<sup>n</sup></i>	<i>bàmbé-nè-y<sup>n</sup></i>
	1Pl	<i>nì bámbè</i>	<i>nì bàmbè-né</i>
	2Sg	<i>bámbè-w</i>	<i>bàmbé-nè-w</i>
	2Pl	<i>è bámbè</i>	<i>è bàmbè-né</i>
	3Sg	<i>bámbè-Ø</i>	<i>bàmbè-né</i>
	3Pl	<i>bámbè-ê:</i>	<i>bàmbè-n-ê:</i>

#### 10.6.1.4 Past imperfective and past progressive

Since the imperfective and progressive forms end in variants of *bò- ~ wò-* ‘be’, past forms are easily created by shifting the final vowel to *ɛ*.

Positive past imperfectives with contextual senses like ‘used to go in’ and ‘was about to go in’ are in the first two data columns in (xx1). The suffixal vowel of the 3Sg form is short. The negative counterparts are based on *-rɛ-*, shifted from the usual imperfective negative *-râ-*.

##### (xx1) Past imperfective paradigm

category	‘went in’	‘danced’	‘did not go in’
1Sg	<i>nó:-wè-y</i>	<i>yéb-bè-y<sup>n</sup></i>	<i>nó:-rè-y<sup>n</sup></i>
1Pl	<i>nì nó:-wè</i>	<i>nì-yéb-bè</i>	<i>nì-nò:-rè</i>
2Sg	<i>nó:-wè-w</i>	<i>yéb-bè-w</i>	<i>nó:-rè-w</i>
2Pl	<i>è-nó:-wè</i>	<i>è-yéb-bè</i>	<i>è-nò:-rè</i>
3Sg	<i>nó:-wè-Ø</i>	<i>yéb-bè-Ø</i>	<i>nó:-rè-Ø</i>
3Pl	<i>nó:-wè-ê:</i>	<i>yéb-bè-ê:</i>	<i>nò:-r-ê:</i>

The close parallelism between imperfective and past imperfective is brought out in (xx2).

- (xx2) a. *mbé:*      *wàlè*      <sup>LH</sup>*kàm-bò-y<sup>n</sup>*  
 here      work(n)      <sup>LH</sup>do-Ipfv-1SgSbj  
 ‘I work here.’ (< *kán(ú)*)
- b. *mbé:*      *wàlè*      <sup>LH</sup>*kàm-bè-y<sup>n</sup>*  
 here      work(n)      <sup>LH</sup>do-**Ipfv.Past**-1SgSbj  
 ‘I used to work here.’

A **past progressive** paradigm is (xx3). The forms of simple ‘was (somewhere)’, see §10.6.1.1, reappear here but with final rising tone. The regular progressive form *-w<sup>n</sup> bǒ:-* likewise has final rising tone (§10.2.2.3). The corresponding negation is with *óré-* ‘was not (somewhere)’.

##### (xx3) Past progressive paradigm

category	‘was doing’	‘was not doing’
1Sg	<i>kànà-w<sup>n</sup> bě-y<sup>n</sup></i>	<i>kànà-w<sup>n</sup> óré-y<sup>n</sup></i>

1Pl	<i>kàná-w<sup>n</sup> nì-bě:</i>	<i>kàná-w<sup>n</sup> nì-òré</i>
2Sg	<i>kàná-w<sup>n</sup> bě-w</i>	<i>kàná-w<sup>n</sup> órè-w</i>
2Pl	<i>kàná-w<sup>n</sup> bě:</i>	<i>kàná-w<sup>n</sup> è-òré</i>
3Sg	<i>kàná-w<sup>n</sup> bě:-Ø</i>	<i>kàná-w<sup>n</sup> órè-Ø</i>
3Pl	<i>kàná-w<sup>n</sup> bè-ê:</i>	<i>kàná-w<sup>n</sup> ór-ê:</i>

#### 10.6.1.5 Past experiential perfect (-tèy-yé-)

The past experiential perfect (§10.2.1.3), glossable ‘had (at least once) VPed’, is formed by suffixing *-yé-* to the regular ending *-tèy ~ -té-*, resulting in *-tèy-yé- ~ -téy-yè-*. The corresponding negation is *-tè:-né- ~ -té:-nè-*, with unshifted *e* in the penult.

(xx1)	category	‘had (once) seen’	‘had never seen’
	1Sg	<i>bàli-yè-téy-yè-y<sup>n</sup></i>	<i>bàli-yè-té:-nè-y<sup>n</sup></i>
	1Pl	<i>nì-bàli-yè-tèy-yé</i>	<i>nì-bàli-yè-tè:-né</i>
	2Sg	<i>bàli-yè-téy-yè-w</i>	<i>bàli-yè-té:-nè-w</i>
	2Pl	<i>è-bàli-yè-tèy-yé</i>	<i>è-bàli-yè-tè:-né</i>
	3Sg	<i>bàli-yè-tèy-yé-Ø</i>	<i>bàli-yè-tè:-né-Ø</i>
	3Pl	<i>bàli-yè-tèy-y-ê:</i>	<i>bàli-yè-tè:-n-ê:</i>

#### 10.6.1.6 Past capacitative (-mè-)

The past version of capacitative *-mâ-* (§10.5) is *-mè-*. The preceding stem also switches from the O-stem to the E/I-stem, which is elsewhere associated with the perfective positive. The negative forms have *-mè-nè-* corresponding to nonpast *-ma-nâ-*. Sample positive and negative paradigms are in (xx1).

(xx1)		‘could sweep’	‘could not sweep’
	1Sg	<i>ígílé-mè-y<sup>n</sup></i>	<i>ígílé-mè-nè-y<sup>n</sup></i>
	1Pl	<i>nì-ìgìlè-mé</i>	<i>nì-ìgìlè-mè-né</i>
	2Sg	<i>ígílé-mè-w</i>	<i>ígílé-mè-nè-w</i>
	2Pl	<i>è-ìgìlè-mé</i>	<i>è-ìgìlè-mè-né</i>
	3Sg	<i>ígílé-mè-Ø</i>	<i>ígílé-mè-nè</i>



3Pl      *ígílé-mè-ê:*                      *ígílé-mè-n-ê:*

With a -ATR stem: *dóné-mè-Ø* ‘he/she could buy’, etc.

## 10.7 Imperatives and hortatives

### 10.7.1 Imperatives and prohibitives

#### 10.7.1.1 Imperative (unsuffixed singular, plural *-y<sup>n</sup>*)

The imperative stem, which without further affixation is the singular-addressee imperative, consists for most verbs of a **{L}-toned A/O-stem** of the verb (xx1a). The plural-addressee form adds suffix *-y<sup>n</sup>*, which raises the tone of its syllable to H, and shortens the long vowel of a monosyllabic stem. For *sé:gó-* ‘come down’, the imperative is {H}-toned and the plural suffix L-toned (xx1b).

(xx1)	gloss	stem	Sg Imprt	Pl Imprt
a.	‘eat, drink’	<i>ɲó:-</i>	<i>ɲà:</i>	<i>ɲá-y<sup>n</sup></i>
	‘pull’ or ‘shut’	<i>ímbó-</i>	<i>ìmbà</i>	<i>ìmbá-y<sup>n</sup></i>
	‘go’	<i>ún(ú)-</i>	<i>ùnù</i>	<i>ùnú-y<sup>n</sup></i>
	‘build’	<i>jà:ló-</i>	<i>jà:là</i>	<i>jà:lá-y<sup>n</sup></i>
	‘bring’	<i>sógó-</i>	<i>sògò</i>	<i>sògó-y<sup>n</sup></i>
	‘sleep’	<i>nóyó-</i>	<i>nòyò</i>	<i>nòyó-y<sup>n</sup></i>
	‘go down’	<i>sígó-</i>	<i>sìgò</i>	<i>sìgó-y<sup>n</sup></i>
	‘shave’ [tr]	<i>káy-rá-</i>	<i>kày-rà</i>	<i>kày-rá-y<sup>n</sup></i>
	‘sit’	<i>ów-yó-</i>	<i>òw-yò</i>	<i>òw-yó-y<sup>n</sup></i>
	‘jump’	<i>tómbó-</i>	<i>tòmbò</i>	<i>tòmbó-y<sup>n</sup></i>
	‘stand, stop’	<i>ígí-yó-</i>	<i>ìgì-yà</i>	<i>ìgì-yá-y<sup>n</sup></i>
	‘send here’	<i>yógó-mú-</i>	<i>yògò-m</i>	<i>yògò-mú-y<sup>n</sup></i>
b.	‘come down’	<i>sé:gó-</i>	<i>sé:gó</i>	<i>sé:gò-y<sup>n</sup></i>

Imperative stems for verbs with final nonhigh vowels are in (xx2).

#### (xx2) Imperative (final-nonhigh-vowel class)

	stem	Imprt	gloss
a.	<i>Cv, Cv:</i>		

+ATR		
<i>gó:-</i>	<i>gò:</i>	‘go out’
-ATR		
<i>dó:-</i>	<i>dò:</i> (Boui)	‘pound’ or ‘insult’
	<i>dwà:</i> (Ningo)	
<i>tó:-</i>	<i>tò:</i> (Boui)	‘pour’
	<i>twà:</i> (Ningo)	
<i>ɲó:-</i>	<i>ɲà:</i>	‘eat, drink’
b. NCv(:)		
<i>ndó-</i>	<i>ndà</i>	‘give’
c. CvCv		
with <i>a</i> from CaCv-		
<i>dáyó-</i>	<i>dàyà</i>	‘lay out’
with <i>o</i> from other +ATR stems		
<i>yógó-</i>	<i>yògò</i>	‘come’
<i>bí-yó-</i>	<i>bì-yò</i>	‘lie down’
with <i>a</i> from -ATR stem		
<i>yégó-</i>	<i>yègà</i>	‘fall’
<i>tógó-</i>	<i>tògà</i>	‘gather (wood)’
<i>dìyó-</i>	<i>dìyà</i>	‘abandon’
c. CvCCv		
+ATR		
<i>ów-yó-</i>	<i>òw-yò</i>	‘sit’
-ATR		
<i>émbó-</i>	<i>èmbà</i>	‘winnow in wind’
d. Cv:Cv		
<i>jà:ló-</i>	<i>jà:là</i>	‘build’ or ‘look’
irregular tones		
<i>sé:gó-</i>	<i>sé:gò</i>	‘come down’
e. trisyllabic and longer		
<i>ímbí-ló-</i>	<i>ìmbì-l-à</i>	‘open (door)’
<i>jínánǵó-</i>	<i>jìnàngà</i>	‘break’
<i>kándíyó-</i>	<i>kàndiyà</i>	‘do well’

Counterparts from verbs with final high vowels are in (xx3).

(xx3) Imperative (final-high-vowel class)

stem	Imperative	gloss
a. <i>CaC(ú)-</i>		
<i>dámú-</i>	<i>dàmà</i>	‘speak’
<i>kámú-</i>	<i>kàmà</i>	‘steal’
<i>Cán(ú)-</i>		
<i>kán(ú)-</i>	<i>kànà</i>	‘do’
<i>gán(ú)-</i>	<i>gànà</i>	‘put’
b. <i>CiC(ú)-, CuC(ú)-</i>		
<i>Cún(ú)-, Cín(ú)-</i>		
<i>ún(ú)-</i>	<i>ùnù</i>	‘go’
<i>sín(ú)-</i>	<i>sìnù</i>	‘take (convey)’
c. causatives		
<i>dú:rú-yó-mú-</i>	<i>dù:rù-yò-mù</i>	‘make (sb) run’
<i>yógó-mú-</i>	<i>yògò-mò</i>	‘send here’
<i>témá-mú-</i>	<i>tèmà-mà</i>	‘cause to eat (meat)’
<i>já:-mú-</i>	<i>jà:-mà</i>	‘cause to eat, feed’

Although the second person agent is normally unexpressed, in some ways it functions syntactically as a subject. A direct object has accusative marking under the same conditions as in indicative clauses (xx4a). The second person subject can bind anaphoric reflexives (xx4b), though in Tiranige these are of the ‘your head’ type rather than transpersonal reflexive pronouns of the sort found in Tomo Kan and Togo Kan.

- (xx4) a. *[mì gí] jà:là*  
[1Sg Acc] look.at.Imprt  
‘Look-2Sg at me!’
- b. *[ò <sup>LH</sup>kògó] jà:là*  
[2SgPoss <sup>LH</sup>head] look.at.Imprt  
‘Look at yourself!’

Under conditions that are not fully understood, simple spatiotemporal adverbs that always precede indicative verbs can be postposed to imperatives. In the current data I have found this

chiefly with ‘come’. For example, *mó-ŋà* or *mbé:* ‘here’ follows ‘come!’ as in (xx5a), but precedes ‘he/she came’ (xx5b).

- (xx5) a. *yògò*            *mbé:*  
 come.Imprt        here  
 ‘Come here!’
- b. *mbé:*            *yògè-Ø*  
 here            come.Pfv-3SgSbj  
 ‘He/She came here.’

Imperatives of ‘go’ and ‘come’ may combine with imperatives of another verb. In the case of ‘go’, the second verb takes {HL} overlay, even when separated from ‘go’ by an intervening constituent (xx6ab). Only the second verb is marked for plurality.

- (xx6) a. *ùni*            *jà:ŋgè*            *jà:*  
 go.Imprt    meal            eat.Imprt.HL  
 ‘Go-Sg eat!’  
 [plural: *ùni jà:ŋgè jà-y'*]
- b. *ùù*            *bí-yò*  
 go.Imprt    lie.down-MP.Imprt.HL  
 ‘Go-Sg (there) and go to bed!’

With ‘come’, there is no {HL} overlay on the following verb.

- (xx6) a. *yògò*            *jà:ŋgè*            *jà:*  
 come.Imprt meal            eat.Imprt  
 ‘Come-Sg eat!’  
 [plural: *yògò jà:ŋgè jà-y'*]
- b. *yògò*            *bì-yò*  
 come.Imprt    lie.down-MP.Imprt  
 ‘Come-Sg (here) and go to bed!’

#### 10.7.1.2 Prohibitive (*-lâ* ~ *-là*, plural *-lâ-y*)

For the younger assistant from Boui, the prohibitive (negative imperative) is formed, for most verbs, by adding suffix *-lâ* to the {H}-toned O-stem of the verb. The stem-final vowel is

therefore normally *o* or (syncopatable) *u* (§3.3.6). The form for plural addressee is *-lâ-y*. The older Ningó assistant had the same plural *-lâ-y* but pronounced the singular suffix as L-toned *-lâ*.

The prohibitive suffix *-lâ* is clearly distinct from stative negative *-na* (§10.4.2). For *sé:gó-* ‘come down’, singular *sé:gó-lá* has H-toned suffix, while plural *sé:gò-lâ-y* has {HL} stem and L-toned suffixes. Syncope occurs after unclustered medial {*n l*}, i.e. between two alveolar sonorants. After syncope, a resulting /*nl*/ assimilates to *nn*, and a resulting /*rl*/ assimilates to *ll*.

(xx1)	gloss	stem	Sg Proh	Pl Proh
a.	‘eat, drink’	<i>ɲó:-</i>	<i>ɲó:-lâ</i>	<i>ɲó:-lâ-y</i>
	‘pull’ or ‘shut’	<i>ímbo-</i>	<i>ímbo-lâ</i>	<i>ímbo-lâ-y</i>
	‘go’	<i>ún(ú)-</i>	<i>ún-nâ</i>	<i>ún-nâ-y</i>
	‘bring’	<i>sógó-</i>	<i>sógó-lâ</i>	<i>sógó-lâ-y</i>
	‘sleep’	<i>nóyó-</i>	<i>nóyó-lâ</i>	<i>nóyó-lâ-y</i>
	‘go down’	<i>sígó-</i>	<i>sígó-lâ</i>	<i>sígó-lâ-y</i>
	‘shave’ [tr]	<i>káy-rá-</i>	<i>kày-rà</i>	<i>kày-rá-y</i>
	‘jump’	<i>tómbó-</i>	<i>tómbó-lâ</i>	<i>tómbó-lâ-y</i>
	‘stand, stop’	<i>ígí-yó-</i>	<i>ígí-yó-lâ</i>	<i>ígí-yó-lâ-y</i>
	‘send here’	<i>yógó-mú-</i>	<i>yógó-m-lâ</i>	<i>yógó-m-lâ-y</i>
b.	‘come down’	<i>sé:gó-</i>	<i>sé:gó-lá</i>	<i>sé:gò-lâ-y</i>

Further examples of the singular prohibitive from verbs with final nonhigh vowel are in (xx2).

(xx2) Prohibitive (final-nonhigh-vowel class)

	stem	Prohibitive	gloss
a. <i>Cv, Cv:</i>			
	<i>gó:-</i>	<i>gó:-lâ</i>	‘go out’
	<i>dó:-</i>	<i>dó:-lâ</i>	‘pound’ or ‘insult’
	<i>tó:-</i>	<i>tó:-lâ</i>	‘pour’
	<i>ɲó:-</i>	<i>ɲó:-lâ</i>	‘eat, drink’
b. <i>NCv(:)</i>			
	<i>ndó-</i>	<i>ndó-lâ</i>	‘give’
c. <i>CvCv</i>			

<i>CaCv-</i>		
<i>dáyó-</i>	<i>dáyó-lâ</i>	‘lay out’
<i>nájó-</i>	<i>nájó-lâ</i>	‘have fun’
<i>other +ATR stem</i>		
<i>yógó-</i>	<i>yógó-lâ</i>	‘come’
<i>bí-yó-</i>	<i>bí-yó-lâ</i>	‘lie down’
<i>-ATR stem</i>		
<i>yégó-</i>	<i>yégó-lâ</i>	‘fall’
<i>tógó-</i>	<i>tógó-lâ</i>	‘gather (wood)’
<i>díyó-</i>	<i>díyó-lâ</i>	‘abandon’
<i>kúwó-</i>	<i>kúwó-lâ</i>	‘do farming’
<i>medial n</i>		
<i>tónó-</i>	<i>tón-nâ</i>	‘butcher’
<i>medial l</i>		
<i>túló-</i>	<i>túl-lâ</i>	‘sell’
<i>medial r</i>		
<i>póró-</i>	<i>pól-lâ</i>	‘throw’

c. *CvCCv*

	<i>ów-yó-</i>	<i>ów-yó-lâ</i>	‘sit’
ch	<i>émbó-</i>	<i>émbá-lâ</i>	‘winnow in wind’

d. *Cv:Cv*

	<i>já:ló-</i>	<i>já:l-lâ</i>	‘build’ or ‘look’
	<i>irregular tones</i>		
	<i>sé:gó-</i>	<i>sé:gó-lá</i>	‘come down’

e. trisyllabic and longer

	<i>ímbí-ló-</i>	<i>ímbí-l-lâ</i>	‘open (door)’
	<i>jínánǵó-</i>	<i>jínánǵó-lâ</i>	‘break’
	<i>kándíyó-</i>	<i>kándíyó-lâ</i>	‘do well’

Singular-addressee prohibitives from verb stems with final high vowels are in (xx3).

(xx3) Prohibitive (final-high-vowel class)

	stem	Prohibitive	gloss
a.	<i>CaC(ú)-</i>		
	<i>dámú-</i>	<i>dámú-lâ</i>	‘speak’

<i>kámú-</i>	<i>kámú-lâ</i>	‘steal’
<i>Cán(ú)-</i>		
<i>kán(ú)-</i>	<i>kán-nâ</i>	‘do’
<i>gán(ú)-</i>	<i>gán-nâ</i>	‘put’
b. <i>CiC(ú)-, CuC(ú)-</i>		
<i>Cún(ú)-, Cín(ú)-</i>		
<i>ún(ú)-</i>	<i>ún-nâ</i>	‘go’
<i>sín(ú)-</i>	<i>sín-nâ</i>	‘take (convey)’
c. causatives		
<i>dú:rú-yó-mú-</i>	<i>dú:rú-yó-m-lâ</i>	‘make (sb) run’
<i>yógó-mú-</i>	<i>yógó-m-lâ</i>	‘send here’
<i>témá-mú-</i>	<i>témá-m-lâ</i>	‘cause to eat (meat)’
<i>jà:-mú-</i>	<i>jà:-m-lâ</i>	‘cause to eat, feed’

The syntax is the same as that of the positive imperative regarding accusative case-marking and anaphoric objects.

- (xx4) a. *[mì            gí]            já:l-lâ*  
 [1Sg            Acc]            look.at.Proh  
 ‘Don’t look-2Sg at me!’
- b. *[ò            <sup>LH</sup>kògó]            já:l-lâ*  
 [2SgPoss    <sup>LH</sup>head]            look.at.Proh  
 ‘Don’t look at yourself!’

## 10.7.2 Hortatives

### 10.7.2.1 Hortative (-y<sup>n</sup>, plural -yây<sup>n</sup>)

By “hortative” without other modifier I mean the usual first person inclusive hortative, where the speaker proposes that he/she and the addressee(s) perform some action. As with the imperative, the hortative has two forms, the choice depending on number (singular versus plural) of addressees, excluding the speaker. The form for singular addressee could be described either as first person inclusive dual (‘you-Sg and I’) hortative, including all prospective agents, or as singular-addressee hortative.

The hortative is based on a **{HL}-toned E/I-stem**. The {HL} contour is realized as <HL> (monosyllabic), H.L, H.H.L, etc. The suffixes are -y<sup>n</sup> for singular addressee

(monophthongizes with preceding *i* to [i:], transcribed *î-y<sup>n</sup>*) and *-yày<sup>n</sup>* (Boui) for plural addressee. For Ningo a plural-addressee form *-y<sup>n</sup>y<sup>n</sup>à* was elicited but does not seem to be very common. The high-frequency hortative of ‘go’, *ní únì-y<sup>n</sup>* (plural *ní únì-yày<sup>n</sup>*), is often contracted to *ní:-nì-y<sup>n</sup>* (plural *ní:-nì-yày<sup>n</sup>*) in Boui, and to *nú:-ní-y<sup>n</sup>* (note the tone as well as the vocalism) in Ningo. 1Pl subject morpheme *nì* precedes the verb, as in indicative inflections. There is no stem-final syncope even between like consonants (i.e. y): *nì jíyè-yày<sup>n</sup>* ‘let’s-Pl harvest!’

The forms in arrays (xx1-3) are from my Boui assistant unless otherwise indicated.

(xx1)	gloss	stem	hortative	
			singular addressee	plural addressee
a. uncontracted				
<i>E-stem</i>				
	‘eat, drink’	<i>ɲó:-</i>	<i>nì ɲé-y<sup>n</sup></i>	<i>nì ɲé-yày<sup>n</sup></i>
	‘pull’ or ‘shut’	<i>ímbó-</i>	<i>nì ímbè-y<sup>n</sup></i>	<i>nì ímbè-yày<sup>n</sup></i>
	‘bring’	<i>sógó-</i>	<i>nì sógè-y<sup>n</sup></i>	<i>nì sógè-yày<sup>n</sup></i>
	‘sleep’	<i>nóyó-</i>	<i>nì nóyè-y<sup>n</sup></i>	<i>nì nóyè-yày<sup>n</sup></i>
	‘go down’	<i>sígó-</i>	<i>nì sígè-y<sup>n</sup></i>	<i>nì sígè-yày<sup>n</sup></i>
	‘come down’	<i>sé:gó-</i>	<i>nì sé:gè-y<sup>n</sup></i>	<i>nì sé:gè-yày<sup>n</sup></i>
	‘shave’ [tr]	<i>káy-rá-</i>	<i>nì káy-rè-y<sup>n</sup></i>	<i>nì káy-rè-yày<sup>n</sup></i>
	‘jump’	<i>tómbó-</i>	<i>nì tómbè-y<sup>n</sup></i>	<i>nì tómbè-yày<sup>n</sup></i>
	‘stand, stop’	<i>ígí-yó-</i>	<i>nì ígí-yè-y<sup>n</sup></i>	<i>nì ígí-yè-yày<sup>n</sup></i>
<i>I-stem</i>				
	‘send here’	<i>yógó-mú-</i>	<i>nì yógó-mì-y<sup>n</sup></i>	<i>yógó-mì-yày<sup>n</sup></i>
b. optionally contracted				
<i>I-stem</i>				
	‘go’	<i>ún(ú)-</i>	<i>nì únì-y<sup>n</sup></i> ~ <i>ní:-nì-y<sup>n</sup></i> (Boui) ~ <i>nú:-ní-y<sup>n</sup></i> (Ningo)	<i>nì únì-yày<sup>n</sup></i> ~ <i>ní:-nì-yày<sup>n</sup></i>

More examples of singular-addressee E-stem hortatives with verbs ending in a nonhigh vowel are in (xx2).

(xx2)	gloss	stem	hortative (singular addressee)
a. monosyllabic			
+ATR			
	‘go out’	<i>gó:-</i>	<i>nì gwê-y<sup>n</sup></i>



-ATR			
‘pound’	<i>dɔ́:-</i>	<i>nì dwê-y<sup>n</sup></i>	
‘eat, drink’	<i>ɲɔ́:-</i>	<i>nì ɲê-y<sup>n</sup></i>	
b. <i>nCv(:)</i>			
‘give’	<i>ndó-</i>	<i>ndê-y<sup>n</sup></i>	
c. <i>CvCv</i>			
+ATR			
‘lay out’	<i>dáyó-</i>	<i>nì dáyè-y<sup>n</sup></i>	
‘come’	<i>yógó-</i>	<i>nì yógè-y<sup>n</sup></i>	
‘lie down’	<i>bí-yó-</i>	<i>nì bí-yè-y<sup>n</sup></i>	
-ATR			
‘fall’	<i>yéǵó-</i>	<i>nì yéǵè-y<sup>n</sup></i>	
‘gather (wood)’	<i>tógó-</i>	<i>nì tógè-y<sup>n</sup></i>	
‘abandon’	<i>díyó-</i>	<i>nì díyè-y<sup>n</sup></i>	
c. <i>CvCCv</i>			
+ATR			
‘sit’	<i>ów-yó-</i>	<i>nì ów-yè-y<sup>n</sup></i>	
-ATR			
‘winnow in wind’	<i>émbó-</i>	<i>nì émbè-y<sup>n</sup></i>	
d. <i>Cv:Cv</i>			
‘build’ or ‘look’	<i>já:ló-</i>	<i>nì já:lè-y<sup>n</sup></i>	
<i>irregular tones</i>			
‘come down’	<i>sé:gó-</i>	<i>nì sé:gè-y<sup>n</sup></i>	
e. trisyllabic and longer			
‘open (door)’	<i>ímbí-ló-</i>	<i>nì ímbí-l-è-y<sup>n</sup></i>	
‘break’	<i>jínánǵó-</i>	<i>nì jínánǵè-y<sup>n</sup></i>	
‘do well’	<i>kándíyó-</i>	<i>nì kándíyè-y<sup>n</sup></i>	

More examples of singular-addressee I-stem hortatives from stems with final high vowel are in (xx3).

(xx3)	gloss	stem	Hort
a.	<i>CaC(ú)-</i>		
	‘speak’	<i>dámú-</i>	<i>nì dàmì-y<sup>n</sup></i>

‘steal’	<i>kámú-</i>	<i>nì kámì-y<sup>n</sup></i>
<i>Cán(ú)-</i>		
‘do’	<i>kán(ú)-</i>	<i>nì kánì-y<sup>n</sup></i>
‘put’	<i>gán(ú)-</i>	<i>nì gánì-y<sup>n</sup></i>
b. <i>CiC(ú)-, CuC(ú)-</i>		
	<i>Cún(ú)-, Cín(ú)-</i>	
‘go’	<i>ún(ú)-</i>	<i>nì únì-y<sup>n</sup></i> ~ <i>ní:-nì-y<sup>n</sup></i>
‘take (convey)’	<i>sín(ú)-</i>	<i>nì sínì-y<sup>n</sup></i>
c. causatives		
‘make (sb) run’	<i>dú:rú-yó-mú-</i>	<i>nì dú:rú-yó-mì-y<sup>n</sup></i>
‘send here’	<i>yógó-mú-</i>	<i>nì yógó-mì-y<sup>n</sup></i>
‘make eat (meat)’	<i>témá-mú-</i>	<i>nì témá-mì-y<sup>n</sup></i>
‘make eat, feed’	<i>ná:-mú-</i>	<i>nì ná:-mì-y<sup>n</sup></i>

As indicated and illustrated above, there is an overt 1Pl subject (xx4a-b). A direct object, if present, can take accusative marking (xx4a). Anaphoric objects such as reflexives (xx4b) can be used.

- (xx4) a. *[nà gí] nì télè-y<sup>n</sup>*  
 [3Sg Acc] 1PlSbj cut-HortSg  
 ‘Let’s-Dual cut him/her!’
- b. *[nì <sup>LH</sup>kògó] nì télè-y<sup>n</sup>*  
 [1PlPoss <sup>LH</sup>head] 1Pl cut-HortSg  
 ‘Let’s-Dual cut ourselves!’

The singular-addressee hortative is phonologically similar to the 1Sg perfective. For nonmonosyllabic stems, hortative *télè-y<sup>n</sup>* in the preceding examples is tonally distinct from 1Sg perfective *télé-y<sup>n</sup>* ‘I cut-Past’. For monosyllabic stems the two are homophonous in spite of my orthographic differentiation: *nì gwé-y<sup>n</sup>* ‘let’s go out!’ and *gwé-y<sup>n</sup>* ‘I cut’. In any event there is no possibility of confusion since the hortative verb is preceded by the 1Pl subject proclitic *nì*.

10.7.2.2 Hortative negative (-*lây<sup>n</sup>*, plural -*lây<sup>n</sup>y<sup>n</sup>â*)

The hortative negative is based on the {L}-toned **O-stem** of the verb. The suffix is -*lây<sup>n</sup>* for singular addressee in Boui (Ningo -lâ:y<sup>n</sup> with long vowel), -*lây<sup>n</sup>y<sup>n</sup>â* for plural addressee. -*lây<sup>n</sup>* closely resembles prohibitive -*lâ*, and the same segmental morphophonology occurs in both (syncope after unclustered medial {*l n r*}, then /nl/ > *nn* and /rl/ > *ll*). Moreover, both are based on the O-stem of the verb. These similarities are not surprising given the close pragmatic connection between imperatives and hortatives, and the fact that addressee number is marked in both. However, in addition to the small difference in suffixal segments, the two differ in stem tone contour, which is {L} for hortative negative and {H} for prohibitive.

(xx1) Hortative negative (Sg and Pl addressee)

gloss	stem	Sg HortNeg	Pl HortNeg
‘eat, drink’	<i>ɲó:-</i>	<i>nì ɲò:-lây<sup>n</sup></i>	<i>nì ɲò:-lây<sup>n</sup>y<sup>n</sup>â</i>
‘go’	<i>ún(ú)-</i>	<i>nì ùn-nây<sup>n</sup></i>	<i>nì ùn-nây<sup>n</sup>y<sup>n</sup>â</i>

Further examples of singular-addressee hortative negatives from stems with final nonhigh vowels are in (xx2).

(xx2) Hortative negative (final-nonhigh-vowel class)

stem	HortNeg	gloss
a. <i>Cv, Cv:</i>		
<i>gó:-</i>	<i>nì gò:-lây<sup>n</sup></i>	‘go out’
<i>ɲó:-</i>	<i>nì ɲò:-lây<sup>n</sup></i>	‘eat, drink’
b. <i>NCv(:)</i>		
<i>ndó-</i>	<i>nì ndò-lây<sup>n</sup></i>	‘give’
c. <i>CvCv</i>		
<i>CaCv-</i>		
<i>dáyó-</i>	<i>nì dáyà-lây<sup>n</sup></i>	‘lay out’
<i>other +ATR stem</i>		
<i>bí-yó-</i>	<i>nì bì-yò-lây<sup>n</sup></i>	‘lie down’
<i>-ATR stem</i>		
<i>díyó-</i>	<i>nì dìyò-lây<sup>n</sup></i>	‘abandon’
<i>medial n</i>		

<i>tónɔ-</i>	<i>nì tòn-nây<sup>n</sup></i>	‘butcher’
medial l		
<i>túlɔ-</i>	<i>nì tül-lây<sup>n</sup></i>	‘sell’
medial r		
<i>pórɔ-</i>	<i>nì pòl-lây<sup>n</sup></i>	‘throw’
c. CvCCv		
<i>ów-yó-</i>	<i>nì òw-yò-lây<sup>n</sup></i>	‘sit’
<i>émbɔ-</i>	<i>nì èmbò-lây<sup>n</sup></i>	‘winnow in wind’
d. Cv:Cv		
<i>já:lɔ-</i>	<i>nì jà:l-lây</i>	‘build’ or ‘look’
<i>sé:gó-</i>	<i>nì sè:gò-lây<sup>n</sup></i>	‘come down’
e. trisyllabic and longer		
<i>ímí-lɔ-</i>	<i>nì ìmbì-l-lây<sup>n</sup></i>	‘open (door)’
<i>jínángó-</i>	<i>nì jìnàngò-lây<sup>n</sup></i>	‘break’

Singular-addressee hortative negatives from verb stems with final high vowels are in (xx3).

(xx3) Hortative negative (final-high-vowel class)

stem	Prohibitive	stem gloss
a. CaC(ú)-		
<i>dámú-</i>	<i>nì dàmù-lây<sup>n</sup></i>	‘speak’
<i>Cán(ú)-</i>		
<i>kán(ú)-</i>	<i>nì kàn-nây<sup>n</sup></i>	‘do’
b. CiC(ú)-, CuC(ú)-		
<i>Cún(ú)-, Cín(ú)-</i>		
<i>ún(ú)-</i>	<i>nì ùn-nây<sup>n</sup></i>	‘go’
<i>sín(ú)-</i>	<i>nì sìn-nây<sup>n</sup></i>	‘take (convey)’
c. causatives		
<i>dú.rú-yó-mú-</i>	<i>nì dù:rù-yò-m-lây<sup>n</sup></i>	‘make (sb) run’

This hortative negative form is also used in quoted prohibitives (§10.7.3.2).

### 10.7.3 Quoted imperatives and hortatives

#### 10.7.3.1 Quoted imperatives (I/U-stem)

This form (**QuotImprt**) is used in quoted imperatives in a broad sense, including indirect imperatives that are conveyed by another person (xx1a), clarification requests regarding possible commands (xx1b), and regular quoted imperatives (jussives) as in narratives (xx1c). It is usually followed by either quotative *wa* or interrogative *ni*, but it can also be used without such a particle in imprecations (wishes, blessings, curses) involving third-party agents ('may God help you!'), on which see §10.7.3.3 below. In reported imperatives, the subject is separated from the remainder of the clause, both portions being followed by quotative particle *wà*.

- (xx1) a.  $[ò \quad \text{}^{\text{LH}}\text{bàwá}] \quad [ò \quad \text{wà}] \quad [yògù \quad \text{wà}]$   
 [2SgPoss  $\text{}^{\text{LH}}$ father] [2Sg Quot] [come.QuotImprt say]  
 'Your-Sg father says (for you-Sg) to come.'
- b.  $(\text{mì}) \quad yògì \quad \text{ní}$   
 (1Sg) come.QuotImprt Q  
 '(Did you say/signal) (for me) to come?'
- c.  $[\hat{\text{a}}:\text{màdú} \quad \text{wà}] \quad [yògù \quad \text{wà}]$   
 [A QuotSbj] [come.QuotImprt Quot]  
 'He told Amadou to come.'  
 (= 'He said to Amadou, come!' or 'He said: hey Amadou, come!')

The tone contours (including irregularities) are identical to those of the imperative. The vocalism is unique to this verb form, and could be called the **I/U-stem**. It resembles the E/I-stem, but vowels of nonfinal syllables are shifted from -ATR to +ATR, and final  $\{\text{e}(\cdot) \text{e}(\cdot)\}$  are raised to  $\{i \dot{i}\}$ . This form with final  $\{i \dot{i}\}$  is the only surface form for monosyllabic verbs whose E/I-stems do not contain *w* (*Ce:-*, *NCe:-*). It is also the only surface form for nonmonosyllabic verbs whose E/I-stem otherwise ends in *iyē-* or *iyε-*, including underlying */iyē/* or */iyε/* whose */i/* is elsewhere syncopated ('sit'). For these nonmonosyllabic verbs, the final long *i:* of the I/U-stem could be analysed as the result of monophthongizing */iyi/*. All other verbs, i.e. monosyllabic stems whose E/I-stem contains *w* (*Cwe:-*, *Cwe:-*, *we:-*) and most nonmonosyllabic stems, shift the final  $\{i \dot{i}\}$  to  $\{u \dot{u}\}$  before quotative *wa* (xx1a,c), but keep  $\{i \dot{i}\}$  before the interrogative particle, which itself appears in the allomorph *ni* (rather than *le*) in this combination (xx1b).

Representative forms for stems with final nonhigh vowels are in (xx2).

(xx2) QuotImprt (final-nonhigh-vowel class, Boui)

stem	QuotImprt	gloss
a. <i>Cv, Cv:</i>		
+ATR		
<i>gó:-</i>	<i>gù:    gwì:</i>	‘go out’
-ATR		
<i>dó:-</i>	<i>dù:    dwì:</i>	‘pound’ or ‘insult’
<i>nó:-</i>	<i>nì:</i>	‘eat, drink’
b. <i>NCv(:)</i>		
<i>ndó-</i>	<i>ndì:</i>	‘give’
c. <i>CvCv</i>		
+ATR		
<i>dáyó-</i>	<i>dâyù    dâyi</i>	‘lay out’
<i>yógó-</i>	<i>yògù    yògi</i>	‘come’
<i>bí-yó-</i>	<i>bì:</i>	‘lie down’
-ATR		
<i>yégó-</i>	<i>yègù    yègi</i>	‘fall’
<i>tógó-</i>	<i>tògù    tògi</i>	‘gather (wood)’
<i>dìyó-</i>	<i>dì:</i>	‘abandon’
c. <i>CvCCv</i>		
+ATR		
<i>ów-yó-</i>	<i>òwì:</i>	‘sit’
-ATR		
<i>émbó-</i>	<i>èmbù    èmbì</i>	‘winnow in wind’
d. <i>Cv:Cv</i>		
<i>jà:ló-</i>	<i>jà:lù    jà:lì</i>	‘build’ or ‘look’
<i>irregular tones</i>		
<i>sé:gó-</i>	<i>sé:gù    sé:gi</i>	‘come down’
	[with particles: <i>sé:gù wà, sé:gi ní</i> ]	
e. trisyllabic and longer		
<i>ímbí-ló-</i>	<i>ìmbù-l-ù    ìmbì-l-ì</i>	‘open (door)’
<i>jínánḡó-</i>	<i>jìnànḡù    jìnànḡi</i>	‘break’
<i>kándíyó-</i>	<i>kàndì:</i>	‘do well’

Corresponding forms from verbs with final high vowels are in (xx3).

(xx3) QuotImprt (final-high-vowel class, Boui)

stem	QuotImprt	gloss
a. <i>CaC(ú)-</i> <i>dámú-</i>	<i>dàmù  dàmì</i>	‘speak’
<i>Cán(ú)-</i> <i>kán(ú)-</i>	<i>kànù  kànì</i>	‘do’
b. <i>CiC(ú)-, CuC(ú)-</i> <i>Cún(ú)-, Cín(ú)-</i> <i>ún(ú)-</i>	<i>ùnù  ùnì</i>	‘go’
c. causatives <i>jà:-mú-</i>	<i>jà:-mù  jà:-mì</i>	‘cause to eat, feed’

As noted above, interrogative particle (usually *lè*) takes the form *nì* in this combination. This *nì* is elsewhere found as the fusion of /le/ with preceding 1Sg pronominal-subject suffix *-y<sup>n</sup>* (§xxx). A reasonable hypothesis is that the quoted imperative originally had a suffix *\*-y<sup>n</sup>* (or *\*-y<sup>n</sup>*), which monophthongized with a preceding high vowel.

### 10.7.3.2 Quoted prohibitives (*-lây<sup>n</sup>*)

Quoted prohibitives have the same verb form as the regular **hortative negative** (§10.6.2.2), with suffix *-lây* added to the {L}-toned **O-stem**. The suffix combines with quotative *wa* as *-lá wà*, and with the interrogative particle *le* as *-lá nì*. The full form *-lây<sup>n</sup>* is heard in wishes and imprecations involving third-party agents such as ‘God’, as in the (improbable) (xx1b).

- (xx1) a. *[ò*            <sup>LH</sup>*bàwá]*    *[ó*    *wá]*            *yògò-lá*            *wà*  
 [2SgPoss    <sup>LH</sup>father]    [2Sg    QuotSbj]    come-HortNeg    say  
 ‘Your-Sg father says (for you) not to come.’ (Boui)
- b. *(mì)*            *yògò-lá*            *nì*  
 (1Sg)            come-HortNeg    Q  
 ‘(Did you say/signal) (for me) not to come?’ (Boui)

### 10.7.3.3 Quoted hortative

A hortative may be quoted. The regular hortative verb form is used. Plural-addressee marking is not present in my examples (from Ningo). This may be a hard grammatical restriction (as in other Dogon languages), but it is difficult to show this since plural-addressee marking is uncommon anyway in this dialect.

- (xx1) *sé:dú* [*bó:* *gì*] *nú:-ní-y<sup>n</sup>* *wá* <sup>LH</sup>*gùné-Ø*  
 S [together Loc] 1PlSbj-go-Hort Quot <sup>LH</sup>say.Pfv-3SgSbj  
 ‘Seydou said (to me), “let’s go together!”’ (Ningo)

### 10.7.3.4 Imperative and hortative imprecations (rewrite)

After developing this hypothesis based on the Boui data, I was pleased to find forms with *-y<sup>n</sup>* in the Ningo dialect. This form, however, is not used in simple quoted imperatives, which have the same bare I/U-stem as in Boui (xx4)

- (xx4) [*ò* <sup>LH</sup>*bàbá*] [*ò* *wá*] [*yògù* *wà*]  
 [2SgPoss <sup>LH</sup>father] [2Sg Quot] [come.QuotImprt say]  
 ‘Your-Sg father says (for you-Sg) to come.’ (Ningo)

Rather, the *-y<sup>n</sup>* forms are found only in wishes and imprecations, generally with ‘God’ as subject. I will call it the third-person hortative (**3Hort**). Some examples are in (xx5). (xx5a) is the Ningo counterpart of (xx1d) above.

- (xx5) a. *á:* *yógó-bó* *nà* *tà:rì-y<sup>n</sup>*  
 God come-Ipfv.Rel 3SgSbj show-3Hort  
 ‘May God show you what is coming (=give you long life)!’ (Ningo)
- b. *á:* [*írò* *gì*] *nà* *bàrì-y<sup>n</sup>*  
 God [better Loc] 3SgSbj help-3Hort  
 ‘May God help (you) get better!’ (to a sick person) (Ningo)
- c. *á:* *nà* *bì:-rì-y<sup>n</sup>*  
 1SgSbj 3SgSbj lie.down-Tr-3Hort  
 ‘May God have (him) lie down (=rest in peace)!’ (after a death) (Ningo)



- d. *á: yògó: nà tà:rì*  
 God future 3Sg show.QuotImpert  
 ‘May God show you the future (=give you long life)!’  
 (said e.g. on holy days) (Boui)  
 (Ningo has *á: yógó-bó nà tà:rì-y<sup>n</sup>*)  
 [*yògó:* contracted from \**yógó-bó* ‘what is coming’]

- b. *á: yògó: nà tà:l-lây<sup>n</sup>*  
 God future 3Sg show-HortNeg  
 ‘May God not show you the future!’ (from /*tà:rì-/*) (Boui)

# 11 Clause, VP, and predicate structure

## 11.1 Clausal constituents

Linear order is SOV, where S and V are nonpronominal VPs. Setting adverbs like ‘yesterday’ often precede the subject NP.

### 11.1.1 Subjects

#### 11.1.1.1 Subjects in indicative main clauses

Subject NPs are clause-initial, except for setting adverbs. Third person subject NPs require agreement in the verb, though 3Sg is the zero category. 1st/2nd person subjects, barring focalization, are expressed by a combination of suffixes (1Sg, 2Sg, 3Pl) and proclitic-like preverbal elements (1Pl, 2Pl).

Subjects are the normal antecedents for reflexive objects, though in Tiranige these are of the type ‘my head’ (‘I saw my head’ = ‘I saw myself’).

#### 11.1.1.2 Subjects in relative and complement clauses

Subjecthood plays a role in some subordinated clauses, to the extent that they require coindexation of the subjects of the subordinated and matrix clauses. However, switch-reference subordination is only moderately well-developed in Tiranige. See §15.2.1.2 and §15.2.2.1-4 for discussion.

In relative clauses, the usual pronominal-subject elements (suffixes, proclitics) are modified. Subject relatives have no such pronominal marking since the head NP is itself the subject. In nonsubject relatives, all pronominal subjects are expressed by preverbal proclitics; see §14.3.

#### 11.1.1.3 Subjects of imperative and hortative verbs

In imperatives, the implied second person agent is not directly expressed, except that addressee number is indicated by presence/absence of a plural-addressee suffix on the imperative verb (§10.7.1.1).

The implied second person agent can bind a reflexive object, as in ‘look at yourself!’ However, reflexive objects have the form of possessed nouns (‘your head’).

In hortatives (‘let’s VP!’), there is an overt IPI subject pronoun, in addition to the marking of addressee number.

#### 11.1.1.4 Subjects of lexicalized subject-verb combinations

There are a few subject-verb collocations where either the subject NP or the verb has little independent semantic content. In (xx1a), two collocations involving *yé* as pro forma subject denote day/night transitions. *yé* is not elsewhere attested as a noun, and monomoraic *Cv* is too small for a normal noun stem. In (xx1b), on the other hand, the subject is *á:mì* ‘rain’, and the verb is pro forma. Data are from Boui.

- (xx1) a. *yé déńó-* ‘night fall’      *yà:gù* ‘night’, *déńó-* ‘spend mid-day’  
           *yé yó:-* ‘day break’      cf. *yó:-* ‘pick up’
- b. *á:mì tégó-* ‘rain fall’      (*tégó-* not attested elsewhere)

#### 11.1.2 Simple transitives

##### 11.1.2.1 Direct objects of simple transitives

There is a clear difference between subject and objects. If both are nonpronominal, subjects normally precede objects. Subjects but not objects are involved in pronominal agreement in verbs, and subjects but not objects are involved in determining same-subject status.

On the other hand, there is no sharp difference between direct objects and dative-like indirect objects, especially for ditransitive verbs like ‘give’. Pronominal and human direct or indirect objects can be marked by postposition-like accusative *gì* (§6.7) following the NP.

Perception verbs like *bálí-yó-* ‘see’ and *nú:ndó-* ‘hear’ are ordinary transitives with subjects and objects like those of canonical transitives.

Many activity verbs that are low in transitivity (e.g. ‘dance’, ‘cough’) are transitive in that they commonly occur with an object-like cognate nominal (‘dance a dance’, ‘cough a cough’); see §11.1.2.5-6 below.

11.1.2.2 *kán(ú)* ‘do’ with nouns and unconjugatable words

*kán(ú)* ‘do’ can combine with nouns (especially borrowings) or semi-onomatopoeic elements (‘hiccup’, ‘bellow’) that cannot otherwise function as predicates. This construction is very characteristic of Tiranige. Examples from Boui are below.

- |       |    |   |  |
|-------|----|---|--|
| (xx1) | a. | <i>jìwé</i><br><i>jìwé kán(ú)</i>           | ‘carion (unslaughtered dead animal)’<br>‘(livestock animal) die naturally’ |
|       | b. | <i>bìgè-bígè</i><br><i>bìgè-bígè kán(ú)</i> | ‘hiccups’<br>‘have the hiccups’  |
|       | c. | <i>újé</i><br>[X gí] <i>újé kán(ú)</i>      | ‘sweat(n)’<br>‘X sweat, perspire’ (X is object)                            |
|       | d. | <i>pèní</i><br><i>pèní kán(ú)</i>           | ‘comb(n)’ (Fr. <i>peigne</i> )<br>‘comb (something)’                       |
|       | e. | <i>hùbí</i><br><i>hùbí kán(ú)</i>           | ‘bellowing’ (< Ful.)<br>‘(adult male animal) bellow’                       |
|       | f. | <i>kúná</i><br><i>kúná kán(ú)</i>           | ‘oath, sworn statement’<br>‘swear, take an oath’                           |
|       | g. | <i>wà:jú</i><br><i>wà:jú kán(ú)</i>         | ‘Muslim sermon’<br>‘deliver a sermon’                                      |
|       | h. | <i>sà:ní</i><br><i>sà:ní kán(ú)</i>         | ‘prayer’<br>‘pray, perform a prayer’                                       |
|       | i. | <i>wàlè</i><br><i>wàlè kán(ú)</i>           | ‘work(n)’<br>‘perform work’  |

In inflected forms in which *kán(ú)* begins with a H-tone, a preceding {LH}-toned word drops its final H-tone by phonological rule. In (xx1d), for example, the H-tone in *pèní* is actually incorrect before *kán(ú)*, but here (and in the lexicon) I write the H-tone to present the lexical tone, which is audible in isolation or before a L-tone. In sentence examples and in texts I transcribe the actual output tone, e.g. *pèní* (xx2a) versus *pèni* (xx2b).

- (xx2) a. *pèní*                      *kàni-Ø*

comb do.Pfv-3SgSbj  
 ‘He/She combed.’ (Boui)

- b. *pèni kání-ỳ<sup>n</sup>*  
 comb do.Pfv-1SgSbj  
 ‘I combed.’ (Boui)

### 11.1.2.3 *gún(ú)*- ‘say’ and causative *gúná-m(ú)*- with onomatopoeias

*gún(ú)*- ‘say’ and its causative *gúná-m(ú)*- are the auxiliaries of choice with more transparent onomatopoeias. *gúná-m(ú)*- suggests volitional agency, *gún(ú)*- does not.

- (xx2) a. *bí<sup>n</sup>→ gùnè-∅*  
 vibrate say.Pfv-3SgSbj  
 ‘It (e.g. motor) vibrated.’ (Boui)

- b. *dín-dán-díw<sup>n</sup> gùnà-mì-∅*  
 pitter-patter say-Caus.Pfv-3SgSbj  
 ‘He/She went pitter-patter (sound of footsteps).’ (Boui)

*gúná-m(ú)* can also be used as a true causative of the collocation with *gún(ú)*-, as in *bí<sup>n</sup>→ gúná-m(ú)*- ‘cause (something) to vibrate’.

### 11.1.2.4 Collocations with low-referentiality objects

‘X bathe’ is expressed as *mí: dú-yó-* including *mí:* ‘water’. *dú-yó-* (or a homonym) by itself means ‘carry (from underneath, esp. on one’s head)’. Data are from Boui.

- |                          |                  |   |
|--------------------------|------------------|---|
| (xx1) <i>mí: dú-yó-</i>  | ‘bathe’          | <i>mí:</i> ‘water’, <i>dú-yó-</i> ‘carry’ |
| <i>pélé bám(ú)-</i>      | ‘applaud’        | <i>bám(ú)-</i> ‘beat (tomtom)’            |
| <i>kó:ní gó:gó-m(ú)-</i> | ‘cast a spell’   | <i>gó:gó-m(ú)-</i> ‘take out’             |
| <i>tóndá: ún(ú)-</i>     | ‘take a walk’    | <i>ún(ú)-</i> ‘go’                        |
| <i>pólngé súgó-</i>      | ‘lay an egg’     | <i>súgó-</i> ‘go down’                    |
| <i>só:ndí tó:-</i>       | ‘spit’           | <i>só:ndí</i> ‘saliva’                    |
| <i>bé:w gún(ú)-</i>      | ‘belch’          | <i>gún(ú)-</i> ‘say’                      |
| <i>ènjè élogó-</i>       | ‘chew one’s cud’ |   |

Cognate nominals may also be low in referentiality, see below.

### 11.1.2.5 Forms of cognate nominals associated with verbs

Examples of collocations involving a verb and a cognate nominal are in (xx1). The nominals are of two main phonological types. One, which includes all trisyllabics and many bisyllabics, ends in a short high vowel  $\{i\ u\}$ , the choice between them probably predictable from surrounding consonants and vowels. The other type, which includes all monosyllabics and many bisyllabics, ends in a non-high vowel that is consistent with the E/I-stem or A/O-stem of the corresponding verb. Data are from Boui.

(xx1) a. *Cv*: including *Cwv*:

*Cv*: after non-alveolar

*yé: yó:-* ‘fart’

*Cv*: after alveolar

*nwé: nó:-* ‘sing (a song)’

*dwé: dó:-* ‘insult’

*twé: tó:-* ‘lie, tell a lie’

b. *CvCv*

*CvCu*

*péwú péwó-* ‘whistle’

*yèwù yéwó-* ‘dance (a dance)’

*wògù wógó-* ‘(dog) bark’

*núgú nógó-* ‘count (1, 2, 3, 4, ...)’

*nújú nújó-* ‘groan, moan’

*yàhù yáhí-yó-* ‘have a fight’

*ségú ségó-* ‘make a contribution, pay dues’

*CvCi*

*ónjí ónjó-* ‘urinate’

*nàjì nájó-* ‘have fun’

*cìrì círí-yó-* ‘have a discussion’

other *CvCv*

*túlé túló-* ‘give out a shout’

*kúwó kúwó-* ‘do farm work, work in fields’

*jìyò jíyó-* ‘harvest (with knife)’

*súgó súgó-* ‘defecate’

*kómó kómó-* ‘weep’

c. *CvCCv*

<i>CvCCi</i>	
<i>énjí énjó-</i>	‘vomit’
<i>màndì mándó-</i>	‘laugh’
other <i>CvCCv</i>	
<i>sàmbò sámbó-</i>	‘do the second round of weeding’

d. *Cv:Cv*

<i>Cv:Ci</i>	
<i>tà:nì tá:nú-</i>	‘go hunting’
other <i>Cv:Cv</i>	
<i>tí:lé tí:ló-</i>	‘tell a story’

e. trisyllabic

<i>CvCvCu</i>	
<i>túgújú túgújó-</i>	‘stutter’
<i>CvCvCi</i>	
<i>kóródí kóródó-</i>	‘cough’
<i>káradí káradó-</i>	‘clear one’s throat’
<i>újárí újáró-</i>	‘ask a question’
<i>gúradí gúradó-</i>	‘snore’
<i>yámánjí yámánjó-</i>	‘have a dream’

Interesting vocalic differences (disregarding the final vowel of the verb, which is subject to ablaut) occur in (xx2).

(xx2) *nógórí nágáí-yó* ‘think; be worried’ (Boui)

Other similar deverbal nominals include those with suffix *-ngé* (§4.2.2). All verbs can form the productive verbal noun with *-wà* (§4.2.3).

#### 11.1.2.6 Grammatical status of cognate nominal

Although in many cases the cognate nominal in such collocations is generic, it can be determined or modified and is therefore not always a mere pro forma element. For one thing, particles like *là* ‘also’ cannot take a verb, VP, or clause in its scope, and they must therefore attach to a cognate nominal or some other noun-like element in a clause. Therefore ‘he sings too’ must be phrased as “[songs too] he sings.” Likewise, when the event unit is quantified over, as in ‘he laughed three times’, this is normally phrased as “[three laughs] he laughed.”

A good example of an adjectivally modified cognate nominal is (xx1), which refers to the very important first of two rounds of weeding in the millet fields during the rainy season.

- (xx1) *[kùwɔ̃<sup>L</sup> gó:] kúwɔ̃-*  
 [farming<sup>L</sup> first] do.farming-  
 ‘do the first round of weeding’ (Boui)

### 11.1.3 Clauses with additional arguments and adjuncts

#### 11.1.3.1 Syntax of expressive adverbials (EAs)

Expressive adverbials (§8.4.5) are often optional adjuncts in clauses. However, they be made predicative by adding quasi-verb *bǒ-* ‘be (somewhere)’, its negation *órâ-* ‘not be, be absent (somewhere)’, or a form (positive or negative) of the regular verb *bíló-* ‘become’.

- (xx1) a. *[ijó rì] tɛ<sup>n</sup>-tɛw<sup>n</sup> nì ùnì*  
 [village Def] straight 1PISbj go.Pfv  
 ‘We went straight to the village.’ (Boui)
- b. *tɛ<sup>n</sup>-tɛw<sup>n</sup> bǒ:-∅*  
 straight be-3SgSbj  
 ‘It (path, stick) is straight.’ (Boui)
- c. *tɛ<sup>n</sup>-tɛw<sup>n</sup> órâ-∅*  
 straight not.be-3SgSbj  
 ‘It is not straight.’ (Boui)
- d. *tɛ<sup>n</sup>-tɛw<sup>n</sup> bìlè-∅*  
 straight become.Pfv-3SgSbj  
 ‘It became straight.’ (Boui)

#### 11.1.3.2 Adverbial phrases with verbs of motion, being in, and putting

Motion verbs like ‘go’ and ‘come’ are intransitive and may combine with a locational adverb or adverbial phrase (PP or spatial relative clause). Even place names such as city names are overtly marked with a locative postposition in such clauses.

- (xx1) a. *[mótí yá] <sup>LH</sup>ùnì-∅*



[Mopti Loc] <sup>LH</sup>go.Pfv-3SgSbj  
 ‘He/She went to Mopti [focus].’ (Boui)

- b. [mótí yá] gwè:-Ø  
 [Mopti Loc] go.out.Pfv-3SgSbj  
 ‘He/She left (or: came from) Mopti.’ (Boui)

Most predicates of spatial position involve *bò-* ‘be (somewhere)’ plus a locational expression. This applies, for example, to ‘be [in X]’ predicates (xx2a). Some other spatial relationships are commonly expressed by specialized stative verbs like *dàngà-* ‘be on wall (i.e. on a vertical plane)’ and *sàngà-* ‘be up on (something)’, but the locational expression still has locative rather than object form (xx2bc).

- (xx2) a. [mí: rì] [[óri <sup>LH</sup>kùlyé] nà] <sup>LH</sup>bǒ:-Ø  
 [water Def] [[waterjar <sup>LH</sup>inside] Loc] <sup>LH</sup>be-3Sg  
 ‘The water is in the waterjar.’ (Boui)

- b. [bó:lò rì] [[jíwá <sup>LH</sup>bàngá] nà] *dàngà*-Ø  
 [agama Def] [[house <sup>LH</sup>wall] Loc] be.on.wall.Stat-3SgSbj  
 ‘The agama lizard is on the wall.’ (*bó:ló*) (Boui)

- c. [bàràdá rì] [púrné nà] *sàngà*-Ø  
 [tea.kettle Def] [burner Loc] be.up.on.Stat-3SgSbj  
 ‘The tea kettle is (set) up on the burner.’ (Boui)

‘Put’ verbs take an object and a locational expression.

- (xx3) [mángòró rì] [[óri <sup>LH</sup>dùńó] nà] <sup>LH</sup>dìyě-ý<sup>n</sup>  
 [mango Def] [[waterjar <sup>LH</sup>under] Loc] <sup>LH</sup>put.Pfv-1SgSbj  
 ‘I put the mangoes under the waterjar [focus].’ (Boui)

### 11.1.3.3 Ditransitives

Verbs like ‘give’ and ‘show’ take two direct objects morphologically. Specifically, the indirect object (usually human and often pronominal) is regularly marked by accusative *gì*.

#### 11.1.3.4 Valency of causatives

Causatives can have two or even three object NPs, including the agent of the subordinated clause. In ‘cause X to give Y to Z’, both X and Z are normally human and are marked with accusative *gi*. The theme Y is usually inanimate and lacks accusative marking but is presumably also an object.

- (xx1) [sàydú gi] [à:màdú gi] céléngé ndá:-mí-ỳ<sup>n</sup>  
[Seydou Acc] [Amadou Acc] money give-Caus-1SgSbj  
‘I had Seydou give (some/the) money to Amadou.’ (Boui)

#### 11.1.4 Verb Phrase

VP is useful in connection with verb(-phrase) chains (chapter 15), where the subject is held constant over the two clauses. It is also useful in verbal nouns, which can function as subjectless VP complements.

### 11.2 ‘Be’, ‘become’, ‘have’, and other statives and inchoatives

#### 11.2.1 ‘It is’ clitics

##### 11.2.1.1 Positive ‘it is’ (=w̃<sup>n</sup>~ =wò~ =yò)

The ‘it is’ clitic, used in identificational predicates (‘it’s me’, ‘it’s s bird’), is also used to focalize a nonpredicative constituent, see §13.1.1.3.

The clitic has syllabic and nonsyllabic variants. The syllabic variants are =wò and =yò, which shift to H-tone after a {L}-toned word or pronoun. We get =yò (becoming =yó) after pronouns ending in *i* (1Sg, 1Pl) and just =yò after names ending in a high vowel (*à:màdú* ‘Amadou’, *sì:dí* ‘Sidi’). This leaves =wò (sometimes becoming =wó) after pronouns and names ending in a nonhigh vowel. Pronouns have long vowels before =wó but not before =yó.

The nonsyllabic variant is nasalized =w̃<sup>n</sup>. This form is used after common nouns, and after plural *-gè*. The L-tone is normally audible, but in interrogatives the usual final intonational pitch rise obscures the L-tone. In cases where I initially transcribed unnasalized =w̃, this turned out to be a phonetic variant of the syllabic form =wò (see above), and the syllabic form was preferred in careful speech.

Demonstrative *mbó* ‘this/that’ forms *mbô=.* with long vowel and falling tone. Data are from Boui.

(xx1) a. interrogative

<i>à: = wó</i>	‘who is it?’
<i>áṅgá = w̃<sup>n</sup> ↗</i>	‘it is how many?’
<i>ndégé = w̃<sup>n</sup> ↗</i>	‘what is it?’

b. with noun

<i>jíwá = w̃<sup>n</sup></i>	‘it’s a house’
<i>níyè = w̃<sup>n</sup></i>	‘it’s a bird’
<i>ná:-gé = w̃<sup>n</sup></i>	‘they are cows’
<i>ná = w̃<sup>n</sup></i>	‘it’s a cow’ (from <i>ná:</i> )
<i>ámhá = w̃<sup>n</sup></i>	‘it’s a sheep’
<i>ùnà = w̃<sup>n</sup></i>	‘it’s a goat’
<i>ndà:-yé = w̃<sup>n</sup></i>	‘it’s a woman’
<i>mì bàwá = w̃<sup>n</sup></i>	‘it’s my father’

c. with pronoun

<i>mì = yó</i>	‘it’s me’
<i>nì = yó</i>	‘it’s us’
<i>ò: = wó</i>	‘it’s you-Sg’
<i>è: = wó</i>	‘it’s you-Pl’
<i>nà: = wó</i>	‘it’s him’
<i>cè: = wó</i>	‘it’s them’

d. with name

<i>à:màdú = yò</i>	‘it’s Amadou’
<i>sì:dí = yò</i>	‘it’s Sidi’
<i>hà:wá = wò</i>	‘it’s Hawa’
<i>à:dámá = wò</i>	‘it’s Adama’
<i>díkó = wò</i>	‘it’s Dicko’
<i>sìdibé = wò</i>	‘it’s Sidibe’
<i>bòmàkó = wò</i>	‘it’s Bamako (city)’

e. other

<i>mbô = :</i>	‘that’s it’
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The topic (the referent who is identified or specified) may appear as a kind of subject NP preceding the identificational predicate (‘that’ in ‘that’s a bird’), or it may be covert if understood in context.

The ‘it is’ clitic is not morphologically conjugatable. However, preposed subject pronouns can be added to specify a pronominal theme. Data are from Boui.

- (xx2) *mì sójó = w̃<sup>n</sup>* ‘I am a Dogon.’  
*nì sójó-gé = w̃<sup>n</sup>* ‘we are Dogon.’  
*ò sójó = w̃<sup>n</sup>* ‘you-Sg are a Dogon.’

### 11.2.1.2 ‘It is not’ (= *là* ~ *lá*)

The negative counterpart of the ‘it is’ clitic is =*là*. It replaces, rather than being superimposed on, the positive ‘it is’ clitic. Data are from Boui.

- (xx1) *ná: = là* ‘it’s not a cow’  
*mì sójó = là* ‘I am not a Dogon.’  
*nì sójó-gé = là* ‘we are not Dogon.’  
*ò sójó = là* ‘you-Sg are not a Dogon.’  
*cè sójó-gé = là* ‘they are not Dogon’

After an {L}-toned word, H-toned =*lá* appears, as in *sùḡùṇù = lá* ‘it is not an ear’.

=*là* is also found in the negative predicative form of some adjectives, especially basic color adjectives and diminutive adjectives with suffix *-wè*. See the end of §11.4.2 for details.

=*là* can be confused with *là* ‘also, too’ (§19.1.3), which has the same tonal alternation.

## 11.2.2 Existential and locative quasi-verbs and particles

### 11.2.2.1 Existential particles *è* ~ *é* and (distant) *yà* ~ *yá*

These particles, which occur in immediate preverbal position, following even 1PI and 2PI subject pronouns (xx1b), occur with stative predicates in unfocalized positive main clauses. They do not occur in the presence of a focalized constituent, in negative clauses, or in relative clauses. With these exceptions one or the other is obligatory with ‘have’, and with ‘be’ in the absence of another specified location. *è* ~ *é* is by far the most common, and can be used in any spatial context; it puts more emphasis on existence than on location and will be glossed simply “Exist” in interlinears. *yà* ~ *yá* is a marked form that additionally specifies a distant location and will be glossed “Exist.Dist”.

Examples with ‘have’ are in (xx1). L-toned *è* occurs in (xx1a-b) but not in negative (xx1c), focalized (xx1d), or relative clause (xx1e).

- (xx1) a. *jíwá*      *è*      *sâ-y<sup>n</sup>*  
house      **Exist**      have-1SgSbj

‘I have a house.’ (Boui)

- b. *jíwá*      *nì*      *è*      *sá*  
 house      1PlSbj      **Exist**      have  
 ‘We have a house.’ (Boui)
- c. *jíwá*      *sá:-nâ-y<sup>n</sup>*  
 house      have-StatNeg-1SgSbj  
 ‘I do not have a house.’ (Boui)
- d. *à:-wó*      *jíwá*      <sup>H</sup>*sá*  
 who?      house      <sup>H</sup>have  
 ‘Who has a house?’ (Boui)
- e. *jíwá*      *jélé*      *mì*      <sup>LH</sup>*sá:*  
 house      place      1SgSbj      <sup>LH</sup>have  
 ‘the place where I have a house’ (Boui)

Examples with *bò-* ‘be (somewhere), exist’ are in (xx2). The combination of the existential particle and *bò-* comes out as *é wò*. The particle is present in (xx2a), but absent in (xx2b) in the presence of a more specific locational expression. It is also absent in negative (xx2c) and in focalized (xx2d-e).

- (xx2) a. *té:*      *é*      *wò*  
 tea      **Exist**      be.3SgSbj  
 ‘There is some tea.’ (Boui)
- b. *[[nì*      <sup>LH</sup>*ijó]*      *ṅá]*      *bò-∅*  
 [[1PlPoss      <sup>LH</sup>village]      in]      be-3SgSbj  
 ‘He/She is in our village.’ (Boui)
- c. *té:*      *órá-∅*  
 tea      not.be-PfvNeg.3SgSbj  
 ‘There is no tea.’ (Boui)
- d. *àná*      *bò-∅*  
 where?      be.3SgSbj  
 ‘Where is he/she?’ (Boui)  
 (Ningo ányá <sup>LH</sup>bǒ: )

- e.  $\dot{a} = w\grave{o}$                      $^H b\acute{o} - \emptyset$   
 who?=Foc                     $^H$ be.3SgSbj  
 ‘Who is there?’ (Boui)

(xx1ab) and (xx2a) above involve the unmarked locative particle  $\grave{e} \sim \acute{e}$ . Counterparts with the marked form specifying distance are in (xx3).

- (xx3) a.  $j\acute{i}w\acute{a}$                      $y\grave{a}$                      $s\acute{a} - y^n$   
 house                    **Exist.Dist**                    have-1SgSbj  
 ‘I have a house (e.g. in another region).’ (Boui)
- b.  $t\acute{e}:$                      $y\acute{a}$                      $w\grave{o}$   
 tea                    **Exist.Dist**                    be.3SgSbj  
 ‘There is some tea (in another location).’ (Boui)

H-toned forms  $\acute{e}$  and  $y\acute{a}$  are used before L-toned syllables, while L-toned  $\grave{e}$  and  $y\grave{a}$  are used before H-toned syllables.

- (xx4) a.  $y\grave{a}$                      $\acute{o}w\grave{a} - \emptyset$   
 Exist.Dist                    sit.State-3SgSbj  
 ‘He/She is sitting.’ (Boui)
- b.  $y\acute{a}$                      $w - \grave{a}:$   
 Exist.Dist                    be-3PlSbj  
 ‘They are present (here/there).’ (Boui)

For other stative verbs, see §10.4. For demonstratives  $\acute{e} - w\grave{o} \grave{r}\grave{i}$  (near distant) and  $y\acute{a} - w\grave{o} \grave{r}\grave{i}$  (far distant), which are specialized and somewhat reduced definite relative clauses, see §4.4.1.2.

#### 11.2.2.2 ‘Be (somewhere)’ ( $b\grave{o} - \sim w\grave{o} -$ )

The stative quasi-verb used in the locational sense ‘be (in a place), be present’ and by abstraction ‘exist’, is  $b\grave{o} -$  after a locational phrase (‘here’, ‘in Bamako’, etc.). It lenites to  $w\grave{o} -$  when preceded by existential particle  $\acute{e}$  (or distant  $y\acute{a}$ ) as the default locational, or after  $mb\acute{o}r\grave{o}$  ‘like this/that’ (§4.4.2.3). Either a locational phrase or  $\acute{e}$  ( $y\acute{a}$ ) is required in unfocalized positive main clauses. In the 3Pl, the tone is bell-shaped in  $b\grave{a} - \acute{a}:$  but low in  $\acute{e} w - \grave{a}:$  and  $y\acute{a} w - \grave{a}:$ . In other words, the quasi-verb is slightly reduced phonologically when combined with the existential particle.

There is the usual pronominal-subject paradigm as with regular inflected verbs. There is no AN marking (perfective, imperfective, etc.), though it does have a past form (see below), and there is no imperative or hortative.

The paradigms are in (xx1). Forms are from Boui.

(xx1) Nonpast ‘be (in a place)’ or ‘exist’

category	after locational	with existential
1Sg	<i>bò-y<sup>n</sup></i>	<i>é wô-y<sup>n</sup></i>
1Pl	<i>nì bò-∅</i>	<i>nì é wò-∅</i>
2Sg	<i>bò-w</i>	<i>é wô-w</i>
2Pl	<i>è bò-∅</i>	<i>è é wò-∅</i>
3Sg	<i>bò-∅</i>	<i>é wò-∅</i>
3Pl	<i>bà-â:</i>	<i>é w-â:</i>

Examples are in (xx2).

(xx2) a. [*bòmàkó*     *ɲà*]     *bà-â:*  
 [B                    in]     be-3PlSbj  
 ‘They are in Bamako (city).’ (Boui)

b. *é*                    *wô-m*                    *mè*  
 Exist                be-2SgSbj                if  
 ‘if you-Sg are present’ (</wô-w/) (Boui)

In the presence of a preceding focalized constituent, *bò-* becomes /bǒ-/ with the regular {LH} defocused overlay (realized as 1Sg *bǒ-y*, 3Sg *bǒ:-∅*, etc.). An assistant also invariably used this rising-toned form before *mè* ‘if’. Existential *é* does not occur in focalized clauses. *é wò-* has its usual form before *mè* ‘if’ (*é wò-∅ mè* ‘if he/she is here’).

There is no clear synchronic connection between (stative) *bò-* and (inchoative) *bíló-* ‘become’.

For durative background clauses with *bí:-nì* ‘keep being (thus)’, see §15.2.1.5.

For **past time** ‘was/were’, *bò-* is replaced by *bè:-* ~ *wè:-*, see §10.6.1.1.

### 11.2.2.3 Negative *órá-* ‘is not (in a place)’

*bò-* ‘be (in a place), be present’ is **negated** by *órá-* ‘not be (present), be absent’. It does not co-occur with the existential particle, but it may be used by itself (an overt locational expression is optional). The paradigm is (xx1).

(xx1) ‘is/are absent’ or ‘does/do not exist’

category	form (with or without locational)
1Sg	<i>órá-y<sup>n</sup></i>
1Pl	<i>nì órá-Ø</i>
2Sg	<i>órá-w</i>
2Pl	<i>è órá-Ø</i>
3Sg	<i>órá-Ø</i>
3Pl	<i>ór-â:</i>

Examples are in (xx2).

- (xx2) a. (*mónà*) *órá-y<sup>n</sup>*  
 (here) not.be-1SgSbj  
 ‘I am not present (here).’ (Boui)
- b. *té:* *órá-Ø* *lè*  
 tea not.be-3SgSbj Q  
 ‘Is there is no tea?’ (from /*órá le*/) (Boui)

Past *bě(:)-* ‘was (somewhere)’ is similarly negated by *óré-* ‘was not (present), was absent’ or ‘did not exist’, see §10.6.1.2.

## 11.2.3 Other stative locational and positional quasi-verbs

### 11.2.3.1 Other stative locational quasi-verbs (‘be in/on’)

There is no stative verb in the general sense ‘be [in X]’. There are stative verbs for ‘be [on X]’, viz., *dàngà-* ‘be on (wall, vertical planar surface)’ and *sànga-* ‘be (set) up on (object or horizontal surface)’. See (xx2bc) in §11.1.3.2 for examples.



## 11.2.4 ‘Become’, ‘happen’, and ‘remain’ predicates

For deadjectival inchoatives (‘become red/long’), which are expressed by derivational suffixes, see §9.6. Here the focus is on bipartite ‘become X’ and ‘remain X’ predicates with distinct verbs or quasi-verbs.

### 11.2.4.1 ‘Remain’ (*ánjó-*)

This verb is illustrated in (xx1).

- (xx1) *jíwá:*                    <sup>LH</sup>*ánjó-wǒ-y*  
house.Loc            <sup>LH</sup>remain-Ipfv-1SgSbj  
‘I will stay at home [focus].’ (Boui)

Unlike ‘remain’ verbs in some other Dogon languages, *ánjó-* is not also used in the sense ‘become’ with adverbials. For this function see *bíló-* just below.

### 11.2.4.2 ‘Become, be transformed into’ (*bíló-*)

‘Become’ with NP complement, as in ‘become president’, ‘become (=be transformed into) a tree’, etc., is *bíló-*. This verb can also be used flexibly to make adjectives and expressive adverbials (§11.1.3.1) into inchoative predicates.

### 11.2.4.3 ‘Become’ related to ‘be (somewhere)’ quasi-verbs (*wǒ:*)

A stative verb *wǒ:-* (negative *wǒ:-nà-*) is attested in the superlative predicate construction. It may be related to the etymological set including *bò-* ‘be (somewhere)’ and imperfective suffix *-wò-* ~ *-bò-*. See §12.1.5 for the (sparse) data.

## 11.2.5 Mental and emotional statives

### 11.2.5.1 ‘Know’ (*yèy*)

This is a stative verb with no nonstative paradigms. It means ‘know (a fact)’ or ‘know, be acquainted with (a person)’. The object NP takes accusative marking: [*mì gí*] *yèy-Ø* ‘he/she knows me’. The paradigms, positive and negative, are in (xx1). Data are from Boui.

(xx1) category	‘know’	‘not know’
1Sg	<i>yé-ỳ<sup>n</sup></i> (< /yéy-ỳ <sup>n</sup> /)	<i>yé-ní-ỳ<sup>n</sup></i>
1Pl	<i>nì yèy</i>	<i>nì yè-nì</i>
2Sg	<i>yé-w</i> (< /yéy-w/)	<i>yé-nú-w</i>
2Pl	<i>è yèy</i>	<i>è yè-nì</i>
3Sg	<i>yèy-Ø</i>	<i>yè-nì-Ø</i>
3Pl	<i>yèy-â:</i> (Boui), <i>yèyy-â:</i> (Ningo)	<i>yè-n-â:</i>

The L-tone of the 3Sg is confirmed by the polar interrogative form *yèy-Ø lé* ‘does he/she know?’ (negative *yè-nì-Ø lé*).

For past-time *yèy-yé-* ‘knew’ and *yè-né-* ‘did not know’, see §10.6.1.3.

#### 11.2.5.2 ‘Want, like’ (*cèy-*)

This defective stative quasi-verb takes stative negative allomorph *-là*. It is not used with Existential *e* (§11.2.2.1). A likely cognate is Najamba *kíyò* (negative *kélà*). Data in (xx1) are from Boui.

(xx1) category	‘want’	‘not want’
1Sg	<i>cé-ỳ<sup>n</sup></i> (< /céy-ỳ <sup>n</sup> /)	<i>cé-lá-ỳ<sup>n</sup></i>
1Pl	<i>nì cèy</i>	<i>nì cè-là</i>
2Sg	<i>cé-w</i> (< /céy-w/)	<i>cé-lá-w</i>
2Pl	<i>è cèy</i>	<i>è cè-là</i>
3Sg	<i>cèy-Ø</i>	<i>cè-là-Ø</i>
3Pl	<i>cèy-â:</i>	<i>cè-l-â:</i>

The polar interrogative form of the 3Sg is *cèy-Ø lé*. For past-time forms see (xx3) in §10.6.1.3.

Dialectally, Ningo *kèy* ‘want’ has the same paradigm structure as Boui *cèy*. However, Ningo also has an alternative active (nonstative) form *ké:-yó* (1Sg perfective *ké:-yé-ỳ<sup>n</sup>* ‘I wanted’, past *ké:-yé-ỳ<sup>n</sup>* ‘I had wanted’).

### 11.2.5.3 ‘Resemble’ (*mòlá-*)

‘(X) resembles Y’ is expressed as [*Y yà*] *mòlá-*, with instrumental postposition *yà* taking scope over the comparandum. In the positive, *mòlá-* keeps its rising tone melody throughout the paradigm. Negative is *mòlà-nà-* ‘does not resemble’, with the usual tone alternations for stative negatives. Data are from Boui.

(xx1) category	‘resemble’	‘not resemble’
1Sg	<i>mòlá-y<sup>n</sup></i>	<i>mó lá-ná-y<sup>n</sup></i>
1Pl	<i>nì mò lá</i>	<i>nì mò là-nà</i>
2Sg	<i>mò lá-w</i>	<i>mó lá-ná-w</i>
2Pl	<i>è mò lá</i>	<i>è mò là-nà</i>
3Sg	<i>mò lá-Ø</i>	<i>mò là-nà-Ø</i>
3Pl	<i>mò l-â:</i>	<i>mò là-n-â:</i>

## 11.3 Quotative verb

### 11.3.1 ‘Say’ (perfective *gùnè-*)

A partial paradigm of this verb is (xx1). For indicative categories, tones shown here are based on the zero 3Sg subject form. Data are from Boui.

(xx1) a. E/I-stem	
<i>gùnè-</i>	perfective
b. A/O-stem	
<i>gúná-nì-</i>	perfective negative
<i>gùnà</i>	imperative
c. O-stem	
<i>gúm-bò-</i>	imperfective
<i>gún-dâ-</i>	imperfective negative
<i>gúm-mâ-</i>	capacitative
d. I/U-stem	
<i>gùnù ~ gùnì</i>	3rd person hortative

The E/I-stem points to the final-nonhigh-vowel class of verbs, but the implied /gúnú-/ and the syncope of its second syllable in the O-stem points to the final-high-vowel class.

The listener (recipient) is expressed as a direct object, with accusative *gi*.

‘Say’ can be a simple transitive, with a summarizing NP like ‘that’ or interrogative ‘what?’

- (xx1) *ndégé ò-gí nà<sup>LH</sup> gùnέ<sup>LH</sup>*  
 what? 2Sg-Acc 3SgSbj <sup>LH</sup>say.Pfv  
 ‘What did he/she say to you-Sg?’ (Boui)

For quotative clause complements, see §17.1.

## 11.4 Adjectival predicates

Adjectival predicates described here denote states, rather than processes. For the latter, see the inchoative verbs in §9.6.

### 11.4.1 Positive adjectival predicates

Adjectives (§4.5) can be organized into groups based on their form as predicates. The majority of adjectival predicates involve *bǔ:-* ‘be’ following a form of the adjective differing from that used in as a modifier within a NP. Some other adjectives take the =*w<sup>n</sup>* ‘it is’ clitic to form predicates, and still others have bare predicative forms without *bǔ:-* or =*w<sup>n</sup>*.

For ‘dry’ and ‘old’ I was not able to elicit a static predicate; an assistant produced only perfective inchoative verbs *kùnjè-* ‘has gotten old’ and *màni-yè-* ‘has dried’.

#### 11.4.1.1 Adjectival predicates with *bǔ:-* ‘be’

Adjectives that take *bǔ:-* can be divided into two main groups, one where the adjective itself ends in *e* and one where it ends in *m(ú)*. *bǔ:-* is inflected with the usual pronominal-subject marks (1Sg *bǔ-y*, 1Pl *nì bǔ;*, etc.).

The adjectives in (xx1) all end in *e* before *bǔ:-*. In (xx1a), the final vowel of the modifying adjective mutates to *e*. In (xx1b), the adjective is extended by an augment *-ndé* including the final *e*. This is also the case with the diminutive adjectives in (xx1c), which drop diminutive suffix *-wè* in the predicative construction. *Cvíni-ndé* syncopates to *Cvín-dé* (‘be fat’, ‘be small’) (xx1bc). *ménjí-wè* ‘thin’ simplifies *nj* to *j* in predicative *méjní-ndé bǔ:-* (xx1c). Data are from Boui.

(xx1) Adjective ends in *e* before *bǒ:-*

	modifying	predicative	gloss
a.	<i>né:ngó:</i>	<i>né:ngé bǒ:-</i>	‘be heavy’
	<i>ní:njí</i>	<i>ní:njé bǒ:-</i>	‘be sweet’
	<i>má:gá</i>	<i>má:gé bǒ:-</i>	‘be difficult’
	<i>búrádá</i>	<i>búrádé bǒ:-</i>	‘be smooth’
	<i>yágára</i>	<i>yágaré bǒ:-</i>	‘be coarse’
	<i>gálágá</i>	<i>gálágé bǒ:-</i>	‘be bitter’
	<i>kújájá</i>	<i>kújájé bǒ:-</i>	‘be rotten’
b.	<i>yálá</i>	<i>yálá-ndé bǒ:-</i>	‘be long’
	<i>báy</i>	<i>báy-ndé bǒ:-</i>	‘be big (e.g. house)’
	<i>bíní</i>	<i>bín-dé bǒ:-</i>	‘be fat’
	<i>nímí</i>	<i>nímí-ndé bǒ:-</i>	‘be deep’
c.	<i>déńí-wè</i>	<i>déńí-ndé bǒ:-</i>	‘be short’
	<i>méńjí-wè</i>	<i>méńjí-ndé bǒ:-</i>	‘be thin, slender’
	<i>wéní-wè</i>	<i>wén-dé bǒ:-</i>	‘be small’

In (xx2), the adjective ends in *m(u)* before *bǒ:-*. In (xx2a), the modifying form of the adjective already ends in *m* or *mú*. In (xx2b), *-m(u)* is added to the modifying form of the adjective before *bǒ:-*. The combination of *-m(u)* plus *bǒ:-* is reminiscent of the progressive verb form with *-w<sup>n</sup> bǒ:-* (§10.2.2.3). Data are from Boui.

(xx2) Adjective ends in *m(u)* before *bǒ:-*

	modifying	predicative	gloss
a.	<i>témúm</i>	<i>témúm(ú) bǒ:-</i>	‘be cold’
	<i>ámámú</i>	<i>ámám(ú) bǒ:-</i>	‘be sour’
b.	<i>yágá</i>	<i>yàgà-m bǒ:-</i>	‘be pretty’
	<i>númá</i>	<i>númá-m(ú) bǒ:-</i>	‘be hot’
		~ <i>núm bǒ:-</i>	

The form of the adjective before *bǒ:-* is invariant. In particular, it does not allow plural suffix *-gè*.

- (xx3) *né:ngé*    *ní*            *bǒ:*  
 heavy        1PlSbj        be  
 ‘We are heavy.’ (Boui)

For ‘be far away’, the adjective (*wágá*) seemingly drops tones and has its final vowel prolonged intonationally (xx4). The ‘be’ quasi-verb takes the form *bó-*. This is really an adverbial rather than adjectival predicate, since *wágá*→ can be used as a nonpredicative adverb (e.g. in ‘they ran far away’)

- (xx4) *wágá*→ *bó-*    ‘be far away’ (Boui)

The predicative forms with *bǒ:-* appear not to be used in focalized clauses. Focalization forces the adjective back into its simple modifying form (xx4b). How rigorous this is requires checking.

- (xx5) a. *né:ngé* / *bín-dé* / *déjǐ-ndé* / *yàgà-m*    *bǒ:-*  
 heavy / fat / short / pretty                    be  
 ‘be heavy/fat/short/pretty’ (Boui)
- b. *à:*                    *né:ngó:* / *bíní* / *déjǐ* / *yágá*  
 who?                    heavy / fat / short / pretty  
 ‘Who is heavy/fat/short/pretty?’ (Boui)

#### 11.4.1.2 Adjectival predicates with =*w̃<sup>n</sup>* ‘it is’

For the adjectives in (xx1), the only attested predicates add the ‘it is’ clitic =*w̃<sup>n</sup>* to the otherwise unaltered modifying adjective. Elsewhere =*w̃<sup>n</sup>* is added mainly to NPs, suggesting that these adjectives may be more noun-like than others. Data are from Boui.

- (xx1) Adjective followed by =*w̃<sup>n</sup>*

modifying	predicative	gloss
<i>yánǵá</i>	<i>yánǵá = w̃<sup>n</sup></i>	‘be lean (emaciated)’
<i>yógóró</i>	<i>yógóró = w̃<sup>n</sup></i>	‘be kaput’
<i>dúmbú</i>	<i>dúmbú = w̃<sup>n</sup></i>	‘be blunt (blade)’
<i>búní</i>	<i>búní = w̃<sup>n</sup></i>	‘be red’
<i>jémé</i>	<i>jémé = w̃<sup>n</sup></i>	‘be black’
<i>púlé</i>	<i>púlé = w̃<sup>n</sup></i>	‘be white’

$\acute{e}w^n$        $\acute{e}(w^n) = \grave{w}^n$       ‘wet’  
(plural  $\acute{e}\eta\text{-}g\acute{e} = \grave{w}^n$  from  $\acute{e}w^n\text{-}g\acute{e} = \grave{w}^n$ )

These predicates, unlike those with adjectives ending in e, allow plural suffix *-gè*. As with other ‘it is’ predicates, a pronominal subject can be expressed by an independent pronoun.

- (xx1) a. [*ámhá-gè rì*]      *yáŋgá-gé = w̄<sup>n</sup>*  
[sheep-Pl Def]      lean-Pl=it.is  
‘The sheep are lean.’ (Boui)
- b. *mì*      *yáŋgá = w̄<sup>n</sup>*  
1Sg      lean=it.is  
‘I am lean (emaciated).’ (Boui)

#### 11.4.1.3 Adjectival predicates like stative verbs

A few adjectives are used as predicates with no segmental changes from the modifying forms. However, while modifying adjectives are {H}-toned (except for diminutive suffix *-wè*), predicative forms are {L}-toned (xx1). Data are from Boui.

(xx1) Bare adjectival predicates

- |    | modifying  | predicative     | gloss     |
|----|--|-----------------|-----------|
| a. | <i>málání</i>  | <i>màlàni-Ø</i> | ‘be soft’ |
| b. | <i>mɔ́:</i>  | <i>mɔ̀:-Ø</i>   | ‘be good’ |
|    | [for <i>mɔ̀:-w<sup>n</sup> bó-</i> in ‘it’s good to eat’ see §6.3.3.3] |                 |           |

These are really verbs similar to statives, and take pronominal-subject inflection. The data in (xx1) are therefore 3Sg subject forms with zero suffix. The tones of the stem and of 1Pl and 2Pl proclitics differ from those of regularly derived stative verbs (§10.4.1). Paradigms are in (xx2). For the negation of *mɔ̀:-* with stative negative *-nà-* (§10.4.2), see §11.4.2 below.

(xx1) Stative-like verbs

category	‘be good’	‘be soft’
1Sg	<i>mɔ̀-ỳ<sup>n</sup></i>	<i>málání-ỳ<sup>n</sup></i>
1Pl	<i>ní mɔ̀:</i>	<i>ní málání</i>
2Sg	<i>mɔ̀-ẁ</i>	<i>málánú-ẁ</i>
2Pl	<i>é mɔ̀:</i>	<i>é málání</i>
3Sg	<i>mɔ̀:-∅</i>	<i>màlání-∅</i>
3Pl	<i>mɔ̀y-â:</i>	<i>málàn-î:</i>

11.4.2 Negative adjectival predicates

For adjectives whose positive predicates end in *bǔ:-*, one option for negation is to just replace *bǔ:-* ‘be’ by *órâ-* ‘not be (present)’, preserving any quirky features of the adjectival form. Data in (xx1) are from Boui.

- (xx1) a. *bíní* ‘fat’  
b. *bín-dé bǔ:-* ‘be fat’  
c. *bín-dé órâ-* ‘not be fat’

However, in addition to this auxiliary-like construction, adjectives also have morphologically simpler negative predicative forms involving a negative morpheme of the shape *-Ca-*. One is initially tempted to treat them all as variants of a single morphological pattern, but it turns out that there are structural differences beyond suffix allomorphy.

In (xx2) the form shown (3Sg subject) has {H}-toned stem plus *-râ- ~ -dâ-*. Data are from Boui.

(xx2) Negative *-râ- ~ -dâ-*

modifying negative predicate gloss

- a. *-râ-* after {H}-toned stem, cf. imperfective negative stem-final *o*

<i>né:ngó:</i>	<i>né:ngó-râ-</i>	‘not be heavy’
<i>gálágá</i>	<i>gálágó-râ-</i>	‘not be bitter’
<i>kújájá</i>	<i>kújájó-râ-</i>	‘not be rotten’
<i>númá</i>	<i>númó-râ-</i>	‘not be hot’



stem-final *u*

<i>témúúm</i>	<i>témúúmú-râ-</i>	‘not be cold’
<i>ámámú</i>	<i>ámámú-râ-</i>	‘not be sour’

b. *-dâ-* variant

<i>yágárá</i>	<i>yágár-dâ- ~ yágád-dâ-</i>	‘not be coarse’
<i>búrádá</i>	<i>búrád-dâ-</i>	‘not be smooth’

This looks like the imperfect negative suffix *-râ- ~ -dâ-*, and the identity is confirmed by tone patterns of the pronominal-subject paradigm. Note especially the {HL}-toned stem in the 3Pl (xx3), from Boui.

(xx3)	category	IpfvNeg	‘not be heavy’	‘not be cold’	‘not be smooth’
	1Sg	{H} <i>-rà-y<sup>n</sup></i>	<i>né:ngó-rà-y<sup>n</sup></i>	—	—
	1Pl	<i>nì</i> {L} <i>-rá</i>	<i>nì nè:ngò-rá</i>	—	—
	2Sg	{H} <i>-rà-w</i>	<i>né:ngó-rà-w</i>	—	—
	2Pl	<i>è</i> {L} <i>-rá</i>	<i>è nè:ngò-rá</i>	—	—
	3Sg	{H} <i>-râ-Ø</i>	<i>né:ngó-râ-</i>	<i>témúúmú-râ-</i>	<i>búrád-dâ-</i>
	3Pl	{HL} <i>-r-â:</i>	<i>né:ngò-r-â:</i>	<i>témúúmù-r-â:</i>	<i>búrád-d-â:</i>

Another set of adjectives have negative predicates with *-nâ- ~ -nà-*. There are two tonal types, respectively *CVCV-nâ-* and *CVCV-nà-* in the 3Sg. The latter looks like the negative of derived stative verbs (§10.4.2).

(xx4) Negative *-nâ- ~ -nà-*

modifying negative predicate gloss

a. *-nâ-* after {H}-toned stem in 3Sg

<i>báy</i>	<i>báy-nâ-</i>	‘not be big’
<i>bíní</i>	<i>bíní-nâ-</i>	‘not be fat’
<i>nímí</i>	<i>nímí-nâ-</i>	‘not be deep’
<i>ní:njí</i>	<i>ní:njí-nâ-</i>	‘not be sweet’

b. *-nà-* after {L}-toned stem in 3Sg

<i>yálá</i>	<i>yàlà-nà-</i>	‘not be long’
<i>yágá</i>	<i>yàgà-nà-</i>	‘not be pretty’
<i>má:gá</i>	<i>mà:gà-nà-</i>	‘not be difficult, be easy’

<i>mɔ́:</i>	<i>mɔ̀:-nà-</i>	‘not be good, be bad’
<i>wágá</i>	<i>wàgà-nà-</i>	‘not be far away’

For the *nj* ~ *n* alternation in ‘not be sweet’, see §3.4.3.3. Paradigms from Boui are in (xx5). The {L}-toned type indeed does have the same paradigm as negative forms of derived statives, e.g. ‘not be standing’ (§10.4.2). The {H}-toned type has no exact counterpart elsewhere. Data in (xx5) are from Boui.

(xx5)	category	‘not be big’ {H}-toned	‘not be good’ {L}-toned
	1Sg	<i>báy-ná-ỳ<sup>n</sup></i>	<i>mɔ́:-ná-ỳ<sup>n</sup></i>
	1Pl	<i>nì báy-ná</i>	<i>ní mɔ̀:-nà</i>
	2Sg	<i>báy-ná-w</i>	<i>mɔ́:-ná-w</i>
	2Pl	<i>è báy-ná</i>	<i>é mɔ̀:-nà</i>
	3Sg	<i>báy-nâ-Ø</i>	<i>mɔ̀:-nâ-Ø</i>
	3Pl	<i>bây-n-â:</i>	<i>mɔ̀:-n-â:</i>

The last negative adjectival predicate type is with *=là*. This superficially resembles the other endings (*-rà- ~ -dâ-*, *-nâ- ~ -nà-*), but it is structurally different. It is in fact the ‘it is not’ clitic that is used in negative predicates of NPs (‘it is not a X’), see §11.2.1.2. This construction is regular for the three basic color terms (xx6a), for diminutive adjectives with suffix *-wè* (xx6b), and a few other adjectives (xx6c). Data are from Boui.

(xx6)	a.	<i>búní</i>	<i>bùnì = lá</i>	‘not be red’
		<i>jémé</i>	<i>jèmè = lá</i>	‘not be black’
		<i>púlé</i>	<i>pùlè = lá</i>	‘not be white’
	b.	<i>déjì-wè</i>	<i>déjì-wè = là</i>	‘not be short’
		<i>ménjì-wè</i>	<i>ménjì-wè = là</i>	‘not be thin’
		<i>wéní-wè</i>	<i>wéní-wè = là</i>	‘not be small’
	c.	<i>yángá</i>	<i>yángá = là</i>	‘not be lean’
		<i>yógóró</i>	<i>yógóró = là</i>	‘not be kaput’
		<i>dúmbú</i>	<i>dúmbú = là</i>	‘not be blunt (blade)’
	d.	<i>bíní</i>	<i>bín(í) = là</i>	‘not be fat’

*That this =là* is the ‘it is not’ clitic rather than a verb-like negative suffix is shown by the fact that it cannot take pronominal-subject suffixes. For example, ‘I am not red’ is not #*bùnì-lá-ỳ<sup>n</sup>* but rather *mì bùnì=lá*. For plural subjects, plural suffix *-gè* is required: *bùnì-gè=lá* ‘they are not red’, *nì bùnì-gè=lá* ‘we are not red’.

*bíní* ‘fat, big’ is attested in this construction (xx6d) as well as with *-nà* and with *órâ*. Further study might show that other adjectives also shift among different negative predicate constructions.

## 11.5 Possessive predicates

### 11.5.1 ‘X have Y’ (*sâ-*)

Existential *è* is required in the positive in unfocalized main clauses. It is not allowed under negation. The paradigms of ‘have’ and ‘have not’ are in (xx1). For the positive paradigm, a basic representation /*sâ-*/ is possible, with the vowel lengthened when word-final and with a contour tone (§3.6.4.1). Data are from Boui.

(xx1)	‘have’	‘have not’
1Sg	<i>è sâ-y<sup>n</sup></i>	<i>sâ:-nâ-y<sup>n</sup></i>
1Pl	<i>nì è sâ:</i>	<i>nì sâ:-nâ</i>
2Sg	<i>è sâ-w</i>	<i>sâ:-nâ-w</i>
2Pl	<i>è è sâ:</i>	<i>è sâ:-nâ</i>
3Sg	<i>è sâ:-Ø</i>	<i>sâ:-nâ</i>
3Pl	<i>è sâ-â:</i>	<i>sâ:-n-â:</i>

For past-time counterparts with *ε* replacing *a*, see §10.6.1.3. For durative background clauses with *sí:-nì* ‘keep having’, see §15.2.1.5.

The transitivity level of ‘have’ predicates is low. I did not observe accusative marking on the object, and an assistant rejected versions I proposed that included accusative marking.

### 11.5.2 ‘Y belong to X’ predicates

‘Y belongs to X’ or ‘Y is X’s’ is expressed as ‘Y is X’s thing’, with *wè:* ‘thing’ (or variant) and the ‘it is’ clitic *=w<sup>n</sup>*. There is no animacy distinction (‘thing’ versus ‘critter’). For 1st/2nd person possessor forms based on contractions of *wè:*, see §6.2.1.2.

(xx1)	a.	<i>[jíwá / í:njé</i>	<i>mbò]</i>	<i>mě = w<sup>n</sup></i>
-------	----	----------------------	-------------	---------------------------

[house / dog    Dem]      1SgPoss=it.is  
'That house/dog belongs to me (is mine).' (Boui)

- b. [óri-gè      ri]    [sàydú      wè:-gé]=w<sup>n</sup>  
[waterjar-Pl Def] [Seydou    thing-Pl]=it.is  
'The waterjars belong to Seydou.' (Boui)

## 12 Comparatives

### 12.1 Asymmetrical comparatives

*bà→* ‘than’ shows up in several asymmetrical comparative constructions. It follows an object NP with accusative marking.

#### 12.1.1 Predicative adjective with *bà→* ‘than’ and comparandum

In this construction, a reduced adjectival predicate (‘be heavy’, ‘be short’) is understood to be comparative because the ‘than’ comparandum precedes it.

In (xx1) we have an adjectival predicate with e-final adjective and a conjugated form of *bǒ:-* ‘be’ (§11.4.1.1). In the comparative (xx1b) this is replaced by an imperfective verb, literally ‘be (becoming) heavy’. Negative counterparts are based on imperfective negative *-râ-* (xx1c). Likewise, (xx1d) ‘short’ has a special augment *-ndé*, again ending in *e*, before *bǒ:-* (§11.4.1.1). This augment and *bǒ:-* itself are dropped in the comparative, which is based on a stative verb of the same word-family (xx1e-f).

- (xx1) a. *né:ngé*     *bǒ-y<sup>n</sup>*  
heavy     be-1SgSbj  
‘I am heavy.’ (Boui)
- b. [*ò-gí*     *bà→*]     *né:ngó-wò-y<sup>n</sup>*  
[2Sg-Acc     than]     become.heavy-Ipfv-1SgSbj  
‘I’m heavier than you-Sg (are).’ (Boui)
- c. [*ò-gí*     *bà→*]     *né:ngó-râ-Ø*  
[2Sg-Acc     than]     become.heavy-IpfvNeg-3SgSbj  
‘He/She isn’t heavier than you-Sg (are).’ (Boui)
- d. *sàydú*     *déjì-ndé*     *bǒ:-Ø*  
Seydou     short     be-3SgSbj  
‘Seydou is short.’ (Boui)
- e. [*â:màdú*     *gì*     *bà→*]     *déjìy-â: / déjì-y<sup>n</sup>*  
[Amadou     Acc     than]     become.short-3PlSbj / -1SgSbj

‘They are / I am shorter than Amadou.’ (Boui)

- f. [à:màdú    gí    bà→]    déjí-ná-ỳ<sup>n</sup>  
[Amadou    Acc    than]    become.short-StatNeg-1SgSbj  
‘I am not shorter than Amadou.’ (Boui)

Past-time examples with telltale final *ε* on the verbs are in (xx2).

- (xx2) a. sàydú [à:màdú    gí    bà→]    déjìyè-Ø  
Seydou [Amadou    Acc    than]    become.short.Past-3SgSbj  
‘Seydou was shorter than Amadou.’ (Boui)
- b. [à:màdú    gí    bà→]    déjì-nè-Ø  
[Amadou    Acc    than]    become.short-PfvNeg-3SgSbj  
‘He was not shorter than Amadou.’ (Boui)

#### 12.1.2 Verbal predicate plus *bà→* ‘than’

The same comparandum with *bà→* after accusative object NP can occur when a verb is the predicate, whether the verb denotes an adjective-like quality (‘become old’) or an activity.

- (xx1) a. [ò-gí    bà→]    kúnjé-ỳ<sup>n</sup>  
[2Sg-Acc    than]    get.old.Pfv-1SgSbj  
‘I’m older than you-Sg (are).’ (lit. “I have aged than you” (Boui)
- b. [ò-gí    bà→]    kúb-bò-y<sup>n</sup>  
[2Sg-Acc    than]    do.farming-Ipfv-1SgSbj  
‘I do more farming than you-Sg (do)’ (*kúwó*) (Boui)
- c. [mì-gí    bà→]    íré-ẁ  
[1Sg-Acc    than]    get.Pfv-2SgSbj  
‘You got more than I (did).’ (Boui)

#### 12.1.3 ‘Surpass’ (*tángó*-)

*tángó*- ‘pass by, go past’ (or ‘cross’) can be used as an inchoative asymmetrical comparative (xx1).

- (xx1) *gó:* [mì-gí bà→] yálé-w,  
 formerly [1Sg-Acc than] be.long.Past-2SgSbj  
*mè:* ájá ò-gì tángé-ỳ<sup>n</sup>  
 but now 2Sg-Acc pass.Pfv-1SgSbj  
 ‘You-Sg used to be taller than I (was), but now I have passed you-Sg.’ (Boui)

#### 12.1.4 ‘Be better’ (*mò:*, *író*), be more’ (*báy*)

‘X be better than Y’ is expressed with adjectival predicate *mò:* ‘be good’ (§11.4.1.3) and the comparandum in accusative form, without *bà→* ‘than’.

- (xx1) [mángòró rì] [lémbúrù g̀ì] mò:-Ø  
 [mango Def] [lemon Acc] be.good-3SgSbj  
 ‘The mango is better than lemons.’ (Boui)

‘X be bigger/more than Y’ is expressed with *báy* ‘big’, reduced from the full adjectival predicate *báy-ndé bǒ:-* ‘be big’ (§11.4.1.1), plus an accusative comparandum without *bà→* (xx2a). In (xx2b), *bày* is reduced to the abstract sense ‘more’ and combines with *yàlà* ‘long, tall’, i.e. ‘greater in tallness’ = ‘taller’. (xx2c) with ‘deep’ is similar in structure to (xx2a). Past-time forms are also shown.

- (xx2) a. *mótí* [kárí g̀ì] *báy-Ø / báy-yè-Ø*  
 Mopti [Konna Acc] big-3SgSbj / big-Past-3SgSbj  
 ‘Mopti is / was bigger than Konna (town).’ (Boui)
- b. *sàydú* [à:màdú g̀ì] *bày yàlà-Ø / yàlé-Ø*  
 Seydou [Amadou Acc] big long-3SgSbj / long.Past-3SgSbj  
 ‘Seydou is / was taller than Amadou.’ (Boui)
- c. [té:nì nì-wé] [è-wé g̀ì bà→] *nímí-Ø / nímì-yè-Ø*  
 [well(n) 1PIPoss] [2PIPoss Acc than] deep-3SgSbj / deep-Past-3SgSbj  
 ‘Our well is deeper than yours.’ (Boui)

For the Ningo speaker, a conjugatable stative predicate specifically meaning ‘be better’ is *író*, negative *író-ná-* ‘not be better’. The comparandum is the direct object.

- (xx3) *nà-gí* *író-ỳ<sup>n</sup> / író-ná-ỳ<sup>n</sup>*  
 3SgSbj-Acc be.better-1SgSbj / be.better-StatNeg-1SgSbj  
 ‘I am / am not better than him/her.’ (Ningo)

*írò* can also be used, presumably participialized, in locative *írò gí* ‘in better (health),’ see (xx5b) in §10.7.3.1.

### 12.1.5 ‘Best’ (*[X jìró] wó:*)

A construction expressing the superlative is exemplified in (xx1a). It ends in a stative verb *wó:* that seems to be another variant of *bò-* ‘be’, though I have not recorded it elsewhere. *jìró* in (xx1a) is from *jìró*, with {LH} contour as a possessed noun; this tone appears overtly in the negative (and unfocalized) counterpart (xx1b). The phrasing in (xx1a) is therefore literally ‘he [focus] is the front (=foremost) of singers.’

- (xx1) a. *nà: = wó*    *nwè:<sup>L</sup> -nwí-gé*                    LH *jìró*            *wó:*  
 3Sg=it.is    song<sup>L</sup>-sing.Agent-Pl                    LHfront            be  
 ‘He [focus] is the best of the singers.’ (Boui)
- b. *nà*    *nwè:<sup>L</sup> -nwí-gé*                    LH *jìró*            *wò:-nà-Ø*  
 3Sg    song<sup>L</sup>-sing.Agent-Pl                    LHfront            be-StatNeg  
 ‘He is not the best of the singers.’ (Boui)

## 12.2 Symmetrical comparatives

### 12.2.1 ‘Equal; be as good as’ (*dágó-*)

The verb *dágó-* occurs elsewhere in the sense ‘attach (blade of *daba* [a type of hoe] or pick-hoe)’. The action in that case involves inserting a pin at the back of the blade into a hole at the end of a long shaft.

The abstract sense is ‘X,Y be equal, reach the same level’.

- (xx1) *yá-lá-ndé*            *nì*            *dàgè*  
 long-Inch            1PlSbj            be.equal  
 ‘We are the same height.’ (Boui)

### 12.2.2 ‘Same (equal)’ (*tó:má-ngá = w<sup>n</sup>*)

‘X is the same (i.e. equal)’ is *tó:má-ngá = w<sup>n</sup>*, literally ‘is one’ (§4.7.1.1). To express equality of two entities, the plural form is used, literally “(they are) ones” (xx1). For *-ngá-* see §4.2.1.



- (xx1) [mbó yà mbó yà] tó:má-ŋgá-gé = w<sup>n</sup>  
[Dem and Dem and] one-Char-Pl=it.is  
'This one and that one are equal (or: the same).' (Boui)

### 12.3 'A fortiori' (*sáŋkò*)

The common regional form for 'a fortiori' (as in 'I don't have a dollar, much less a million dollars', local French *à plus forte raison* or *ne parlons pas de*) is pronounced *sáŋkò*. It is placed directly in front of the second, more unattainable comparandum.

## 13 Focalization and interrogation

### 13.1 Focalization

Focalization of a non-predicative constituent is expressed by three mechanisms of varying reliability (xx1).

- (xx1)
- a. A focalized human NP or pronoun is followed by the focus clitic, which is identical to the ‘it is’ clitic (= *yó*, = *wó*, or variant).
  - b. If a nonsubject constituent is focalized, the usual pronominal-subject suffixes (1Sg *-y<sup>n</sup>*, 2Sg *-w*, various 3Pl suffixes) are replaced under some conditions (especially in interrogative clauses) by preverbal subject pronouns (1Sg *mì*, 2Sg *ò*).
  - c. The verb get a {LH} tone overlay for nonsubject focus and {H} for subject focus.
  - d. Existential proclitic *è*~ *é* is omitted.

Features (xx1b,d) and the {LH} part of (xx1c) are shared by focalization and relativization, suggesting a fairly close association between them. However, the shift from pronominal-subject suffixes to proclitics is less rigorous in focalization than in relativization, and the {H} contour for subject focus does not occur in relatives.

There is no systematic linear repositioning of focalized constituents. However, another constituent may be topicalized (and fronted), the effect being that a focalized constituent occurs nearer to the verb than otherwise.

#### 13.1.1 Basic syntax of focalization

##### 13.1.1.1 Which constituents can and cannot be focalized?

NPs, including noun-like adverbs (‘yesterday’, ‘here’) and pronouns can be focalized. Numerous examples are given in this chapter.

In a reflexive object construction, of the type ‘I cut [my head]’ meaning ‘I cut myself’, the object can be focalized.

(xx1) *[mì kògój mì tɛ̀lé*  
 [1SgPoss head] 1SgSbj <sup>LH</sup>cut.Pfv  
 ‘I cut-Past myself.’ (Boui)

An adverbial phrase such as a locative PP can be focalized (xx2).

(xx2) *[bòmòkɔ̀ nà] wàlè kám-bà cě-y<sup>n</sup>*  
 [Bamako Loc] work(n) do-VbIN <sup>LH</sup>want-1SgSbj  
 ‘It’s in Bamako (city) [focus] that I want to work.’ (Boui)

I know of no way to syntactically focalize a verb or VP, other than using a corresponding noun (cognate nominal, verbal noun).

### 13.1.1.2 Preverbal subject pronouns in nonsubject focalizations

Under some conditions that need further study, the pronominal subjects that are expressed in ordinary main clauses by suffixes on verbs (1Sg, 2Sg, 3Pl) or by zero affix (3Sg) are expressed in nonsubject focalized clauses by preverbal proclitics. The same proclitic forms are used in nonsubject relatives (§14.3). 1Pl and 2Pl subjects are expressed by proclitics in all clauses, including main clauses.

The use of 1Sg/2Sg/3Pl and 3Sg subject proclitics is not required in all nonsubject focalizations. In my data it appears to be associated with WH-interrogatives and with responses to them (xx1ab).

- (xx1) a. *̀ndéégé(-si) ò d̀nɛ́*  
 what? 2SgSbj <sup>LH</sup>buy.Pfv  
 ‘What did you-Sg buy?’ (Boui)
- b. *ámá mì d̀nɛ́*  
 sheep 1SgSbj <sup>LH</sup>buy.Pfv  
 ‘It’s a sheep [focus] that I bought.’ (Boui)

Nonsubject focalizations in noninterrogative contexts sometimes have the regular suffixes. That they are focalized clauses is shown by the {LH} overlay on the verb.

- (xx2) a. *mó-nà ìgǎ-w*  
 here <sup>LH</sup>stand.Stat-2SgSbj  
 ‘It’s here [focus] that you-Sg are standing’ (Boui)

- b. *mì-gí* <sup>LH</sup>*tèwě-w*  
 1Sg-Acc <sup>LH</sup>hit.Pfv-2SgSbj  
 ‘It’s me [focus] that you-Sg hit.’ (Boui)

### 13.1.1.3 No systematic movement of focalized constituent

There is no systematic linear repositioning of focalized constituents. In particular, focalized objects follow a nonpronominal subject NP as in unfocalized clauses (xx1a). However, WH-interrogative clauses tend to topicalize nonfocal constituents, the effect being that the WH-interrogative itself is often directly before the verb. This is most noticeable in subject focalization of transitive clauses (‘who sold the vehicle?’). However, the regular SOV order is also possible (xx1cd).

- (xx1) a. [*mó:wélí* *rì*] [*à:* *gí*] <sup>LH</sup>*bèndé*  
 [vehicle Def] [who? Acc] <sup>LH</sup>bump.Pfv  
 ‘Who(m) did the vehicle bump?’ (Boui)  
 (or: ‘The vehicle, who(m) did it bump?’)
- b. [*mó:wélí* *rì*] *à: = wò* <sup>H</sup>*túlé*  
 [vehicle Def] who?=Foc <sup>H</sup>sell.Pfv  
 ‘The vehicle, who sold it?’ (Boui)
- c. *à:màdú = yò* [*mó:wélí* *rì*] <sup>H</sup>*túlé*  
 Amadou=Foc [vehicle Def] <sup>H</sup>sell.Pfv  
 ‘It was Amadou [focus] who sold the vehicle.’ (Boui)
- d. *à: = wó* *è-gì* <sup>H</sup>*téwé*  
 who?=Foc 2Pl-Acc <sup>H</sup>hit.Pfv  
 ‘Who hit you-Pl?’ (Boui)

Similarly, with a nonsubject focalized constituent, the fact that all pronominal subjects (not just 1Pl and 2Pl) are expressed by preverbal pronouns can make it look as though the focalized constituent is fronted (xx1a). In fact, this is the same linear order for 1Pl and 2Pl subject clauses without focalization (xx1b), so there is no evidence for movement of the focalized constituent in (xx1a).

- (xx1) a. [*à:màdú* *yó*] *mì* <sup>LH</sup>*téwé*  
 [A Foc] 1SgPoss <sup>LH</sup>hit.Pfv  
 ‘It was Amadou [focus] that I hit.’ (Boui)

- b. *[à:màdú gi] nì tètè*  
 [A Acc] 1PlSbj hit.Pfv  
 ‘We hit-Past Amadou.’ (Boui)

#### 13.1.1.4 Focus morpheme identical to ‘it is’ clitic (= *w̃<sup>n</sup>* ~ = *wò* ~ = *yò*)

If a non-verb focalized constituent is human, it is followed by the focus clitic, which is the same as the ‘it is’ clitic used in identificational predicates (§11.2.1.1). Accusative *gi* is not present on focalized object NPs. There is usually no overt morphological marking of focal status for nonhuman constituents, although in identificational predicates the ‘it is’ clitic is routinely added to inanimate as well as animate nouns. Representative forms of focused human constituents are in (xx1). Pronominal-subject suffixes (1Sg, 2Sg, 3Pl) are replaced by these focalized pronouns.

(xx1)	gloss	focalized	regular
a.	[name]	<i>à:màdú=yò</i>	<i>à:màdú</i>
	[name]	<i>à:dàmá=wò</i>	<i>à:dàmá</i>
b.	‘my child’	<i>mì bě=w̃<sup>n</sup></i>	<i>mì bě:</i>
c.	1Sg	<i>mì=yó</i>	<i>mì</i>
	1Pl	<i>nì=yó</i>	<i>nì</i>
	2Sg	<i>ò:=wó</i>	<i>ò</i>
	2Pl	<i>è:=wó</i>	<i>è</i>
	3Sg	<i>nà:=wó</i>	<i>nà</i>
	3Pl	<i>cè:=wó</i>	<i>cè</i>

#### 13.1.1.5 {LH} or {H} overlay on defocalized verb

In the presence of a focalized nonpredicative, **nonsubject** constituent (object, adverbial, etc.), a positive (perfective, imperfective, stative) predicate is subject to a {LH} overlay. Compare the {LH} overlay in relative-clause verbs. The {LH} overlay occurs on the verb whether a pronominal 1Sg/2Sg/3Pl subject is expressed by a preverbal clitic (xx1a-c) or by the usual suffix (xx1d). In interrogative examples like (xx1a-c), the {LH} overlay may be redundant since interrogative clauses commonly end in an intonational pitch rise.

- (xx1) a. *ndégé(-si) ò* <sup>LH</sup>*dòné*  
 what? 2SgSbj <sup>LH</sup>buy.Pfv  
 ‘What did you-Sg buy?’ (Boui)
- b. *ndégé(-si) ò* <sup>LH</sup>*dònà-ní*  
 what? 2SgSbj <sup>LH</sup>buy-PfvNeg  
 ‘What didn’t you-Sg buy?’ (Boui)
- c. *ndégé ò* <sup>LH</sup>*sǎ:*  
 what? 2SgSbj <sup>LH</sup>have  
 ‘What do you-Sg have?’ (Boui)
- d. *mó-ṅà* <sup>LH</sup>*igǎ-w*  
 here <sup>LH</sup>stand.Stat-2SgSbj  
 ‘It’s here [focus] that you-Sg are standing’ (Boui)
- e. *mì-gí* <sup>LH</sup>*têwě-w*  
 1Sg-Acc <sup>LH</sup>hit.Pfv-2SgSbj  
 ‘It’s me [focus] that you-Sg hit.’ (Boui)
- f. *mó-ṅà* <sup>LH</sup>*nòyò-wǒ-y<sup>n</sup>*  
 here <sup>LH</sup>sleep-Ipfv-1SgSbj  
 ‘It’s here [focus] that I will sleep.’ (Boui)
- g. *mó-ṅà* <sup>LH</sup>*nàyò-w-â:*  
 here <sup>LH</sup>sleep-Ipfv-3PlSbj  
 ‘It’s here [focus] that they will sleep.’ (*nóyó- ~ náyó-*) (Boui)

When a verb with 3Pl subject suffix is defocalized, the {LH} overlay extends to the **onset** of the 3Pl suffix, but its final falling tone is preserved. This accounts for the final falling tone in *nàyò-w-â:* in (xx1g).

The {LH} overlay is sometimes applied to perfective negative verbs, but I have not observed it with imperfective negatives. Examples are in §13.1.2 (subject focalization). This may be because focalization is awkward in negative contexts (‘it’s X [focus] that I didn’t/don’t see’).

If the **subject** is focalized, an {H} rather than {LH} overlay appears on the verb.

- (xx2) *mì=yó* *nà-gì* <sup>H</sup>*téwé*  
 1SgSbj=Foc 3Sg-Acc <sup>H</sup>hit.Pfv  
 ‘It was I [focus] who hit him.’ (Boui)

Further examples of nonsubject {LH} and subject {H} overlays occur throughout this chapter, for example in connection with content interrogatives (§13.2.2-8 below).

### 13.1.1.6 Existential *è* ~ *é* absent

Existential particle *è* ~ *é* and its distant counterpart *yà* ~ *yá* are not allowed in clauses with a non-verb focalized constituent. This is most noticeable with ‘have’ clauses, where the particle is obligatory in positive unfocalized clauses (xx1a) but is not allowed in focalized counterparts (xx1bc).

- (xx1) a. *jíwá*      *è*      *sá-l*      *lè*  
house      Exist      have-2SgSbj      Q  
‘Do you-Sg have a house?’ (< *è* *sá-w*) (Boui)
- b. *ndégé*      *ò*      <sup>LH</sup>*sá:*  
what?      2SgSbj      <sup>LH</sup>have  
‘What do you-Sg have?’ (Boui)
- c. *à: = wò*      *ná:*      <sup>H</sup>*sá:*  
who?=Foc      cow      <sup>H</sup>have  
‘Who has a cow?’ (Boui)

We can also see this in positive ‘be (present/absent)’ clauses with no explicit locational, as when predicating existence. *é* is required in (xx2) since there is no other overt locational, but it is absent in (xx2b).

- (xx2) a. *námá*      *é*      *wò-Ø*  
meat      Exist      be-3SgSbj  
‘There is (some) meat.’ (Boui)
- b. *ndégé = w<sup>n</sup>*      <sup>H</sup>*bó:*  
what?=Foc      <sup>H</sup>be  
‘What is present (here/there)?’ (Boui)

### 13.1.2 Subject focalization

Some further examples of subject focalization are given here. They illustrate points made above, except that the expression of pronominal subjects is not relevant. Recall that the verb has {H} rather than {LH} overlay.

- (xx1) a. *mì=yò*      <sup>H</sup>*úm-bó*  
 1Sg=Foc      <sup>H</sup>go-Ipfv  
 ‘It’s I [focus] who will go.’ (Boui)
- b. *ò:=wó*      *wàlè*      <sup>H</sup>*kání*  
 2Sg=Foc]      work(n)      <sup>H</sup>do.Pfv  
 ‘It’s you-Sg [focus] who did the work.’ (Boui)
- c. *è:=wó*      *wàlè*      <sup>H</sup>*kána-ní*  
 2Pl=Foc      work(n)      <sup>H</sup>do-PfvNeg  
 ‘It’s you-Pl [focus] who didn’t work.’ (Boui)
- d. *à:màdú=yò*      *té:*      <sup>H</sup>*sógé*  
 Amadou=Foc      tea      <sup>H</sup>bring.Pfv  
 ‘It was Amadou [focus] who brought the tea.’ (Boui)
- e. *à:màdú=yò*      <sup>H</sup>*ígíl-dá*  
 Amadou=Foc      <sup>H</sup>sweep-IpfvNeg  
 ‘It’s Amadou [focus] who doesn’t sweep.’ (Boui)

### 13.1.3 Object focalization

Further examples of object focalization are in (xx1). In addition to the features shared with subject focalization, we now see 1Sg/2Sg/3Pl and 3Sg pronominal-subject proclitics, like 2Sg *ò* in (xx1a). Accusative marking (*gi*) is often absent from the focalized object NP, even with pronouns, and it cannot be combined with an overt focus clitic.

- (xx1) a. [*mì*    *yó*] [*èwà*    *ɲá*] *ò*      <sup>LH</sup>*bàlì-yé*      *rì*  
 [1Sg    Foc] [market in] 2SgSbj <sup>LH</sup>see-MP.Pfv      Def  
 ‘It’s me [focus] whom you saw at the market.’ (Boui)
- b. *té:*      *mì*      <sup>LH</sup>*yòlò-wó*  
 tea      1SgSbj      <sup>LH</sup>look.for-Ipfv



‘It’s tea [focus] that I am looking for.’ (Boui)

- c. [ná: mɛ:] ò <sup>LH</sup>jɛ̀yɛ́  
 [cow 1SgPoss] 2SgSbj <sup>LH</sup>kill.Pfv  
 ‘It was my cow [focus] that you-Sg killed.’ (Boui)

#### 13.1.4 Focalization of PP or other adverb

A PP like ‘in the fields’ (xx1) can be focalized. However, the focus particle is not used with PPs (or with other nonhuman NPs), so if there is another overt constituent it may not be clear which is focalized.

- (xx1) [wótóro rì] [yálá ɲà] <sup>LH</sup>dìyè-ý<sup>n</sup>  
 [cart Def] [field Loc] <sup>LH</sup>leave.Pfv-1SgSbj  
 ‘It’s in the field(s) [focus] that I left the cart.’ (Boui)

## 13.2 Interrogatives

### 13.2.1 Polar (yes/no) interrogatives (*lè, nì*)

The clause-final polar interrogative particle is usually *lè*, but undergoes phonological processes when immediately preceded by a semivowel, as in 1Sg and 2Sg subject verb forms. The outputs are in (xx1).

- | (xx1) | input                     | output         | example  |
|-------|---------------------------|----------------|--|
| a.    | <i>-w̃ lè</i>             | → <i>-l lè</i> | 2Sg suffix <i>-w̃</i>  |
| b.    | <i>-ỹ lè</i>             | → <i>-l lè</i> | experiential perfect <i>-tèy</i>   |
| c.    | <i>-y<sup>n</sup> lè</i>  | → <i>-n nì</i> | 1Sg suffix <i>-y<sup>n</sup></i>   |
| d.    | <i>=w̃<sup>n</sup> lè</i> | → <i>=∅ n</i>  | ‘it is’ clitic <i>=w̃<sup>n</sup></i> plus yes/no<br><i>ámá = ∅ nì</i> ‘is it a sheep?’ (Boui) |

The interrogative particle has variable tone, but it can be analysed as basically L-toned. If the preceding syllable has contour (rising or falling) tone, the final tone component is realized on the particle (xx2ab). Likewise, a floating H-tone otherwise realized on the preceding syllable shifts to the particle (xx2c). If the preceding word is {L}-toned, the interrogative particle

polarizes to it, becoming H-toned (xx2d). So the tone of the particle is highly context-sensitive. In (xx2), the form of the preceding syllable in other contexts is given in parentheses after the free translation.

- (xx2) a. *[ijò      ɲá]      ùni-sè-l      lé*  
 [village    in]      go-RecPf-2SgSbj    Q  
 ‘Did you-Sg go to the village?’ (< -sě-w) (Boui)
- b. *nígé      bàli-yè-tèl-Ø      lé*  
 elephant    see-MP-ExpPf-3SgSbj    Q  
 ‘Has he/she ever seen an elephant?’ (< -tèy-Ø) (Boui)
- c. *è      nò:-rà      lé*  
 2PlSbj      enter-IPfvNeg      Q  
 ‘Did you-Pl not go in?’ (< è-nò:-rá) (Boui)
- d. *yògè-Ø      lé*  
 come.Pfv-3SgSbj      Q  
 ‘Did he/she come?’ (< yògè-Ø) (Boui)
- e. *yógó-wò-l      lè*  
 come-IPfv-2SgSbj      Q  
 ‘Will you-Sg come?’ (Boui)

### 13.2.2 ‘Who?’ (à:)

à: ‘who?’ is distinct from á: ‘God’. Examples of ‘who?’ are in (xx1). Like other WH-interrogatives, it is often marked by the ‘it is’ (here, focus) clitic, in the form à: = wó. The clitic is heard with H-tone when final (i.e. predicative) or when followed by a L-tone. When nonfinal (i.e. nonpredicative), the = wó is often reduced phonetically to = w. The object form is à: gí with accusative (not focus) marking.

- (xx1) a. *à: = wó*  
 who?=Foc  
 ‘Who is it?’ (Boui)
- b. *à: = wò      <sup>H</sup>yógé-Ø*  
 who?=Foc      <sup>H</sup>come.Pfv-3SgSbj  
 ‘Who came?’ (Boui)

- c.  $\hat{a}: = w\grave{o}$      $\text{}^H\text{úm-bó-}\emptyset$   
 who=Foc     $\text{}^H\text{go-Ipfv-3SgSbj}$   
 ‘Who will go?’ (Boui)
- d.  $[\hat{a}: \quad g\grave{i}]$      $\text{}^LH\text{tèwé-}\emptyset$   
 [who?    Acc]     $\text{}^LH\text{hit.Pfv-3SgSbj}$   
 ‘Who(m) did he/she hit?’ (Boui)
- e.  $\hat{a}: = w\acute{o}$      $\grave{e}$      $\text{}^LH\text{tèwé}$   
 who?=Foc    2PlSbj     $\text{}^LH\text{hit.Pfv}$   
 ‘Who(m) did you-Pl hit?’ (Boui)
- f.  $[\hat{a}: \quad \text{}^LH\text{jìwá}] = w^n$   
 [who?     $\text{}^LH\text{house}] = \text{it.is}$   
 ‘Whose house is it?’ (Boui)
- g.  $[\acute{i}:n\acute{j}\acute{e} \quad r\grave{i} \quad g\grave{i}]$      $\hat{a}: = w\grave{o}$      $\text{}^H\text{tèwé}$   
 [dog    Def    Acc]    who?=Foc     $\text{}^H\text{hit.Pfv}$   
 ‘Who hit the dog?’ (Boui)
- h.  $\hat{a}: = w\grave{o}$      $\text{}^H\text{yógó-ní}$   
 who?=Foc     $\text{}^H\text{come-PfvNeg}$   
 ‘Who didn’t come?’ (Boui)

If the number of referents asked about is unclear, the singular forms illustrated above are used. A marked plural  $\hat{a}:-yá = w^r$  is required in predicates with plural subject:  $\grave{e} \hat{a}:-yá = w^r$  ‘who are you-Pl?’ It can also be used in nonpredicative function to make plurality explicit.

### 13.2.3 ‘What?’ (*ndégé*), ‘with what?’, ‘why?’

‘What?’ is *ndégé*.

- (xx1) a. *ndégé*     $\grave{o}$      $\text{}^LH\text{cěy}$   
 what?    2SgSbj     $\text{}^LH\text{want}$   
 ‘What do you-Sg want?’ (Boui)
- b. *ndégé*    *nà*     $\text{}^LH\text{irè-sá}$   
 what?    3SgSbj     $\text{}^LH\text{get-Reslt}$

‘What did he/she get?’ (Boui)

- c. *ndégé* [ò *gì*] <sup>LH</sup>*kání-sá*  
what? [2Sg Acc] <sup>LH</sup>do-Reslt  
‘What (e.g. which body part) has hurt you-Sg?’ (Boui)

- d. *mbó* *ndégé = w<sup>n†</sup>*  
Dem what?=it.is  
‘What is this/that?’ (Boui)

A kind of plural can be formed by conjoining *ndégé* to itself: [*ndégé yà*] [*ndégé yà*] ‘what and what?’. An assistant rejected a direct plural #*ndégé-gé*.

‘With what?’ is *ndégé siyà*.

‘Why?’ (‘for what?’) is *ndégé dàgà* or contracted *ndé dàgà*.

#### 13.2.4 ‘Where?’ (*àná*)

‘Where?’ is *àná*. Like all locational expressions, it can occur without change in static locative, allative, and ablative contexts, with direction (if any) specified by verbs.

- (xx1) a. *àná* <sup>LH</sup>*bǒ-w*  
where? <sup>LH</sup>be-2SgSbj  
‘Where are you-Sg?’ (Boui)
- b. *àná* <sup>LH</sup>*ùm-bó-w†*  
where? <sup>LH</sup>go-Ipfv-2SgSbj  
‘Where are you-Sg going?’ (Boui)
- c. *àná* *è* <sup>LH</sup>*gwě.†*  
where? 2PlSbj <sup>LH</sup>go.out.Pfv  
‘Where are you-Pl from?’ (Boui)
- d. *àná = w†*  
where?=it.is  
‘It’s where?’ (Boui)

### 13.2.5 ‘When?’ (*áná-ɲgà*)

‘When?’ is *áná-ɲgà*, which apparently includes *áná* ‘where?’. the function of *-ɲgà* here is obscure; for H-toned *--ɲgá* see §4.2.1.

- (xx1) a. *áná-ɲgà*            <sup>LH</sup>*yògò-wó*  
           when?                <sup>LH</sup>come-Ipfv  
           ‘When are you-Sg coming?’ (Boui)
- b. *áná-ɲgà = wʔ*  
           when?=it.is  
           ‘When is it?’ (Boui)

### 13.2.6 ‘How?’ (*ára*)

Manner adverbial interrogative ‘how?’ is *ára*.

- (xx1) a. *ára*                *ilò-wò-wʔ*  
           how?                go.up-Ipfv-2SgSbj  
           ‘How will you-Sg go up?’ (Boui)
- b. *ára*                *bò-Ø*  
           how?                be-3SgSbj  
           ‘How is it?’ (Boui)

### 13.2.7 ‘How much/many?’ (*áɲgá*)

The usual sense is ‘how many?’, since even masses (like ‘money’) can be conceptualized in terms of units. *áɲgá* comes at the end of the NP, after plural *ge*. It has no effect on the tones of the preceding words, except in its ordinal adjective form (xx1e), cf. §4.7.2.

- (xx1) a. *[[ámhá gé] áɲgá] tùlè-wʔ*  
           [[sheep Pl] how.many?] sell.Pfv-2SgSbj  
           ‘How many sheep did you-Sg sell?’ (Boui)
- b. *[bé-gé áɲgá] ò bàli-yèʔ*  
           [child-Pl how.many?] 2SgSbj see-MP.Pfv  
           ‘How many children did you-Sg see?’ (Boui)

- c. *áṅgá-áṅgá*                      *tùlò-wò-w'*  
 Iter-how.many?                      sell-Ipfv-2SgSbj  
 ‘For how much each do you-Sg sell (them)?’ (Boui)
- d. [*síkóró*      *gé*                      *áṅgá*] = *w'*  
 [sugar              Pl                      how.many?]=it.is  
 ‘It’s how much (= how many units of) sugar?’ (Boui)
- e. *jìwà*<sup>L</sup>                      *áṅgá-n*  
 house<sup>L</sup>                      how.many?-Ord  
 ‘how-many-eth house?’ (reply: first, second, third, etc.) (Boui)

### 13.2.8 ‘Which?’ (*árí*)

*árí* ‘which?’ functions like an adjective, but does not control tone-dropping on a preceding noun. Where the referent is nonsingular, plural *-gé* may follow both the preceding noun and *árí* itself (xx1b). The set from which the referent is to be selected may also be expressed separately as a locative PP (xx1d).

- (xx1) a. [*ámbá*      *árí*]                      *ò*                      *dàṅṅò-wò* ↗  
 [sheep              which?]                      2SgSbj                      buy-Ipfv  
 ‘Which sheep-Sg will you-Sg buy?’ (Boui)
- b. [*ámbá-gé*      *árí-gé*]                      *ò*                      *dàṅṅò-wò* ↗  
 [sheep-Pl              which?-Pl]                      2SgSbj                      buy-Ipfv  
 ‘Which sheep-Pl will you-Sg buy?’ (Boui)
- c. [[*jíwá*      *árí*]                      *ṅá*]                      *è*                      *bì-yò-wò* ↗  
 [[house              which?]                      Loc]                      2PlSbj                      lie.down-Ipfv  
 ‘In which house will you-Pl sleep?’ (Boui)
- d. [[*ná:-gè*      *rì*]                      *ṅà*]                      *árí*                      *ò*                      *tùlò-wò* ↗  
 [[cow-Pl              Def]                      Loc]                      which?                      2SgSbj                      sell-Ipfv  
 ‘Which of the cows will you-Sg sell?’ (Boui)

For *árí* in relative-clause internal head NPs, see §14.2.2.

## 14 Relativization

### 14.1 Basics of relative clauses

The following is a brief summary of the major features of relative clauses.

- The core of the head NP is internal to the relative clause;
- This internal head NP is maximally Poss-N-Adj-Num and may include plural *ge*;
- The internal head NP does not undergo tonosyntactic modification, i.e. tone-dropping due to the relative clause;
- Determiners and ‘all’ quantifiers associated with the head NP follow the verb;
- If the head NP is subject of the relative clause, it may be followed by a morpheme *w<sup>n</sup>* or by *árí* ‘which’;
- Subject relatives have no overt pronominal-subject inflection on the verb;
- Nonsubject relatives have preverbal pronominal-subject markers rather than suffixes, even for 1Sg and 2Sg subjects;
- The verb is marked for an indicative category (aspect, negation, past time) as in main clauses;
- In most types of relatives, a {LH} tone pattern is overlaid on the verb, distinguishing the verb from counterparts in non-relative clauses;
- The verb has no overt nominal or adjectival morphology, but it is arguably nominal syntactically since it can be followed by plural and definite morphemes.

### 14.2 Head NP

The head NP is (apparently) bifurcated into a core that remains internal to the relative clause, and a coda that follows the verb. In effect, the entire relative construction is a NP. The core is maximally Poss-N-Adj-Num. The coda contains determiners, ‘all’ quantifiers, and any discourse-functional particles.

#### 14.2.1 Internal head NP (Poss-N-Adj-Num)

The internal head NP is maximally Poss-N-Adj-Num. Plural suffix *-gè* may be added in the same manner as in non-head NPs. There are no tonosyntactic changes other than those that take place anyway among these NP components. The internal head components are bolded in interlinears in (xx1).

- (xx1) a. *jíwá* <sup>LH</sup>*ùwè-sá* *rì*  
**house** <sup>LH</sup>collapse-ResltRel Def  
‘the house that collapsed’
- b. *jìwà* *báy-gé* *nì:ngà* <sup>LH</sup>*ùwè-sà-gé* *rì*  
**house big-PI two** <sup>LH</sup>collapse-ResltRel-PI Def  
‘the two big houses that collapsed’
- c. *sàydú* *jìwà* *bày-gè* *nì:ngà-ṅgé* <sup>LH</sup>*ùwè-sà-gé* *rì*  
**Seydou house big-PI two-PI** <sup>LH</sup>collapse-ResltRel-PI Def  
‘Seydou’s two big houses that collapsed’

In (xx1c), the possessor has its usual tonal effects on the following possessed NP. Since the relative clause does not control further tonal changes on the head NP, there is no conflict with the possessor-controlled overlay.

#### 14.2.2 *árí* ‘which’ and/or $=w^n$ after internal head NP

In many examples there is no special morphological marking of the (internal) head status of the NP in question. However, there are also examples where the head is followed by *árí* and/or by  $=w^n$ . *árí* occurs elsewhere as the ‘which?’ interrogative (§13.2.9), while  $=w^n$  resembles a variant of the ‘it is’ clitic or focus clitic  $=w^n$  (§11.2.1, §13.1.1.4).

*árí* without  $=w^n$  is seen in (xx1). Since it is followed by a postposition (purposive ‘for’), this construction looks like the English type *the X for which ...*, with *which* coindexed to the head. However, efforts to elicit parallel examples with *árí* followed by other postpositions (locative, instrumental) were unsuccessful; see §14.7.4 for discussion of postpositional relatives.

- (xx1) *[[bè-gè rì] [í:gé árí dâgá] <sup>LH</sup>yògè-sá]*  
[[child-PI Def] [honey which Purp] <sup>LH</sup>come-ResltRel]  
*áná* <sup>LH</sup>*bǒ:*  
where? <sup>LH</sup>be  
‘Where is the honey that the children came for?’

The combination *árí = w^n* occurs in (xx2).

- (xx2) a. *[ndà: árí = w^n]* <sup>LH</sup>*yěy* *rì*  
[person which=Foc] <sup>LH</sup>know.Rel Def



‘the person who knows’

- b. *[bé-gé árí-gé = w<sup>n</sup>]*      <sup>LH</sup>*tìwê-sà-gé*      *rì*  
 [child-Pl which-Pl=Foc]      <sup>LH</sup>die.Pfv-ResltRel-Pl      Def  
 ‘the child who has died’

Another example of *árí*, this time without *= w<sup>n</sup>*, is (xx2).

- (xx3) *[dèw<sup>n</sup> árí]*      *nà*      *dùmbè*      <sup>LH</sup>*sìgé*  
 [day which]      3SgSbj      fall.Pfv      <sup>LH</sup>go.down.Pfv  
 ‘the day when he fell down’

#### 14.2.3 Restrictions on the head of a relative clause

A pronoun can function as head of a relative. The pronoun takes L-toned form (xx1ab). A personal name can also be head (xx1c). In such cases the head is grouped prosodically with the rest of the relative clause, so there is no prosodic indication of parenthesis.

- (xx1) a. *nì*      *mó-ṅà*      <sup>LH</sup>*bò:-gé*      *rì*  
 1PlSbj      here      <sup>LH</sup>be-Pl      Def  
 ‘we who are here’
- b. *ò / nà / mì*      *mó-ṅà*      <sup>LH</sup>*bǒ:*      *rì*  
 2SgSbj / 3SgSbj / 1SgSbj here      <sup>LH</sup>be      Def  
 ‘you-Sg who are here / he or she who is here / I who am here’
- c. *sàydú*      *mó-ṅà*      <sup>LH</sup>*bǒ:*      *rì*  
 Seydou      here      <sup>LH</sup>be      Def  
 ‘Seydou who is here’

To my knowledge a demonstrative or an expressive adverbial cannot be relative-clause heads.

The head NP may function as subject, object, postpositional complement, or possessor of another NP within the relative clause.

#### 14.2.4 Conjoined NP as head

There is no structural problem with a conjoined NP as the head of a relative (xx1b).

- (xx1) a. *[yé:-gé yà] [bàná-gé yà] yáńí-y-íyè*  
 [woman-Pl and] [man-Pl and] fight-MP-3PlSbj  
 ‘women and men squabbled (with each other)’
- b. *[yé:-gé yà] [bàná-gé yà] <sup>LH</sup>yàńì-yè-gé rì*  
 [woman-Pl and] [man-Pl and] <sup>LH</sup>fight-MP.PfvRel-Pl Def  
 ‘the women and men who squabbled’

#### 14.2.5 Headless relative clause

For headless relatives as adverbial clauses, see §15.5.3.

#### 14.2.6 Head noun not doubled after relative clause

Doubling (echoing) of the internal head noun following the verb has not been observed.

### 14.3 Preverbal subject pronoun in nonsubject relative

If a nonsubject relative, such as an object relative, has a pronominal subject, it is expressed as a L-toned prefix (or proclitic) on the verb.

- (xx1) *ná: ò / m̀ / è / ǹ / ǹ / k̀* <sup>LH</sup>*tùlé* *rì*  
 cow 2SgSbj / 1SgSbj / 2PlSbj / 1PlSbj / 3SgSbj / 3PlSbj <sup>LH</sup>sell.PfvRel Def  
 ‘the cow that you-Sg/I/you-Pl/we/he-or-she/they sold’

The prefix precedes a nonfinal chained verb; see §14.5. Because the pronoun precedes both verbs, its location cannot be used as a syntactic test to distinguish verb-verb chains, including verb plus specialized auxiliary verb, from verb-suffix combinations (e.g. experiential perfect).

There is no resumptive subject pronoun when the subject of a nonsubject relative is expressed by an overt subject NP.

- (xx2) *sàydù déw<sup>n</sup> dùmbè* <sup>LH</sup>*sìgé* *rì*  
 Seydou day fall.Pfv <sup>LH</sup>go.down.PfvRel Def  
 ‘the day when Seydou fell down’

#### 14.4 Verb (or: verbal participle) in relative clause

The verb in a (subject or nonsubject) relative clause has an {LH} overlay, except in the agentive-type imperfective positive relatives. The {LH} overlay is shared in part by verbs in focalized clauses. However, under focalization the overlay is {LH} only for nonsubject focus, versus {H} for subject focus. For possible vestiges of {H} overlay with original subject relatives specialized as adjectives, see the discussion of *-sá* adjectives in §4.6.

In elicitation, an assistant sometimes failed to apply the {LH} overlay to (perfective and imperfective) negative verbs.

Other than the {LH} overlay, there is usually no other overt mark of participialization (i.e. nominal or adjectival features). However, perfective positive relatives often replace the regular (unsuffixed) perfective with the resultative (*-sá-*), and nonsubject imperfective positive relatives have a special suffix *-wá-* instead of *-wó-*, so in these cases there is morphological marking.

##### 14.4.1 Participles of positive perfective-system verbs

The perfective consisting of the E/I-stem of the verb has {LH} melody in relative clauses. Most examples in my data end in definite *rì*, and it may be that the {LH} melody was generalized from definite relative clauses, since the definite marker forces a final H-tone on a preceding {L}-toned word. In the plural, the final H-tone element is realized on plural *-gè*.

The main clause (xx1a) becomes the **subject relative** (xx1b). The main clause (xx1c) becomes the **nonsubject relative** (xx1d).

- (xx1) a. *í:njé-gé*      *mì-gí*      *cèr-iyè*  
 dog-Pl      1Sg-Acc      bite-Pfv.3PlSbj  
 ‘(The) dogs bit me.’
- b. *í:njé(-gé)*      *mì-gí*      <sup>LH</sup>*cèrè-gé*      *rì*  
 dog(-Pl)      1Sg-Acc      <sup>LH</sup>bite.PfvRel-Pl      Def  
 ‘the dogs that bit me’
- c. *í:njé*      *mì-gí*      <sup>LH</sup>*cèré*      *rì*  
 dog      1Sg-Acc      <sup>LH</sup>bite.Pfv      Def  
 ‘the dog that bit me’
- d. [*í:njé*      *rì*]      *déw<sup>n</sup>*      *mì-gí*      <sup>LH</sup>*cèré*      *rì*  
 [dog      Def]      day      1Sg-Acc      <sup>LH</sup>bite.Pfv      Def  
 ‘the day the dog bit me’

It was not possible to elicit an explicit **recent perfect** relative clause; an assistant merged these into the simple perfective. However an **experiential perfect** relative clause is (xx2). The {LH} melody is realized on the experiential perfect suffix.

- (xx2) *ndâ:*      *nígé*      <sup>LH</sup>*bàli-yè-těy*      *rì*  
 person      elephant      <sup>LH</sup>see-MP-ExpPfRel      Def  
 ‘the person who has (once) seen an elephant’

The **resultative** with *-sà-* ‘have’ can also form relative clauses (xx3). In fact, the resultative form occurs frequently in my data in relative clauses where one would expect a simple perfective.

- (xx1) *bí.má*      <sup>LH</sup>*yògè-sá*      *rì*  
 visitor      <sup>LH</sup>come.Pfv-ResltRel      Def  
 ‘the visitor who has come’

#### 14.4.2 Participles of positive imperfective-system and stative verbs

In the imperfective positive, **subject relatives** frequently take the form of **agentive compounds** if the verb is transitive and the object is nonspecific. The object then appears as a {L}-toned compound initial (xx1ab). For example, (xx1a) is similar in structure to ‘beer-drinking women’.

- (xx1) a. *yé:*      *kònjè-né:-gè*      *rì*  
 woman      beer-drink.Agent-Pl      Def  
 ‘the women who drink beer’ (agentive compound form)
- b. *tìlɲgò-tél-gè*      *rì*  
 tree-cut.Agent-Pl      Def  
 ‘people who chop down trees’ (agentive compound form)

Other imperfective subject relatives (xx2a) are based on the **regular imperfective** form with *-wò* or variant after {H}-toned stem. If the head NP is singular, there is no trace of the usual {LH} overlay on the verb (xx2a). However, if the head NP is plural, we do get H-toned plural *-gé* on the verb after the L-toned imperfective suffix *-wò-* (xx2b), so there is a kind of {LH} melody at the end of the verb. (Etymologically, *-wò* is related to *bò-* ‘be’ and so was originally an auxiliary verb.)

- (xx2) a. *ndà:*        *nóyó-wò*        *rì*  
 person        sleep-IpfvRel    Def  
 ‘the person who will sleep’
- b. *mó-ṅà*    *yé:-gé*        *yógó-wò-gé*        *rì*  
 here        woman-Pl        come-IpfvRel-Pl    Def  
 ‘the women who come here’

**Nonsubject** imperfective relatives are based on a different suffix *-wa* (dialectally *-ba*), which under the influence of the {LH} overlay appears as *-wá* after the {L}-toned stem (xx3a-c). This is an explicitly relative suffix that I gloss “Ipfv.Rel” in interlinears. In both *-wò* and *-wá*, for speakers with *w* rather than *b*, the *w* hardens to *b* after a stop or nasal (xx3a). Since the H-tone of *-wá* may be due to the definite marker, we are free to speculate whether this *-wá* is connected in any way with verbal noun suffix *-wà* (§4.2.2). If we decide in favor of this connection, we could say that nonsubject relative clauses resemble **possessed verbal nouns**. However, if the subject is nonpronominal, as in (xx3a), it need not be adjacent to the “possessed” verbal noun as we would expect in a true possessive construction.

- (xx3) a. *[[yé:-gè    rì]    jélé<sup>LH</sup> ùm-bá        rì]    [wàgà→ bó-Ø]*  
 [[woman-Pl Def] place<sup>LH</sup> go-Ipfv.Rel    Def] [far        be-3SgSbj]  
 ‘The place where the women go is far away.’
- b. *kónjé    ò        <sup>LH</sup>jò:-wá        rì*  
 beer        2SgSbj        <sup>LH</sup>drink-Ipfv.Rel        Def  
 ‘the beer that you-Sg drink’
- c. *[yé:-gè        rì]        kónjé    <sup>LH</sup>jò:-wá        rì*  
 [woman-Pl    Def]    beer        <sup>LH</sup>drink-Ipfv.Rel        Def  
 ‘the beer that the women drink’

The suffix *-wá* ~ *-bá* also has a past-time counterpart *-wé* ~ *-bé*, illustrated by <sup>LH</sup>*sànjè-bé* ‘was doing business’ in (xx10) in Text 4, compare nonpast imperfective <sup>LH</sup>*sànjò-bá* ‘is doing business’.

**Progressive** relative clauses are (xx4ab) with *bǒ:*, plural *bò:-gé*.

- (xx4) a. *ndà:-gè        wàlè        kàná-w<sup>n</sup>        <sup>LH</sup>bò:-gé        rì*  
 person-Pl    work(n)    do        <sup>LH</sup>ProgRel-Pl    Def  
 ‘the people who are working’
- b. *ndà:*        *wàlè*        *kàná-w<sup>n</sup>*    <sup>LH</sup>*bǒ:*        *rì*

person work(n) do <sup>LH</sup>ProgRel Def  
 ‘the person who is working’

Derived **statives** are illustrated in (xx5). We see the {LH} overlay on the stative.

- (xx5) a. *yé:*      *yá*                    <sup>LH</sup>*òwá*                    *rì*  
 woman      Exist.Dist      <sup>LH</sup>sit.StatRel      Def  
 ‘the woman who is sitting (distant)’
- b. *yé:*      *yá:*                    <sup>LH</sup>*bì-yá*                    *rì*  
 woman      there      <sup>LH</sup>lie.down-MP.StatRel      Def  
 ‘the woman who is lying down over there’

Defective stative **quasi-verbs** are in (xx6). The {LH} melody is observed in all cases.

- (xx6) a. *yé:*      *é-ŋà*                    <sup>LH</sup>*bǒ:*                    *rì*  
 woman      there.Near.Dist      <sup>LH</sup>be.Rel      Def  
 ‘the woman who is there (not far away)’
- b. *ndà:*      *jíwá*                    <sup>LH</sup>*sǎ:*                    *rì*  
 person      house      <sup>LH</sup>have.Rel      Def  
 ‘the person who has a house’
- c. [*ndà:*      *árí = w<sup>n</sup>*]                    <sup>LH</sup>*yěy*                    *rì*  
 [person      which=Foc]      <sup>LH</sup>know.Rel      Def  
 ‘the person who knows’
- d. *ndà:*      <sup>LH</sup>*cěy*                    *rì*  
 person      <sup>LH</sup>want.Rel      Def  
 ‘the person who wants’

#### 14.4.3 Participles of negative perfective-system verbs

The perfective negative with suffix *-nì* can take the {LH} pattern before the definite marker, with the suffix H-toned. However, alternative pronunciations with the usual non-relative tone pattern, {H}-toned stem and L-toned *-nì*, are also attested.

- (xx1) a. *ná:*      <sup>LH</sup>*yègà-ní*                    *rì*  
 cow      <sup>LH</sup>fall-PfvNegRel      Def

‘the cow that didn’t fall’

- b. *déw<sup>n</sup>*      *ò*                      <sup>LH</sup>*yògò-ní*                      *rì*  
 day              2SgSbj              <sup>LH</sup>come-PfvNegRel      Def  
 ‘the day you-Sg didn’t come’

Since the **experiential perfect negative** contains the same perfective negative suffix, its relative clauses are similar (xx2).

- (xx2) *ndà:*              *nígé*                      <sup>LH</sup>*bàli-yè-tèy-ní*                      *rì*  
 person              elephant              <sup>LH</sup>see-MP-ExpPf-PfvNegRel      Def  
 ‘the person who has never seen an elephant’

#### 14.4.4 Participles of negative imperfective-system and stative verbs

In the imperfective negative, all relative clauses are based on the regular imperfective negative form with suffix *-rà*, rather than on agentive compounds. With the {LH} overlay, the verb stem is {L}-toned and the suffix is H-toned *-rá*. However, alternative pronunciations with the regular (non-relative) tones are also attested.

- (xx1) a. *yé:*              *kónjé*                      <sup>LH</sup>*jò:-rá-gè*                      *rì*  
 woman              beer              <sup>LH</sup>drink-IpfvNegRel-Pl      Def  
 ‘the women who do not drink beer’
- b. *kónjé*              *ò*                      <sup>LH</sup>*jò:-rá*                      *rì*  
 beer              2SgSbj              <sup>LH</sup>drink-IpfvNegRel      Def  
 ‘the beer that you-Sg don’t drink’

The progressive negative is illustrated in (xx2).

- (xx2) *yé:*              *wàlè*                      *kànà-w<sup>n</sup>*                      <sup>LH</sup>*òrá*                      *rì*  
 woman              work(n)              do                      <sup>LH</sup>not.be.Rel      Def  
 ‘the woman who is not working’

(xx4) shows derived (xx3a) and underived statives (xx3b).

- (xx4) a. *yé:*                      <sup>LH</sup>*òwà-ná*                      *rì*  
 woman              <sup>LH</sup>sit.Stat-StatNegRel      Def  
 ‘the woman who is not sitting’

- b. *ndâ-yé:*      <sup>LH</sup>*òrá*                      *rì*  
 woman      <sup>LH</sup>not.be.Rel      Def  
 ‘the woman who is absent (e.g. not here).’
- c. *ndâ:*              *jíwá*                      <sup>LH</sup>*sâ:-ná*                      *rì*  
 person      house      <sup>LH</sup>have-StatNegRel      Def  
 ‘the person who doesn’t have a house’
- d. *ndâ:*              <sup>LH</sup>*yè-ní*                      *rì*  
 person      <sup>LH</sup>know-PfvNegRel      Def  
 ‘the person who doesn’t know’
- e. *ndâ:*              <sup>LH</sup>*cè-lá*                      *rì*  
 person      <sup>LH</sup>want-StatNegRel      Def  
 ‘the person who doesn’t want’

#### 14.4.5 Participle of past-time forms

The various past-time forms, with characteristic vowel *ɛ*, can occur in relative clauses with the same morphophonology as nonpast forms, i.e. in most cases with {LH} melody.

- (xx1) a. *yé:*              *é-ŋà*                      <sup>LH</sup>*bě:*                      *rì*  
 woman      there.Near.Dist      <sup>LH</sup>be.Past      Def  
 ‘the woman who was there (not far away)’
- b. *ndâ:*              *jíwá*                      <sup>LH</sup>*sě:*                      *rì*  
 person      house      <sup>LH</sup>have.Past      Def  
 ‘the person who had a house’

### 14.5 Relative clause involving verb- or VP-chain

When the clause that is relativized contains a verb chain, the final verb is affected by the {LH} overlay. In the case of a nonsubject relative with a pronominal subject, as in (xxa), the proclitic pronominal subject (3Sg *nà*, 1Sg *mí*) is attached to the nonfinal, not the final verb.

In (xx1a), a chain with a nonfinal verb in the {L}-toned E/I-stem (like the 3Sg subject perfective) is followed by the fully inflected verb (‘go down’). When this is converted into a



relative clause, the nonfinal verb is unchanged, but the final verb has relative-clause form with {LH} overlay.

- (xx1) a. *dùmbè*      *sìgè-y<sup>n</sup>*  
 fall.Pfv      go.down.Pfv-1SgSbj  
 ‘I fell down.’
- b. *déw<sup>n</sup>*    *nà / mì*                      *dùmbè*      <sup>LH</sup>*sìgè*                      *rì*  
 day      3SgSbj / 1SgSbj      fall.Pfv      <sup>LH</sup>go.down.PfvRel      Def  
 ‘the day when he/I fell down’

In (xx2a), the nonfinal verb has the same perfective form as before, but the final vowel is imperfective. The relative-clause version is (xx2b).

- (xx2) a. *ná:*      *dǎnè*                      *sógó-wò-y<sup>n</sup>*  
 cow      buy.Pfv      bring-1pfv-1SgSbj  
 ‘I will buy and bring a cow.’
- b. *ná:*    *déw<sup>n</sup>*    *mì*                      *dǎnè*                      <sup>LH</sup>*sògò-wá*                      *rì*  
 cow day      1SgSbj      buy.Pfv      <sup>LH</sup>bring-1pfvRel      Def  
 ‘the day when I will buy and bring a cow’

## 14.6 Late-NP elements that follow the verb (or verbal participle)

### 14.6.1 Determiners (demonstrative and definite)

Undetermined (indefinite) relative clauses are fine, either introducing a specific referent into the discourse or describing a nonspecific type (‘I’m looking for a person who has a cart’).

Probably most relative clauses in natural speech are definite. Definite *rì* occurs in probably the majority of examples of relative clauses in this chapter. It follows the verb (and plural *-gè* if present) and does not affect the morphology or tones of the verb. Another example of a definite relative clause is (xx1).

- (xx1) *ndà-báná*      *ò*                      <sup>LH</sup>*bàlá*                      *rì*  
 man                      2SgSbj      <sup>LH</sup>see.StatRel      Def  
 ‘the man who(m) you-sg see’

In (xx2a), the all-purpose demonstrative *mbó* replaces definite *rì*. The structure is the same, but since *mbó* is H-toned the final H-tone on the verb ‘see’ is lost by phonological rule.

Marked demonstratives like *yá-wò rì* (far distant), which include the definite morpheme, can also be used in this construction (xx2bc). The forms of the relative-clause verbs without the demonstrative are given in parentheses after the free translation.

- (xx2) a. *ndà-báná ò* <sup>LH</sup>*bàlà* *mbó*  
 man 2SgSbj <sup>LH</sup>see.Stat Def  
 ‘that man who(m) you-Sg see’ (< *bàlá*)
- b. *yé: nà:ngè nà-w<sup>n</sup>* <sup>LH</sup>*bò:* *yá-wò rì*  
 woman meal eat.meal <sup>LH</sup>ProgRel FarDist Def  
 ‘that woman over there who is eating (a meal)’ (< *bǒ:*)
- c. *yé:* <sup>LH</sup>*igà* *yá-wò rì*  
 woman <sup>LH</sup>stand.StatRel FarDist Def  
 ‘that woman who is standing’ (< *igá*)

#### 14.6.2 Plural (-*gè*)

When the head NP is plural, plural *-gè* is suffixed to the verb. *-gè* is also optionally present in the final word of the internal head NP, and may also occur in nonfinal words; see examples in §14.2.1 above.

#### 14.6.3 Non-numeral quantifiers (‘all’)

*címà* ‘all’ occurs in its usual final position within the NP, following the definite morpheme and itself being followed only by accusative *gì* (or by postpositions).

- (xx1) a. [*ná:-gé ò* <sup>LH</sup>*dònè-gé rì* *címà*] *mì-gí tà:rà*  
 [cow-Pl 2SgSbj <sup>LH</sup>buy.PfvRel-Pl Def **all**] 1Sg-Acc show.Imprt  
 ‘Show me all the cows that you-Sg bought.’
- b. *yé: mó-ṅà* <sup>LH</sup>*yógó-wò-gé rì* *címà gí*  
 [woman here <sup>LH</sup>come-IpfvRel-Pl Def **all** Acc]  
 [*tè:měṅ nì:ngà-nì:ngá ndà:*  
 [hundred two-two] give.Imprt  
 ‘Give-2Sg two hundred (currency units) to each woman who comes here.’

## 14.7 Grammatical relation of relativized-on NP

### 14.7.1 Subject relative clause

Further examples of subject relatives are in (xx1).

- (xx1) a. *bé: ò-gí <sup>LH</sup>cèré rì*  
 child 2Sg-Acc <sup>LH</sup>bite.PfvRel Def  
 ‘the child who bit you-Sg’
- b. *bé: dú.rú-yó-wò rì*  
 child run-MP-IpfvRel Def  
 ‘the child who will run’
- c. [*bé-gé árí-gé = w<sup>n</sup>*] <sup>LH</sup>tìwè-sà-gé rì  
 [child-Pl which-Pl=Foc] <sup>LH</sup>die.Pfv-ResltRel-Pl Def  
 ‘the child who has died’
- d. *á:gá bé: yógó-wò rì*  
 tomorrow child run-IpfvRel Def  
 ‘the child who will run tomorrow’

### 14.7.2 Object relative clause

Further examples of object relatives are in (xx1).

- (xx1) a. *à:màdù ná: <sup>LH</sup>tùlé rì*  
 Amadou cow <sup>LH</sup>sell.PfvRel Def  
 ‘the cow that Amadou sold’ (< *à:màdú*)
- b. *ná:-gé ò <sup>LH</sup>tùlè-gé rì*  
 cow-Pl 2SgSbj <sup>LH</sup>sell.PfvRel-Pl Def  
 ‘the cows that you-Sg sold’
- c. *ná: ò-gí nì <sup>LH</sup>tùlé rì*  
 cow 2Sg-Acc 1PlSbj <sup>LH</sup>sell.PfvRel Def  
 ‘the cow that we sold you-Sg’
- d. *à:màdù bé: <sup>LH</sup>sògé rì*

Amadou child <sup>LH</sup>bring.PfvRel Def  
 ‘the child whom Amadou brought’

e. *ámhá túlò-wà mì <sup>LH</sup>yòlò-wá rì*  
 sheep sell-VblN 1SgSbj <sup>LH</sup>look.for-IpfvRel Def  
 ‘the sheep that I seek to sell’

f. *á:gá ámhá mì <sup>LH</sup>tùlò-wá rì*  
 tomorrow sheep 1SgSbj <sup>LH</sup>sell-IpfvRel Def  
 ‘the sheep-Sg that I will sell tomorrow’

### 14.7.3 Possessor relative clause

Attempts to elicit possessor relatives from the Boui assistant resulted in a construction with *tìngà* ‘(the) fellow’ or ‘(the) owner (of sth)’, whose {LH} melody is that of a possessed noun. *tìngà* typically denotes a contextually established but nonspecific individual (cf. *the guy* or French *l’intéressé*). (xx1a) literally means ‘(where is) the owner of [(the) place (where) the house fell]’. Likewise, (xx1b) is literally ‘the owner of [(the) child who died]’.

(xx1) a. *[[jìwá jélé <sup>LH</sup>dùmbè-sá] <sup>LH</sup>tìngá rì]*  
 [[house place <sup>LH</sup>fall-Reslt.Rel] <sup>LH</sup>owner Def]  
*áná <sup>LH</sup>bě:*  
 where? <sup>LH</sup>be  
 ‘Where is the person whose house fell?’

b. *[bè: <sup>LH</sup>tìwè-sá] <sup>LH</sup>tìngá (rì)*  
 [child <sup>LH</sup>die-Reslt] <sup>LH</sup>owner (Def)  
 ‘a/the the person whose child died’

The older Ningo speaker produced a purer possessor relative. The possessor in (xx2a-b) is ‘person’. It does not control the usual {LH} overlay on the possessed noun, showing that the possessor and the possessed noun are tonosyntactically separated in this construction.

(xx2) a. *ndà: bē: tìbè-sá rì*  
 person child die-Reslt.Rel Def  
 ‘the person whose child died’

b. *ndà: ùnà ùnì-sá rì*  
 person goat go-Reslt.Rel Def

‘the person whose goat went away’

#### 14.7.4 Relativization on the complement of a postposition

(xx1a) contains a purposive PP. In the relative version (xx1b), the purposive postposition is added to the head noun ‘honey’ plus *árí* ‘which’.

- (xx1) a. *[í:gé dǎgá] yògè-s-â:*  
 [honey for] come-Reslt-3PlSbj  
 ‘They have come for honey.’
- b. *[[bè-gè rì] [í:gé árí dǎgá] <sup>LH</sup>yògè-sá]*  
 [[child-Pl Def] [honey which Purp] <sup>LH</sup>come-Reslt]  
*àná <sup>LH</sup>bǒ:*  
 where? <sup>LH</sup>be.Rel  
 ‘Where is the honey that the children came for?’

Attempts to elicit other postpositional-complement relatives resulted in alternative constructions without a postposition. (xx2a) contains an instrumental PP (‘with that knife’). One relative-clause version that was elicited, (xx2b), is literally either ‘the knife of (the way) I cut-Past the meat’ (possessor of a headless relative), or more awkwardly ‘the knife of [(the) meat that I cut]’. A second relative-clause version (xx2c) omits the postposition, and is literally ‘the knife (that) I cut the meat’.

- (xx2) a. *[[tànà mbó] yà] [námá rì] <sup>LH</sup>tèlě-y<sup>n</sup>*  
 [[knife Dem] Inst] [meat Def] <sup>LH</sup>cut.Pfv-1SgSbj  
 ‘I cut the meat with that knife [focus].’ (*námá*)
- b. *[námá mì <sup>LH</sup>tèlě] <sup>LH</sup>táná rì*  
 [meat 1SgSbj <sup>LH</sup>cut.PfvRel] <sup>LH</sup>knife Def  
 ‘the knife with which I cut-Past (the) meat.’ (*tànà*)
- c. *tànà námá mì <sup>LH</sup>tèlě rì*  
 knife meat 1SgSbj <sup>LH</sup>cut.Pfv Def  
 ‘the knife with which I cut-Past (the) meat’

(xx3a) contains a simple locative PP. The first relative version (xx3b) drops the postposition, but adds the noun ‘place’. This noun is vaguely appositional to ‘hole’ though the two are not

adjacent, and since ‘place’ is a common relative head we could take it to be the head in this example. The postposition is also dropped in the second relative version (xx3c)

- (xx3) a. *[bóndó nà]* <sup>LH</sup>*dùmbě-y<sup>n</sup>*  
 [hole Loc] <sup>LH</sup>fall.Pfv-1SgSbj  
 ‘I fell in(to) a pit.’
- b. *bóndó [ndǎ: rì] jélé dùmbè* <sup>LH</sup>*sìgé* *rì*  
 hole [person Def] place fall.Pfv <sup>LH</sup>go.down.PfvRel Def  
 ‘the hole where the person fell down’
- c. *bóndó [ndǎ: rì] dùmbè* <sup>LH</sup>*sìgé* *rì*  
 hole [person Def] fall.Pfv <sup>LH</sup>go.down.PfvRel Def  
 ‘the hole (that) the person fell down (in)’

#### 14.8 Relative clauses as quasi-main clauses

In narratives and other extended discourses, clauses in the form of headless relative clauses are quite common where we might expect main clauses. The diagnostics for this are {LH} tones on the verb, preverbal rather than suffixed subject pronominals (for 1Sg, 2Sg, 3Sg, and 3Pl), and for imperfectives *-wá* ~ *-bá* replacing *-wò* ~ *-bò*. In natural discourse, which is only roughly approximated by my dictated texts, it is likely that these headless relatives are regularly followed by a final main clause in regular form.

## 15 Verb (VP) chaining and adverbial clauses

### 15.1 Direct chains

In direct chains in Dogon languages, nonfinal verbs occur either in a bare-stem form or in a chaining stem with final high vowel, but no overt subordinating or aspect-negation marking. Only the final verb is inflected.

In the initial fieldwork with the Boui assistant, I did not find clear evidence of direct chains of this type. This assistant favored the construction with double conjugated perfectives (§15.2.2.1). However, further study might have turned up examples of direct chains like those I found later with the Ningo assistant, where verbs of motion or transfer ('go', 'bring', etc.) may follow another verb. The important point in (xx1a-c) from Ningo is that only the final verb is inflected for AN category and conjugated for pronominal subject. *nì:ndè* 'accompany (visitor) back' has the same form in these examples, while the final verb 'convey' changes shape depending on AN and subject categories.

- (xx1) a. *bí:má*      *nì:ndè*                      *nì*                      *sìni*  
visitor      accompany                      1PISbj                      convey.Pfv  
'We accompanied the visitor back (home)' (Ningo)
- b. *bí:má*      *nì:ndè*                      *sìni-yè*  
visitor      accompany                      convey.Pfv-3PISbj  
'They accompanied the visitor back (home)' (Ningo)
- c. *ágá*                      *bí:má*      *nì:ndè*                      *nì*                      *sím-bò*  
tomorrow      visitor      accompany                      1PISbj                      convey-Ipfv  
'Tomorrow we will accompany the visitor back (home).' (Ningo)

Another direct chain is 'fall' plus 'descend' → 'fall (all the way) down' in (xx2a-c).

- (xx2) a. *yègè*                      *nì*                      *sigè*  
fall                      1PISbj                      descend.Pfv  
'We fell (all the way) down.' (Ningo)
- b. *yègè*                      *sigi-yè*  
fall                      descend.Pfv-3PISbj  
'They fell (all the way) down.' (Ningo)

- c. *ágá*            *yègè*            *nì*            *sígó-bò*  
 tomorrow      fall            1PISbj      descend-Ipfv  
 ‘Tomorrow we will fall (all the way) down.’ (Ningo)

A third example is the combination of *dénó* ‘take out (daily ration of grain, from granary)’ and *ndó* ‘give.’

- (xx3) a. *pángá*            *dènè*            *nì*            *ndè:*  
 granary      take.out.ration      1PISbj      give.Pfv  
 ‘We took a daily ration (of grain) from the granary and gave it.’ (Ningo)
- b. *pángá*            *dènè*            *ndi:-yè*  
 granary      take.out.ration      give.Pfv-3PISbj  
 ‘They took a daily ration from the granary and gave it.’ (Ningo)
- c. *ágá*            *pángá*            *dènè*            *nì*            *ndó-bò*  
 tomorrow      granary      take.out.ration      1PISbj      give-Ipfv  
 ‘Tomorrow we will take a daily ration from the granary and give it.’ (Ningo)

The invariant form of the nonfinal verb is in the E-stem (*nì:ngè*, *yègè*, *dènè*), identical in form to the (zero-suffix) 3Sg perfective.

## 15.2 Temporal adverbial clauses.

### 15.2.1 Adverbial clauses expressing temporal overlap

#### 15.2.1.1 Noun-headed temporal relative clause (‘[at] the time when ...’)

Temporal relative clauses are nonsubject relatives headed by a noun like ‘day’ or ‘time’.

- (xx1) *wákátí / dèw<sup>n</sup>*      *mì*            <sup>LH</sup>*dùmbé*            *rì*  
 time / day            1SgSbj      <sup>LH</sup>fall.Pfv            Def  
 ‘(at) the time / (on) the day (when) I fell’

Except for ‘day’ (see below) there is no postposition for the relative construction as a whole, since temporal adverbs are not marked as locative. Other than this, the temporal adverbial relative construction is very similar to the corresponding spatial construction (§15.3.1).

When ‘day’ (or the name of some part of a day, e.g. ‘night’) is the head, it may be expressed by either or both of *dén* as regular internal head and postposed suppletive “echo”



<sup>LH</sup>*nàngá*. The latter appears to have {LH} overlay as a “possessum,” like similar postverbal “echoes” of head nouns in other Dogon languages. However, it functions like a postposition.

- (xx2) a. *dén*    *nà*            <sup>LH</sup>*yògé*            <sup>LH</sup>*nàngá*  
 b. *dén*    *nà*            <sup>LH</sup>*yògé*  
 c.            *nà*            <sup>LH</sup>*yògé*            <sup>LH</sup>*nàngá*  
 day        3SgSbj    come.Pfv        <sup>LH</sup>on.day  
 ‘(on) the day when he/she came, ...’ (Ningo)

<sup>LH</sup>*nàngá* can also be added to an NP with ‘day’ and a modifier other than a relative clause, specifying a particular day. In this case, *dén* ‘day’ is optionally repeated before <sup>LH</sup>*nàngá*, in H-toned form *dén*, likely reduced from {LH}, cf. *mì* <sup>LH</sup>*dèní* ‘my day’.

- (xx3) a. *dén*        *díló*            (<sup>H</sup>*dén*)            <sup>LH</sup>*nàngá*  
 day        first            (<sup>H</sup>day)            <sup>LH</sup>on.day  
 ‘(on) the first day’  
 b. *yà:gò*    *díló*            (<sup>H</sup>*dén*)            <sup>LH</sup>*nàngá*  
 night     first            (<sup>H</sup>day)            <sup>LH</sup>on.day  
 ‘(on) the first night’

#### 15.2.1.2 Imperfective subordinate clause with *-w<sup>n</sup>~ -ŋ* ‘while’

In (xx1), the clause with *-w<sup>n</sup>~ -ŋ* denotes a continuous activity that overlapped with the main-clause eventuality. *-w<sup>n</sup>* is glossed ‘while’ in interlinears. It is added to a {L}-toned form of the A/O-stem. If the following clause is brief and phrased tightly with the subordinate clause it is usually in defocalized {LH}-toned form.

- (xx1) a. [*yèwù*            *yèwà-w<sup>n</sup>*]            <sup>LH</sup>*nàyě-y<sup>n</sup>*  
 [dance(n)        dance-while]            <sup>LH</sup>spend.night.Pfv-1SgSbj  
 ‘I spent the night dancing.’ (‘I danced all night.’)  
 b. [*té:*            *sàngà-w<sup>n</sup>*]            <sup>LH</sup>*dènè-wó-Ø*  
 [tea            put.up.on-while]            <sup>LH</sup>spend.midday-Ipfv-3SgSbj  
 ‘He will spend the mid-day making tea (on a burner).’  
 c. *dù:rù-yò-w<sup>n</sup>*            <sup>LH</sup>*nùy-ê:*  
 run-MP-while            <sup>LH</sup>go.in.Pfv-3PlSbj  
 ‘They ran in.’ (lit. “They went in running.”)

In the examples above, the subjects of the two clauses are the same. The ‘while’ clause has no overt subject of its own, while the following main clause has normal pronominal-subject marking. If the subjects are disjoint, the ‘while’ clause must have an overt subject. If this subject is pronominal, it takes the form of a preverbal proclitic subject pronoun, like *nà* in (xx2). Also, in this disjoint-subject construction, the verb has {LH} tones and ends in long á: or ó: before *-w̃<sup>n</sup>*.

(xx2) *níná*      [*nà*      *nòyá:-w̃<sup>n</sup>*]      [*wàlè*      *nì*      <sup>LH</sup>*kàní*]  
 yesterday [3SgSbj sleep-while] [work(n) 1PlSbj <sup>LH</sup>do.PfvRel]  
 ‘Yesterday we worked while he/she was sleeping.’

See also (xx3) in T6, and two examples in T7 @ 16:50.

The disjoint-subject form of the ‘while’ construction is also used in complements of direct perception verbs, as in ‘we saw Seydou come’. See §17.2.2.1 for discussion and examples.

### 15.2.1.3 ‘Until’ (or ‘before’) clause with *-ó: gí*

A clause-type with *-ó:* on the verb followed by locative *gí* occurred in texts from the Ningo assistant in ‘before’ clauses (§15.2.3) but also in the final verb in a construction of the type ‘from the beginning (all the way) until ...’. The construction as a whole is emphatically durative, and serves as background for DDanother event that will not occur until the duration is completed. The construction regularly begins with *hǎl jè: ná*, literally ‘until [taking and]’, where ‘taking and’ denotes the onset of the duration period and ‘until’, in spite of its linear position, has scope over the following clause (unless *hǎl* ‘until’ has been reinterpreted as having a different sense here). The locative postposition *gí* suggests an adverbial relative clause (‘until the time when ...’) with the head (‘time’) omitted, but the construction is somewhat frozen and the *-ó:* is obscure. For lack of a better category I will gloss *-ó:* as ‘until’.

Examples are in (xx6) and (xx8) in Text 3, which are both of the general type ‘you won’t leave (=stop pursuing/fighting) him, from the beginning until you have caught/defeated him’. One of the examples is modified by changing the subject pronouns in (xx1), showing that the verb is invariant.

(xx1) [*hǎl*      *jè:*      *ná*]  
 [until      take-and.Nonpast      and.Nonpast]  
 [[*nà-gí*      *mì / nì / kè*      *ìmì-y-ó:*]      *gí*],  
 [[3Sg-Acc      1SgSbj/1PlSbj/3PlSbj      defeat-MP-until]      Loc]  
*nà-gí*      *díyò-rà-w*

3Sg-Acc          leave-IpfvNeg-2SgSbj

‘From the beginning until the time when I/we/they have defeated him, I/we/they will not leave him alone (=stop fighting him).’

#### 15.2.1.4 ‘Since ...’ clauses (*tàrò*)

*tàrò* ‘since’ is added to a usually headless perfective relative (supply ‘time’ as the covert head).

- (xx1) a. *[[mó-ŋà    mì                    LH yògé]                    tàrò]*  
 [[here        1SgSbj            LH come.Pfv.Rel]        since]  
*[nà:ŋgè        ɲá:-ní-ý<sup>n</sup>]*  
 [meal            eat.meal-PfvNeg-1SgSbj]  
 ‘I haven’t eaten a meal since (the time when) I got here.’

- b. *[bé-gè    rì]    [[cè        LH bàwá]        LH ùní]                    tàrò]*  
 [child-Pl   Def]    [[3PlSbj   LH father]        LH go.Pfv.Rel]        since]  
*[[kàmò            ɲá]        bà-â:]*  
 [[weeping(n)    Loc]        be-3PlSbj]  
 ‘The children, since (the time) their father left, they have been weeping.’

#### 15.2.1.5 Durative background clauses (*-í-nì* ‘keep being’, etc.

Quasi-verbs *bò-* ~ *wò* ‘be (somewhere)’ (§11.2.2.2) and *sâ-* ‘have’ (§11.5.1), and regular (aspect-marking) mediopassive *óbí-yó* ‘sit down’, have unconjugated forms *bí:-nì* ‘(keep) being’, *sí:-nì* ‘(keep) having’, and *òbí:-nì* ‘(keep) sitting’ that function as durative (“-Dur”) background clauses. Subject are expressed as preverbal proclitics. These forms are attested for the Ningo dialect.

Examples from T7 are *bò: ò bí:-nì* ‘you-Sg keep being like that’ 2 00:26, [*dàŋi-yè ɲá*] *kè sí:-nì* ‘they keep holding (them)’ @ 07:30, and *érò nì òbí:-nì* ‘we remain sitting (=living) like that’ @ 11:36. As these examples suggest, the final verb in *-nì* is accompanied by a preceding VP or adverb (‘thus’) plus a proclitic subject pronoun. *sí:-nì* combines with transitive verbs, *bí:-nì* with intransitives, and *òbí:-nì* with either.

My Ningo assistant also produced *yògí-nì* ‘keep coming’ from *yógé* ‘come’, and *dùrù-yí-nì* ‘keep running’ from *dúru-yó* ‘run’. These data show that motion verbs are eligible for this construction. However, this assistant rejected *-nì* with various other verb stems when I proposed them to him. Instead, he combined a subordinated form of the other verb with one

of the three -nì forms, in auxiliary-like function, as in (xx1a). Textual examples (xx1b-c) likewise show miscellaneous main verbs combined with one of the core -nì forms.

- (xx1) a. kùb-à:                      nà                      bǐ:-nì  
 cultivate-xx                      3SgSbj                      be-Dur  
 ‘He continued to cultivate (=work in the fields).’ (Ningo)
- b. [tùbè                      ɲá]                      ò                      bǐ:-nì,  
 [keep.visiting                      and.Nonpast.SS]                      2SgSbj                      be-Dur,  
 ‘You-Sg continue to visit (them).’ (T7 @ 00:30)
- c. sì-yò-ŵ<sup>n</sup>                      kè                      bǐ:-nì  
 have-MP-while                      3PlSbj                      be-Dur  
 ‘They keep (doing that).’ (T7 @ 07:57)

Since bí-yó- ‘be’ and sí-yó- ‘have’ occur as aspect-marking forms of ‘be’ and ‘have’, respectively, it is possible that bí:-nì and sí:-nì should be analysed as syncopated from /bì-yí-nì/ and /sì-yí-nì/, parallel to òbǐ:-nì < /òbì-yí-nì/ for ‘sit’. Forms like yògí-nì and dùrù-yí-nì show that the tone overlay on the stem before -nì is {L\*H} with only the final syllable H-toned. This suggests that the tones in e.g. bí:-nì have been flattened from <LH> to H.

#### 15.2.1.6 Nonfinal verb with -à:

see with durative -nì

#### 15.2.1.7 Nonfinal verb with -ɲgà

A form consisting of the {H}-toned A/O-stem plus suffix -ɲgà functions as an alternative same-subject imperfective subordinator in the textual excerpt (xx1).

- (xx1) [ná là:]                      gó:-ɲgà,                      [nà                      <sup>LH</sup>ɛ̀m̀ɛ̀ɲgɛ́]                      nǎ:                      ɛ̀m̀ɛ̀  
 [3Sg too]                      exit(v)-while,                      [3SgPoss                      <sup>LH</sup>milk]                      3SgSbj.Fut                      milk(v).Pfv  
 ‘Likewise as he goes out, he will draw his milk.’ (Ningo, T7 @ 13:08)

Follow-up elicitation include nwá:-ɲgà ‘entering’, únó-ɲgà ‘going’, kúbá-ɲgà ‘cultivating’, ná:-ɲgà ‘eating’, and bíní-yó-ɲgà ‘going back’.

## 15.2.2 Adverbial clauses expressing chronological sequences

### 15.2.2.1 Perfective sequences (same or different subject, anterior)

In this construction, two independently conjugated perfective clauses are juxtaposed. The subjects may be the same (xx1c) or different (xx1ab). The final verb in the first clause has {LH} tones.

- (xx1) a. *[mì-gì kílé<sup>LH</sup>ndě:-Ø] úní-ỳ<sup>n</sup>*  
 [1Sg-Acc key<sup>LH</sup>give.Pfv-3SgSbj] go.Pfv-1SgSbj  
 ‘He gave me the key and I left.’ (Boui)
- b. *[nà:ngè<sup>LH</sup>sòg-iyé] [nì jè:]*  
 [meal<sup>LH</sup>bring.Pfv-3PlSbj] [1PlSbj eat.meal.Pfv]  
 ‘They brought a meal and we ate.’ (Boui)
- c. *[nà:ngè nì<sup>LH</sup>sògé] [nì jè:]*  
 [meal 1PlSbj<sup>LH</sup>bring.Pfv.Rel] [1PlSbj eat.meal.Pfv]  
 ‘We brought a meal and we ate.’ (Boui)

### 15.2.2.2 Chains with nonfinal perfective verb (same-subject co-events)

In this construction, the nonfinal verb is in the E/I-stem with {L} melody. This is exactly the same as the perfective for (zero) 3Sg subject, so I gloss it as perfective. The two verbs denote co-events of a complex event, rather than clearly separated, chronologically sequenced events. The final verb may be perfective or imperfective, and the complex event may have occurred in the past or may be anticipated for the future. The second verb does not take the {LH} overlay (for defocalization) that is found in some other chain-like constructions. The two verbs are adjacent (except for an intervening 1Pl or 2Pl subject marker) in the examples in my data. Overall this construction is close to the compound-like direct chain pattern of other Dogon languages.

- (xx1) a. *dùmbè sígé-ỳ<sup>n</sup>*  
 fall.Pfv go.down.Pfv-1SgSbj  
 ‘I fell down.’
- b. *dùmbè nì-sígó-wò*  
 fall.Pfv 1PlSbj-go.down-1pfv

‘We will fall down.’

- c. [sàtàlɛ̀ rì] yá: tɛ̀ɲɛ̀ ðiyě-y<sup>n</sup>  
 [kettle Def] there set.down.Pfv leave.Pfv-1SgSbj  
 ‘I put the water kettle down there and left it.’ (sàtàlɛ̀)

The second verb can be negated. The first clause is included in the scope of negation (xx2).

- (xx2) ðùmbɛ̀ sígó-rà-y<sup>n</sup>  
 fall.Pfv go.down-IpfvNeg-1SgSbj  
 ‘I didn’t fall down.’

The second verb can be put into verbal noun form, again including the first clause in its scope.

- (xx3) ðùmbɛ̀ sígó-wà  
 fall.Pfv go.down.VblN  
 ‘(the fact of) falling down’

For chains of this type involving reversives followed by intransitive *gó:-* ‘go out’ or transitive *gó-m(ú)-*, see the end of §9.1.

### 15.2.2.3 Nonfinal verb with *-sà-w<sup>n</sup>* (past, same-subject, anterior)

In this construction, *-sà-w<sup>n</sup>* is added to the nonfinal verb, which is {L}-toned and in the E/I-stem and has no pronominal-subject morphology. I parse the suffix complex as resultative *-sà-* (§10.2.1.5) plus *-w<sup>n</sup>* ‘while’ (§15.2.1.2). The final verb is perfective, has regular pronominal-subject inflection. It has {LH} contour (as with defocalized verbs) when it is prosodically phrased with the nonfinal verb.

The two clauses denote same-subject events that occurred in the past and were chronologically sequenced. The two verbs need not be adjacent; that is, the final verb may be immediately preceded by constituents belonging uniquely to its clause, like ‘to Bamako’ in (xx1b).

- (xx1) a. níɲá ùnì-sà-w<sup>n</sup> nì <sup>LH</sup>yògé  
 yesterday go-Reslt-while.SS 1PISbj <sup>LH</sup>come.Pfv  
 ‘Yesterday we went and came (back).’  
 b. [ɲà:ɲgɛ̀ ɲɛ̀:-sà-w<sup>n</sup>] [[bòmàkó ɲà] ún-íyè

[meal eat-Reslt-while.SS] [[Bamako Loc] go.Pfv-3PlSbj  
 ‘They ate (a meal) and then went to Bamako.’

- c. [*cè címà*] *màngè-sà-w<sup>n</sup>* *ún-íyè*  
 [3Pl all] assemble-Reslt-while.SS] go.Pfv-3PlSbj  
 ‘They all assembled and went (together)’

A textual example is *yògè-sà-ŋ* ‘come and’ in (xx3) in Text 6 (‘thieves came and jostled me’).

For similar constructions involving future time, see the following section.

#### 15.2.2.4 Nonfinal verb with *ŋá* (nonpast, same-subject, anterior)

This construction replaces that with *-sà-w<sup>n</sup>* when the sequenced events have not yet occurred. The nonfinal verb is in the E/I-stem, has {L} tones, and has no pronominal-subject inflection. The final clause contains an imperfective or deontic modal (e.g. imperative) verb. If indicative, the verb has the {LH} (defocalized) overlay.

- (xx1) a. [*ùni ŋá*] <sup>LH</sup>*yògò-wǒ-y<sup>n</sup>*  
 [go and.Nonpast.SS] <sup>LH</sup>come-1Pfv-1SgSbj  
 ‘I will go and come (back).’
- b. [*ŋà:ngè ñè: ŋá*]  
 [meal eat.meal and.Nonpast.SS]  
 [*bðmðkó ñà*] <sup>LH</sup>*ùm-b-â:.*  
 [[Bamako Loc] <sup>LH</sup>go-1Pfv-3PlSbj]  
 ‘They will eat (a meal) and then go to Bamako.’
- c. [*[[námà rì] tèmè ŋá] ùnù*]  
 [[meat Def] eat.meat and.Nonpast.SS] go.Imprt  
 ‘Eat some meat and then go!’ (*námá*)

#### 15.2.2.5 ‘Worked until got tired’ = ‘worked for a very long time’

In the version of this construction elicited from the Boui assistant, both clauses have the {LH} contour on a perfective verb, and both clauses have preverbal proclitic pronouns instead of suffixes (for 1Sg, 2Sg, and 3Pl subjects). *hàlí* ‘until, to the point that’ occurs at the beginning of the second clause.

- (xx1) [wàlè mì <sup>LH</sup>kàní] [hàlí mì <sup>LH</sup>à:rì-yé]  
 [work(n) 1SgSbj <sup>LH</sup>do.Pfv.] [until 1SgSbj <sup>LH</sup>get.tired-MP.Pfv]  
 ‘I worked until I got tired.’ (= ‘I worked to the point of exhaustion.’)

The older Ningo assistant has a construction with prolonged final vowel on the nonfinal perfective verb (I will label this the Dur[ative] morpheme) and regular inflected second verb. The subjects are coindexed and only the final clause is marked for subject

- (xx2) a. *nòy-é→*                      *à:rì-yè-Ø*  
 sleep.Pfv-Dur                      get.tired-MP.Pfv-3SgSbj  
 ‘He/She slept a very long time.’
- b. [wàlè kàn-í→]                      á:rì-yé-y<sup>n</sup>  
 [work(n) do.Pfv-Dur]                      get.tired-MP.Pfv-1SgSbj  
 ‘I worked to the point of exhaustion.’

### 15.2.3 ‘Before ...’ clauses (*jimbá*, -*ó*: *gí*)

‘Before ...’ clauses elicited from the Boui assistant end in *jimbá*. If the subject of the clause is pronominal, it is expressed as a proclitic subject pronoun immediately before *jimbá*. This suggests that *jimbá* behaves like an imperfective nonsubject relative-clause verb (suffix *-wá*). A reading along the lines of ‘(at the time when) X was about to VP’ would be consistent with the form and the general sense. The most likely etymological source is the verb *gún(ú)* ‘say’

The substantive verb appears in the E/I-stem (i.e. in perfective form) with {H}-tones (xx1).

- (xx1) a. [áyé mì / nì <sup>LH</sup>jimbá]  
 [arrive 1SgSbj / 1PlSbj <sup>LH</sup>before]  
 [[mì / nì <sup>LH</sup>nàlí]                      ùnì-Ø]  
 [[1SgPoss / 1PlPoss <sup>LH</sup>friend]                      go.Pfv-3SgSbj]  
 ‘Before I/we arrived, my/our friend (had) left.’
- b. [nà:ngè jé: nì <sup>LH</sup>jimbá]  
 [meal eat.meal.Pfv 1PlSbj <sup>LH</sup>before]  
 [wàlè nì kání-yà<sup>n</sup>]  
 [work(n) 1PlSbj do-Hort.Pl]  
 ‘Let’s-Pl do the work before we eat.’
- c. nà:ngè jé: ò / nà / cè <sup>LH</sup>jimbá



meal eat.meal.Pfv 2SgSbj / 3SgSbj / 3PlSbj <sup>LH</sup>**before**  
 ‘before you-Sg/he-or-she/they eat’

If the subject of the ‘before ...’ clause is nonpronominal, the substantive verb takes what appears to be 1Sg subject form with *-y<sup>n</sup>*.

- (xx2) a. [*á:mì* *yógé-y<sup>n</sup>* <sup>LH</sup>*jìmbá*] [*nì* *nwé-yà<sup>n</sup>*]  
 [rain(n) come.Pfv-xxx <sup>LH</sup>before] [1PlSbj go.in-Hort.Pl]  
 ‘Let’s go in before the rain comes (down).’
- b. [*bé-gè* *rì*] *yógé-y<sup>n</sup>* *jìmbá*  
 [child-Pl Def] come.Pfv-xxx before  
 ‘before the children come’

For the older Ningó assistant, a ‘before’ clause has final *-ó:* on the verb followed by locative postposition *gì* (xx3). The ‘before’ clause is juxtaposed to an ordinary main clause. This construction is also used in ‘until’ clauses in narrative of the type ‘this went on (and on) until ...’ (§xxx).

- (xx3) a. [*á:mì* *yòg-ó:* *gì*] [*nì* *úm-bò*]  
 [rain(n) come-before Loc] [1PlSbj go-Ipfv]  
 ‘We’ll go before the rain comes.’
- b. [*á:mì* *yòg-ó:* *gì*] *úm-bò-y*  
 [rain(n) come-before Loc] go-Ipfv-1SgSbj  
 ‘I’ll go before the rain comes.’

The combination of a main clause and a ‘before’ clause ([before Y] X) competes with anterior constructions (X and then Y), for example the one with *ḡá* (§15.2.2.xxx).

- (xx4) a. [*nè:* *ḡá*] [*nì* *kùb-bó*]  
 [eat Loc] [1PlSbj cultivate-Ipfv]  
 ‘We’ll eat (first) then we’ll cultivate (=do hoeing).’  
 = ‘We’ll eat before we cultivate.’ (Ningo)
- b. [*nè:* *ḡá*] *kùb-bó-y<sup>n</sup>*  
 [eat Loc] cultivate-Ipfv-1SgSbj  
 ‘I’ll eat (first) then I’ll cultivate.’

### 15.3 Spatial and manner adverbials

#### 15.3.1 Spatial adverbial relative clause ('where ...')

A transparent spatial adverbial relative clause 'at [the place where ...]' has *jéjé* 'place' as head NP. The clause is normally followed by locative postposition *ɲà*.

- (xx1) *[jéjé ɲà:ɲgè nì <sup>LH</sup>ɲò:-wá rì] ɲà*  
 [place meal 1PISbj <sup>LH</sup>eat.meal-Ipfv.Rel Def] Loc  
 'at the place where we eat'

This construction is similar to temporal adverbial relative clauses (§15.2.1.2), but the temporal clauses normally do not take a locative (or other) postposition.

#### 15.3.2 Manner adverbial clause ('how ...') (*bání*)

The noun *bání* 'way, manner' is the head of a simple nonsubject relative in (xx1a). In (xx1b), where the subject of the manner clause is unspecified, *bání* appears in tone-dropped form and is followed by a verbal noun. The tones suggest that the verbal noun here functions as a modifying adjective or as a compound final.

- (xx1) a. *[àliyá gì] bání ò <sup>LH</sup>sè:m-bá*  
 [pig Acc] **manner** 2SgSbj <sup>LH</sup>slaughter-IpfvRel  
 'the way you-Sg slaughter a pig' (*sémó*)
- b. *[yá: bání<sup>L</sup> ílɔ-wà] yé-ní-y<sup>n</sup>*  
 [there manner<sup>L</sup> go.up-VbIN] know-StatNeg-1SgSbj  
 'I don't know how to go up there.'

## 16 Conditional constructions

### 16.1 Hypothetical conditional with *mè* or *mè-nè* ‘if’

This is the standard if/then conditional. The antecedent denotes an uncertain eventuality. If, as usual, this eventuality is an uncertain time-bounded event in the future, it may be expressed by a perfective or imperfective verb, followed by *mè* ‘if’. My Ningo assistant used both *mè* and an extended variant *mè-nè*. If the consequent denotes a resulting eventuality, it is expressed by an ordinary main clause with an imperfective verb. The consequent may also be a deontic modal such as an imperative or hortative. The subjects of the two clauses may be the same or different but there is no morphological marking of sameness.

- (xx1) a. *yégé-mè*      *mè*,      *bàrmì*      *kám-bò-w*  
 fall.Pfv-2SgSbj if,      injury      do-IPfv-2SgSbj  
 ‘If you-Sg fall, you’ll hurt yourself.’ (< *yégé-w*)
- b. [*bé-gè*    *rì*]      *mó-ṅà*      *yógó-w-à:*      *mè*,  
 [child-Pl    Def]    here      come-IPfv-3PlSbj if,  
*mì*      *úm-bò-y<sup>n</sup>*  
 1Sg      go-IPfv-1SgSbj  
 ‘If the children come here, I’ll go.’
- c. *té:*    *ṅó:-wò-m*      *mè*,      *úrúgú-yó-wò-w*  
 tea    drink-IPfv-2SgSbj if,      be.sick-MP-IPfv-2SgSbj  
 ‘If you-Sg drink (the) tea, you’ll get sick.’
- d. *á:gá*      *á:mí*      *tègè-Ø*      *mè*,  
 tomorrow    rain(n)    rain.fall.Pfv-3SgSbj if,  
 [*yá-lá*    *ṅà*]      *nì*      *gó:-wò*  
 [field    Loc]    1PlSbj    go.out-IPfv  
 ‘If it rains tomorrow, we’ll go to the field(s).’
- e. *éri*      *kàni-yè-Ø*      *mè*, ...  
 Dem.Def      do-MP.Pfv-3SgSbj if, ...  
 ‘if/when that (definite) has happened, ...’ (i.e. ‘after that, ...’)

Inflected verb forms with falling tone on the final syllable shift this tone to high before *mè*. In the perfective (positive), this affects only 1Sg and 2Sg forms (xx2).

(xx2) Perfective of ‘fall’

1Sg	<i>yégé-ỳ<sup>n</sup></i>	<i>yégé-y<sup>n</sup> mè</i>
1Pl	<i>nì yègè</i>	<i>nì yègè mè</i>
2Sg	<i>yégé-Ẁ</i>	<i>yégé-m mè</i>
2Pl	<i>è yègè</i>	<i>è yègè mè</i>
3Sg	<i>yègè-Ø</i>	<i>yègè-Ø mè</i>
3Pl	<i>yèg-ìyè</i>	<i>yèg-ìyè mè</i>

For 2Sg *-w* assimilating to *-m* before *mè*, see §3.4.3.1.

In the perfective negative, 1Sg, 2Sg, and 3Pl raise the final tone from falling to high (xx3).

(xx3) Perfective negative of ‘fall’

1Sg	<i>yéǵá-ní-ỳ<sup>n</sup></i>	<i>yéǵá-ní-y<sup>n</sup> mè</i>
1Pl	<i>nì yèǵà-nì</i>	<i>nì yèǵà-nì mè</i>
2Sg	<i>yéǵá-ní-Ẁ</i>	<i>yéǵá-ní-m mè</i>
2Pl	<i>è yèǵà-nì</i>	<i>è yèǵà-nì mè</i>
3Sg	<i>yèǵà-nì-Ø</i>	<i>yèǵà-nì-Ø mè</i>
3Pl	<i>yéǵà-ní:</i>	<i>yéǵà-ní: mè</i>

The imperfective (positive) has no forms with final-syllable falling tone so there are no tonal changes before *mè*. In the imperfective negative, the 3Sg and 3Pl forms are affected (xx4).

(xx4) Imperfective negative of ‘fall’

1Sg	<i>yéǵó-rà-y<sup>n</sup></i>	<i>yéǵó-rà-y<sup>n</sup> mè</i>
1Pl	<i>nì yèǵò-rá</i>	<i>nì yèǵò-rá mè</i>
2Sg	<i>yéǵó-rà-Ẁ</i>	<i>yéǵó-rà-m mè</i>
2Pl	<i>è yèǵò-rá</i>	<i>è yèǵò-rá mè</i>
3Sg	<i>yéǵó-rá-Ø</i>	<i>yéǵó-rá-Ø mè</i>
3Pl	<i>yéǵò-r-â:</i>	<i>yéǵò-r-â: mè</i>

## 16.2 Alternative ‘if’ particles

### 16.2.1 ‘Even if ...’ (*hàlí ... là*)

To indicate forcefully that the antecedent eventuality will have no effect on the realization of the consequent, *là* ‘also’ (§xxx) occurs with or without clause-initial *hàlí* ‘even, until, all the way to’. *là* must attach to a NP or similar nonverb constituent, though pragmatically it has scope over the clause. *mè* ‘if’ is optional.

- (xx1) *[hàlí m̀-ǵí [ò lá] [tè:mě: nì:ngà] ndè: (mè)]*  
 [even 1Sg-Acc [2Sg also] [hundred two] give.Pfv (if)]  
*ún-dà-y<sup>n</sup>*  
 go-IPfvNeg-1SgSbj  
 ‘Even if you-Sg give me 200 (currency units), I won’t go.’

## 16.3 Counterfactual conditional

In counterfactual conditionals, the antecedent ends in the usual *mè* ‘if’, and both the antecedent and the consequent are marked for past time. The consequent is normally in the past imperfective in a sense like ‘was going to VP’. The antecedent, if positive, has past resultative *-sɛ-* where a perfective would be expected in a normal main clause. The presupposition is that the antecedent eventually was not realized.

- (xx1) *níǵá [b̀m̀k̀k̀ ǵà] nì<sup>LH</sup> b̃ɛ:/<sup>LH</sup> ùnì-sé mè,*  
 yesterday [Bamako Loc] 1PISbj<sup>LH</sup> be.Past / <sup>LH</sup> go-Reslt.Past if,  
*nì t̃b-bè*  
 1PISbj die-IPfv.Past  
 ‘If we had been in / had gone to Bamako [focus] yesterday, we would have died (been killed).’

## 17 Complement and purposive clauses

### 17.1 Quotative complements

#### 17.1.1 Quoted indicative clauses

Quoted indicative clauses are marked as such by several features:

- The inflectable ‘say’ verb (perfective *gùnè-*) follows the quotation, §17.1.1.1;
- Invariable quotative particle *wà* (§17.1.1.2) follows a quotation (other than a self-quotation), preceding the ‘say’ verb if both are present; there are some tonal interactions between verb and particle;
- A subject pronoun is clause-initial and is followed by its own *wà* particle if it is not coindexed with the subject of ‘say’, and is a preverbal proclitic if it is coindexed (§17.1.1.3);

Several of these features are illustrated in (xx1).

(xx1) [*nà* <sup>LH</sup>*yògò-mà-ná* *wà*] <sup>LH</sup>*gùnè-Ø*  
[3SgSbj <sup>LH</sup>come-can-StatNeg Quot] <sup>LH</sup>say.Pfv-3SgSbj  
‘He<sub>x</sub> said that he<sub>x</sub> can’t come.’

Self-quotation (‘I said that ...’) is not treated syntactically like other quoted clauses since it not hearsay that the speaker is not responsible for. The ‘say’ verb is used, but quotative particle *wà* is absent, and the form of the verb and pronominal-subject inflection are as in main clauses (with suffixes for 1Sg, 2Sg, or 3Pl and zero for 3Sg). In (xx2), the bracketed quotation has the same form as a nonquotative indicative clause. In fact, the ‘I said’ at the end often functions as a kind of emphatic, as when a statement is repeated forcefully.

(xx2) [*ámbá* <sup>LH</sup>*sèmě-y<sup>h</sup>*] <sup>LH</sup>*gùně-y<sup>n</sup>*  
[sheep <sup>LH</sup>slaughter.Pfv-1SgSbj] <sup>LH</sup>say.Pfv-2SgSbj  
‘I said that I slaughtered a sheep [focus].’

This type of quotative complement, with no distinctive quotative (i.e. hearsay) marking, is also sometimes used with second person quoted speaker in contexts where hearsay evidentiality is not relevant.

- (xx3) *[ndéǵé dǵà]* *yógó-rà-w* *ǵùǵ-w*  
 [what? Purp] come-IpfvNeg-2SgSbj say.Pfv-2SgSbj  
 ‘Why did you-Sg (just) say that you won’t come?’

There are no logophoric pronouns. However, there is a kind of switch-reference system in the quotative construction expressed by the form and position of pronominal subject pronouns.

TAMN inflections are not reset when a clause is quoted.

Additional features occur in jussives (quoted imperatives and hortatives), see §17.1.2.1.

#### 17.1.1.1 ‘Say’ verb (*ǵún(ú)-*)

The overt ‘say’ verb is perfective *ǵùǵ-*. The overall paradigm is irregular, involving a mix of final-nonhigh-vowel and final-high-vowel forms (§11.3.1). The verb appears at the end of the quotation, following quotative particle *wà* if both are present. Perfective *ǵùǵ-* usually occurs with a {LH} overlay when accompanying a quotation, suggesting that the quotation itself is focalized.

- (xx1) a. *[nà sóǵ wà]* <sup>LH</sup>*ǵùǵ-Ø*  
 [3SgSbj Dogon Quot] <sup>LH</sup>say.Pfv-3SgSbj  
 ‘He said he’s a Dogon.’
- b. *[cè <sup>LH</sup>yòǵò-má wà]* <sup>LH</sup>*ǵùǵ-íyè*  
 [3PlSbj <sup>LH</sup>come-can Quot] <sup>LH</sup>say.Pfv-3PlSbj  
 ‘They said they can come.’

The ‘say’ verb is often omitted from quotations, since the quotative particle and other details identify a clause as quoted.

For *ǵún(ú)-* and its causative as auxiliary verbs with onomatopoeias, see §11.1.2.3.

#### 17.1.1.2 Clause-final quotative particle *wà* and tonal changes in verb

This particle follows the quoted clause, preceding the ‘say’ verb if the latter is present. The particle is usually L-toned but appears as H-toned after imperfective verbs.

- (xx1) a. L-toned *wà* after perfective  
*[nà yòǵè / yòǵò-nì wà]* <sup>LH</sup>*ǵùǵ-Ø*  
 [3SgSbjcome.Pfv / come-PfvNeg Quot] <sup>LH</sup>say.Pfv-3SgSbj  
 ‘He said that he/she came / didn’t come.’

b. H-toned *wá* after imperfective

[*nà*      *yógó-wò* / <sup>LH</sup>*yògò-rá*                      *wá*]                      <sup>LH</sup>*gùné-Ø*  
 [3SgSbj    come-Ipfv / <sup>LH</sup>come-IpfvNeg              Quot]                      <sup>LH</sup>say.Pfv-3SgSbj  
 ‘He said that he/she will/won’t come.’

c. L-toned *wà* after stative

[*nà*      *ígà* / *ìgà-nà*]                      *wà*                      <sup>LH</sup>*gùné-Ø*  
 [3SgSbj    stand.Stat / stand-StatNeg]              **Quot**                      <sup>LH</sup>say.Pfv-3SgSbj  
 ‘He said that he/she is standing.’

d. L-toned *wà* after capacitative

[*nà*      <sup>LH</sup>*yògò-má* / <sup>LH</sup>*yògò-mà-ná*                      *wà*]  
 [3SgSbj    <sup>LH</sup>come-can / <sup>LH</sup>come-can-StatNeg                      Quot]  
<sup>LH</sup>*gùné-Ø*  
<sup>LH</sup>say.Pfv-3SgSbj  
 ‘He said he can/cannot come.’

e. L-toned *wà* after ‘it is (not)’ clitics

[*nà*      *sójó* / *sójó=lá*                      *wà*]                      <sup>LH</sup>*gùné-Ø*  
 [3SgSbj    Dogon / Dogon=it.is.not              Quot]                      <sup>LH</sup>say.Pfv-3SgSbj  
 ‘He said he/she is / is not a Dogon.’

For some inflectional categories, the form of the verb before *wà* is the same as in nonquotative main clauses. For some others, there are tonal changes, and the positive ‘it is’ clitic = *w* is omitted.

(xx2) Changes in verb before *wà*

category	nonquotative 3Sg	with <i>wà</i>
a. no change		
perfective	<i>yògè-</i>	<i>yògè wà</i>
perfective negative	<i>yògò-nì-</i>	<i>yògò-nì wà</i>
imperfective	<i>yógó-wò-</i>	<i>yógó-wò wá</i>
stative negative	<i>ìgà-nà-</i>	<i>ìgà-nà wà</i>
stative	<i>ígà-</i>	<i>ígà wà</i>

b. tonal change (hyphen marks stem-suffix boundary)

{*H-HL*} to {*L-H*}



imperfective negative	<i>yógó-râ-</i>	<i>yògò-rá wá</i>
capacitative	<i>yógó-mâ-</i>	<i>yògò-má wà</i>
capacitative negative	<i>yógó-má-nà-</i>	<i>yògò-mà-ná wà</i>

The tonal change in (xx2b) is from a falling to a rising contour. This is indeed a change if we take the 3Sg inflected form in the regular paradigm as point of comparison. However, the rising contours in quotations are shared by the 1Pl and 2Pl forms in the regular paradigms: *nì yògò-rá* ‘we will not come’, *nì yògò-má* ‘we can come’, *nì yògò-mà-ná* ‘we cannot come’.

### 17.1.1.3 Pronominal subjects (clause-initial versus preverbal proclitic)

The form and linear position of pronominal subjects is determined by the relationship between subject of ‘say’ (i.e. the author of the quotation) and the subject of the quoted clause.

- (xx1) a. If the subject of ‘say’ is 1Sg, the quoted clause has the form of a main clause, so that 1Sg, 2Sg, and 3Pl subjects are expressed by suffixes on the predicate, see (xx2) in §17.1.1 above; otherwise...
- b. If the subjects of ‘say’ and of the quoted clause are coindexed, the quoted clause has a **preverbal proclitic** subject pronoun;
- c. If the subjects are not coindexed, a pronominal subject in the quoted clause is expressed by a **clause-initial pronoun plus quotative** *wà*.

In (xx2a), the 2Sg subject of ‘say’ matches the 2Sg subject of the quoted clause. The latter therefore takes the form of a proclitic (*ò*) directly before the verb, following the object (‘sheep’). In (xx2b), on the other hand, the subject of ‘say’ is third person (Seydou), so the 2Sg subject of the quoted clause is expressed as clause-initial *ò* followed by a second occurrence of quotative *wà*, preceding ‘sheep’.

- (xx2) a. *[ámábá ò sèmè wà]* <sup>LH</sup>*gùñě-w*  
 [sheep 2SgSbj slaughter.Pfv Quot] <sup>LH</sup>say.Pfv-2SgSbj  
 ‘You-Sg said that you slaughtered a sheep.’
- b. *sàydú [ò wà] [ámábá sèmè wà]*  
 Seydou [2Sg Quot] [sheep slaughter.Pfv Quot]  
<sup>LH</sup>*gùñé-Ø*  
<sup>LH</sup>say.Pfv-3SgSbj  
 ‘Seydou said that you-Sg slaughtered a sheep.’

Third-person examples are in (xx3).

- (xx3) a. *[ámábá nà sèmè wà]* <sup>LH</sup>*gùné-Ø*  
 [sheep 3SgSbj slaughter.Pfv Quot] <sup>LH</sup>say.Pfv-3SgSbj  
 ‘He<sub>x</sub> said that he<sub>x</sub> slaughtered a sheep.’
- b. *[nà wà] [ámábá sèmè wà]* <sup>LH</sup>*gùné-Ø*  
 [3SgSbj Quot] [sheep slaughter.Pfv Quot] <sup>LH</sup>say.Pfv-3SgSbj  
 ‘He<sub>x</sub> said that he<sub>y</sub>/she slaughtered a sheep.’

If the subject of the quoted clause is nonpronominal, there is no resumptive third person pronoun or other agreement (xx4a). We can tell that ‘Seydou’ is internal to the quoted clause in (xx4a) since there is no other subject in the quoted clause. This is true even though quotative *wà* is not doubled in this construction. If Seydou is the subject of ‘say’, as in (xx4b), there is at least a pronominal subject in the quoted clause.

- (xx4) a. *[sàydú yògè wà]* <sup>LH</sup>*gùné-Ø*  
 [Seydou come.Pfv Quot] <sup>LH</sup>say.Pfv-3SgSbj  
 ‘He said that Seydou has come.’
- b. *sàydú [nà yògè wà]* <sup>LH</sup>*gùné-Ø*  
 Seydou [3SgSbj come.Pfv Quot] <sup>LH</sup>say.Pfv-3SgSbj  
 ‘Seydou<sub>x</sub> said that he<sub>x</sub> has come.’

## 17.1.2 Jussive complement (reported imperative or hortative)

### 17.1.2.1 Quoted imperative

A quoted imperative clause converts the original imperative into a special quoted imperative verb form used only in such quotations (§10.7.3.1). This form is based on a distinctive I/U-stem (§3.3.6). The original addressee of the imperative appears in the quotation as a clause-initial NP or pronoun followed by quotative *wà*, which is obligatory for any subject (nonpronominal or pronominal), but here may really be a quoted vocative. Another *wà* follows the verb, which allows no pronominal-subject agreement. The final high vowel of the quoted imperative is always heard as *u* rather than *i* before the *w* in *wà*.

- (xx1) a. *[mì <sup>LH</sup>bàwá] [ò wà] [yògù wá]*  
 [1SgPoss <sup>LH</sup>father] [2SgSbj Quot] [come.3Hort Quot]

‘My father says for you-Sg to come.’

- b. [bé-gè ri] [mì wà] [yògù wà]  
 [child-Pl Def] [1SgSbjQuot] [come.3Hort Quot]  
<sup>LH</sup>gùn-íyè  
<sup>LH</sup>say.Pfv-3PlSbj  
 ‘The children said for me to come.’ (bé-gé)
- c. [sàydú wà] [ùnù wà] <sup>LH</sup>gùn-íyè  
 [Seydou Quot] [go.3Hort Quot] <sup>LH</sup>say.Pfv-3PlSbj  
 ‘They said for Seydou to come.’

In self-quotations, and sometimes in second-person quotations, the verb is still in quoted imperative form, but the original addressee is treated as the object of ‘say’ and therefore appears in accusative form.

- (xx2) [sàydú gì] yògù <sup>LH</sup>gùně-y<sup>n</sup>  
 [Seydou Acc] come.3Hort <sup>LH</sup>say.Pfv-1SgSbj  
 ‘I told Seydou to come.’

An original prohibitive (negative imperative) retains its prohibitive morphology (§10.7.1.2) and tones in a quotation. Suffix *-lá* combines with *wà* as *-lá wà* by phonological rule.

- (xx2) [sàydú wà] [yógó-lá wà]  
 [Seydou Quot] [come-Proh Quot]  
 ‘He says for Seydou not to come.’ (yógó-lá)

#### 17.1.2.2 Quoted hortative

A hortative (‘let’s VP’) may also be quoted. In a regular hortative, the final syllable (or mora) is L-toned: *nì dóně-y<sup>n</sup>* ‘let’s buy!’. Before quotative *wà*, the H-tone spreads to the end of the word (xx1).

- (xx1) sàydú [sìjá nì dóně-y<sup>n</sup> wà] <sup>LH</sup>gùně-Ø  
 Seydou [chicken 1PlSbj buy-Hort Quot] <sup>LH</sup>say.Pfv-3SgSbj  
 ‘Seydou said, let’s buy a chicken!’

## 17.2 Factive complements

This type of complement denotes a fully articulated propositions or “fact.” True factive complements are used with ‘know’ (§17.2.1), and in one type of complement of perception verbs (§17.2.2.2). There is another type of complement of perception verbs expressed by a ‘while’ adverbial subordinator (§17.2.2.1).

### 17.2.1 ‘Know that ...’ complement (headless relative)

Factive complements of ‘know (that)’ take the form of headless nonsubject relatives, cf. English (*the fact*) *that* ... where the fact is often omitted. A pronominal subject is expressed as a preverbal proclitic, and the verb has the {LH} overlay typical of verbs in relative clauses.

- (xx1) a.  $[\hat{o}$   ${}^{\text{LH}}y\hat{o}g\hat{o}-r\hat{a}]$   $n\hat{i}$   $y\hat{e}y$   
 [2SgSbj  ${}^{\text{LH}}\text{come-IPfvNeg}$ ] 1PISbj know  
 ‘We know that you are not coming.’
- b.  $[[b\hat{e}-g\hat{e}$   $r\hat{i}]$   ${}^{\text{LH}}y\hat{o}g\hat{o}-n\hat{i}]$   $n\hat{i}$   $y\hat{e}y$   
 [[child-Pl Def]  ${}^{\text{LH}}\text{come-PfvNeg}$ ] 1PISbj know  
 ‘We know that the children didn’t come.’
- c.  $[\acute{a}mb\acute{a}$   $m\hat{i}$   ${}^{\text{LH}}s\hat{e}m\acute{e} | {}^{\text{LH}}s\hat{e}m\hat{e}-s\acute{a}]$   $y\hat{e}y-\hat{a}$ :  
 [1Sg 1SgSbj  ${}^{\text{LH}}\text{slaughter.Pfv} \setminus \text{-Reslt}$ ] know-3PISbj  
 ‘They know that I (have) slaughtered a sheep.’
- d.  $[\hat{o}$   ${}^{\text{LH}}y\hat{o}g\hat{o}-w\hat{a}]$   $y\hat{e}-y^n$   
 [2SgSbj  ${}^{\text{LH}}\text{come-IPfv.Rel}$ ] know-1SgSbj  
 ‘I know that you-Sg are coming.’

### 17.2.2 ‘See (find, hear) that ...’

#### 17.2.2.1 Direct-perception construction (‘while ...’)

In this construction, the complement has a verb form based on the A/O-stem with {LH} stem melody, and a suffix  $-w^n$ . This is the regular disjoint-subject ‘while’ subordinate clause (§15.2.1.1). The  $-w^n$  is subject to assimilation, for example appearing as  $[m]$  before  $b$  as in (xx1b). A pronominal subject is expressed as a proclitic pronoun (xx1c).

- (xx1) a. *[sàydú yògó-w<sup>n</sup>] ní bàlì-yè*  
 [Seydou come-while] 1PlSbj see-MP.Pfv  
 ‘We saw Seydou come.’
- b. *[yèwù ò yèwá-w<sup>n</sup>] bálí-yé-y<sup>n</sup>*  
 [dance(n) 2SgSbj dance-while] see-MP-1SgSbj  
 ‘I saw you-Sg dancing.’
- c. *[nà yègá-w<sup>n</sup>] bálí-yé-y<sup>n</sup>*  
 [3SgSbj fall-while] see-MP-1SgSbj  
 ‘I saw him/her fall.’

#### 17.2.2.2 Recognition construction (headless relative)

‘Hear that’ (hearsay) and ‘see that’ (involving an inference made with use of visual data) are expressed as headless nonsubject relatives.

- (xx1) *[ò<sup>LH</sup> irè-sá] bàlì-yè-Ø / nù:ndè-Ø*  
 [2SgSbj<sup>LH</sup> get-Reslt] see-MP.Pfv-3SgSbj / hear.Pfv-3SgSbj  
 ‘He/She saw/heard that you have gotten (rich).’

This type of complement is identical to the factive complement of ‘know’ (§17.2.1).

### 17.3 Bare perfective (chain-like) complements

The bare perfective, i.e. {L}-toned E/I-stem, is the closest thing to a direct chaining form of verbs; see §15.2.2.1-2.

Certain verbs occur commonly in final position in such chains, following a bare perfective clause that functions much like a complement.

#### 17.3.1 ‘Help’ (*báró-*) with nominal or bare perfective complement

*báró-* ‘help’, also ‘add’, is a transitive verb that takes a (usually human) object and a second object-like NP denoting the domain of helping.

In (xx1a), the domain is expressed by a noun denoting the action, in these cases by cognate nominals (‘farming’, ‘song’). In (xx1bc) it is expressed by an unconjugated E/I-stem, identical to the 3Sg perfective verb. If the helper participated in the activity domain, a non-

causative verb is used (xx1b). If the helper merely facilitated an achievement by the agent, a causative verb is used (xx1c).

- (xx1) a. *à:màdú mì-gí kùwò / yèw bàrè-Ø*  
 Amadou 1Sg-Acc farming / song help.Pfv-3SgSbj  
 ‘Amadou helped me (with) farming/singing.’
- b. *à:màdú=yó mì-gì [[jìwà rì] jà:lè bàrè-Ø*  
 Amadou=foc 1Sg-Acc [[house Def] build.Pfv help.Pfv-3SgSbj  
 ‘Amadou helped me build the house.’
- c. *[bé-gè rì] mì-gí ilà-mì bàrè-Ø*  
 [child-Pl Def] 1Sg-Acc go.up-Caus.Pfv help.Pfv-3SgSbj  
 ‘The children helped me go up.’

### 17.3.2 ‘Finish’ (*póró-*) with bare perfective complement

*póró-* ‘finish (an activity)’ takes a bare perfective complement.

- (xx1) *[jà:ngè jè:] póré-y<sup>n</sup> / póró-wò-y<sup>n</sup>*  
 [meal eat.Pfv] finish.Pfv-1SgSbj / -Ipfv-1SgSbj  
 ‘I (have) finished / will finish eating.’

### 17.3.3 ‘Be accustomed’ (*wélé-*) with bare perfective complement

*wélé-* ‘be accustomed’ follows a perfective VP. *wélé-* itself occurs in a same-subject construction with ‘be’ as auxiliary.

- (xx1) a. *dúríyé / ílé wèlè-sà-w<sup>n</sup> bó-y<sup>n</sup>*  
 run.Pfv / go.up.Pfv be.accustomed-Reslt-while.SS be-1SgSbj  
 ‘I have become (=am) accustomed to running/going up.’ (Ningo)
- b. *[námá tèmè] wèlè-sà-w<sup>n</sup> bó-y<sup>n</sup>*  
 [meat eat.meat.Pfv] be.accustomed-Reslt-while.SS be-1SgSbj  
 ‘I have become (=am) used to eating meat.’ (Ningo)

- c. bé-gé            *wèlè-sà-w<sup>n</sup>*                            *bó-y<sup>n</sup>*  
 child-Pl            be.accustomed-Reslt-while.SS            be-1SgSbj  
 ‘I am accustomed to children.’ (Ningo)

#### 17.4 Verbal noun (and other nominal) complements

For the verbal noun with suffix *-wà* (hardened to *-bà* after stop or nasal), see §4.2.2. Complements in the form of VPs ending in the verbal noun suffix are required by several matrix-clause verbs in the fashion of English control verbs with infinitival (*to VP*) complements. The logical subject of the complement VP is coindexed with the matrix subject, but is not overtly expressed.

##### 17.4.1 Argument structure of verbal-noun complement

VP constituents such as direct objects can be included in the verbal noun complement. Human direct objects take accusative *gì* as in main clauses.

- (xx1) a. [*námá mbò*] *té:m-bà*]            *yó:ní-yó-wò-y*  
 [meat            Dem[ eat.meat-VblN] fear-MP-Ipfv-1SgSbj  
 ‘I am afraid to eat this meat.’
- b. [*mì-gì téb-bà*]            *yò:nì-yè-Ø*  
 [1Sg-Acc hit-VblN] fear-MP.Pfv-3SgSbj  
 ‘He was afraid to hit me.’

##### 17.4.2 ‘Prevent’ (*télè-*) with verbal-noun complement

This matrix-clause verb takes a verbal noun complement. The logical agent of the verbal noun appears as object of *télè-* in the matrix clause. The complement may occur in various linear positions. As simple transitive, *télè-* can mean ‘block off (e.g. a road)’, ‘chop (firewood)’, ‘chop or slice (e.g. meat)’, ‘saw (gourd, to make calabashes)’, and ‘go out and welcome (an important arriving visitor)’. The last sense may have evolved from ‘intercept’, since the welcoming precedes the final arrival.

- (xx1) a. [*mó-ṅà yógó-wà rì*]            *á:mí mì-gí télè-Ø*  
 [here            come-VblN Def] rain(n) 1Sg-Acc prevent.Pfv-3SgSbj  
 ‘The rain prevented me from coming here.’

- b. *tulé mì-gì nóyó-wà tèle-Ø*  
 noise 1Sg-Acc sleep-VblN prevent.Pfv-3SgSbj  
 ‘(The) noise prevented me from sleeping.’
- c. *[mì<sup>LH</sup> bàwá]=w mì-gì tèle-Ø*  
 [1SgPoss<sup>LH</sup> father]=Foc 1Sg-Acc prevent.Pfv-3SgSbj  
*[[bàmàkó ñà] ùm-bà rì]*  
 [[Bamako Loc] go-VblN Def]  
 ‘My father prevented me from going to Bamako.’

There is a synonym *tòrí kán* ‘prevent’, with *kán* ‘do’ as auxiliary for invariant *tòrí*.

#### 17.4.3 ‘Dare’ (*yàrí kán(ú)-*) with verbal-noun complement

*yàrí* plus the ‘do’ verb means ‘dare to VP, have the nerve/effrontery to VP’.

- (xx1) *[mó-ñà yógó-wà] yàrí kám-bò-l lè*  
 [here come-VblN] daring do-Ipfv-2SgSbj Q  
 ‘You-Sg dare (= have the effrontery) to come here?’ (< *kám-bò-w*)

#### 17.4.4 ‘Consent’ (*áwó-*) with verbal-noun or imperfective relative complement

If the complement has the same logical subject as the matrix verb, we get the usual verbal noun complement (xx1).

- (xx1) *yógó-wà àwè-Ø*  
 come-VblN accept.Pfv-3SgSbj  
 ‘He/She agreed to come.’

If the subjects are different, a headless imperfective nonsubject relative clause with suffix *-wá* on the verb is used. See discussion of (xx3) in §14.4.2 concerning the possible relationship of imperfective nonsubject relative suffix *-wá* with verbal noun suffix *-wà*.

- (xx2) *[[bàmàkó ñà] mì ùm-bá] àwè-Ø*  
 [[Bamako Loc] 1SgSbj go-Ipfv.Rel] accept.Pfv-3SgSbj  
 ‘He/She agreed that I go to Bamako.’



17.4.5 ‘Want’ (*cèy-*) with verbal-noun or imperfective relative complement

For defective stative *cèy-* ‘want’ and its negation see §11.2.5.2. The verb can take a NP object (‘I want some sugar’) or a clausal complement. If the logical subject of the complement is the same as the matrix subject, we get an ordinary verbal noun complement (xx1).

- (xx1) *úm-bà*            *cèy-Ø*  
 go-VblN            want-3SgSbj  
 ‘He/She wants to go.’

If the subjects are distinct, an imperfective nonsubject relative clause is used.

- (xx2) [*mì*            <sup>LH</sup>*bàwá*]    [[*bòmòkó*    *ɲà*]    *mì*            *ùm-bá*]    *cèy-Ø*  
 [1SgPoss    <sup>LH</sup>father]    [[Bamako    Loc]    1SgSbj    go-Ipfv.Rel]    want-3SgSbj  
 ‘My father wants me to go to Bamako.’

17.4.6 ‘Forget’ (*ídí-yó-*) with verbal-noun complement

*ídí-yó-* ‘forget’ can take a NP complement (‘I forgot his name’). A clausal complement takes verbal-noun form.

- (xx1) *yógó-wà*            *ìdì-yè-Ø*  
 come-VblN            forget-MP.Pfv-3SgSbj  
 ‘He/She forgot to come.’

17.4.7 ‘Be afraid to’ (*yó:ní-yó-*) with verbal-noun complement

An example is (xx1). Here the subjects of the two clauses are the same.

- (xx1) [*mó-ɲà*            *yógó-wà*]            *yó:ní-yó-wò-y*  
 [here            come-VblN]            fear-MP-Ipfv-1SgSbj  
 ‘I am afraid to come here.’

When the subjects of the two clauses are different, we get a construction with a prohibitive verb (cf. *lest*).

- (xx2) [*mì-gí*            *nà*            *tèwà-lây<sup>n</sup>*]            <sup>LH</sup>*yò:ní-yè-sǎ-y<sup>n</sup>*  
 [1Sg-Acc            3SgSbj    hit-Proh]            <sup>LH</sup>fear-MP-Reslt-1SgSbj

‘I am afraid lest he/she hit me.’

#### 17.4.8 ‘Begin’ (*déwó-*) with verbal-noun complement

*déwó-* ‘begin’ and its verbal-noun complement are illustrated in (xx1).

- (xx1) *dú.rú-yó-wà*      *déwé-ỳ<sup>n</sup>*  
run-MP-VblN      begin.Pfv-1SgSbj  
‘I began to run.’

#### 17.4.9 ‘Cease’ (*díyó-*) with verbal-noun complement

*díyó-* ‘leave, abandon’ is usually a simple transitive verb. In the sense ‘cease VPing’, often implying permanent behavior change, it takes a verbal noun complement.

- (xx1) [*kònjé*    *ńó:-wà*]      *díyé-ỳ<sup>n</sup>*  
[beer      drink-VblN]      leave.Pfv-1SgSbj  
‘I have stopped (= have given up) drinking beer.’

### 17.5 Purposive, causal, and locative clauses

#### 17.5.1 Clauses with purposive postposition *dàgá* ‘for’ and verbal noun

A verbal noun complement, which may include non-verb constituents, combines with purposive postposition *dàgá* to produce a simple purposive clause (‘in order to’).

- (xx1) a. [*ńà:ngè*    *ńó:-wà*]      *dàgá*      <sup>LH</sup>*yògè-sǎ-y*  
[[meal      eat-VblN]      Purp]      <sup>LH</sup>come-Reslt-1SgSbj  
‘I came in order to eat [focus].’
- b. [*jí:*      *ńímúgò-wà*]      *dàgá*      <sup>LH</sup>*ùní-Ø*  
[[fire      extinguish-VblN]      Purp]      <sup>LH</sup>go.Pfv-3SgSbj  
‘He/She went to put out the fire [focus].’

### 17.5.2 Purposive clauses with verb in H-toned final -á or -á:

In this construction, the verb of the purposive clause is {H}-toned and ends in -á (Boui) or -á: (Ningo). This looks like the A/O-stem for some verbs, but even those that end in *o* in the A/O-stem have a final -á or -á: . We could therefore speak of a suffix -á(:) or of an “A-stem” with lengthening.

The attested examples involve purposive clauses preceding main-clause motion verbs

- (xx1) a. *[kògò<sup>L</sup> múndó-má] ùm-bò-y<sup>n</sup>*  
 [hair<sup>L</sup> braid-Caus.Purp] go-Ipfv-1SgSbj  
 ‘I am going (there) to have myself braided.’
- b. *[nà:ngè ná:] yògè-sǎ-y<sup>n</sup>*  
 [meal eat.Purp] LHcome-Reslt-1SgSbj  
 ‘I came to eat (a meal).’
- c. *nóyá yògè-sǎ-y<sup>n</sup>*  
 sleep.Purp LHcome-Reslt-1SgSbj  
 ‘I came to sleep.’

### 17.5.3 Causal (‘because ...’) clause (*pàské*)

French *parce que* ‘because’ is used regularly at least by younger speakers, as in other Malian languages. It occurs clause-initially.

- (xx1) *[ìjò ná] nì ùm-mà-ná,*  
 [village Loc] 1PlSbj LHgo-can-StatNeg,  
*pàské [òjí rì] m̀:-nà-Ø*  
 because [road Def] good-StatNeg-3SgSbj  
 ‘We can’t go to the village because the road isn’t good.’

For ‘because of X’ with some NP X, see postposition *dàgá* in §8.3.

### 17.5.4 Obligational ‘must’ construction with *kán(ú)*- ‘do’

In one version, this construction ends with a conjugated imperfective negative form of *kán(ú)*- ‘do’, preceded by a complement whose verb appears to be a {L}-toned version of the

1Sg perfective negative, regardless of the pronominal person of the matrix subject. The construction is therefore literally something like “X won’t do [I won’t VP].”

- (xx1) *[[bàmàkɔ̀ nà] ùnù-nì-y<sup>n</sup>] kán-dà-y<sup>n</sup>/ kán-dà-Ø*  
 [[Bamako Loc] go-PfvNeg-1SgSbj] do-IpfvNeg-1SgSbj / -3SgSbj  
 ‘I/He-or-she must go to Bamako’.

In another version, the matrix verb is invariant (i.e. impersonal) *kám-bò-Ø*, probably in the sense ‘it is not/will be done’, and the complement is a conjugated positive imperfective verb.

- (xx1) *[mó-ŋà yógó-wò-y<sup>n</sup>/ yógó-wò-Ø] kám-bò-Ø*  
 [here come-Ipfv-1SgSbj / -3SgSbj] be.done-Ipfv-3Sg  
 ‘I/He-or-she must come here.’

## 18 Anaphora

### 18.1 Reflexive

#### 18.1.1 Reflexive object ('my head' etc.)

To specify that the object is coindexed with the clausemate subject, a possessed form of *kògò* 'head' can be used. The possessor is the relevant pronominal category. In this construction it is treated as inalienable, so the pronoun precedes the noun 'head' and controls {LH} overlay on it, though the H may disappear (before a H-toned word). For plural categories, 'head' is not overtly pluralized in this construction.

- (xx1) a. *[nà*            <sup>LH</sup>*kògó]*            *tèlè-Ø*  
          [3SgPoss    <sup>LH</sup>head]            cut.Pfv-3SgSbj  
          'He cut himself.' or 'She cut herself.'
- b. *[mì*            <sup>LH</sup>*kògò]*            *télé-y<sup>n</sup>*  
          [1SgPoss    <sup>LH</sup>head]            cut.Pfv-1SgSbj  
          'I cut myself.' (from /*mì kògó*/)
- c. *[nì*            <sup>LH</sup>*kògó]*            *nì-tèlè*  
          [1PlPoss    <sup>LH</sup>head]            1PlSbj-cut.Pfv  
          'We cut ourselves.'

These specialized reflexive combinations differ from regular possessed forms of 'head(s)' in the literal sense, where pronominal possessors normally follow the possessed NP and where plural suffixation is common.

- (xx2) a. *[kògò mɛ:]*            *bàm-bó-Ø*  
          [head    1SgPoss]            hurt-1pfv-3SgSbj  
          'My head hurts.'
- b. *[kògò-gè nì-wè-gé]*            *yàw-yàw*            *bà-â:*  
          [head-Pl    1Pl-Poss-Pl]            lightweight    be-3PlSbj  
          'Our heads are light.'

However, the distinction between e.g. ‘my head’ and ‘myself’ is not absolute, and the “reflexive” pattern *mì kògó* is also attested in the sense ‘my head’.

### 18.1.2 Reflexive possessor

There is no overt marking of reflexivity in possessors. A 3Sg or 3Pl possessor may or may not be coindexed with a third-person clausemate subject. (xx1a) is therefore ambiguous, and ‘his dog’ has the same form there as in (xx1) with first person subject.

- (xx1) a. *[í:njé nè-wé] jèyè-Ø*  
 [dog 3Sg-Poss] kill.Pfv-3SgSbj  
 ‘He<sub>x</sub> killed his<sub>x</sub> (own) dog.’  
 ‘He<sub>x</sub> killed his<sub>y</sub>/her<sub>y</sub> dog.’
- b. *[í:njé nè-wè] jéyé-ÿ<sup>n</sup>*  
 [dog 3Sg-Poss] kill.Pfv-aSgSbj  
 ‘I killed his dog.’
- c. *sâydí [nà <sup>LH</sup>bàwá gi] bàli-yè-Ø*  
 Seydou [3SgPoss <sup>LH</sup>father Acc] see-MP.Pfv-3SgSbj  
 ‘Seydou<sub>x</sub> saw his<sub>x</sub>/his<sub>y</sub>/her<sub>y</sub> father.’

## 18.2 Emphatic pronouns

‘My head’ etc. can also be used adverbially as emphatic pronouns.

- (xx1) *[mì <sup>LH</sup>kògó] mì <sup>LH</sup>jà:lé*  
 [1SgPoss <sup>LH</sup>head] 1SgSbj <sup>LH</sup>build.Pfv  
 ‘I built (did the building) myself.’

## 18.3 Logophoric pronouns (absent)

There are no logophoric pronouns.

## 18.4 Reciprocal

The reciprocal ('they hit/saw each other') is expressed by an intransitivizing suffixal derivation with *-yó-* ~ *-yó-* added to a transitive verb. See §9.5 for examples. The same (or a homophonous) suffix is used as a mediopassive, see §9.4.

## 18.5 *tìngà* 'owner' as anaphor for nonspecific discourse referent

*tìngà* 'owner' often occurs in compounds ('owner of X'), see §5.1.8. In uncompounded form it can function as an anaphor for a nonspecific discourse referent that has been introduced. Compare English *the guy* or *the fellow* as anaphor for a nonspecific discourse referent like *anyone*.

## 19 Grammatical pragmatics

### 19.1 Topic

#### 19.1.1 Topic (*kây*)

The regionally widespread topic particle *kây* is present. It implies a contrast between the topicalized NP and other possible topics from the discourse or communicative context.

- (xx1) [*mì*      *kây*]      *ún-dâ-y<sup>n</sup>*  
[1Sg      Topic]      go-IPfvNeg-1SgSbj  
'As for me, I'm not going.' (Boui)

After an {L}-toned word (definite *rì* does not count here), *kây* shifts to H-toned *káy* (Boui) or *kây* (Ningo), unless it is followed by an H-tone in the next word as in (xx1). Pronouns take L-toned form before *kây* and therefore trigger this tone-raising: *mì káy* 'as for me', *nà káy* 'as for him'. Compare L-toned *kây* in e.g. *sâydu kây* 'as for Seydou', *yé: rì kây* 'as for the woman'.

#### 19.1.2 'Also' (*là* ~ *là:*)

This particle is regularly added to NPs including pronouns, and to adverbial phrases such as locative PPs (xx1a), but not to verbs or clauses. I heard it as *là* for the Boui assistant, and as *là:* for the Ningo assistant. In (xx1b) it is added to a cognate nominal object rather than to the verb. It may follow accusative *gì* (xx1c).

- (xx1) a. [*bòmòkó*    *ɲà*    *là*]    *wàlè*    *kám-bò-y<sup>n</sup>*  
[Bamako    Loc    also]    work(n)    do-IPfv-1SgSbj  
'I work in Bamako too.' (Boui)
- b. [*nwé*    *là*]    *nó:-wò-Ø*  
[song    also]    sing-IPfv-3SgSbj  
'He/She sings too.' (Boui)
- c. [*bé:*    *gì*    *là*]    *téwé-y<sup>n</sup>*  
[child    Acc    also]    hit.Pfv-1SgSbj



‘I hit-Past the child also.’ (Boui)

Pronouns take H-toned form: *mí là* ‘me too’, *ó là* ‘you-Sg too’, *ní là* ‘we too’. Between {L}-toned words, *là* is raised to *lá*.

*là* may be added to *kòndè* ‘again’.

(xx2) a. *kòndè lá yògè-Ø*  
again too come.Pfv-3SgSbj  
‘He/She came again.’ (Boui)

b. *kòndè là yógé-ỳ<sup>n</sup>*  
again too come.Pfv-1SgSbj  
‘I came again.’ (Boui)

For a construction with *là* (usually tone-raised to *lá*) after a pronominal subject marker and before a perfective verb, see §10.2.2.4.

Homophony is possible between *là* ‘also’ and *=là* ‘it is not’, since the two have the same tonal behavior. Compare *mí=là* ‘it isn’t me’ with *mí là* ‘me too’. However, *là* ‘also’ typically occurs in nonfinal phrases in clauses while *=là* is clause-final.

### 19.1.3 ‘Even’ (*hàlí* ~ *hǎl*)

*hàlí* ~ *hǎl* preceding a NP X can be glossed ‘even X’ or ‘as far/much as X’, ‘all the way to X’, and the like. In the sense ‘even X’ it is optionally accompanied by *là* ‘also, too’, the sequence being *hàlí X là*.

*hàlí* appears as *hàli* if the following word begins with an H-tone. Pronouns have L-toned form after *hàlí*.

(xx1) a. [*hàlí mì*] *íló-má-ỳ<sup>n</sup>*  
[even 1Sg] go.up-can-1SgSbj  
‘Even I can go up (=climb).’

b. [*hàli bé-gé gí*] *téb-bò-Ø*  
[even child-Pl Acc] hit-Ipfv-3SgSbj  
‘He/She even hits children.’

## 19.2 Preclausal discourse markers

### 19.2.1 ‘Well, ...’ (*hàya*)

Preclausal *hàya* ‘well, ...’ occurs in Tiranige as in most languages of the area.

### 19.2.2 ‘But ...’ (*mè:*)

Clause-initial *mè:* ‘but’ is probably the widespread borrowing from French *mais*.

## 19.3 ‘Only’ particles

### 19.3.1 ‘Only’ (*tòmá→*)

*tòmá→* ‘only’ is obscurely related to *tò:mà* ‘one’.

- (xx1) [*mbó tòmá→*] *mì-gí nà* <sup>LH</sup>*ndě:-∅*  
[Dem only] 1Sg-Acc 3SgSbj <sup>LH</sup>give.Pfv-3SgSbj  
‘He/She gave me this only [focus].’

*tòmá→* is preferentially attached to a NP or similar nonpredicative constituent. However, there is another, invariant form that is specialized for predicative use: *tòmá wò*. This presumably contains the variant *wò* of *bò-* ‘be (somewhere)’. The variant *wò-* is otherwise found in *é wò-* ‘be present, be here/there’. In (xx2a), the subject is a preverbal proclitic, while in (xx2b) it is a pronominal-subject suffix on the verb.

- (xx2) a. *ò yógó-wò tòmá wò*  
2SgSbj come-Ipfv only be  
‘You-Sg only come.’
- b. *yógé-w tòmá wò*  
come.Pfv-2SgSbj only be  
‘You-Sg only came.’

## 19.4 Phrase-final emphatics

### 19.4.1 Clause-final *kòy* ‘sure’ (firm agreement or answer)

The regionally widespread clause-final confirmational emphatic, in the form *kòy*, is in common use in Tiranige. It is used somewhat like English *sure* as in *It sure it hot today*, or abbreviated *It sure is* as an emphatic confirmational response to *It’s hot today* or to the question *Is it hot today?*

- (xx1) *nùmi-yè-Ø*                      *kòy*  
be.hot-MP.Pfv-3SgSbj    Emph  
‘It sure is hot!’

### 19.4.2 Clause-final *dé* (admonitive)

Another regionally widespread clause-final emphatic takes the form *dé* in Tiranige. It has an admonitive or contradicting function. Cf. English low-pitched pragmatic *now* as in *Be careful now!*

- (xx2) *númi-yé-sà-w<sup>n</sup>*                      *dé*  
hot-MP-Reslt-xxx                      Emph  
‘(Watch out,) it (e.g. pot) is hot!’

## 19.5 Greetings

The metalinguistic terms are *tíyá-mú* ‘greeting(n)’ and verb *tíyá-m(ú)*- ‘greet (sb)’. A typical four-part (ABAB) greeting cycle for the morning is (xx1). The grammar is somewhat abbreviated (2Sg and 1Sg pronouns are omitted though their plurals are overt: 2Pl *è*, 1Pl *ní*). *lè* is a polar interrogative marker. *ná:* may be an archaic variant of *náyó-* ‘spend the night’. *mò:* is ‘good’, but in greetings a better gloss is ‘in peace, in safety’.

- (xx1) A: *ná: lé*                                      ‘Did (you-Sg) spend the night?’  
          *è ná: lé*                                      ‘Did you-Pl spend the night?’
- B: *àwó→*    Yes
- B: *mò: nàyě-l lé*                                      ‘Did (you-Sg) spend the night well?’  
          *mò: è nàyé lé*                                      ‘Did you-Pl spend the night well?’

A: *mò: nàyé-y<sup>n</sup>*            ‘(Yes) (I) spent the night well.’  
*mò: nì nàyé*            ‘(Yes) we spent the night well.’

By mid-day the greeting changes (xx2). This sequence can be used all afternoon and evening.

(xx2) A: *tíyâ:*                    ‘Greeting!’ (Sg)  
*tìyâ-yâ:*                    ‘Greeting!’ (Pl)

B: *àwó→*                    Yes

B: *mò:-w<sup>n</sup> dènè-l lé*            ‘Yes, have (you-Sg) had a good day!’  
*mò: è dènè lé*            ‘Yes, have you-Sg had a good day!’

A: *mò:-w<sup>n</sup> dèně-y<sup>n</sup>*            ‘Yes, I’ve had a good day.’

If a stranger (B) arrives in the village, the sequence (xx3) might occur (from the Ningo assistant).

(xx3) A: *à:só-gè*                    welcome (to sb arriving)

B: *à:wô→*                    (reply)

A: *mò: yògé-l lé*                    ‘Did you come in safety (in good health)?’

B: *mò: yògè-y<sup>n</sup>*                    ‘I came in safety.  
*mò: è bó lé*                    Are you-Pl in good health here?’

A: *mò: nì bó*                    ‘We are in good health’

A greeting to someone who is engaged in work (i.e. any purposeful activity such as farming, drawing water, or blacksmithing) is (xx4). *wàlè* is the noun ‘work’. There are two alternative replies, which can be combined.

(xx4) A: *èyà wàlè yà*                    ‘hello (at work)’

B: *àbâ:*                    (reply)  
*èyà kà:jí yà*                    (reply)

A blessing bestowed on one who is about to travel is (xx5).

(xx5) *[á: [kè:lé-gé yà] sìni nǎ]*  
 [God [health-Pl Loc] convey and.Nonpast]  
*[nà sògì-ỳ<sup>n</sup>]*  
 [3SgSbj bring-3Hort]  
 ‘May God take you (there) in health and bring (you back)’ (Ningo)

L  
 L  
 LH  
 LH  
 H  
 HL  
 +H  
 +L

## Texts

### Text 1 Hyena, Vulture, and the Dead Body (tale)

narrator: older speaker from Ningo

mode: dictation

(xx1) A: *dàbilé* *piyô→*

tale

audience: *sángálá* *wáyá→*

(standard narrator-audience sequence at the beginning of a tale, not transparently parsable)

(xx2) [*nà* *bàbá*] *màri-Ø*,  
[3SgPoss father] die.Pfv-3SgSbj

*sìni* *kè* *bèjé*,

convey 3PISbj bury.Pfv,

[*sìni* *kè* *bèjé*] *wàkàti*,

[convey 3PISbj bury] time

*tèbù-dúbà* *yà* *bè;*,

vulture Exist.Dist be.Past-3SgSbj,

‘His (hyena’s) father died. They (all the wild animals) took (the body) and buried (it). At the time when they took (it) and buried (it), vulture was there (up in the sky).’

(xx3) [*tèbù-dúbà* *rì*] *kè-gí* *è* *bálà-Ø*,  
[vulture Def] 3PI-Acc Exist see.Ipfv-3SgSbj,

*jágá* *tùmbùlè* *yògè-sà-w<sup>n</sup>*,  
lo! hyena come-Reslt-while,

[*tíbó* *rì*] *dùngù-lè-Ø*,

[corpse Def] bury-Rev.Pfv-3SgSbj,

‘Vulture saw them. Then lo, hyena came and dug up (disinterred) the body (and devoured it).’

(xx4) [*é* *tùnú* *gì*] *yògí-yè*,  
[that after Loc] come.Pfv-3PISbj,

*hàya* *ùjàrí-yè*, *á.lé* [*tíbó* *rì*] *dùngù-lè*,

well ask.Pfv-3PISbj, who? [corpse Def] bury-Rev,

[*ndà: pòs*] *nà dùngù-lò-nì wà,*  
 [person all] 3SgSbj bury-Rev-PfvNeg Quot,

‘After that they (the other animals) came back. Well, they asked, who dug up the body? Everyone said that it wasn’t him.’

(xx5) *hàyà [tèbù-dúbà ri]*  
 well [vulture Def]

*yá: [dànà gí] yà ságà,*  
 there.Def [above Loc] Exist.Dist be.up.on.Stat-3SgSbj

*ké-gì bàlì-yè-Ø,*  
 3Pl-Acc see-MP.Pfv-3SgSbj,

*kè-gí ùjàrí-yè,*  
 3Pl-Acc ask.Pfv-3PlSbj,

[*ndà: pòs*] *nà dùngù-lò-nì wà,*  
 [person all] 3SgSbj bury-Rev-PfvNeg Quot,

*tèbù-dúbà àbè nà sàyé,*  
 vulture receive 3SgSbj reply.Pfv,

‘Well, vulture was up above. He saw them (when) they asked (each other), (but) everyone said it wasn’t him. Vulture then spoke up.’

(xx6) [*wàkàti kè dùngù-bá ri*]  
 [time 3PlSbj bury-1pfv.Rel Def]

*yá: [dànà gí] yá: nà bé: wà,*  
 there.Def [above Loc] there.Def 3SgSbj be.Past Quot,

[*wàkàti kè dùngù-lò-bá lá*]  
 [time 3PlSbj bury-Rev-1pfv.Rel too]

[*dànà gí nà bé: wà,*  
 [above Loc] 3SgSbj be.Past Quot,

‘(Vulture said): “I was up there when they were burying (him), and I was also up there when they dug (him) up.”

*[imperfective nonsubject relative clause]*

(xx7) *tùmbùlè àbè nà sàyé*  
 hyena receive 3SgSbj reply.Pfv.Rel

[*nà bàbá*] *wà,*  
 [3SgSbj father] Quot,

[*tèbù-dúbà gí*] *újàrà:-n-í: wà,*  
 [vulture Acc] ask-PfvNeg-3PlSbj Quot,

[*tèbù-dúbà wà*] [*dám-là wà*] *yà díy wà,*

[vulture Quot] [speak-Proh Quot] Exist.Dist leave Quot,  
'Hyena spoke up. It was my father. They (=animals) didn't ask vulture. Vulture should not be allowed to speak.'

- (xx8) *kúgúríyángè* *tùmbùlè* *dùmbù-lè* *témé-sà-Ø*  
in the end hyena bury-Rev eat.meat-Reslt-3SgSbj  
'So in the end hyena had dug up and devoured (the body).' (Ningo)

## Text 2 Farming

narrator: older speaker from Ningo

mode: dictation

- (xx1) *góró,* *kéí* *kéí-yè,*  
trimming ax, chopping chop.Pfv-Inst,  
*[jéná wàlé]* *tùmbùlà-ngé,*  
[rainy.season work(n)] begin-Nom,  
'Trimming axes. They clear (brush, in fields), (at) the beginning of the rainy season.'

- (xx2) *[é tùnú]* *gì,* *gúlá,*  
[Def behind] Loc, chopping.ax,  
*[é tùnú]* *gì,* *áná-wàlà,*  
[Def behind] Loc, short.shaft.pick.hoe  
*[é tùnú]* *gì,* *séñù,*  
[Def behind] Loc, curved.shaft.short.ax,  
*[é tùnú]* *gì,* *dùbìyè* *báná,*  
[Def behind] Loc, hoe male (pick-hoe),  
*[é tùnú]* *gì,* *dùbìyè* *yê,*  
[Def behind] Loc, hoe female (daba),  
*[é tùnú]* *gì,* *ónjó,*  
[Def behind] Loc, sleeved.daba  
*[é tùnú]* *gì,* *kó:mò,*  
[Def behind] Loc, sickle,

'In addition to that, (heavy) chopping axes, short-handled pick-hoes (with hooked shaft), axes with short curved shafts, male hoes (long pick-hoes for planting), female hoes (dabas for turning over earth), sleeved hoes, and sickles.'

[list of tools used in farming]

- (xx3) *[kéí* *kèr-á:]* *nì* <sup>LH</sup> *ùm-bó*



[chopping clear(tr)-Purp] 1PISbj LHgo-Ipfv.Rel,  
*yá lá = ò      nì      kèrò-bá,*  
 field=Foc 1PISbj clear-Ipfv.Rel,  
*yá lá      nì      kèrò      mèn-nèn,*  
 field 1PISbj clear if,  
*nì      lá      sùbè,*  
 1PISbj also burn-Ipfv,

‘We go to chop (=clear). It’s a field that we will clear. When we have cleared the field (with a hatchet), we burn it too.’

[cf. *úm-bò-y* ‘I will go’, *nì úm-bò* ‘we will go’]

(xx4) *nì      sùbè      mèn-nèn,*  
 1PISbj burn.Pfv if,  
*nì      lá      tò:lè,*  
 1PISbj also hoe(v),  
*nì      tò:lè      mèn-nèn,*  
 1PISbj cultivate.Pfv if,  
*nì      lá      tòmè,*  
 1PISbj also slash.to.sow,  
*nì      tòmè      mèn-nèn,*  
 1PISbj slash.to.sow if,  
*sòbè-Ø      mèn-nèn,*  
 sprout.Pfv-3SgSbj if,  
*nì      lá      sàmbè,*  
 1PISbj also do.weeding,

‘When we have burned it, we hoe (to shape the earth into mounds). When we have hoed, we slash (with a pick-hoe, to plant seeds in the slash). When we have slashed (and planted), when it (=millet) has sprouted, we weed (with a hoe).’

(xx5) [*nì      sàmbè      mèn-nèn*], *túnú      gí,*  
 [1PISbj do.weeding.Pfv when], behind Loc,  
*nì      là      níyè-gè      pìyàgè,*  
 1PISbj also bird-Pl chase.away,  
 [*nì      là      síngá-gé      jà:lè*]  
 [1PISbj also blister.beetle-Pl watch.for]  
 [*nì      lá      gèyè*],  
 [1PISbj also kill],  
*nì      là      géní      tùnì,*  
 1PISbj also fire put,  
*nì      lá      ùgè,*

1PlSbj also put.manure,

‘When we have weeded, afterwards, we drive (grain-eating) birds away. We watch out for blister beetles (Meloidae) and we kill them. We set fire and we lay manure.’

- (xx6) *iliyè-Ø* *mè-nè,*  
 ripen.Pfv-3SgSbj if,  
*nì lá [gìyò tàná-bé] jòlè,*  
 1PlSbj also [harvest(n) knife-child] look.for.Pfv,  
*nì là kó:ndó jòlè,*  
 1PlSbj also square.basket look.for.Pfv,  
*nì lá tàjí jòlè,*  
 1PlSbj also straw.basket look.for.Pfv,  
*nì lá gìyè,*  
 1PlSbj also harvest(v),

‘When it has ripened, we look for (=go get) a harvesting knife (tied by a strap to one hand), we look for a square basket and we look for a straw basket. We harvest (the millet).’

- (xx7) *nì lá [gòṅḍ gí] màngà-là-mì,*  
 1PlSbj also [enclosure Loc] gather-Mult-Caus.Pfv,  
*nì lá nùgùlè,*  
 1PlSbj also sort(v),  
*nì lá bànà-kòlì-gè pàgè,*  
 1PlSbj also bundle-Pl tie,  
*nì lá dùyè gíba: jè: nwè:,*  
 1PlSbj also carry.on.head house.Loc pick.up go.in  
*nì là [pángá gí] gànì,*  
 1PlSbj also [granary Loc] put.in,

‘We gather it (the harvested millet grain spikes) all up in an enclosure. We sort (organize) it. We tie it into bundles. We carry it (in baskets, on the head). We go to the house and put it in granaries.’

- (xx8) *[égá:gú pós] nì là pángá dènè ndè,*  
 [morning every] 1PlSbj also granary take.out.grain give.Pfv,  
*hà: éri=yò [nì ngùré],*  
 well that=it.is [1PlPoss sustenance],  
*égá:gú kè lá òmò-kánú kànì,*  
 morning 3PlSbj also breakfast make.Pfv,  
*dènì-gí kè là páníngé kànì,*  
 spend.day-Nom 3PlSbj also lunch make.Pfv,

*yà:gù*      *kè*      *là*      *ná:-nígé*      *kàni,*  
 night      3PlSbj also      supper      make.Pfv,  
*nì*      *lá*      *ɲè:*  
 1PlSbj      also      eat.meal

‘Every morning we take some (millet) out of the granary and give it (to women to cook for the day). Well, that is our sustenance (staple food). In the morning they make breakfast, in the middle of the day they make lunch, in the evening they make supper. We eat (meals).’

### Text 3 War

narrator: older speaker from Ningo

mode: dictation

(xx1) *kómbó,*      *kómbó*      *táy-wà,*  
 war,      war      wage-VblN,  
*[kómbó gònì-gé]*      *ò*      *lá*      *kàli-yè,*  
 [war      gear-PI]      2SgSbj also      get.ready-MP.Pfv,  
*ndégé = w<sup>n</sup>*      *[kómbó gònì-gé]*  
 be.what?=it.is      [war      gear-PI]

‘War, waging war. You-Sg get the instruments of war ready. What are the instruments of war?’

(xx2) *tànà*      *[kómbó*      *gòní]=yò,*  
 knife      [war      gear]=it.is,  
*túmá*      *[kómbó*      *gòní]=yò,*  
 stick      [war      gear]=it.is,  
*sábú*      *[kómbó*      *gòní]=yò,*  
 spear      [war      gear]=it.is,  
*mánùbà*      *[kómbó*      *gòní]=yò,*  
 rifle      [war      gear]=it.is,  
*sòɲjòni*      *báná,*      *[kómbó gòní]=yò,*  
 horse      male,      [war      gear]=it.is,  
*dòngò*      *báná-ɲgà*      *[kómbó gòní]=yò,*  
 heart      fearless      [war      gear]=it.is,  
*dàbàri*      *ɲí:jà,*      *[kómbó gòní]=yò,*  
 plan      pretty,      [war      gear]=it.is,  
*á:sùnò*      *[kómbó*      *gòní]=yò,*  
 blessing      [war      gear]=it.is,

*dùwà(w) pí:jà, [kómbó gòní]=yò,*  
 blessing pretty [war gear]=it.is,

‘Knives, sticks (staves), spears, rifles, stallions, fearless hearts, good strategies, and blessings (from God and from holy men) are instruments of war.’

[*á:sùno* ‘blessing from God’ versus *dùwá* ~ *dùwâw* ‘blessing from an imam or other holy man]

(xx3) *kómbó nà ndégé=w<sup>n</sup>,*  
 war 3SgSbj what?=it.is,  
*ndà: ò-gí tó:nà kàni-Ø mè,*  
 person 2Sg-Acc trouble do.Pfv-3SgSbj if,  
*kómbó táy-bò-w,*  
 war wage-Ipfv-2SgSbj,  
*[ndà: gí] [nà wě:] élò-bà ké:-yé-w mè,*  
 [person Acc] [3Sg Poss] take.away-Ipfv.Rel want-MP-2SgSbj if,  
*kómbó táy-bò-w,*  
 war wage-Ipfv-2SgSbj,

‘What is war? If someone makes trouble for you-Sg, you wage war. If you-Sg want to seize someone’s possession, you wage war.’

(xx4) *là:mù ké:-yé-w mè,*  
 authority want-MP-2SgSbj if,  
*kómbó táy-bò-w,*  
 war wage-Ipfv-2SgSbj,  
*[nàmà tàgú] élò-bà ké-w mè,*  
 [others land] take.away-Ipfv.Rel want-2SgSbj if,  
*kómbó táy-bò-w,*  
 war wage-Ipfv-2SgSbj,  
*ndà: [ò wě:] ò-gí élò-bà jòlè mè,*  
 person [2Sg Poss] 2Sg-Acc take.away-Ipfv.Rel look.for.Pfv if,  
*kómbó táy-bò-w,*  
 war wage-Ipfv-2SgSbj,

‘If you-Sg want political authority (over an area), you wage war. If you want to seize somebody else’s land, you wage war. If someone tries to seize something of yours, you wage war.’

(xx5) *ndà: [ò bèlì-gé] jè: mè,*  
 person [2SgPoss animal-Pl] take if,  
*kómbó táy-bò-w,*  
 war wage-Ipfv-2SgSbj,

*ndà:*            *ò-gí*            *tó:nà*            *kàni*            *mè,*  
 person        2Sg-Acc        trouble        do            if,  
*kómbó*        *táy-bò-w,*  
 war            wage-Ipfv-2SgSbj,

‘If someone takes your livestock, you wage war. If someone makes trouble for you, you wage war.’

(xx6) *nà-gì*        *tágí-yó-bò-w*  
 3Sg-Acc        follow-MP-Ipfv-2SgSbj

*[hǎl*        *jè:*                    *ṅá]*  
 [until        take-and.Nonpast        and.Nonpast]

*[[nà-gí*        *ó*            *ìmì-y-ó:]*            *gì],*  
 [[3Sg-Acc    2SgSbj        defeat-MP-until]        Loc]

*nà-gì*        *díyò-rà-w,*  
 3Sg-Acc        leave-IpfvNeg-2SgSbj,

‘You will pursue him. From the beginning until the time when you have defeated him, you will not leave him alone.’

(xx7) *[ò-gí*        *ìmì-yè-Ø*            *mè lá]*        *má:gí-yó-bò-w,*  
 [2Sg-Acc        defeat.Pfv-3SgSbjif        even]        be.energetic-MP-Ipfv-2Sg,

*[nà-gì*        *ímí-yé-w*            *mè]*        *dúru-yó-bò-Ø,*  
 [3Sg-Acc        be.able-MP-2SgSbj if]        run-MP-Ipfv-3SgSbj

*dùrù-yè-Ø*            *mè-nè,*        *nà-gì*        *tágí-yó-bò-w,*  
 run-MP.PPerf-3SgSbj if,        3Sg-Acc        follow-MP-Ipfv-2SgSbj,

‘Even if he defeats you-Sg, have courage! If you have defeated him, he will run away. When he runs away, you will pursue him.’

(xx8) *[kíní*        *gì]*        *ilè-Ø*                    *mè,*        *díyò-rà-w,*  
 [mountain    Loc]        go.up.Pfv-3SgSbj        if,        leave-IpfvNeg-2SgSbj,

*[[mí:*        *gì]*        *nwè: -Ø*            *mè]*        *díyò-ràw,*  
 [[water        Loc]        go.in.Pfv-3SgSbj if]        leave-IpfvNeg-2SgSbj,

*[hǎl*        *jè:*                    *ṅá]*  
 [until        pick.up        and.Nonpast]

*[nà-gí*        *ó*            *ìbè-[gìr-ó:]]*            *gì],*  
 [3Sg-Acc        2SgSbj        catch-[get-until]]        Loc],

‘If he climbs up a mountain, you won’t leave him alone. If he goes into the water, you won’t leave him, from the beginning until you have caught him.’

(xx9) *nà-gì*        *ìbè*            *gíré-w*            *mè,*  
 3Sg-Acc        catch        get.Pfv-2SgSbj if,

*pàgè*                    *sógó-bò-w,*  
 tie.and                bring-Ipfv-2SgSbj,  
*pàgè*                    *sógé-̀w*                    *mè,*  
 tie.and                bring.Pfv-2SgSbj        if,  
*[éri*            *jùgú]*            *nà-gí*            *ímí-yé-̀w*  
 [Dist            time]            3Sg-Acc        defeat-MP-2SgSbj

‘If you have caught him, tie him up and bring him (to your village). When you have tied and brought him, at that time you have defeated him.’

#### Text 4 Travels

narrator: older speaker from Ningo

mode: dictation

(xx1) *òjì*    *gélé*    *mì*    *̀̀nì-gé,*  
           road    place    1Sg    go.Pfv.Rel-Pl  
*mì*        *là*        *tí:lè,*  
 1SgSbj    also        explain.Pfv-1SgSbj  
*mbé:*    *[màli*    *gí]*    *mì*    *gwě;*  
 here        [Mali    Loc]    1SgSbj    go.out.Pfv.Rel,  
*búrcíná*    *[móbélí*    *gì]*    *mì*    *sìgé,*  
 Burkina    [vehicle    Loc]    1SgSbj    go.down.Pfv.Rel

‘I will describe the places where I have gone on routes (journeys). I left here in Mali, I got off the vehicle (bus or truck) in Burkina (Faso).’

*[relative clause with plural -ge on the verb]*

(xx2) *kòndè*    *tèré*    *mì*    *jě;*  
           again    train    1SgSbj    take.Pfv.Rel,  
*péregéséy*    *mì*    *̀̀ní,*  
 Peregese    1SgSbj    go.Pfv.Rel,  
*tèré*        *mì*        *jě;*  
 train        1SgSbj    take.Pfv.Rel,  
*bóké*        *yá:*        *mì*    *̀̀ní,*  
 Boke        there.Def    1SgSbj    go.Pfv.Rel,

‘I took the train, and got off at Peregese. I took the train (again), I went to Boke there.’

(xx3) *[bóké*    *gì]*    *mì*    *gwě;*  
           [Boke    Loc]    1SgSbj    go.out.Pfv.Rel,

*ábíjǎ:<sup>n</sup>      mì      ùní,*  
 Abidjan    1SgSbj    go.Pfv.Rel,  
*ábíjǎ:<sup>n</sup>      mì      gwěǎ;*  
 Abidjan    1SgSbj    go.out.Pfv.Rel,  
*[[gáná      kènú]      gǐ]      mì      ùní,*  
 [[Ghana    border]    Loc]      1SgSbj    go.Pfv.Rel,

‘I left Boke and went to Abidjan. I left Abidjan and went to the Ghana border.’

(xx4) *[gáná      kènú      gǐ]      mì      gwěǎ;*  
           [Gana    border    Loc]    1SgSbj    go.out.Pfv.Rel,  
*[gáná      gǐ]      nì      ùní      yá:*  
 [Ghana    Loc]    1PlSbj    go.Pfv.Rel    there,  
*mí:      tètè      nì      tǎngé,*  
 water      cut(cross)    1PlSbj    cross.Pfv.Rel,

‘I left Gana Kenou. When we went to Ghana, we crossed the water (=river).’

[*shift from 1Sg to 1Pl subject beginning here.*]

(xx5) *móbélí      nì      jěǎ;*  
           vehicle    1PlSbj    take.Pfv.Rel,  
*[tákùrà      dí      gǐ]      nì      ùní,*  
 [Takura    Di      Loc]    1PlSbj    go.Pfv.Rel,  
*[tákùrà      dí      gǐ]      móbélí      nì      jěǎ;*  
 [Takura    Di      Loc]    vehicle    1PlSbj    take.Pfv.Rel,  
*kúmá:<sup>n</sup>sí      yá:      nì      ùní,*  
 Kumasi    there.Def    1PlSbj    go.Pfv.Rel,

‘We got on a vehicle and went to Takura-Di. We got (another) vehicle at Takura-Di and we went to Kumasi there.’

(xx6) *kúmá:<sup>n</sup>sí      móbélí      nì      jěǎ;*  
           Kumasi    vehicle    1PlSbj    take.Pfv.Rel,  
*ákárá      nì      ùní,*  
 Accra    1PlSbj    go.Pfv.Rel,  
*ákárá      móbélí      nì      jěǎ;*  
 Accra    vehicle    1PlSbj    take.Pfv.Rel,  
*[lómé      gǐ]      nì      ùní,      ápláwô:*  
 [Lome    Loc]    1PlSbj    go.Pfv.Rel,    Aplawo [*border Togo-Ghana*],  
*[lómé      gǐ]      nì      gwěǎ;*  
 [Lome    Loc]    1PlSbj    go.out.Pfv.Rel,  
*[sémé      gǐ]      nì      ùní,*  
 [Seme    Loc]    1PlSbj    go.Pfv.Rel,

‘We got on a vehicle in Kumasi and went to Accra. At Accra we took a vehicle and went to Lome. We left Lome and went to Seme.’

- (xx7) *[sémé gì] [mòbèli tó:] nì jě;*  
 [Seme Loc] [vehicle other] 1PISbj take.Pfv.Rel,  
*[lágósí gì] nì ùní,*  
 [Lagos Loc] 1PISbj go.Pfv.Rel,  
*[lágósí gì] nì gwě;*  
 [Lagos Loc] 1PISbj go.out.Pfv.Rel,  
*íbá:dá nì ùní,*  
 Ibadan 1PISbj go.Pfv.Rel,  
*kádú:nà nì ùní,*  
 Kaduna 1PISbj go.Pfv.Rel,  
*[kánù gì] nì ùní,*  
 [Kano Loc] 1PISbj go.Pfv.Rel,

‘We took another vehicle in Seme and went to Lagos. We left Lagos and went to Ibadan. We went to Kaduna and to Kano.’

- (xx8) *[kánù gì] nì gwě;*  
 [Kano Loc] 1PISbj go.out.Pfv.Rel,  
*móbélí nì jě;*  
 vehicle 1PISbj take.Pfv.Rel,  
*bórnó éstat, yáruwá,*  
 Borno Estat, Yaruwa,  
*[màydúkùrì gì] nì ùní,*  
 [Maydukuri Loc] 1PISbj go.Pfv.Rel,

‘We left Kano. We took a vehicle to Borno Estat and Yaruwa. We went to Maydukuri.’

- (xx9) *màydúkùrì móbélí nì jě;*  
 Maydukuri vehicle 1PISbj take.Pfv.Rel,  
*[gàmbòrí gì] nì ùní,*  
 [Gambori Loc] 1PISbj go.Pfv.Rel,  
*[gàmbòrí gì] nì gwě;*  
 [Gambori Loc] 1PISbj go.out.Pfv.Rel,  
*kámérû:n, [kúsírí gì] nì ùní,*  
 Cameroon, [Kusiri Loc] 1PISbj go.Pfv.Rel,  
*[kúsírí gì] nì gwě;*  
 [Kusiri Loc] 1PISbj go.out.Pfv.Rel,  
*cád, [pónḡèlí gì] nì ùní,*



Tchad, [Pongeli Loc] 1PISbj go.Pfv.Rel,

‘We took a vehicle at Mayudukuri and we went to Gambori. We left Gambori (and went to) Cameroon. We went to Kusiri. We left Kusiri (and went to) Tchad. We went to Pongeli.’

(xx10) [pɔŋgɛ́lí gì] nì gwě́;  
[Pongeli Loc] 1PISbj go.out.Pfv.Rel,

*njàmínà nì ùní,*

Ndjamena 1PISbj go.Pfv.Rel,

*njàmínà yá: èbà nì <sup>LH</sup>sànjè-bé,*

Ndjamena there.Def market 1PISbj <sup>LH</sup>do.business-Ipfv.RelPast,

‘We left Pongeli and went to Ndjamena. There in Ndjamena we were doing business in the market.’

[<sup>LH</sup>sànjè-bé, past-time form of imperfective participle <sup>LH</sup>sànjò-bá ‘do business’]

(xx11) [sɔ́y-gé nì lá dòné] [nì lá tùlè],  
[cloth-Pl 1PISbj also buy.Pfv] [1PISbj also sell.Pfv]

*[èbà tó:-gè] [bù:dù púlé-gé] nì lá tùlè,*

[market other-Pl] [money white-Pl] 1PISbj also sell.Pfv,

*péntír nì lá tùlé,*

paint 1PISbj also sell.Pfv,

*[kìndò-kìndò já:li-yè-gé] nì lá tùlé,*

[image-image look-MP-Pl] 1PISbj also sell.Pfv,

‘We bought and sold cloth. (As for) other merchandise, we sold silver coins, we sold paint, we sold mirrors.’

[‘Silver’ is also called *sárdí*; ‘mirror’ literally approximately ‘image-looker’]

(xx12) [[é <sup>LH</sup>tùnù] gì] lí:-gé nì lá tùlè,

[[that.Def <sup>LH</sup>behind] Loc] bed-Pl 1PISbj also sell.Pfv,

*[[é <sup>LH</sup>tùnù] gì] pùgá<sup>n</sup>-gè nì lá tùlè,*

[[that.Def <sup>LH</sup>behind] Loc] aluminum-Pl 1PISbj also sell.Pfv,

*[[é <sup>LH</sup>tùnù] gì] brɔ́s zínjí nì lá tùlè,*

[[that.Def <sup>LH</sup>behind] Loc] bronze steel 1PISbj also sell.Pfv,

‘After (=aside from) that, we sold beds, we sold aluminum, and we sold bronze and steel.’

(xx13) [[é <sup>LH</sup>tùnù] gì] [cád gì] nì gwě́,

[[that.Def <sup>LH</sup>behind] Loc] [Tchad Loc] 1PISbj go.out.Pfv.Rel,

*kámérú:n, [kúsírì gì] nì gwě́,*

Cameroon, [Kusiri Loc] 1PISbj go.out.Pfv.Rel,

[*márwá gì*] *nì yògé,*  
 [Maruwa Loc] 1PlSbj come.Pfv.Rel,  
 [*márwá gì*] *nì gwě;*  
 [Maruwa Loc] 1PlSbj go.out.Pfv.Rel,

‘After that, we left Tchad (and went to) Cameroon. We left Kusiri and came to Maruwa. We left Maruwa.’

(xx14) *móbélí nì jě;*  
 vehicle 1PlSbj take.Pfv.Rel,  
*gárwá nì ùní,*  
 Garuwa 1PlSbj go.Pfv.Rel,  
*gárwá móbélí nì jě;*  
 Garuwa vehicle 1PlSbj take.Pfv.Rel,  
*ngáwndéré nì ùní,*  
 Ngawndere 1PlSbj go.Pfv.Rel,

‘We took a vehicle and went to Garuwa. At Garuwa we took a vehicle and went to Ngawndere.’

(xx15) [*ngáwndéré gì*] *móbélí nì jě;*  
 [Ngawndere Loc] vehicle 1PlSbj take.Pfv.Rel,  
*yògòdú má nì ùní,*  
 Yogoduma 1PlSbj go.Pfv.Rel,  
*yògòdú má móbélí nì jě;*  
 Yogoduma vehicle 1PlSbj take.Pfv.Rel,  
*bértwá: nì ùní,*  
 Bertuwa 1PlSbj go.Pfv.Rel,  
*bértwá: móbélí nì jě;*  
 Bertuwa vehicle 1PlSbj take.Pfv.Rel,  
*mùsàkà nì ùní,*  
 Musaka 1PlSbj go.Pfv.Rel,

‘We took a vehicle in Ngawndere and went to Yogoduma. We took a vehicle in Yogoduma and went to Bertuwa. We took a vehicle in Bertuwa and went to Musaka.’

(xx16) *àjá kày kǔ:ⁿ nì <sup>LH</sup>jě;*  
 Ajakay skiff 1PlSbj <sup>LH</sup>take.Pfv.Rel,  
 [*éri yà*] *bátó nì <sup>LH</sup>jě;* *mùsàkà,*  
 [that.Def time] boat 1PlSbj <sup>LH</sup>take.Pfv.Rel, Musaka,  
*bíci bràzàvíl*  
 Bichi[fort] Brazzaville,  
 [*bràzàvíl gì*] *nì <sup>LH</sup>nwě;*

[Brazzaville Loc] 1PISbj <sup>LH</sup>go.in.Pfv.Rel,

‘We took a boat at Ajakay. At that time we took a boat (and went to) Musaka. We entered Bichi (Fort) at Brazzaville.’

(xx17) [bràzàvìl gì] èbà nì sànjèbè,

[Brazzaville Loc] market 1PISbj do.business.Pfv.Past,

sóy-gé [nì lá dòné] [nì lá tùlè]

cloth-PI [1PISbj also buy.Pfv] [1PISbj also sell.Pfv]

[móbélí nǒ:] [nì lá dòné] [nì lá tùlè],

[vehicle oil] [1PISbj also buy.Pfv] [1PISbj also sell.Pfv],

[móbélí tònjè-gé] [nì lá dòné] [nì lá tùlè],

[vehicle foot-PI] [1PISbj also buy.Pfv] [1PISbj also sell.Pfv],

[móbélí [kìndò-kìndò já:lì-yè-gé]]

[vehicle [image-image look-MP-PI]]

[nì lá dòné] [nì lá tùlè],

[1PISbj also buy.Pfv] [1PISbj also sell.Pfv],

‘We did business in the market at Brazzaville. We bought and sold cloth. We bought and sold motor oil, we bought and sold tires, we bought and sold vehicle mirrors.’

## Text 5 Thieves in Sigal

narrator: older speaker from Ningo

mode: dictation

(xx1) [kánó gì] èndigó nì kàní,

[Kano Loc] indigo 1PISbj do.Pfv,

[gàmbàrú gì] nì gwě́,

[Gambarou Loc] 1PISbj go.out.Pfv.Rel,

[[sígál èbá] gì] nì ùní,

[[Sigal market] Loc] 1PISbj go.Pfv.Rel,

[sígál èbá] nì sīgò-mí,

[Sigal market] 1PISbj go.down-Caus.Pfv.Rel,

‘We did (business in) indigo (cloth) in Kano. We left Gambarou (Nigeria-Cameroon border) and went to the Sigal market. At the Sigal market we unloaded (our merchandise).’

(xx2) [[èbà kùliyé] gì] yà:gù nì bì:-yé

[[market inside] Loc] night 1PISbj lie.down-MP.Pfv.Rel,

[sóy dò:ndè-gé] nì dùní,

[cloth baggage-Pl] 1PlSbj lay.Pfv.Rel,  
*[nì bi:-yé]* *[nì nòyé]*,  
 [1PlSbj lie.down.Pfv.Rel] [1PlSbj sleep(v).Pfv.Rel],

‘We lay down (to sleep) at night in the market. We put down our cloth bundles. We lay down and went to sleep.’

[*dúy(ú)* ‘put down’ is used for non-oriented objects such as bundles, compare *téŋó* ‘put down, set’ for vertically oriented objects such as calabashes and tables]

(xx3) *yà:gù* *kàŋ-gè* *kè* *yògé*,  
 night thief-Pl 3PlSbj come.Pfv.Rel,  
*[á:mì tègâ:-ŋ]* *nì nòyé*,  
 [rain(n) rain.fall-while] 1PlSbj sleep(v).Pfv.Rel,  
*[kàmpálá dè:ndè-gé nì:ŋgà]*  
 [Kampala baggage-Pl two]  
*èndígó* *kè* *kàmì* *sìní*,  
 indigo 3PlSbj steal take.away.Pfv.Rel,  
*kàmì jǐy-yè;*,  
 steal take.Pfv-3PlSbj,

‘Thieves came at night. While it rained, we slept. They stole and took away two bundles of indigo (cloth) from Kampala. They stole and took (them).’

[*jǐy-yè;*, 3Pl subject perfective of *jó:* ‘take, pick up’]

(xx4) *[nì ùnjìgé]* *[ní jà:lé]*,  
 [1PlSbj get.up.Pfv] [1PlSbj look.Pfv.Rel],  
*[góní-gè rì]* *kàmí-yè*,  
 [gear-Pl Def] steal.Pfv-3PlSbj,  
*dè:ndè-gè nì:ŋgà*,  
 baggage-Pl two,  
*[jò gí]* *nì nwě;*,  
 [village Loc] 1PlSbj go.in.Pfv.Rel,  
*[[jò gùnàrí]* *gì]* *nì tù:ré*,  
 [[village owner] Loc] 1PlSbj inform.Pfv.Rel,

[We got up (in the morning) and looked. They had stolen the merchandise, two bundles. We went into the town and informed (them) at (the house of) the village chief.’

(xx5) *[nì jòlé]* *[nì bàlì-yà-nì]*,  
 [1PlSbj look.for.Pfv.Rel] [1PlSbj see-MP-PfvNeg],  
*érò* *màrí-yè* *ég-gè* *kây*,  
 thus be.lost.Pfv-3PlSbj that.Def-Pl Top,  
*[hàlí yò:]* *nì bàlì-yà-nì*

[until today] 1PlSbj see-MP-PfvNeg  
 ‘We searched (but) we didn’t find (them). They were lost in that way. (Even) up until today we haven’t found (them).’

[*ég-gè* for *éri-gè* ‘those (definite)’, §4.4.1.2; Topic particle *kày* §19.1.1]

## Text 6 Thieves in Ndjamena

narrator: older speaker from Ningo

mode: dictation

(xx1) [*cádi gí*] *là,* *njàmínà,*  
 [Tchad Loc] too, Ndjamena  
*má:gé gélé mì bàli-yé,*  
 difficulty place 1SgSbj see-MP.Pfv.Rel,  
 ‘In Tchad too, in Ndjamena, a place where I saw (experienced) trouble.’

(xx2) *égá:gú [dèn tò:mà] [èbà gí] mì nwě:;*  
 morning [day one] [market Loc] 1SgSbj go.in.Pfv.Rel,  
*[kélé-ŋgé mē:-ŋgé] [[mì jì:bá] gí] yà sé-y",*  
 [money-Pl 1SgPoss-Pl] [[1PlPoss money] Loc] Exist have.Past-1SgSbj,  
*[èbà gí] mì nwě:;*  
 [market Loc] 1SgSbj go.in.Pfv,  
 ‘One day I went into the market in the morning. I had my money in my pocket. I went into the market.’

(xx3) [[[*èbá rí*] *kùliyé] gí] mì ùnó:-ŋ),*  
 [[[market Def] inside] Loc] 1SgSbj go-while,  
*kàŋ-gè [túnú gí yá] [gíró gí yà] yògè-sà-ŋ),*  
 thief-Pl [behind Loc and] [front Loc and] come-Reslt-while,  
*mì-gí kè kēmì-yé,*  
 1Sg-Acc 3PlSbj bump-MP.Pfv,  
 ‘As I was going (walking) inside the market, thieves came, both behind and in front (of me) and they jostled me.’  
 [*ùnó-ŋ*] §15.2.1.2; [*yògè-sà-ŋ*] §15.2.2.3]

(xx4) [[*númíyé sè:-ŋgé nì:ŋgà] yà]*  
 [[hand digit-Pl two] with]  
*[[jì:bá mē:] gí] númíyé kè tùní,*  
 [[pocket 1SgPoss] Loc] hand 3PlSbj put.in.Pfv,

[*kélé-ŋgé* *mè:-ŋgé*] *kè* *kàmi*,  
[money-Pl 1SgPoss-Pl] 3PlSbj steal.Pfv,

‘With two fingers, they put their hand(s) in my pocket. They stole my money.’

(xx5) [*ji:bá* *mě:]* *mì* *tábé-ỳ<sup>n</sup>*,  
[pocket 1SgPoss] 1SgSbj touch.Pfv-1SgSbj,

*kélé-ŋgé* *ór-à:*,  
money-Pl not.be-3PlSbj

*kàmi* *síní-yè*,  
steal take.away.Pfv-3PlSbj,

‘I felt (in) my pocket. There was no money. They stole it and took it away.’

(xx6) *kè-gí* *mì* *tàgì-yé*,  
3Pl-Acc 1SgSbj follow-MP.Pfv,

*jòl-é:* *á.rí-yé-ỳ<sup>n</sup>*,  
look.for-Dur get.tired-MP.Pfv-1SgSbj,

*bálí-yá-ní-ỳ<sup>n</sup>*  
see-MP-PfvNeg-1SgSbj

‘I pursued them. I looked and looked (for them) to the point of exhaustion. (But) I didn’t find (it/them).’

*jè:-sà-w<sup>n</sup>* [*mì / ò* *sìgé*] ‘until I/you came down’

## Abbreviations

Acc	accusative
Adj	adjective
Addr	addressee
AN	aspect-negation suffix or category
ATR	advanced tongue root (vowel feature)
Ben	benefactive
C	consonant (in formulae like <i>CvCv</i> )
Caus	causative
Char	characteristic nominal derivational suffix, §4.2.1
Def	definite
Dem	demonstrative
Det	determiner (demonstrative or definite)
Dim	diminutive
Dist	distant (demonstrative or existential)
Dur	durative
EA	expressive adverbial (§8.4.5)
Emph	emphatic (clause-final particle)
Exist	existential (proclitic)
ExpPf	experiential perfect
Foc	focus
Fr	French
Fut	future
H	high (tone)
Hort	hortative
Imprt	imperative
Inch	inchoative ('become' with adjective)
Inst	instrumental
L	a) low (tone) b) any sonorant (in e.g. <i>CvL</i> )
MP	mediopassive
N	a) noun (in e.g. "N-Adj") b) any nasal consonant (in e.g. <i>CvN</i> )
(n)	noun, in interlinear glosses like 'work (n)'
Neg	negative
Nom	nominalization

NP	noun phrase
Num	numeral
O	object (in e.g. “SOV”)
Pass	passive
Pfv	perfective
Pl	plural
Poss	possessor
PP	postpositional phrase
Presntv	presentative (‘here’s X!’)
Prod	product-of-action (§5.1.11)
Prog	progressive
Proh	prohibitive (negative imperative)
Pron	pronoun
Prox	proximal (demonstrative)
Psm	possessum (possessed entity)
Purp	purposive
Q	question
Quot	quotative particle
QuotSbj	quotative subject
Recip	reciprocal
Rel	relative clause; relative-clause form of verb
Reslt	resultative
Rev	reversive
S	subject (in e.g. “SOV”)
Sbj	subject
Sg	singular
SS	same-subject (subordinator)
Stat	stative
Tr	transitive derivational suffix
V	verb (in e.g. “SOV”)
v	a) vowel (in e.g. <i>CvCv</i> ) b) verb in glosses like ‘work(v)’
Vb	verb
VblN	verbal noun
VP	verb phrase



## Symbols

*	reconstructed
#	ungrammatical, unacceptable, unattested
á, à, â, ã, ä, ã	tones on vowels (or syllables), §3.7
̄, ̂, ̃, ̄	tone changes on stem in compounds, chapter 5
/.../	a) lexical tone melody, e.g. /LH/, /H/ b) underlying or lexical representation
{...}	a) tone overlay, e.g. {HL}, {H}, {L} b) enclosing any set, e.g. {u a i}
[...]a)	phonetic (IPA) representation, e.g. [bǔ:] b) syntactic or tonosyntactic phrase
[...]L	{L} tone overlay controlled by an element to the right
L[...]	{L} tone overlay controlled by an element (possessor) to the left
⊂...⊃	tonosyntactic island (§14.2.4)
→	(prolongation of final vowel or sonorant), §3.8, §8.4.8.1
↘	terminal pitch drop (intonation), §3.8
↗	terminal pitch rise or sustained high terminal pitch, §3.8
=	clitic boundary

## Index

[to be added]

Ningo

gìrìyè-ṅòmbú ‘blinders (for horse)’

‘eye’ plus ‘cover’

*ímá-ỳ<sup>n</sup>* ‘I can, I have the strength for it’

*ímá-ná-ỳ<sup>n</sup>* ‘I cannot, I do not have the strength/capability’

Ningo

ìṅì-bòlè ‘inhabitant of Ningo’

ìṅì-nò-gè plural

unexplained H-tone on proclitic pronoun

(Boui)

[nà kògò ná jà:lè] ‘he looked at himself’

[nà kògò ná tètè] ‘he cut himself’

[nì kògò ní tètè] ‘we cut ourselves’

Ningo

[nà nùmìyé] sèmè ‘he cut his hand’

[nà nùmìyé] nà sèmè (accepted)

[mì nùmìyé] sémé-ỳ<sup>n</sup> ‘I cut my hand’

[nùmìyé-gé nì-wè:-ṅgé] nì sém-bò ‘we cut our hands’

yyyy