The Lugwere verb system

Lilja Maria Sæbø (Saeboe)

Balliol

University of Oxford

A thesis submitted for the degree of

Doctor of Philosophy

Trinity Term 2025

Acknowledgements

There are so many people I want to thank, and without whom this thesis could not have been completed. Firstly, I want to thank my supervisor, Wolfgang de Melo, for all his guidance and advice, for useful discussions and for the helpful feedback on my drafts.

I could not have written this thesis without my language consultants, who have put in so many hours of work, and who have become good friends.

I want to thank Langha Charles, for being a langue consultant, for helping me record materials for the corpus before I was able to travel to Uganda myself, and for inviting me to stay at his house, and introducing me to his family and the other consultants mentioned here. His help really got this project started.

I am very grateful to Naulere Brian, who has been a consultant, and who recorded many of the speakers in the corpus. He was the one who transcribed and translated the entire corpus. Without his work, this thesis would not have as many and varied examples, and I would not have come across many of the usages of the different forms described.

A big thanks goes to Langha Mirika, who has been a consultant, and who has helped me with so many things while we stayed together in Nakooma. She worked with me for hundreds of hours while in Uganda, and has since sent audio recording of examples and words missing from the tables. She was an enormous help in getting the thesis completed.

I am also grateful to Takali Jane, a consultant who recorded most of the words for the tables in this thesis. I am also very grateful for all the help she provided while staying together in the village.

Finally, I want to thank Bumba Eric for participating in elicitation sessions, he was a huge help in understanding Lugwere syntax.

I also want to thank all those who participated in the corpus recordings.

I am very grateful to Alena Witzlack-Makarevich. She was the one who suggested I work on Lugwere, and helped me get started on collecting written materials and getting in touch with people, and I really appreciate all her advice, help and the useful discussions we had.

While in Uganda, I spent some time in Kampala, but was mostly in Nakooma village. In both places I stayed in homes, and I am so grateful for everyone who welcomed me, helped me and made my fieldtrips such positive experiences. In addition to those

mentioned above, I am incredibly grateful to Ichara Suzan, Katooko Mangeri, Medei Emmanuel, Naisubi Mirika, Namajja Justine, Naulere Fred, Nyiro Julius, Nyiro Samson, Odeke Moses, Okello Emmanuel, Takali Patricia who welcomed me into their home and family, and who made my stay in Nakooma a wonderful experience. A special thanks to Erisa, James, Marianah, Michael, Sam and Shanita for listening to me and correcting me as I practiced my Lugwere reading.

I want to thank Alobo Fiona for welcoming me into her house, helping me learn to navigate Uganda when I had just arrived, and for taking me to see Gulu and Murchison Falls.

I am also grateful for the friendship of Andrew Kamu, Daka Ibrahim, Gimbo Barbra, Kadijja Anyiiti, Kyeita Difasi, Mpiindi Brenda, Mugoya Kaana, Mugoya Phillip, Mukisa Wairagala Timothy, Sumbatara Grace, Tianna Liz and Tracy Kamu who were all incredibly kind and welcoming. I want to thank Sulaiman Musoke and Kasani Kitembe, who got me where I needed to go. Thanks also to Kathryn Asiku at SIL for helping me get the written materials in Lugwere. I also want to thank Kirya Misaki Rwebikire for helping me organise translations of Lugwere written materials, and Saudah Namyalo for the advice before my first trip to the village, and for inviting me to present my work at Makerere University.

I want to give a huge thanks to Aker Scholarship for the funding I received, and also for all the work that they do in creating a vibrant community of scholars. Thanks to Hanne Tryggestad and Vilde Blixt, and I am especially grateful to Bjørn Blindheim for all the support, guidance and advice, and for all the hours he spent helping me with my applications.

I really appreciate the help I received from Johan Koren, who proofread the entire thesis.

I also want to mention Linda Konnerth and Eitan Grossman, who have been great mentors to me during my Master degree and beyond. I am a better researcher and writer because of them.

Despite starting off a bit weird during the pandemic, my time in Oxford has been an amazing experience, and I want to thank (amongst many others) Elyse Cox, Cecile Degiovanni, Zhang Jiarui, Konrad Książek, Titiksha Mohanty, Mihika Poddar, Tobias Schillings, Leah Sternefeld and Nathan Van Wees, without whom it would not have been the same.

Finally, I want to thank my family for all the support and encouragement, and Jeffrey Koren, for being there for me throughout the whole process, and for cheering me up when I was stressed.

Mwébàlé ínò.

Abstract

Lugwere is an underdescribed Bantu language spoken in Eastern Uganda. It has a rich inventory of tenses, with five past tenses and two future tenses, as well as marking many aspectual and mood categories. This thesis sets out to provide a detailed description of the verb system, looking at both the segmental and suprasegmental morphology of the verb, as well as the usage and function of different tenses, aspects, moods, modal expressions and extensions. There is also a section dedicated to the investigation of the interaction between aktionsart and tense and aspect, and a chapter on the usages of the locative enclitics.

Word count

Text: 104 499

Examples: 37250[1]

Bibliography: 2401

[1]The words appear to have been counted in a way where each gloss and morpheme is counted separately, in addition to the translation, meaning that in one example 6 Lugwere words were counted as 40 words

Contents

List of Tables xiv

List of Abbreviations xviii

1 Lugwere and the Bagwere People 1
- 1.1 Introduction . . . 1
- 1.2 The Bagwere people . . . 2
- 1.3 Lugwere . . . 4
- 1.4 Methodology . . . 6
  - 1.4.1 Elicitation . . . 7
  - 1.4.2 Corpus . . . 11
  - 1.4.3 Glossing conventions . . . 12

2 The Bantu Languages 20
- 2.1 The Bantu languages . . . 21
- 2.2 Bantu phonology . . . 23
  - 2.2.1 Segmental phonology . . . 23
  - 2.2.2 Suprasegmental phonology . . . 24
  - 2.2.3 How tone will be treated in this thesis . . . 27
- 2.3 Bantu nominal morphology and agreement . . . 29
  - 2.3.1 Bantu noun classes . . . 29
    - 2.3.1.1 Noun class pairings . . . 33
  - 2.3.2 Noun classes and genders . . . 35
  - 2.3.3 Augments . . . 40
  - 2.3.4 Adnominal agreement . . . 41
  - 2.3.5 Subject and object agreement . . . 42
- 2.4 Verbs . . . 43
  - 2.4.1 Typology of TAM and valency changing morphology . . . 43
    - 2.4.1.1 Tense . . . 43
    - 2.4.1.2 Degrees of remoteness . . . 45
    - 2.4.1.3 Aspect . . . 47
    - 2.4.1.4 Aktionsart . . . 49

2.4.1.5 Mood . . . 52
2.4.1.6 Modality . . . 53
2.4.1.7 Valency changing morphology . . . 54
2.4.2 Bantu verbs . . . 57
2.4.2.1 The Bantu verbal template . . . 57
2.4.2.2 Bantu verbal tone . . . 60
2.4.3 Tense . . . 61
2.4.4 Aspect . . . 64
2.4.5 Mood and modality . . . 67
2.4.6 Extensions . . . 68
2.4.7 Post-final locative . . . 74
2.4.8 Locative inversion . . . 78
2.4.9 The conjoint/disjoint alternation . . . 79

3 Phonology **81**
3.1 Segmental phonology . . . 82
3.1.1 Consonant inventory . . . 82
3.1.2 Vowel inventory . . . 85
3.1.3 Segmental phonological processes . . . 87
3.1.3.1 Prenasalisation . . . 87
3.1.3.2 The liquid . . . 89
3.1.3.3 Spirantisation . . . 89
3.1.3.4 Meinhof's law . . . 91
3.1.3.5 Vowel lengthening . . . 92
3.1.3.6 Vowel harmony . . . 93
3.1.3.7 Vowel combinations . . . 93
3.1.3.8 Liaison . . . 99
3.1.3.9 Vowel devoicing or deletion . . . 100
3.1.3.10 Simplification of identical/similar syllables . . . 100
3.1.3.11 Epenthetic vowels before initial prenasalised segment 101
3.2 Suprasegmental phonology . . . 101
3.2.1 Surface and underlying tones . . . 102
3.2.2 The tone-bearing unit . . . 103
3.2.3 Tone spreading . . . 105
3.2.4 Downdrift . . . 107
3.2.5 Downstep . . . 108
3.2.6 Floating tones . . . 108
3.2.7 Obligatory contour . . . 110
3.2.8 Tonal polarity . . . 111

3.2.9 Tonal assimilation . . . 112
3.2.10 Privative or binary? . . . 113
3.2.11 Lexical tone . . . 113
3.2.11.1 Nouns . . . 114
3.2.11.2 Verbs . . . 122
3.2.11.3 Affixes . . . 123
3.2.11.4 Adnominals . . . 123
3.2.11.5 Adverbials, conjunctions and particles . . . 123
3.2.12 Morphological tone . . . 123
3.2.13 Morphosyntactic tone . . . 124
3.3 Syllable structure . . . 126
3.4 The phonological word . . . 128
3.5 Orthography . . . 131
3.5.1 The orthography presented in Nzogi (2005a) . . . 132
3.5.2 Tone marks . . . 134

4 Noun Classes and Agreement **137**
4.1 Nominal inflectional morphology . . . 138
4.1.1 Noun classes . . . 138
4.1.2 Nouns derived from associative constructions . . . 142
4.1.3 The missing classes . . . 146
4.1.4 Plural/singular pairs . . . 147
4.1.5 Nominal form classes . . . 147
4.1.6 Deriflectional classes . . . 148
4.1.7 Agreement classes . . . 149
4.1.8 Genders . . . 151
4.1.9 Semantics . . . 151
4.1.10 Augments . . . 155
4.1.11 Nouns with multiple nouns classes . . . 156
4.1.12 Loanword incorporation . . . 160
4.1.13 Diminutives and augmentatives . . . 162
4.1.14 Locatives . . . 162
4.2 Agreement . . . 165
4.2.1 Agreement pattern I . . . 168
4.2.1.1 Possessive pronouns . . . 169
4.2.2 Agreement pattern II . . . 173
4.2.2.1 The quotative *-tî* . . . 173
4.2.3 Agreement pattern III . . . 176
4.2.4 Agreement pattern IV . . . 177

4.2.5 Agreement pattern V . . . 178
4.2.6 Agreement pattern VI . . . 178
4.2.7 Agreement pattern VII . . . 179
4.2.8 Agreement pattern VIII . . . 179
4.2.9 Coordination and Agreement . . . 180

5 The Lugwere Verb 182
5.1 The Lugwere verbal template . . . 183
5.2 Subject indexation . . . 189
5.3 Object indexation . . . 190
5.4 Properties of Subjects and Objects . . . 195
5.4.1 Subjects . . . 195
5.4.2 Objects . . . 196
5.4.3 Oblique arguments . . . 197
5.4.4 Locative nouns: NPs or PPs? . . . 198
5.5 Negation . . . 204
5.5.1 Negation with *ti-* . . . 204
5.5.2 Negation with *ta-* . . . 204
5.5.3 Negation with *nàndí* . . . 204
5.6 Interrogatives . . . 206
5.7 Verbal stem syllables . . . 209
5.8 The stem . . . 209
5.8.1 The general stem and the subjunctive stem . . . 210
5.8.2 The past tense stem . . . 210
5.9 TAM: Inventory of categories . . . 211
5.9.1 Non-finite categories . . . 212
5.9.2 Tense . . . 213
5.9.3 Aspects . . . 214
5.9.4 Moods . . . 215
5.10 The Form 1/Form 2 alternation in verbs . . . 215
5.10.1 Distribution of the Form 1/Form 2 alternation . . . 217
5.10.2 Potential analysis of the Form 1/Form 2 alternation . . . 220
5.11 Coverbs . . . 222
5.12 Loanword adaption . . . 223

6 Tense **224**
6.1 Tense semantics and usage . . . 225
6.1.1 The Present tense . . . 226
6.1.2 P1 - the Immediate Past . . . 229
6.1.3 P2 - the Hodiernal Past . . . 230
6.1.4 P3 - the Hesternal Past . . . 235
6.1.5 P4 - the Recent Past . . . 237
6.1.6 P5 - the Distant Past . . . 238
6.1.7 F1 - the Near Future . . . 239
6.1.8 F2 - the Distant Future . . . 241
6.1.9 Infinitive . . . 242
6.2 Infinitive . . . 244
6.3 Present tense . . . 245
6.4 Past tenses . . . 255
6.4.1 P1 - the Immediate Past . . . 256
6.4.2 P2 - the Hodiernal Past . . . 258
6.4.3 P3 - the Hesternal Past . . . 263
6.4.4 P4 - the Recent Past . . . 268
6.4.5 P5 - the Distant Past . . . 269
6.5 Future tenses . . . 271
6.5.1 F1 - the Near Future . . . 272
6.5.2 F2 - the Distant Future . . . 276
6.6 Tense in subordinate clauses . . . 280
6.6.1 Verbs with the subordinator *ówè-* and its variants . . . 282
6.6.2 Verbs in relative clauses . . . 286
6.6.3 Verbs with relative object markers . . . 289
6.6.4 Other contexts and further discussion . . . 293
6.7 Relative tense . . . 294
6.7.1 The Narrative tense . . . 294
6.7.2 The *ngà* construction . . . 297
6.7.3 Absolute-relative tenses . . . 298
6.8 The copulas . . . 301
6.8.1 The inflection of the copulas . . . 301
6.8.2 The usage of the copulas . . . 304
6.8.2.1 Person . . . 304
6.8.2.2 Tense . . . 307
6.8.2.3 Equative, identificational and predicational clauses . . . 307
6.8.2.4 Aspect . . . 309
6.8.2.5 Syntax . . . 314

6.8.2.6 Other functions . . . 314
6.8.2.7 Discussion . . . 316
6.9 Using auxiliaries to mark tense . . . 317
6.10 Tense summary . . . 318
6.10.1 A discussion of the analysis of tonal melodies . . . 319

7 Aspect and Aktionsart **328**
7.1 Perfective vs. imperfective: obligatoriness and underspecification . . . 330
7.1.1 *-ire*: Past or perfective? . . . 332
7.2 Imperfective forms . . . 333
7.2.1 Habitual . . . 333
7.2.1.1 Usage of the Habitual suffix . . . 337
7.2.1.2 *Kùtìrá* as an habitual auxiliary . . . 341
7.2.2 Reduplication of the whole stem - the Iterative . . . 341
7.2.2.1 Usage of verbs with a reduplicated stem . . . 344
7.2.3 Progressive . . . 346
7.2.4 Imperfective . . . 349
7.2.5 The durative/repetitive . . . 351
7.2.6 Progressive, Imperfective and Habitual . . . 353
7.3 Perfect and other non-imperfective forms . . . 356
7.3.1 Reduplication with final vowel *-i* - the Trifling . . . 356
7.3.2 The verb *kùmàlá* . . . 360
7.3.3 Perfect forms . . . 362
7.3.3.1 Experiential aspect . . . 363
7.3.3.2 Kùzwá: perfect/recent past . . . 365
7.4 The Persistive . . . 368
7.5 Aspect summary . . . 372
7.6 Aktionsart . . . 374
7.6.1 Tests for aktionsart . . . 375
7.6.2 Achievements . . . 377
7.6.3 States . . . 382
7.6.4 Gradable change of state . . . 388
7.6.5 Activity . . . 394
7.6.6 Semelfactive . . . 399
7.6.7 Accomplishment . . . 403
7.6.8 Summary of aktionsart . . . 407

8 Mood and Modality **411**
8.1 Moods . . . 411
8.1.1 Subjunctive . . . 411
8.1.1.1 Usage of the Subjunctive . . . 414
8.1.2 Jussive . . . 418
8.1.2.1 The ka- prefix . . . 418
8.1.2.2 Jussive with *kùlèká* . . . 419
8.1.3 Conditional . . . 420
8.1.3.1 C1 . . . 420
8.1.3.2 C2 . . . 421
8.1.3.3 Usage of the conditional mood . . . 421
8.1.4 Optative . . . 425
8.2 Modality . . . 426
8.2.1 Necessity/Obligation . . . 427
8.2.2 Possibility/Permission/Ability . . . 429
8.2.3 Summary of modality . . . 432
8.3 Evidentiality - the hearsay marker *mbu* . . . 433

9 Derivation and Valency Changing Morphology **435**
9.1 Lugwere reflexes of Bantu extensions . . . 436
9.2 Causative . . . 438
9.2.1 Causative morphology . . . 439
9.2.1.1 Spirantisation . . . 440
9.2.2 Causative usages . . . 443
9.2.2.1 Causative . . . 443
9.2.2.2 Sociative . . . 445
9.2.2.3 Instrumental . . . 445
9.2.2.4 Comitative . . . 447
9.2.2.5 No change in argument structure . . . 448
9.2.3 Causative syntax . . . 450
9.2.4 Lexicalised Causatives . . . 456
9.3 Applicative . . . 457
9.3.1 Applicative morphology . . . 457
9.3.2 Applicative usage . . . 458
9.3.2.1 Goal . . . 458
9.3.2.2 Locative . . . 462
9.3.2.3 Instrumental . . . 464
9.3.2.4 Other functions . . . 466
9.3.3 Applicative syntax . . . 468

9.3.3.1 Goal arguments . . . 468
9.3.3.2 Instrumental arguments . . . 469
9.3.3.3 Locative arguments . . . 472
9.3.4 Lexicalised Applicatives . . . 473
9.4 Neuter . . . 474
9.4.1 Neuter morphology . . . 475
9.4.2 Neuter semantics and usage . . . 475
9.4.2.1 Passive possibility . . . 475
9.4.2.2 Verbs of perception . . . 478
9.4.2.3 Verbs of breaking . . . 479
9.4.3 Neuter syntax . . . 479
9.4.4 Lexicalised Neuters . . . 481
9.5 Reciprocal . . . 482
9.5.1 Reciprocal morphology . . . 482
9.5.2 Reciprocal usage . . . 483
9.5.2.1 Reciprocal . . . 483
9.5.2.2 Comitative . . . 484
9.5.3 Reciprocal syntax . . . 485
9.5.4 Lexicalised Reciprocals . . . 487
9.6 Passive . . . 488
9.6.1 Passive morphology . . . 488
9.6.2 Passive usage and syntax . . . 488
9.6.3 Lexicalised Passives . . . 493
9.7 Reflexive . . . 494
9.7.1 Reflexive Morphology . . . 494
9.7.2 Reflexive usage . . . 495
9.7.2.1 Reflexive . . . 496
9.7.2.2 Combined with the Applicative . . . 497
9.7.3 Reflexive syntax . . . 498
9.7.4 Lexicalised Reflexives . . . 500
9.8 Non-productive extensions . . . 502
9.8.1 -an (Associative) . . . 502
9.8.1.1 Associative morphology . . . 502
9.8.1.2 Associative usage . . . 503
9.8.2 -at (Tentative) . . . 507
9.8.2.1 Tentative morphology . . . 507
9.8.2.2 Tentative distribution . . . 508
9.8.3 -am (Positional) . . . 510
9.8.3.1 Positional morphology . . . 510

9.8.3.2 Positional distribution . . . 510
9.8.4 -ul/-uk (Separative) . . . 513
9.8.4.1 Separative morphology . . . 513
9.8.4.2 Separative distribution . . . 514
9.8.5 -al (Extensive) . . . 524
9.8.5.1 Extensive morphology . . . 524
9.8.5.2 Extensive distribution . . . 524
9.8.6 -ik (Impositive) . . . 530
9.8.6.1 Impositive morphology . . . 530
9.8.6.2 Impositive distribution . . . 530
9.8.7 Other verbal derivational processes . . . 532
9.8.7.1 Reduplication . . . 532
9.8.7.2 Other derivational suffixes . . . 534
9.9 Ordering of extensions in Lugwere . . . 535
9.10 Other irregular verbs . . . 537
9.10.1 Verbs in *-ona* . . . 537
9.10.2 *kùmànyá* . . . 538
9.10.3 *kùtàká* . . . 539

10 Locative Enclitics **540**
10.1 Morphology . . . 541
10.2 Locative usages . . . 543
10.2.1 The locative classes . . . 543
10.2.2 Object marker for location . . . 544
10.2.3 Indicator of location of action . . . 545
10.3 Non-locative usages . . . 548
10.3.1 Partitive . . . 548
10.3.1.1 Marker of politeness . . . 549
10.3.1.2 Experiential aspect . . . 551
10.3.2 Verbs of breaking and opening . . . 551
10.3.3 Marker of concern . . . 552
10.3.4 Rather/instead . . . 552
10.3.5 Change in meaning . . . 553
10.4 Existential phrases . . . 554
10.5 Locative inversion . . . 556

Conclusion and Future Research **559**

Bibliography **561**

List of Tables

2.1 Proto-Bantu consonants . . . 23
2.2 Proto-Bantu vowels . . . 24
2.3 Proto-Bantu noun prefixes . . . 32
2.4 Proto-Bantu extensions . . . 68

3.1 Lugwere consonants . . . 82
3.2 Prenasalisation . . . 89
3.3 Hiatus resolution . . . 98
3.4 Nominal tone melodies . . . 115
3.5 Tone melodies of prenasalised or zero prefix nouns . . . 117
3.6 Lugwere orthography . . . 133

4.1 The Lugwere nominal prefixes . . . 140
4.2 Nouns derived from associative constructions . . . 145
4.3 Nominal form classes . . . 148
4.4 Deriflectional classes . . . 149
4.5 Agreement classes . . . 150
4.6 Nominal form classes and agreement classes . . . 152
4.7 Genders . . . 153
4.8 The augment . . . 157
4.9 Agreement Morphemes . . . 167
4.10 Agreement Targets for Different Agreement Patterns . . . 168
4.11 Agreement pattern I . . . 170
4.12 Agreement pattern I - agreement by person and class . . . 171
4.13 Possessive stems . . . 172
4.14 Some examples of possessive pronouns . . . 172
4.15 Agreement pattern II . . . 174
4.16 Agreement pattern III . . . 176
4.17 Agreement pattern IV . . . 177
4.18 Agreement pattern VI . . . 178
4.19 Agreement pattern VII . . . 179
4.20 Agreement pattern VIII . . . 179

5.1 Subject indexation . . . 191
5.2 *kùmàlá* in the Present tense with object markers . . . 192
5.3 Object indexation . . . 193
5.4 Relative object indexation . . . 194
5.5 Negation with *nàndí* . . . 205
5.6 Monosyllabic verb stems . . . 211
5.7 The Form 1/Form 2 alternation . . . 217

6.1 Infinitive verbs . . . 245
6.2 Infinitive verbs with object markers . . . 246
6.3 *kùgùlá* Present . . . 247
6.4 *kùmàlá* Present . . . 247
6.5 *kùlyá* Present . . . 249
6.6 *kwìbbá* Present . . . 251
6.7 *kwègá* Present . . . 252
6.8 *kwàgá* Present . . . 252
6.9 *kwòzá* Present . . . 253
6.10 Longer verbs in the Present tense . . . 254
6.11 Present tense verbs with object markers . . . 255
6.12 *kùgùlá* P1 . . . 257
6.13 *kùlyá* P1 . . . 257
6.14 vowel-initial verbs in P1 . . . 257
6.15 Longer verbs in P1 . . . 258
6.16 P1 verbs with object markers . . . 258
6.17 *kùgùlá* P2 . . . 259
6.18 *kùmàlá* P2 . . . 260
6.19 *kùlyá* P2 . . . 260
6.20 *kwìbbá* P2 . . . 261
6.21 *kwòzá* P2 . . . 261
6.22 *kwàgá* P2 . . . 262
6.23 *kwègá* P2 . . . 262
6.24 Longer verbs in P2 . . . 263
6.25 P2 verbs with object markers . . . 264
6.26 *kùgùlá* P3 . . . 265
6.27 *kùmàlá* P3 . . . 265
6.28 *kùlyá* P3 . . . 265
6.29 *kwìbbá* P3 . . . 266
6.30 *kwàgá* P3 . . . 266
6.31 *kwègá* P3 . . . 267
6.32 *kwòzá* P3 . . . 267

6.33 Longer verbs in P3 . . . 268
6.34 P3 verbs with object markers . . . 268
6.35 Verbs in P4 . . . 269
6.36 *kùgùlá* P5 . . . 269
6.37 *kùmàlá* P5 . . . 270
6.38 *kùlyá* P5 . . . 270
6.39 vowel-initial verbs in P5 . . . 271
6.40 Longer verbs in P5 . . . 271
6.41 P5 verbs with object markers . . . 272
6.42 *kùgùlá* F1 . . . 273
6.43 *kùmàlá* F1 . . . 273
6.44 *kùlyá* F1 . . . 274
6.45 *kwìbbá* F1 . . . 274
6.46 *kwòzá* F1 . . . 275
6.47 *kwàgá* F1 . . . 275
6.48 Longer verbs in F1 . . . 276
6.49 F1 verbs with object markers . . . 276
6.50 *kùgùlá* F2 . . . 277
6.51 *kùmàlá* F2 . . . 278
6.52 *kùlyá* F2 . . . 278
6.53 *kwìbbá* F2 . . . 279
6.54 vowel-initial verbs in F2 . . . 279
6.55 Longer verbs in F2 . . . 279
6.56 F2 verbs with object markers . . . 280
6.57 Comparison of *ówè-* subordinate verbs and main clause verbs . . . 282
6.58 Verbs with the *ówè-* subordinator . . . 285
6.59 Verbs in relative clauses . . . 288
6.60 *kùgùlá* with relative object markers . . . 290
6.61 The *ní-* copula . . . 302
6.62 The *-li* and *-bba* copulas . . . 305
6.63 Tense summary . . . 318
6.64 Pre-stem and stem tonal melodies . . . 324

7.1 Habitual . . . 335
7.2 Reduplication 1 - the Iterative . . . 343
7.3 *kùbìná* Imperfective . . . 350
7.4 *kùgùlyágá* Durative 2 . . . 351
7.5 *kùgùlíríryá* Durative 1 . . . 352
7.6 Reduplication 2 - the Trifling . . . 357
7.7 Experienital . . . 363

7.8 The Persistive . . . 368
7.9 Aspect summary . . . 373
7.10 Summary of Aktionsart . . . 410

8.1 *kùlòndá* Subjunctive . . . 413
8.2 Verbs in the Subjunctive . . . 414
8.3 Subjunctive verbs with object markers . . . 414
8.4 *kùgònà* Jussive . . . 419
8.5 Verbs in C1 . . . 421
8.6 C1 verbs with object markers . . . 421
8.7 Verbs in C2 . . . 422
8.8 The possibility modal *-inza* . . . 430
8.9 Summary of modal expressions . . . 433

9.1 Proto-Bantu extensions and Lugwere reflexes . . . 437
9.2 Lugwere extensions in the past tense . . . 439
9.3 Causative *-y* . . . 440
9.4 Causative *-isy* . . . 441
9.5 Causative *-isisy* . . . 441
9.6 Applicative *-ir* . . . 458
9.7 The Neuter *-ik* . . . 475
9.8 The Reciprocal *-angan* . . . 483
9.9 The Passive *-iw/-w* . . . 489
9.10 The Reflexive *e-* . . . 496
9.11 *kwèrábírá* Present . . . 497
9.12 The Associative *-an* . . . 503
9.13 The Tentative *-at* . . . 508
9.14 The Positional *-am* . . . 511
9.15 The Intransitive Separative *-uk* . . . 514
9.16 The Transitive Separative *-ul* . . . 515
9.17 The Extensive *-al* . . . 525
9.18 The Impositive *-ik* . . . 531
9.19 Lxicalized Reduplication . . . 534
9.20 *kùbònà* . . . 538
9.21 *kùmànyá* Present . . . 539
9.22 *kùtàká* Present . . . 539

10.1 Locative Enclitics . . . 542

List of Abbreviations

(S)TAM(P) subject, tense, aspect, mood, polarity

AFF affirmative

AGR agreement morpheme

APPL applicative extension

ASO associative extension (*-an*)

ASP aspect

ASS associative particle

AUG augment

C1 conditional 1

C2 conditional 2

CAUS1 casuative extension 1 (*-y*)

CAUS2 causative extension 2 (*-isy*)

CAUS3 causative extension 3 (*-isisy*)

CJ conjoint

COND.IRLS the irrealis conditional particle *sìngá*

COND conditional

CONJ conjunction

CONT continuous aspect

COP1 copula 1(*-bba*)

COP2 copula 2 (*-li*)

COP3 copula 3 (*ni-*)

DEM_DIST distal demonstrative

DEM_MED medial demonstrative

DEM_PROX proximal demonstrative

DJ disjoint

DUR1 durative extension 1 (*-irir(y)*)

DUR2 durative extension 2 (*-yag*)

EXT extensive extension (*-al*)

F1 near future

F2 distant future

FL final lowering

FS false start

FO1 Form 1

FO2 Form 2

FUT refers to the prefix *ali-*, used in the distant future

FV final vowel

HAB habitual

IMP impositive extension (*-ik*)

IND indicative

INF infinitive

INTJ interjection

IRR irregular

JUS jussive

LOC locative

NAR narrative

NEG2 secondary negation (*ta-*)

NEG3 negative particle *nàndí*

NEG primary negation (*ti-*) or negative (about tonal melody)

NUT neuter extension (*-ik*)

O.REL relative object marker

OCP obligatory contour principle

OPT optative

P1 immediate past

P2 hodiernal past

P3 hesternal past

P4 recent past

P5 distant past

PASS1 passive extesnion 1 (*-w*)

PASS2 passive extension 2 (*-iw*)

PB Proto-Bantu

PERF perfective

PL plural (only used for 1st and 2nd person. For 3rd person number is indicated by the prefix/agreement class)

PN.A proper name animal

PN.F proper name female

PN.M proper name male

PN.P proper name place

POSS possessive pronouns

POS positional extension (*-am*)

PRES present tense

PROG progressive

PRO personal pronouns

PRS persistive

PST1 refers to the prefix *a(n)ka-*, used in some past tense forms

PST2 refers to the suffix *-ire*, used in some past tense forms

PTC particle

RECIP reciprocal extension (*-angan*)

RECPST recent past

REDUP reduplication

REFL reflexive (*e-*)

REL relative clause marker

SAP speech act participant

SBR subordinator or subordinate clause (about tone melody)

SEP1 separative extension 1 (*-ul*)

SEP2 separative extension 2 (*-uk*)

SG singular (only used for 1st and 2nd person. For 3rd person number is indicated by the prefix/agreement class)

SUB subjunctive

TBU tone bearing unit

TENT tentative extension (*-at*)

TNS refers to the prefix *a-*, used in some past tense forms and F1

NMLZ nomenalising suffix (*-i*)

UC unclear application of a tonal melody, not yet understood

O object agreement

S subject agreement

REL.OBJ relative object marker

1 Lugwere and the Bagwere People

Contents

1.1 **Introduction** 1
1.2 **The Bagwere people** 2
1.3 **Lugwere** 4
1.4 **Methodology** 6
1.4.1 Elicitation 7
1.4.2 Corpus 11
1.4.3 Glossing conventions 12

1.1 Introduction

This thesis attempts to give a comprehensive overview of the verbal system of Lugwere, a Bantu language spoken in Eastern Uganda. The information presented here is the result of a combination of elicitation and corpus research. There are chapters describing in detail the segmental and suprasegmental morphology of tense (Chapter 6), aspect (Chapter 7), mood and modality (Chapter 8), and valency changing morphology and other derivational affixes (Chapter 9), where in-depth accounts of the semantics and usages of the various TAM categories and derivational affixes can also be found. A large section of Chapter 7 is dedicated to looking at aktionsart, and how it interacts with

different tense and aspect categories. There is also a chapter dedicated to discussing the verbal locative enclitics, which have a range of different functions (Chapter 10).

As anyone familiar with Bantu languages knows, it is difficult to get an understanding of anything without also having a good idea about the noun class system and the agreements they control, both on adnominal elements, and, crucially for this thesis, on the verbs. My investigation into Lugwere therefore starts with a thorough look at the noun class system, and this is presented in Chapter 4. As the discussion of verbal morphology presented here focuses heavily on grammatical tone, it is important for the reader to have an understanding of the suprasegmental phonology of Lugwere. An understanding of the segmental phonological processes is also important, as these play a role in how different affixes combine and attach to the verb root. I have therefore included Chapter 3 on Lugwere phonology. This chapter will give a brief introduction to the Lugwere language, the existent literature, and the Bagwere people who speak it, as well as the methodology that this study is based on. Chapter 2 will then give an overview of Bantu languages, as well as defining how certain terms will be used in this thesis.

1.2 The Bagwere people

The Bagwere are an ethnic group found in Eastern Uganda. According to a 2024 census there are around 876,000 Bagwere, which amounts to about 1.9% of the total population of Uganda (Uganda Bureau of Statistics 2024). The population appears to be growing, and a 2014 census found the Bagwere to have 621,000 people (Uganda Bureau of Statistics 2016), which constituted about 1.7% of Uganda's population at the time. In fact, in absolute numbers the population has doubled since a 2002 census found there to be 408,800 Bagwere (Uganda Bureau of Statistics 2006). At the time, this was 1.8% of the population of Uganda, meaning that the proportion, while having grown a little bit, has stayed mostly stable. According to the 2002 census, the Bagwere consitutetd 8% of the population of the Eastern Region at the time. It should be noted that the census only looks at tribal membership, not language. While it is fair to assume that the number

of speakers of Lugwere is correlated to the number of Bagwere, I am not sure if any data explicitly on number of speakers exist.

The 2014 census found that the majority of the Bagwere population, 528,000 people, lived in rural areas, with only 92,000 found in urban areas (Uganda Bureau of Statistics 2016). Unfortunately the 2024 census did not include updated information about this, so it is not possible to say at present how this is trending. The Bagwere are mostly found in the Pallisa, Kibuku, Butebu and Budaka districts of Eastern Uganda (Isabirye 2020). The region where the Bagwere live is often referred to as *Bugwere*.

Most Bagwere are either Christian or Muslim. The 2002 census is the only one which includes a breakdown of religion, and found the Bagwere population to be 24% Catholic, 47% Anglican/protestant, and 24% muslim (Uganda Bureau of Statistics 2006).

The Bagwere is organised into clans (*kitekere*), the reported number of which ranges from 62 to over 90 (Isabirye 2020). The leader of each clan is called *Itabangi*, which can be translated as 'father of many' (Isabirye 2020). The Bagwere society was organised as a decentralised clan system until 1996, when the *Baitabangi* (plural of Itabangi) came together to form the constitutional Bagwere Cultural Union (BCU). They elected the Itabangi of the Bakomolo-Nkobyokobyo clan to the position of *Kabaka*, which is a Luganda word for 'king'. Later, the title was changed to *Ikumbania*, a native Lugwere word meaning something like 'Gatherer' (Isabirye 2020). Currently, the Ikumbania of Bagwere is Geoffrey Wayambire, son of the previous Ikumbania, and he was elected in 2022.

Most Bagwere support themselves through farming, and grow crops like cotton, rice, maize, millet, sorghum, cassava, potatoes, beans and groundnuts (Nzogi 2006). Many people live in poverty, and not everyone has access to quality education. Most education takes place in English, although the Lugwere Bible Translation Society has developed some resources for teaching to read and write Lugwere. Education appears to be highly valued, and those that can afford it often get higher education. The organisation Go One Bugwere, started by community members in the village where the fieldwork for this thesis was primarily carried out, aims to help Bagwere access education.

1.3 Lugwere

Those whose tribal belonging is to Bagwere generally speak Lugwere, and the language is used in the home, the market places, in church alongside Luganda, as well as on the radio (Eberhard et al. 2021). Eberhard et al. (2021) writes that it is taught in schools, and Nzogi (2006) writes that it is used as a language of instruction during the first two years of primary school. However, this appears not to be universal, as none of my consultants received any schooling in Lugwere, with one of them even reporting that they would be punished for using Lugwere in school: "While at school everything is in English, all the textbooks are in English. Speaking Lugwere in class was punishable. We used to have coin rotations or bone rotations to whoever was caught speaking vernacular and then at the end of the week there were strokes".

Eberhard et al. (2021) describe the language use as "very vigorous" and classifies the language status as 5 (developing). Attitudes toward the language are reported to be positive (Eberhard et al. 2021). Most speakers of Lugwere are also proficient in Luganda and English.

The language is found in zone J, and its Guthrie code is JE.17. The ISO code is gwr, and the glottocode is gwer1238. Hammarström et al. (2021) classifies the language as Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern Bantoid, Narrow Bantu, East Bantu, Northeast Savanna Bantu, Great Lakes Bantu, West Nyanza and North Nyanza. The most closely related language are Luganda, Lusinga, Syan, Lusoga, and Kenyi. Eberhard et al. (2021) reports that the lexical similarity with Luganda is 68%, and with the Siki dialect of Lusoga it is 79%. Lulamoogi is listed as a dialect of Lugwere.

Not a lot of research has so far been carried out on Lugwere, but some work has been done, mainly by native speakers. Most notable is Richard Nzogi, who has compiled a dictionary in cooperation with Martin Diprose (Nzogi & Diprose 2012), as well as having written a description of the phonology (Nzogi 2006), and an article titled "The grammaticalisation and discourse use of tense, aspect and mode in Lugwere" (Nzogi 2005b). He has also played a big role in the development of Lugwere as a written language; authoring a booklet in English and Lugwere detailing the orthography of the language (Nzogi 2005a), writing about how to disambiguate tone considering that

it is not indicated by the orthography ("Disambiguating grammatical tone in Gwere orthography by using clarifying words" Nzogi 2009b), as well as translating guide books for primary teachers in Lugwere (Nzogi 2011a, Nzogi 2011c). He was also the editor of several Lugwere readers (Nzogi 2009a, Nzogi 2011b). Additionally he has been involved in the publication of several story books in Lugwere. The Nzogi & Diprose (2012) Dictionary has proved a very useful resource, and has been used extensively in the process of writing this thesis, to compile lists of nouns to record when looking at nominal tone, compiling lists of verbs, investigating the lexicalised usages of extensions, glossing examples, and so on. Most definitions given in this thesis are based on the Nzogi & Diprose (2012) dictionary, except for the few cases where the speakers I worked with used a word or a definition that was not in the dictionary. My description of Lugwere segmental phonology provided in Chapter 3 largely follows Nzogi (2006), although the tonal analysis differs a bit, and goes into more detail.

Other contributions come from Titus Ndoboli, who wrote his master's thesis on the topic of Lugwere tenses (Ndoboli 1994), as well as Ruth Mukana, who wrote a doctoral thesis titled "A comparative analysis of some features of transitivity in Bantu Languages with special reference to Kiswahili and Lugwere" (Mukama 1973), a more theoretical work looking at syntax and thematic roles. Work by foreign researchers includes a Lugwere-English-Japanese dictionary by Kagaya Ryohei (Kagaya 2006), who also wrote an article in Japanese on the topic of tone on Lugwere nouns (Kagaya 2005). There is also an article by Dorothy Ahn and Jenneke van der Wal on Lugwere demonstratives (Ahn & Van der Wal 2019).

Nzogi (2005b) provides a thorough look at Lugwere TAM categories. He focuses on usage, but does provide some basic information about segmental morphology (mentioning tone only briefly). He only briefly touches upon irregular forms, explaining irregular past forms as the result of phonological conditioning. He describes 5 past and 2 future tenses, and looks at a range of morphological, periphrastic and lexical means to express a large number of aspect, mood, modality and evidentiality categories. He also includes a discussion on tense, aspect and mood in discourse.

Ndoboli (1994) discusses three past tenses (what I will call P2, P3 and P5), the Present, and two future tenses. He discusses morphology and some usage (particularly co-occurence with adverbs), providing many examples. He primarily focuses on segmental morphology, and mostly gives paradigms for bisyllabic verbs, as well as looking at some imbricated past stems, which are explained by the phonological context (stem ending in /l/ or /n/). Where tone marks are used, these differ somewhat from what I found, which could mean he is describing a slightly different variety.

This thesis builds on what has been published previously regarding tense, aspect and mood, by giving a more in-depth description of the morphology, focusing on how different types of verbs are conjugated (i.e. verbs with monosyllabic stems, bisyllabic stems, trisyllabic stems, quatrosyllabic stems, and vowel inital stems), as well as how different verbal extensions are conjugated in the past tense. There is also a large emphasis put on verbal tone; what is mentioned in Nzogi (2006) is built on and expanded into a detailed description of tonal melodies that looks at all TAMP categories, and all types of verbs, subject markers and object markers. This includes descriptions of the morphology of the verbal Form 1/Form 2 alternation, and a rudimentary look at its distribution, although future work can hopefully expand upon the understanding of its disribution and function. It is hoped that the descriptions of the usage and functions of TAM categories provided in this thesis, particularly the in-depth discussion of aktionsart provided in Section 7.6, as well as the detailed look at the usage of both productive and non-productive extensions in Chapter 9, will be useful additions to the literature on the usage of Lugwere TAM categories. While other sources touch upon imbricated past stems, they explain these as a result of the phonological (stems ending in /l/ or /n/), rather than morphological environment. Explaining the irregularities as resulting from the presence of a suffix, as in Chapter 9, both explains why there are irregular forms, and why some verbs ending in /l/ or /n/ have regular forms.

1.4 Methodology

The work on this thesis started in October 2020, at a time when it was difficult to travel internationally due to the Covid 19 pandemic. Initially, language materials were

therefore collected remotely, through online elicitation sessions. In early 2021, local language consultants also started the work of recording materials for the corpus. In March 2022, I was finally able to travel to Uganda myself, and stayed for 6 weeks. Additional field trips were carried out from March 2023 (6 weeks) and February 2024 (10 weeks). Outside of the field trips, online elicitation was carried out, either over WhatsApp or Skype.

1.4.1 Elicitation

This thesis is based on a combination of corpus study and elicitation. Elicitation has been an important way to gather full paradigms of verbs, and to examine aspects of the phonology, particularly for the investigation of verbal and nominal tone. The conjugation tables presented in Chapters 6 – 10 were created by asking speakers to say a given verb in isolation or in a frame, which would mean followed by a direct object without an augment, or an adverbial. Their answers were then recorded. Initially, the speakers were given forms in English to translate, but as I grew more familiar with the language, speakers were often given prompts in Lugwere, with instructions to correct any mistakes. When investigating tone, I started by recording a selection of nouns from the Nzogi & Diprose (2012) dictionary, and recorded them in a variety of different contexts to investigate the interaction of different tones preceding/following each other. It was established that the most helpful context to understand a noun's underlying tone is in a frame like *ékítábò kyó* 'your book', where the noun, *kítábò* is preceded by a high-toned augment and followed by a second person possessive enclitic, which always has the opposite tonal value of the syllable it attaches to. This opposite tone made it easier to discern what the final tone of the noun was, and thus get an idea of the phonological tones. This frame was particularly helpful in making a final high tone more distinct, as they would often be pronounced quite low in isolation/utterance finally, particularly following a falling tone. Snider (2018) was a useful resource for working out the tonal system and contrasts. For both verbs and nouns a large variety of construction types were initially recorded, analysed, and based on this frames which would show the relevant variation were selected to use for further elicitation.

Elicitation of grammaticality or felicity judgements was an important tool for establishing the usage of different TAM categories, as well as looking at the syntax of different valency changing affixes. Much of the work relating to the semantics of grammatical and lexical aspect utilises the technique laid out in Louie (2015). Louie argues that when doing semantic fieldwork, it is best to stay clear of eliciting whole paradigms at a time, giving a range of similar contexts and similar sentences one after another. Instead, the linguist can construct a story that has the relevant contexts for the phenomena they are interested in investigating. They can then pause the story at relevant points to ask for felicity judgements for sentences in the target language. Such a story will provide a more entertaining and less tiring elicitation context for the consultant, increasing the likelihood that they are paying full attention, which again increases the accuracy of the data collected. A coherent story also means that the consultant is more likely to understand the relevant context, as it is not standing by itself, but embedded in a larger context.

A lot of the data presented in Chapter 7 was collected in this way. A story was presented to the consultant in English, and at the relevant points in the story they were presented with a few sentences in Lugwere, and asked for felicity judgements based on the context of the story at the relevant point. That is, they were asked if each of the sentences would be an acceptable thing to say given the facts of the story. No further guidance was given, and so some doubt might arise as to what exactly was wrong with the sentence. That is, did they reject the sentence because it would be false in the context, generally ungrammatical, or simply infelicitous? Speakers were asked to mark sentences as either green (good), red (bad), or yellow. The yellow sentences were considered somewhat questionable, not clearly bad, but also not good. The consultants by and large let me know if a sentence was grammatically incorrect, and in many cases a sentence that was rejected in one context was approved in another, so in those cases it can safely be assumed that the sentences were not rejected because they were ungrammatical. If a sentence was rejected because of problems with agreement or other parameters not under investigation, and the speaker made me aware of this, I changed the sentence and asked again for judgements.

The reason English was used as the language for the main story was twofold. Firstly, I am much more proficient in English, and can therefore better control that the context is presented exactly as intended. Secondly, using Lugwere would have ruined the validity of a lot of the data, as the point was to test which TAM forms could be used in certain context. If the context had been presented in Lugwere, there would have already been TAM forms present, and the judgements would likely have been affected by what TAM forms were used in setting up the context.

Sentences that needed to be tested for grammaticality were most often presented in isolation, or with a minimal context, but not as part of a story for the most part. A majority of the sentences that were investigated for either grammaticality or felicity were shown to at least two speakers. Judgement tended to converge, although at times one speaker would mark something as yellow, while another marked it as red. When one speaker marked something as green, while another marked it as either red or yellow, this is noted in the discussion.

Most grammaticality and felicity judgements were collected in person. The stories and sentences to judge were presented to the speaker on a computer screen. I then read the context, and made sure that it was understood by the speaker, sometimes repeating or highlighting relevant aspects of the context. Next, I read the Lugwere sentences to the speaker one by one, and asked for judgement. Based on the response from the speaker, the sentence was coloured either red, green, or yellow. In the data presented below, a hash sign will be used to indicate that the sentence was infelicitous, and a question mark will be used for those sentences coloured yellow. When examples are given, the immediately preceding context in English will be given, followed by the sentences that were judged by the speaker. (1) illustrates this, where the first line provides the immediate contexts, and (1a) and (1b) were both acceptable, while (1c), though grammatical, was infelicitous in the context.

(1) Context: John's grandfather is very sick, and is likely to die soon.

a. *Ààlì kùfá.*

à-li\LH(L)\FO2 ku-f-a\LH
1S-COP2\PRES\FO2 INF-die-FV\INF
'He is dying.'

b. *Àfâ.*

à-f-a\LHL
1S-die-FV\PRES
'He is dying.'

c. # *Àfíírè.*

à-f-ire\LHL
1S-die-PST2\P2
Infelicitous: 'He died.'

Most initial recordings of verbal forms were also done in person, although any gaps discovered when compiling the data were filled by requesting recordings over WhatsApp. The analysis of verbal tone presented here is based on recordings from three different speakers (one male, two female). Grammaticality judgements were also occasionally elicited over WhatsApp, although the majority was collected in person.

Praat (Boersma 2025) was used for the phonological analysis. Recordings were initially made using a Zoom Hn1 handheld recorder, and later it was found to be more efficient to record directly in Praat on a MacBook Air 2020 M1, placing the computer on the speaker's lap, and letting them press start and stop. Recordings sent over WhatsApp were converted to .wav and imported to Praat. The recordings were made with a recording app, not Whatsapp's own voice messages, and overall the quality was at a similar level to recordings collected in person.

An additional tool used in elicitation were questionnaires; one relating to tense and aspect in general (Dahl 1985), one on the future (Bossong et al. 2000), one on modality (Vander Klok 2012), and one on the progressive aspect (Bertinetto et al. 2000). These all provide a context, followed by a sentence in English that should be translated into the target language. The verbs to be translated are in the Infinitive, in capital letters. I worked through the questionnaires with two speakers, and was able to make sure that the context and formate of the questions were fully understood. The fact that the

sentences to be translated were not grammatical English sentences caused some initial confusion, but the speakers caught on after a few questions.

Altogether 5 consultants participated in the elicitation, two female and three male speakers; Langha Milika, Naulere Brian, Takali Jane, Langha Charles and Bumba Eric. These were all from the same village, and all had post secondary education and were in their 20s or 30s. The speakers used for elicitation were thus not very diverse, but it was considered beneficial to get a thorough overview of one variety, before branching out and investigating the dimensions of geographical and sociolinguistic variation, something that I hope to be able to do in the future. The corpus, however, contains recordings from a more diverse sample of speakers, from a larger geographical area, and includes speakers from a range of ages, educational backgrounds and occupations.

The stories that were created to investigate the usage and felicity of TAM categories in different contexts can be found at https://tinyurl.com/tamstories. These are empty and can easily be adapted for use in fieldwork on a different language.

While a lot of the data on morphological paradigms presented in this thesis comes from elicitation, the tone marked examples from the corpus shows that the generalisations made from the elicited data held true for naturalistic data as well, with the exception of a couple of minor variations that are not fully understood (marked with UC in the glosses). The process of tone marking examples from the corpus occasionally lead to new realisations or discoveries that were then checked and confirmed by new elicited data.

1.4.2 Corpus

To create a corpus, 124 different recordings were made using a Zoom Hn1 handheld recorder, constituting 275 716 Lugwere words. The recordings were all made between early 2021 and April 2023. They are of a few different types. Firstly, there are the fully spontaneous recordings, which account for the largest portion. These were made by having one or more speakers talk freely. Sometimes topics were suggested. These contain monologues where people talk about their lives, tell stories, or talk about a specific topic, such as farming, or giving cooking instructions. There are also dialogues,

either where one speaker is interviewing another, or where speakers are discussing freely. A couple of recordings have older speakers explain the meanings of proverbs to younger speakers.

The second category are free conversations where speakers were asked to act out a given scenario. For instance, there are recordings where two speakers act out a conversation between a doctor and a patient, or a shopping scenario. Thirdly, there are more structured stories, using the storyboards provided by Totem Field Storyboard (TFS Working Group 2010). These provide images with a text in English that represent a story meant to elicit certain types of linguistic structures. I went over the original story in English with a language consultant, they they translated the story into Lugwere, practised a few times while looking at the pictures as aids (only pictures, no English text), and finally the story was recorded (still using pictures as aids). There is also one recording where a speaker explains/translates the consent form to another speaker. Fourthly, the corpus contains some recordings of memorised materials, such as songs or riddles. And finally, there is a Lugwere radio channel, and a couple of recordings of transmissions were made and added to the corpus.

The recordings were then transcribed and translated by Naulere Brian, a native speaker. In addition to the transcriptions from the recordings, there are also some written materials in Lugwere, primarily provided by SIL International and the Lugwere Bible Translation and Literacy Association. This includes a translation of the New Testament, as well as a collection of picture books with stories, some of which are translated into Lugwere, while others are the result of recording and collecting stories in Lugwere. There is also a transcript of a movie about Jesus that has been translated into Lugwere.

FLEx (SIL International 2023) and Antconc (Anthony 2024) were used to search through the corpus for examples.

1.4.3 Glossing conventions

The glossing abbreviations that are used can be found in the List of Abbreviations, and for the most part the glosses follow the conventions laid out in the Leipzig glossing

rules (Bickel 2008). This section outlines the specific choices made to best apply the conventions to Lugwere.

The glosses consist of four lines. The first is the orthographic spelling of the example, where surface tone marks are added. The next line separates all morphemes by hyphens, and show the underlying forms. The third line shows the glosses, and the fourth line is an idiomatic translation into English (sometimes with an additional literal translation added where relevant). The first line is also a hyperlink that takes you to a recording of the relevant example.

In the second line, underlying tones are shown. Tones are represented in two different ways. For words and affixes that have a lexical tone, such as nouns, adjectives and adverbs, tone is indicated by diacritics, similar to in the orthographic line (see Section 3.5 for more on the diacritics used). The nominal prefixes and noun class agreement prefixes have no underlying tone, but are assigned their tone by the lexical stem they attach to. In the glosses, this is illustrated by a prefix with no tone, a hyphen, and a tone mark preceding the noun stem, which represents the tone that the stem specifies for the prefix. This is illustrated in (2) for two words that share the same nominal prefix (Class 1), but where the stems specify different tones for the prefix, even though the stems themselves have the same surface tones. Some subject markers and the Reflexive marker add an additional high tone to the tonal melody in the Present tense and P2. These are represented as in (3), with a high tone mark following the prefix. Some elements cause a downstep on a following high tone. These are represented as having an underlying falling tone on the final syllable. In the surface form, the downstep is illustrated by a down arrow. Some elements, mostly clitics, have surface tones that are determined by the tone of the elements that they attach to. I have left these elements without any underlying tone.

(2) a. *mùlábè*

mu-ˋlábè
1-enemy
‘enemy’

b. *múgénì*

mu-´génì
1-visitor
'visitor'

(3) *tùbónà*

tù´-bon-a\LHL
1PLS-see-FV\PRES
'we see'

The second type of tonal marking that is used in the second line, is indications of the tonal melody of a verb. The specific tonal melody is determined by tense, aspect, mood, polarity and sentence type (main or subordinate). The melodies can be divided into a pre-stem melody, which attaches to the prefixes before the stem, and a stem melody, which attaches to the stem. These melodies will be indicated by <\>, as in (4). In the second line, the tonal melody is indicated by capital letters, i.e. \H.LHL for P3 affirmative. A period is used to separate the pre-stem melody from the stem melody, and when discussing melodies in the text a star is used to indicate which tone spreads to additional syllables. In the glossing line, these melodies are glossed indicating the relevant TAM category. Some TAM categories have different tonal melodies in the negative and in subordinate clauses. In these cases, the negative/subordinate is marked as such, i.e. \PRES.SBR or \PRES.NEG, as in (4b). The affirmative main clause melody is unmarked, i.e. \PRES. If a category has the same tone in the negative or in subordinate clauses, then just the name of the category is used in all cases. In some cases, a verb stem cannot realise the full tonal melody, because it does not have enough syllables. In these cases, the unrealised tones are in parenthesis. F2, for instance, has a LH.LHL melody, but the middle L tone is left out for verbs with stems that are less than three syllables, as in (4c). Compare this to (4d), where the full melody is realised. A handful of tonal melody glosses include .UC, for 'unclear', indicating that some aspect of the melody or how it is applied to the verb is not yet fully understood.

(4) a. *àgúlà*

à-gul-a\LHL
1S-buy-FV\PRES
's/he buys'

b. *tàgúlá*

ti-a-gul-a\LH
NEG-1S-buy-FV\PRES.NEG
's/he doesn't buy'

c. *yàlígúlà*

a-ali-gul-a\LH.(L)HL
1S-FUT-buy-FV\F2
's/he will buy'

d. *yàlíjànjábà*

a-ali-janjab-a\LH.LHL
1S-FUT-treat-FV\F2
's/he will treat'

e. *àgùlà nyânyá*

à-gul-a\LHL\FO2 nyânyá
1S.buy-FV\PRES\FO2 tomato
's/he buys tomatoes'

There are two additional tonal notations that need explaining. Many verb forms have a contrast between a high-toned form (Form 1) and a low-toned form (Form 2). In all cases this is purely a tonal distinction, and Form 2 is always made by lowering a high tone, in most cases a final high tone. This is indicated in both the second and the third line as \FO2, as in (4e). A similar process applies to nouns and other word classes, where in some contexts a final high tone is lowered. This process will be glossed as \FL for 'final lowering'. In some cases, even thought the conditions that normally require Form 2 are met, this might not be apparent from the surface form. Most commonly, this is either because the final high-toned vowel that would lower for Form 2, has merged with a following vowel, or because in a bisyllabic Present tense form with a high-toned subject maker, the tone from the subject marker replaces the high tone that would be lowered in a Form 2 context. In these cases, I have not indicated that Form 2 is used.

The tone marks are added to the examples based on the recordings from the corpus and elicitation sessions. In some cases, it was difficult to discern the tones from the original corpus recording due to background noise, rapid speech, low or murmured speech, overlap with a different speaker, etc. In these cases a consultant was provided

with the example text, and asked to record it. This speaker was also asked to record any examples from the written materials (i.e. the Bible translation or the storybooks).

For affixes that display vowel harmony, on the second line the underlying form of the affix is used, which is the form that occurs following vowels other than the mid vowels /o/ and /e/. Many verbs with extensions have imbricated past stems, where the extension and the past tense suffix *-ire* merge (see Chapter 9). An example would be the Associative extension *-an* + past *-ire* becoming *-aine*. In these cases, the second line shows the two underlying suffixes, as in (5b). In cases of imbrication there is one element that can generally be treated as one affix, which splits in two, either the past suffix of the Causative suffix. There are also some prefixes that are generally analysable as one affix, but which can be split in some negative subordinate clauses. In these cases I keep the affix as one unit in the glosses (see Section 5.1 for examples).

The 1st person singular subject marker assimilates in place of articulation to the following consonant, and when attached to a vowel-initial stem, it is realised as a prenasalised affricate (see Section 3.1.3.1). In all cases, the 1st person subject marker is considered to be *n-* underlyingly, as in (5c). Many prefixes undergo a gliding process if preceding a vowel (see Section 3.1.3.7), and in the underlying representation these are still written with vowels, rather than glides, as in (5e–f).

The conjunction *ni* ∼ *ne*, the Narrative marker *ni* ∼ *ne* and the particle *ngà* are written ortographically as <n'> or <ng'> when preceding a vowel. I have opted to treat these as separate words underlyinging, as shown in (5d). Both the Narrative marker and the conjunction meaning 'and, by, with' vary somewhat in pronunciation from *ni* to *ne* to *n* before a vowel, and the conjunction is also sometimes pronounced *na*, particularly when combined with a pronoun, as in *nàyô* 'with him'. I have distinguished them in the underlying form simply for convenience, writing the Narrative as *ni* and the conjunction as *nè*.

(5) a. *àgònérè*

à-gon-ire\LHL
1S-sleep-PST2\P2
's/he slept'

b. *àlwáínè*

à-lw.an-ire\LHL
1S-get_ill.ASO-PST2\P2
's/he fell ill'

c. *ǹjágà*

ǹ-ag-a\LHL
1SGS-scratch-FV\PRES
'I scratch'

d. *n'àgúlà*

ni à´-gul-a\LHL(H)
NAR 1S-buy-FV\PRES.SBR
'then s/he bought'

e. *mwìbbâ*

mù´-ibb-a\LHL
2PLS-steal-FV\PRES
'you PL steal'

f. *yágùlírè*

a-a-gul-ire\H.LHL
1S-TNS-buy-TNS\P3
's/he bought'

When more than one word in English is needed to translate a morpheme, an underscore is used, as in (6a). When the same morpheme has more than one grammatical value attached to it, for instance tense and polarity, these values are separated by a period. See the possessive pronoun in (6b).

On nouns the nominal prefixes are glossed simply by the number of the noun class. Agreement morphemes are glossed as AGR plus the number of the class it agrees with, see (6b). Class 9 and 10 often starts with a nasal, but this does not behave fully like other noun class prefixes, and except for the cases where Class 10 is the plural of Class 11, it is not clear that this nasal is an affix synchronically, as opposed to part of the stem. These are therefore indicated by a period, rather than a hyphen, as in (6c).

(6) a. *mwònyókó*

mu-ònyókó
1-opposite_sex_sibling
'opposite sex sibling'

b. *Ómwàná wàngè yáízà.*

ó-mu-àná o-àngé a-a-iz-a\H.L(H)
AUG-1-child AGR1-1SG.POSS 1S-TNS-come-FV\F1
'My child will come.'

c. *ǹdégè*

n.`dégè
9.PLANE
'plane'

d. *ǹgúlà, àgúlà, ògúlà, bàgúlà*

ǹ-gul-a\LHL a-gul-a\LHL ò-gul-a\LHL bà´-gul-a\LHL
1SGS-buy-FV\PRES 1S-buy-FV\PRES 2SGS-buy-FV\PRES 2S-buy-FV\PRES
'I buy, s/he buys, you SG buy, they buy'

e. *kùtàmbúlísyá*

ku-tamb.ul-isy-a\LH
INF-walk.SEP1-CAUS2-FV\INF
'to make (someone) walk'

For subject markers and object markers, the class number of the subject is followed by a capital S or O, as in (6d). 1st and 2nd person forms are indicated by the person followed by an indication of number. Note the difference between this and noun classes 1 and 2, i.e. 2PLS indicates a second person plural subject, while 2S indicates a third person subject from Class 2.

Many verbs have lexicalised extensions, and while these might no longer have a transparent contribution to the meaning of the verb, the presence of a lexicalised extension explains almost all irregular past tense forms. Because even lexicalised extensions are relevant for the way past tense forms are created, I have opted to include information about them in the glosses. To separate the lexicalised extensions from extensions that are still in productive use, lexicalised extensions are indicated by the use of a period, while productive extensions are separated from the root with a hyphen, as in (6e), where the verb has a lexicalised Separative extension and a productive Causative extension. The terms used for the extensions follow Schadeberg & Bostoen (2019), and are based on cognancy with Proto-Bantu extensions.

Most TAM categories are formed by a combination of a prefix and a suffix, and many of the affixes are used in more than one TAM category. For instance, the prefix *a-* is used in both P3, P5, and F1. Because of this, the affixes involved in forming past tense forms are simply named PST1 and PST2. The third affix involved in forming past tenses is *a-*, which is also used in one future tense, I have therefore simply glossed it as TNS for 'tense'. There are three versions of the Causative extensions, which are similarly glossed CAUS1, CAUS2 and CAUS3. Lugwere has three different copulas, glossed as COP1, COP2 and COP3. For a full overview, see the List of Abbreviations.

Throughout this thesis, I follow Comrie (1985) in using capital letters on the names of specific forms or constructions, e.g. the Present, Class 1 and the Progressive, while non-capitalized forms are used when discussing general or cross-linguistic concepts, e.g. present time reference, progressive meaning. The Imperfective is only one of the imperfective aspects in Lugwere.

In the text, when referring to a prefix I will use a hyphen following the morpheme, e.g. *anka-*, and when talking about a suffix, I use a hyphen preceding the morpheme, e.g. *-ir*. Even prefixes that are necessarily preceded by another prefix, or suffixes that are necessarily followed by another suffix are referred to this way, the hyphen indicating where they go in relation to the root. In this I follow Pacchiarotti (2020) in departing from the common Bantuist notation where affixes that are not at the edge of the word is both preceded and followed by a hyphen, e.g. *-id-*.

The examples in this thesis come from elicitation, the corpus recordings, and the published written materials. For examples from the corpus or written materials, I have indicated this with a symbol (C) or (W) following the first line of the example. Unmarked examples are from elicitation, and were either judged to be acceptable, or given as a translation.

Recordings of all the examples sentences and words in tables throughout the thesis can be found at `https://tinyurl.com/audiofiles-for-thesis`. The relevant audio files will also be hyperlinked in each case.

2 The Bantu Languages

Contents

2.1 The Bantu languages . . . 21
2.2 Bantu phonology . . . 23
2.2.1 Segmental phonology . . . 23
2.2.2 Suprasegmental phonology . . . 24
2.2.3 How tone will be treated in this thesis . . . 27
2.3 Bantu nominal morphology and agreement . . . 29
2.3.1 Bantu noun classes . . . 29
2.3.2 Noun classes and genders . . . 35
2.3.3 Augments . . . 40
2.3.4 Adnominal agreement . . . 41
2.3.5 Subject and object agreement . . . 42
2.4 Verbs . . . 43
2.4.1 Typology of TAM and valency changing morphology . . . 43
2.4.2 Bantu verbs . . . 57
2.4.3 Tense . . . 61
2.4.4 Aspect . . . 64
2.4.5 Mood and modality . . . 67
2.4.6 Extensions . . . 68
2.4.7 Post-final locative . . . 74
2.4.8 Locative inversion . . . 78
2.4.9 The conjoint/disjoint alternation . . . 79

This chapter will discuss some of the literature on the typology of tense, aspect, mood and valency, as well as the literature on Bantu languages. The goal is to clearly define the terms that will be used in the remaining chapters of this thesis. While the

Bantu literature and the terms and concepts discussed there were helpful in suggesting what to investigate and possible ways to analyse the phenomena found in Lugwere, in no way do these expectations shape the outcome of the investigation, and in multiple cases what is seen in Lugwere differs from what is described elsewhere. A good example of this is the Form 1/Form 2 alternation (see Section 5.10), which differs in interesting ways from similar phenomena found in other Bantu languages.

2.1 The Bantu languages

The Bantu languages form the largest group of the Niger-Congo phylum, and are spoken south of a line drawn from Nigeria, across the Central African Republic and the Democratic Republic of Kongo, Uganda, Kenya and southern Somalia. Altogether there are twenty-seven African countries where Bantu languages are spoken, and around one in four Africans, some 350 million people, speak a Bantu language (Bostoen & de Velde 2019:4).

A recent inventory from Hammarström (2019) lists 555 Bantu languages altogether, but as the lines between language and dialect are difficult to draw, this figure is not set in stone, and the authors themselves admit that a closer adherence to the criterion of mutual intelligibility would likely reduce this number by about 15 % (Hammarström 2019:17). Previous attempts to list all Bantu languages have given numbers between 440 and 621 (Bostoen & de Velde 2019:3).

The Bantu languages belong to the Benue-Congo branch of Niger-Congo. The languages most closely related to Bantu are the 150 or so Bantoid languages, but there is no consensus concerning the exact border between Bantu and Bantoid (Philippson & Grollemund 2019:336). Bostoen & de Velde (2019:3) writes that "the boundary between the Bantu languages and their closest relatives of the Bantoid family spoken in Cameroon and Nigeria is to a certain extent established by convention, rather than by a set of shared innovations that are attested in all and only the Bantu languages." The core Bantu languages are often called "Narrow Bantu", as opposed to "Wide Bantu" which would include the Bantoid languages (Bostoen & de Velde 2019:3).

In order to keep track of all these languages, which often have multiple names that can be very similar to the names of other languages, Bantuists designate a unique code to each language, called a Guthrie code. A Guthrie code consists of one of the letters A–S (minus I, O and Q), which refers to one of 16 sections that the Bantu speaking region has been divided into. This is followed by two digits, the first of which refers to a smaller area within the larger section, while the latter identifies the unique language. Sometimes a further digit or a lower or upper case letter is added to make further distinctions. It is worth noting that neither the letters nor the smaller subunits are meant to be taken as genealogical units, although in several cases there is a correlation between the areas and genealogical relations (Hammarström 2019:17).

Originally there was no area J, but when this was added it took over part of what used to be areas E and D. To mark which area a language used to belong to before this change, languages in the J area are normally designated by a Guthrie code starting with JE or JD.

The Bantu languages are considered to have decended from a common language some 4000–5000 years ago, and since then have spread over an impressively large area. The Niger-Congo phylum is thought to be considerably older, at about 10 000–12 000 years (Bostoen & de Velde 2019:3). Greenberg (1972) suggests that the Bantu homeland was somewhere in the borderland of South-Eastern Nigeria and Western Cameroon, and this has since been accepted by most experts (Bostoen & de Velde 2019:4).

Perhaps because of the shallow time depth and the continuous contact, the typological profile of Bantu languages tends to be fairly uniform, with features such as a largely agglutinative morphology, a simple vowel system, high numbers of tenses with multiple pasts and futures, prepositions, and an elaborate system of noun classes shared between most (but not all) Bantu languages. Nevertheless, a typological divide can be made between the North-Western Bantu languages and the rest, where the North-Western languages have denser tonal systems, with two underlying tones, high and low, which are marked on most or all morphemes. The rest of the languages also typically have two surface tones, but tonal underspecification is more common, and some Eastern languages have lost tone altogether (Bostoen & de Velde 2019:5).

Table 2.1: Proto-Bantu consonants, based on Hyman (2019)

	Bilabial	**Alveolar**	**Palatal**	**Velar**
Voiceless plosive	p	t	c	k
Voiced plosive	b	d	j	g
Nasal	m	n	ɲ	

2.2 Bantu phonology

2.2.1 Segmental phonology

Proto-Bantu is reconstructed as having a relatively small consonant inventory, with a voicless stop series, a voiced stop series, and a nasal series, represented in Table 2.1 (Hyman 2019). There is some disagreement as to whether the voiced series were in fact stops, or were actually continuants, and as to the status of /*c/ and /*j/, which some think might have been affricates (Hyman 2019). In addition to these consonants, PB also had nasal clusters (analysed as either a homorganic nasal plus consonant series, or as a prenasalised consonant).

The vowel system of Proto-Bantu had seven vowel qualities, where the high vowels are most commonly considered to have had a difference in ATR, as represented in Table 2.2 (Hyman 2019). These had long and short phonemes. While some languages maintain a 7 vowel system, it has been reduced to 5 vowels in the majority of the modern languages. The syllable structure was restricted to CV, CVV, V and N. Bantu phonology can be sensitive to morphological factors, and there is for instance often more underlying vowel contrasts in the stem-initial syllable than elsewhere (Hyman 2019). When vowels occur in sequence, it is common for either a process of gliding or deletion to take place. It is common for vowel length to be neutralised in certain contexts, such as preceding a nasal complex, where all vowels tend to be long. This has been understood by some as having to do with the nasal itself being moraic, and in some languages the nasal is best considered syllabic, and it can be a tone-bearing unit (Hyman 2019).

Consonants are sometimes realised differently when they precede the high vowels, often undergoing a process of spirantisation. This has taken place tautomorphemically, and to a lesser degree hetromorphemically, in a large number of Bantu languages

Table 2.2: Proto-Bantu vowels, based on Hyman (2019)

i	u
ɪ	ʊ
ɛ	ɔ
a	

(Bostoen 2008). The process often coincided with a reduction in the vowel system from 7 to 5 qualities, the newly developed consonants thus preserving the contrasts previously carried by the vowels (Bostoen 2008). This process, commonly called Bantu Spirantisation, is often triggered by suffixes which have been reconstructed as having a high front vowel /*i/, most commonly the causative suffix *-i, the agentive suffix *-ì, or the perfective suffix *-ìd-è, although the exact context in which the process applies, as well as the output of the rule, differ a lot between languages. Many languages also have lexicalised forms that have undergone spirantisation, even though there is no current productive rule creating such forms (Bostoen 2008). Since the glides /j/ and /w/ most commonly result from /i/ or /u/ gliding before another vowel, palatalised or labialised consonants tend to have the same pronounciation as preceding a high vowel, and ky/gy have developed into alveopalatal affricates in many languages. Another common change is for PB *d to become [l] or [r] before vowels other than /i/ (Hyman 2019).

There are also some long-distance phonological processes that are common in Bantu languages. One of these, called Meinhof's law, simplifies a nasal complex to only a nasal when followed by another nasal or nasal complex in the next syllable (e.g. NC –> N / _VN(C)). The way this law applies differs in the languages involved (Hyman 2019). Vowel harmony, particularly within the domain of the verb stem, is also a common process (Hyman 2019).

2.2.2 Suprasegmental phonology

African languages are known for their complex tonal systems, with tones that are often mobile, and with an abundance of tonal processes such as spreading, the obligatory contour principle (OCP), tone deletion (Meeussen's rule), downdrift, downstep, and so on (Yip 2002:131). The association of a tone to a TBU on the surface level is often not

done strictly by lexical association, but might relate to more general phonological constraints, such as alignment with word edges, prominent syllables, or phrasal boundaries (Yip 2002:132). It is therefore not uncommon to see the tone introduced by a specific affix or root realised quite far away from the relevant affix/root.

African languages often have a more restricted inventory of tonemes than what is generally found in for instance Asian languages. The most common is to have two surface tones, one high and one low. In some cases both high and low are required to be specified, but it is perhaps more common to find privative systems of H vs. toneless. The reason why low tone can often be analysed as a default tone assigned to toneless syllables, is that L is not an active part of the phonological rules in the same way that H is. For instance, it is common for an H tone to spread throughout a word or a phrase (most commonly rightwards from the original position), or for the second of two adjacent (underlying) H tones to delete (this is called Meeussen's law) (Yip 2002, Marlo & Odden 2019). Another argument in favour of the underspecification of L is the fact that H tones can appear in fewer places than L. In many Bantu languages the verb stem can only have a H tone on the first syllable, for instance (Marlo & Odden (2019:152).

Where contour tones exist on the surface, these can sometimes be analysed as sequences of H and L. This is closely related to the question of the TBU, which is considered to be the mora in some languages, and the syllable in others. Marlo & Odden (2019:153) write that "the question of the 'tone-bearing unit' remains uncertain in the theoretical and Bantu literature, largely because many criteria are called on, often contradictorily". They continue on to state that the question of the TBU is only really relevant in languages that have underlying contrasts between level H and rising or falling tones. In other cases, it can be assumed that the syllable is the TBU.

"Downdrift", "downstep" and "declination" are all processes by which H tones become lower towards the end of a phrase than at the beginning (Connell 2001). Declination is a phonetic effect whereby the pitch level lowers throughout an utterance, and can be seen even in utterances where all syllables have the same tone. Downstep is what happens when a H tone is lowered in the absence of an overt L tone, but often in the presence of a floating L. Some languages also have upstep. The term "Downdrift" is

sometimes used to refer to the same phenomena as declination (Connell 2001). In this thesis I will use the term ”downdrift” in the sense of “automatic downstep”, referring to the phenomena of a H tone being pronounced lower following a L tone than in the initial position of the phrase. Such downdrift often leads to an adjustment of the pitch ceiling, so that all following high tones are pronounced lower than utterance-initially.

Other processes at play in Bantu tone systems include so called “non-finality effects”, which work to avoid a high tone phrase-finally. Often this leads to situations where a high tone can only appear on the last syllable of a verb if that verb is followed by another element. Sometimes this is achieved by deleting a final H tone, other times by shifting the H tone to another position (Marlo & Odden 2019:156). Sometimes contour tones are avoided. This can be seen in for instance Kamba (E55), where what would be expected to be a rising tone often surfaces as a level H. While the OCP is quite common, ensuring that two H tones do not follow each other, other languages have rules that ensure the opposite situation; plateauing rules that avoid HLH or HØH sequences (Marlo & Odden 2019).

Bantu languages often have grammatical as well as lexical tone. Yip (2002) describes two ways in which tone can take part in the morphology: a tonal morpheme can influences one tone of a word: a tonal prefix could for instance influence the tone of the first syllable, a tonal suffix the last tone, and so on. Another option, which is most commonly found in Bantu languages, is for a grammatical category to introduce a completely new tonal melody to the word in question. In Yip’s (2002) words, the tone of the tonal affix overwrites any pre-existing root tones. In Bantu, this is most common for verbs. Often the tonal category of a verbal stem will influence the outcome of adding the tonal affix. In N. Karanga, for example, verbs can have either H-toned roots or toneless roots. Negation is done by a tonal affix, but the outcome of applying this tonal affix differs depending on the tonal category of the root (Yip 2002:107).

Bantu nouns tend to have a fairly simple tonology, as most nouns consist of only a root, a nominal prefix, and potentially an augment. The noun class prefixes are typically toneless, although augments often have a H tone (Marlo & Odden 2019).

2.2.3 How tone will be treated in this thesis

Lugwere is a tonal language, and has both lexical and grammatical tone. Since tone plays a role in the verbal inflectional morphology, a significant portion of this thesis is dedicated to discussing tone, and it is therefore useful to give a brief overview here of the theoretical notions that will underpin the discussion of tone.

For nouns, there is a fairly straightforward relationship between segments and tones. Nominal roots have lexical tones, which specify both the tone of the noun root itself, and the prefix attached to it. Most prefixes are themselves toneless, and receive their tone from the noun root that they attach to. A similar situation applies to adnominal elements. The augments can also be considered to have an inherent H tone, and adverbs also have inherent lexical tone.

The situation is more complex for the verbs. Verb roots have no inherent tone, and the surface tone of a verbal form is decided by the STAMP (subject, tense, aspect, mood, polarity) categories involved. One approach to describe this would be to consider the tones on verbs to be introduced by different prefixes and suffixes. The problem with this, is that verb forms that use the same (segmental) affixes, do not necessarily have tonal melodies that resemble each other. We can take the Hesternal and Distant Past tense as examples (see Chapter 6). These are segmentally identical, but differ tonally. Additionally, the negative form of the Distant Past has the same segmental TAM affixes, but a completely different tonal melody from the affirmative form. There is the addition of the negative prefix, but this has a different tone for the Distant Past than it does for most other tenses, despite being segmentally identical. (7a) shows the Hesternal affirmative, (7b) the Distant Past affirmative, and (7c) the Distant Past negative. The prefix *a-* has a high tone in the Hesternal Past, and a low tone in the Distant Past. The root has a low tone in both the distant and the Hesternal Past affirmative, but is high in the Distant past negative. The suffix *-ire* has a HL tone in the Hesternal and the Distant Past negative, but a LH tone in the Distant Past affirmative. From this small example, one amongst many, it is hopefully clear that trying to tie the verbal tones to inherent lexical tones attached to suffixes and prefixes is not a fruitful approach, unless we want to posit a whole range of segmentally identical, but different, affixes, where the same

TAM category, although segmentally identical, use different affixes in the affirmative, the negative and in subordinate forms.

(7) a. *yágùlírè* 's/he bought (yesterday)'

b. *yàgùlìré* 's/he bought (sometime before yesterday)'

c. *tíyàgúlírè* 's/he didn't buy (sometime before yesterday)'

d. *tìyágúlírè* 's/he didn't buy (yesterday)'

e. *yàgùlàngá* 's/he used to buy'

A much simpler approach, and the approach adapted here, is to consider verbal roots and most verbal affixes to be inherently toneless, and for the tonal melodies to function as suprasegmental morphemes. There are cases where a tone can be successfully tied to a specific segmental morpheme, there are for instance subject markers that introduce an additional high tone to the verbal melody, but by and large, verbal tonal melodies are best treated as morphemes that apply to a verb form, independent of the specific affixes involved. The Distant Past affirmative melody, LH, is for instance used both for the simple Distant Past and for the Habitual Distant Past, which uses a different morpheme in the final vowel slot, as shown in (7d). It is also assumed that such tonal morphemes include information about how to map the underlying tones of the melody onto the syllables of the verb. Both the Distant Past and the Infinitive have LH tonal melodies, but for the Infinitive, the L attaches to the first two moras, and the H to all other tones, while in the Distant Past the H attaches to the final syllable, and the L tone spreads to the rest of the word. This is explained as the Distant Past tonal morpheme and the Infinitive tonal morpheme having different specifications for how they should be applied to a word.

The approach to tone taken in this thesis is largely in line with the core ideas of the autosegmental framework (Goldsmith 1976), i.e. the insight that there is a 'relative independence of some phonological feature bundles from others' (Leben 2018). It will be assumed that tonal morphemes are strings of tones, i.e. LHL, and that these somehow map onto a segmental form, sometimes in a one to one relation to each syllable, other times one syllable will have more than one tone assigned to it, and other times again

one tone will be assigned to more than one syllable. Morphemes can have inherent lexical tones, or can be assigned their tone by the morphemes surrounding them, be that purely tonal morphemes, or morphemes that contain both segments and tonal specifications. Some tones are floating, meaning they (mostly) are not realised on the morpheme they inherently belong to.

2.3 Bantu nominal morphology and agreement

2.3.1 Bantu noun classes

Perhaps the feature that Bantu languages are best known for are their complex systems of noun classes, which in turn trigger agreement that is seen on most other elements of the clause. This following sentence from Kiswahili is a good illustration.

(8) Kiswahili[1]

Kitabu[2] *kimoja kikubwa kilianguka.*

ki-tabu ki-moja ki-kubwa ki-li-anguk-a
7-book 7-one 7-big 7-PST-fall-FV
'One big book fell'

In most cases Bantu noun classes are overt (Corbett 1991:44), in the sense that which class a noun belongs to is clear from the form of the noun itself, and not only from the agreements. This is the case because largely nouns are assigned to noun classes based on their prefixes, and how they form their plurals. In many cases the nominal prefixes and the agreement markers are alliterative, meaning that they share the same or a similar form, as is illustrated in (14), where *ki-* is found both on the noun itself and on the agreement targets. Note that while overt marking is the norm, there are important exceptions to this, which will be discussed in Section 2.3.2.

Modifiers, (lower) numerals, adjectives, associative particles, pronouns and subject and object indexation markers all agree with the class of the noun. A noun class is mostly either singular or plural, and different noun classes pair up to form singular/plural pairs. Most words for singular human beings, for instance, will be in Class

[1]Kiswahili examples are glossed based on my own knowledge of the language

[2]Kitabu *is originally an Arabic loan that has been reanalyzed as having the Class 7 prefix, i.e.* ki-tabu. *The plural is* vi-tabu, *using the Class 8 prefix*

1, while the plural of nouns denoting human beings will be in Class 2. Let's take the Kiswahili noun stem *-toto* 'child' as an example. The singular form is *mtoto*, where the initial *m-* is the prefix for noun Class 1, while the plural form is *watoto*, where *wa-* indicates that the noun belongs to Class 2. Singular/plural pairs are often written with a slash in between, as in 1/2, where the first number indicates the singular class, and the second number indicates the plural.

While there is often a one to one pairing between singular and plural classes, this is not always so. In some cases multiple singular classes can use the same plural class. An example of this can be seen in Kiswahili, where Class 6 can be the plural of nouns of Class 5 or Class 11=14 (Maho 1999:53). It is common to have more singular classes than plural. Overall Kiswahili has 7 singular classes and 5 plural classes (including subclasses). Kesukuma has 10 singular and 8 plural classes, Lwena has 9 singular and 6 plural, and Tshivenda has 10 singular and 7 plural classes (Maho 1999:53). When multiple singular classes correspond to one plural class (or multiple plural classes correspond to one singular class) it is what Corbett (1991:155) calls a "converging" system, because two or more singular classes have converged in the plural. Another possibility is to have a parallel system, where each singular class corresponds to one plural class, or a crossed system, where one singular class can correspond to multiple plural classes, and one plural class can correspond to multiple singular classes. The latter appears to be the most common for Bantu languages.

The numbers that are used to name the different noun classes were first introduced by William Bleek, in the unfinished book *A Comparative Grammar of the languages of South Africa* (Bleek 1862). Bleek was the first to attempt to reconstruct the noun class system of Proto-Bantu. The numbers have come to be used in most descriptions of Bantu languages, and the same number is used for classes that are cognates, so that Lugwere Class 1, Kiswahili Class 1 and Zulu Class 1 are all derived from Proto-Bantu Class 1. This is called the Bleek-Meinhof numbering system (Maho 1999:14).

Most classes have a single prefix, possibly with different allomorphs that are phonotactically determined. As stated above, the Kiswahili prefix for Class 1 is *m-*, and this is the allomorph found on stems that start with a consonant. On stems that start with

a vowel, however, the corresponding prefix is *mw-*, as in *mwana* 'child'. Some classes can have multiple prefixes, however, and which one is used is not necessarily governed by phonology or any other morphosyntactic conditions. In these cases we talk about subclasses. These tend to be named by a letter following the number. Several languages have two different prefixes for Class 5, typically called Class 5 and Class 5a. The most widespread subclass is the so-called 1a, which has a zero prefix. This class often comprises kinship terms and words for animals, especially personified animals, as in fables. As this subclass has no overt prefix, loan words often end up being incorporated into it. Class 9, another class that often has a zero prefix subclass, also tends to comprise loanwords (Maho 1999). Another common subclass is what Maho (1999) calls Class 2x. This is similar to the Class 2 prefix *ba-* but often has a different vowel. Like the more common Class 2 prefix it is used as a plural class for human beings, but it sometimes also has associative plural meaning (i.e. X and company).

Maho (1999) gives a list of what he calls a "fairly non-controversial" overview of the reconstruction of 23 proposed Proto-Bantu noun classes, based on reconstructions by Meinhof (1932), Meeussen (1967), Welmers (1973) and Hinnebusch (1989). I have reproduced his table in Table 2.3, which includes a description of the semantic core of each noun class as well. Even though these describe the words that tend to be found within each class, most classes will also contain words that fall outside of these generalisations.

It is not certain, however, that all of these classes were found in Proto-Bantu. Maho (1999:255) suggests that at least classes 1, 1a, 2, 2x, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and possibly 20 can be reconstructed back to Proto-Bantu, while it is more uncertain if classes 21 - 23 can be. The numbers are still useful, however, in that they represent cognacy relationships between the languages where these classes do exist.

Maho (1999:52) gives an overview of the number of noun classes in the different Bantu languages[3] (excluding the four locative classes 16, 17, 18 and 23). He finds that most languages have retained at least 7 classes, and many have between 15 and 19.

[3]This is based on the nominal prefixes, see Section 2.3.2 for a discussion on how this differs from the notion of gender

Table 2.3: Proto-Bantu noun prefixes, taken from Maho 1999:51

Class number	PB prefix	Common semantics of the noun class
1	mù-	humans
1a	∅-	kins, personified animals
2	ßà-	plural to classes 1 and 1a, honorific
2x	ßà- ∼ ßɔ-	plural to Class 1a, honorific
3	mù-	trees, plants, inanimates
4	mì-	plural to class 3
5	lì-	miscellaneous, paired things, augmentatives
6	mà-	liquids, collectives, plural to classes 5, 9, 11, 14 and 15
7	kì-	inanimates, manner/style, diminutives, augmentatives
8	ßì-	plural to class 7
9	nì	animals
10	lì- nì-	plural to classes 9 and 11
11	lù-	long thin things, abstracts
12	kà-	diminutives
13	tù-	plural to class 12
14	ßù-	abstracts, mass nouns, plural to class 12
15	kù-	infinitives
16	pà-	locatives, 'near', or 'explicit'
17	kù-	locatives, 'remote' or 'general'
18	mù-	locatives 'inside'
19	pì-	diminutives
20	ɤù-	augmentatives, diminutives
21	ɤì-	augmentatives, pejoratives
22	ɤà-	plural to class 20
23	ì-	locative, unspecified

No modern Bantu language has a noun class system that is fully governed by semantics, and there is a degree of disorder to all systems. Some have hypothesised that in Proto-Bantu there was a more orderly system of semantic groups, with clear motivations for noun class membership for most nouns (Givón 1971, Creider & Denny 1975). Others, like Maho (1999:67) sees this as unlikely, on the basis that no modern Bantu language has such a system.

Some classes have more grammatical or derivational functions. Class 15 is for instance often used to form infinitives. Many languages also use specific noun classes

for augmentatives and diminutives, although which classes are used for this varies from language to language (see Section 2.3.1.1). Classes 16, 17, 18 and 23 are the so called "locative classes", and are sometimes used alongside other prefixes to express ideas such as something being on, in or near the noun.

In most languages Classes 15 and 17 are homophonous, both with regard to the nominal prefixes, which are generally a version of *ku-*, and with regards to agreement. However, these classes are often distinguished and given different numbers even in languages where they are homophonous in all forms, on the basis of semantics; Class 15 is the infinitive class, whereas Class 17 is a locative class. According to Van de Velde (2019:240) the arguments for splitting classes 15 and 17 into two classes are often "rather diverse and usually not compatible with any working definition of noun classes".

Maho (1999) makes the distinction between "primary" and "secondary" classification, where the former means the noun class that a noun belongs to in its most basic meaning, and the second term is used to describe the derivational functions of some of the classes. Primary classification is also sometimes called "basic" classification, and Gregersen (1967) makes a three way distinction, using the terms "class prefix", "plural prefix" and "independent prefix".

The most common is to find only one noun class prefix on a given noun, but sometimes plural prefixes can be added on top of singular ones. In Thimbukushu, for instance, the plural of Class 14 is regularly formed by adding the Class 6 prefix on top of the Class 14 prefix, while for other noun classes the plural prefix instead replaces the singular (Maho 1999:57). These two different processes of pluralisation can be called "additive" and "substitutive" (Maho 1999:57). Similarly, secondary classification can happen either by additive or substitutive processes.

2.3.1.1 Noun class pairings

Maho (1999) gives a detailed overview of the different noun class pairings that exist in different languages and areas of the Bantu-speaking region. He uses the terms "wide" and "restricted" to describe how widespread a phenomena is across the Bantu region, and the terms "dense" and "spotty" to describe how common a phenomena is within

the area where it occurs. It might be useful to note that as a rule, classes with odd numbers are singular and even numbered classes are plural, with the exception of Class 12, which is typically singular.

There are seven pairings that have what Maho terms "maximally wide distribution", meaning that they are found throughout the whole region, although not necessarily in every language. These generally also have a very dense distribution. The pairs are 1/2, 3/4, 5/6, 7/8, 9/10, 14/6. The pairing of Class 1a with Class 2 or one of its subclasses is also found throughout the whole region.[4]

For Class 11, there are two pairings that are very common, namely 11/10 and 11/6, but neither is found throughout the whole region. There is also no Class 12 pairing with maximally wide distribution, seeing as Class 12 itself is more restricted in its distribution than the noun classes mentioned above. This class is most commonly paired with Class 13, and 12/8 and 12/14 have more restricted distributions. The most common plural for Class 14 is Class 6. This pairing, although found throughout the region, is not very dense. This is because Class 14 often is used for abstract nouns, which rarely have a plural. In addition to these common pairings, some other combinations exist, although much rarer, like for instance 9/6, 3/6, 7/6 or 7/4 (Maho 1999). Class 13 is sometimes used as a diminutive of liquids and mass nouns in the east, such as in Luganda *tùfúta* 'a drop or small quantity of oil', from *màfúta* 'oil' (Maho 1999:190).

Novel noun class pairings can often be related to full or partial mergers of noun class prefixes or concord markers, or they can be the result of contact with a language where a novel pairing already exists (Maho 1999).

The most common diminutive class is 12, most commonly paired with 13, but sometimes also with 14 or 8, especially in the Northeast. 19 is also a fairly common diminutive class, and the most common pairings it occurs in are 19/13 and 19/8. Class 7/8 is also fairly common, and Class 11 is used as a diminutive in a handful of languages.

[4] Maho (1999) uses the notations 2, 2a, 2b and 2x. Class 2 nouns have the regular Class 2 prefix, while the 2a and 2b are used to describe prefixes with different vowel qualities. These terms are used somewhat inconsistently in the literature, but Maho uses the term 2a for prefixes with low a-like vowels, and 2b for prefixes with back, o-like vowels. 2x is a cover term to refer to 2a and 2b.

Some languages also form a diminutive using a full or partial form of the word for 'child' (Maho 1999:215).

The most common augmentative classes are 5/6 and 7/8. It is interesting to note that Class 7 is common both as a diminutive and an augmentative class, albeit not in the same areas. Another class that is found in both functions is Class 11. Class 20 is also used as an augmentative class in some languages, paired either with Class 22 or Class 4 (Maho 1999:220).

2.3.2 Noun classes and genders

While often conflated (Güldemann & Fiedler 2019), the way in which the term "noun class" is used in relation to Bantu languages, differs from that of "gender" in several respects. The most obvious difference between the terms "gender" and "noun class", as used within Bantu linguistics, is the fact that while gender stays constant throughout all the inflectional forms of a noun, Bantuists talk of different singular and plural classes. The singular/plural pairs in Bantu languages, such as classes 1 and 2, are sometimes referred to as genders, i.e. the 1/2 gender. This is one of the more superficial differences, but there are other differences in the usage of the terms that might cause more problems and misunderstandings for typologists.

Another difference is the fact that "noun class" is often used to refer to two different things: the prefixes on the nouns, and the agreement makers on other elements in the clause. Because there is such a strong correlation between agreement prefixes and nominal prefixes - indeed, the morphemes are often identical - the label "noun class" is often used to refer to a combination of these two elements. While what is diagnostic of gender is agreement, (Hockett (1958:231) writes that "genders are classes of nouns reflected in the behaviour of associated words"), when there is a mismatch between nominal prefix and agreement markers in a Bantu language it is not always clear which of these two aspects of the noun the term "noun class" refers to.

A case in point is Maho (1999:100), who writes that "there are also occasions where the concords used are not those associated with the noun class belonging of the governing noun", meaning that the nominal morphology is treated as primary when it

comes to determining noun class belonging. Van de Velde (2019:238), on the other hand, defines noun classes "as sets of nouns that trigger the same agreement pattern", a definition that relies on agreement, and is closer to the common definition of gender. While it is generally not a problem to understand what is meant if one is familiar with Bantu linguistics, these two approaches do illustrate the fact that "noun class" or even "noun class pairing" is not synonymous with "gender", and that the terms are being used in an inconsistent manner.

Corbett (1991:49) makes a distinction between morphological class and gender. The morphological class refers to the morphology of the noun itself, and is determined by things such as whether the noun has any affixes, how the plural is formed, as well as which inflectional paradigm it follows for things like case. In Bantu languages the morphological class can be seen from the prefixes the noun takes in the singular and plural. Gender, on the other hand, is related to the agreements that a certain noun trigger, and the gender of a noun remains consistent in all of its inflectional forms, so a noun in the singular and the plural have the same gender.

Corbett (1991:147) also introduces the concept of "agreement class". This is used to refer to the set of agreements that is taken by a noun in a specific morphosyntactic form. In Bantu languages the only relevant nominal inflectional morphology is number, and so Corbett's notion of "agreement class" corresponds quite closely with the traditional noun classes, while "gender" would correspond to a noun class pair.

While morphological class and gender are linked in most cases, there are mismatches that occur when a noun has a prefix typically associated with one class, but triggers agreements associated with another. The most common instance of this is found in relation to human/animate agreement. In many Bantu languages all nouns referring to human beings, regardless of which morphological class they belong to, will get Class 1/2 agreements. In some languages, such as Kiswahili, this has been extended to all animate nouns, so that nouns such as *kiboko/viboko* 'hippopotamus/hippopotami' and *kipofu/vipofu* 'blind person/people' trigger 1/2 agreement, even though their prefixes are those most commonly found on nouns of gender 7/8. In languages like Kiswahili, semantics play a role in determining which gender a noun belongs to, while in other

languages, such as Chichewa, gender is almost always based on the morphological class of the noun, so that nouns denoting humans that belong to morphological classes other than 1/2 take the agreements associated with those morphological classes (Corbett 1991:248).

The semantic agreement does not have to be complete. That is, it is possible for a noun to trigger semantic agreement in some cases, and syntactic agreement in others. Corbett (1991:226) calls these "hybrid nouns", and suggests the following hierarchy, where the likelihood of semantic agreement increases as one moves rightwards:

attributive < predicate < relative pronoun < personal pronoun

While animate nouns have been almost completely absorbed into Class 1/2 in Kiswahili, there is one group of words that still have syntactic agreement, namely attributive possessive pronouns, which is in line with Corbett's hierarchy.

The way that the term "subclass" is used within Bantu linguistics also differs from Corbett (1991)'s definition of a subgender, which requires at least some difference in agreement. When the term is used about a Bantu language, it often refers to a situation where more than one nominal prefix share the same agreements. These subclasses are generally more like morphological subclasses than subgenders. It is possible, however, for a morphological subclass to also represent a subgender, as is the case with Kiswahili Class 1a, which, as mentioned above, has syntactic agreement on the possessive pronouns, which makes their agreement paradigm minimally different from Class 1. In Kiswahili, Class 1a is also morphologically different from Class 1, as it lacks the prefix *m-* and typically does not get the *wa-* prefix in the plural.

Güldemann & Fiedler (2019) critique the vague use of the term "noun class" within Niger-Congo studies, and point out that the philological usage of this word is different from the usage of words like "noun class" and "gender" in the study of other language families, and therefore makes descriptions of Bantu languages less transparent to typologists. Based on Corbett (1991) they suggest breaking the notion of gender and

morphological class into four concepts: agreement class, gender, nominal form class and deriflectional class.

While agreement class and nominal form class deal with a single form of a noun, gender and deriflection relate to a whole paradigm. Gender and agreement class is determined by the agreements that a noun trigger, while nominal form class and deriflection has to do with the morphological form of the noun itself.

Nominal form class simply refers to the overt morphology on a specific noun in a given form. Güldemann & Fiedler (2019:99) write that "nominal form classes are established in the present approach by word forms with identical morphological or phonological properties; they represent the counterpart of agreement classes in the realm of morpho(phono)logy." In relation to Bantu, the nominal form class refers to the prefix (or lack thereof) on the noun.

Deriflection, on the other hand, a term introduced by Güldemann & Fiedler (2019), is employed to refer to the paradigmatic morphology of a given noun. They define it as "the morpho(phono)logical counterpart of genders. They are classes of form paradigms operating over nominal lexemes and established on account of identical formal variation that does not need but often does interact with such features as gender, number, etc" (Güldemann & Fiedler 2019:99).

"Agreement class" is defined as "a set of noun forms that share an identical behaviour across all agreement contexts of a given system", which corresponds quite closely to Corbett (1991)'s usage of the term, and it is close to the way the term noun class is often used within Bantu linguistics. Gender, on the other hand, is a set of nouns that have an identical behaviour across all agreement contexts across all the forms of the inflectional paradigm of that noun, similarly to how it is defined by Corbett (1991). Two nouns that belong to the same gender will trigger the same agreement in the same context when they have the same specification for number, case, and so on. Two nouns that belong to the same agreement class, however, might trigger the same agreement in the singular, but different agreements in the plural.

In determining the number of genders, Güldemann & Fiedler (2019) treat transnumeral nouns as belonging to different genders than count nouns, even in cases where

the nominal form and the agreements of a group of transnumeral nouns is the same as that of a group of count nouns. Particularly, they treat the mass noun usage of Class 6 and the abstract usage of Class 14 as transnumeral, and therefore as separate genders from AGR 12/14 and AGR 5/6, as well as treating the infinitive and locative classes as separate genders.

Typically, all of these aspects of a noun are addressed in most detailed descriptions of Bantu languages, but the terminology used tends to obscure the differences between them. In order to make the distinctions clearer, I have decided to adopt this terminology, and part of the notational system that is suggested in Güldemann & Fiedler (2019), but I have chosen to modify it somewhat, in order for the terms I use to still be parallel to the traditional class numbers. I follow Güldemann & Fiedler (2019) in using the abbreviation AGR plus an Arabic number for the agreement class. Güldemann & Fiedler (2019) choose to use Roman numerals to refer to gender, but I have decided to instead use the abbreviation AGR plus the number of the agreement class of the singular and the number of the agreement class of the plural form separated by a slash, i. e. AGR 1/2, in order to keep my notation closer to the notations that are already established within Bantu studies.

I will follow Güldemann & Fiedler (2019) in treating transnumeral words as separate from the singular/plural pairs. This means that for instance the non-count usages of AGR 6 and AGR 14 will be treated as separate genders.

For nominal form class I will follow Güldemann & Fiedler (2019) and use the abbreviation NF plus the relevant prefix in small caps, so that nouns from the traditional Classes 1, 3 and 18, which all have *mu-*, would be NF MU. For the deriflectional class I will use the same abbreviation, with the prefix of the singular and plural separated by a slash. These notations are used particularly in Chapter 4, in order to keep these concepts separate. In the rest of the thesis, which mainly focuses on verbs, as a shorthand I often use the term "noun class" or "class" in the vague sense in which it is traditionally used, referring to a typical correspondence between nominal form class and agreement class, although where there is a mismatch I will clarify what is meant.

2.3.3 Augments

The augment, not to be confused with the augmentative, is an element that sometimes appears before nominal prefixes. Van de Velde (2019:247) defines it as "an element that precedes the class prefix of nouns and some adnominal or nominalised modifiers and that changes neither the class assignment of the noun, nor its lexical meaning, nor the syntactic positions it can occupy." The augments are sometimes called "pre-prefixes" or "initial vowels" (Van de Velde 2019:247).

The augment is reconstructed to Proto-Bantu as having had a CV shape. While there are a few languages that still have CV augments, it is more common to find augments that only consist of a vowel. Some languages retain a difference between three vowels, which vary according to the noun class and is typically similar to the vowel of the noun prefix itself, while others have a reduced system where some or all vowels have merged. Some languages no longer have augments at all, others do not use augments overtly, but show traces of their previous existence, often in the tone or vowel quality of a grammatical morpheme preceding the noun (Van de Velde 2019:248).

While the form of the augment is fairly easy to define, and is quite similar from language to language, it is much harder to give a general account of its function. They are often linked to discourse-referential properties, syntactic context, propositional act function or stylistics in complex ways (Van de Velde 2019:249).

In most of the languages that have augments, the default is for a noun to carry an augment, and Van de Velde (2019:249) writes that in order to understand their function it is more helpful to look at when they are absent rather than when they are present. Some common situations where augments are left out include on proper nouns and when nouns are not used to refer, such as in vocatives or in attributive nominal predication. In some languages they are absent from nouns that are indefinite or non-specific, and in other languages using an augment can be a stylistic choice (Van de Velde 2019:249-254).

2.3.4 Adnominal agreement

With few exceptions, all adnominal elements agree with the class of the noun that they modify. In many languages, different kinds of adnominal modifiers use different sets of agreement markers. There are five such categories that are commonly found, and they are often labelled "adjective", "enumerative", "demonstrative", "quantitative" and "possessive" (Maho 1999:100). These labels do give a rough idea about what kinds of modifiers tend to fall within the different categories, but in many languages the lines between the traditional word classes like "adjective", "demonstrative", "adverb", "possessive pronouns", "numeral" and "determiner" are somewhat muddled, and the agreement groups do not form coherent semantic categories (Maho 1999:100). Maho (1999:107) writes that the adnominals "seem in many languages to be mere formal inflectional classes, rather than semantically defined subclasses of adnominals".

For this reason Maho (1999) (1999:100) suggests that labels such as "Concordial series A", "Concordial series B" and so on would be more appropriate. Because the agreement classes in Lugwere are often not semantically coherent, or there are multiple sets with the same function (i. e. several "enumerative" sets), I use roman numerals as labels for the different sets of agreement markers in my description of Lugwere adnominal agreement (see Section 4.2).

An element that is common to many Bantu languages is what is often termed the "associative particle", and is used to mark a possessive relationship between two nouns. It often takes the form *-a*, and typically agree with the possessee. There is also generally a set of possessive pronouns that agree with the possessee and the person and number category of the possessor. These are often called "possessive stems" or simply "possessives" (Maho 1999:100). In Kiswahili, for instance, the possessive stem *-angu* is used for first person singular, and prefixes are added to it that agree with the class of the possessee, as in *jina langu* 'my name' and *kitabu changu* 'my book'.

Systems of demonstratives tend to be fairly complex, and having three or even four basic demonstrative stems is common. Some languages encode degrees of emphasis as well as degrees of closeness, and when these two factors are combined with

noun class agreement, some languages can have hundreds of distinct demonstratives (Maho 1999:104).

When it comes to adjectives, many Bantu languages have a rather small inventory, restricted to words for size, age and appearance, and some basic colour terms. Sometimes the lower numerals are treated as adjectives, and use the same agreements (Maho 1999:105). There are, however, languages with larger sets of adjectives, and some languages have a rich inventory of colour terms that include words with reference to colour and patterning of domestic animals (Maho 1999:105).

In a few languages there exists a group of invariable adjectives which never agree with their head noun. Typically, these are loanwords. In Kiswahili, for instance, many adjectives borrowed from Arabic are invariable, such as *safi* 'clean', or *ghali* 'expensive'.

2.3.5 Subject and object agreement

It is common for Bantu languages to index both subject and object on the verb. This is done by a set of prefixes that agree in gender, person and number. When both subject and object prefixes occur, the object prefixes tend to be closer to the stem than the subject prefix or any TAM prefixes (Maho 1999:108). Some languages have object suffixes or clitics instead of prefixes, and there are some languages, particularly in the rainforest area, that do not have object agreement at all.

Subject agreement is generally obligatory, while object agreement is not, and is often left out when there is an overt object noun phrase, although not always. Whether object agreements occur or not often seems to be tied to discourse related constraints such as emphasis or definiteness (Maho 1999:110).

While some Bantu languages only allow one object marker on the verb, there are others that can have multiple object markers. In these cases, indirect objects tend to occur closer to the verb stem than direct objects. Some languages, like Setswana, can even have three object markers (one direct, two indirect) on the same verb (Maho 1999:112).

2.4 Verbs

2.4.1 Typology of TAM and valency changing morphology

This section gives a brief discussion of the general typological literature on some of the main topics discussed in this thesis, such as tense, aspect and mood, with the intent to provide clear definitions of how these concepts will be defined and understood in the description of Lugwere.

2.4.1.1 Tense

Comrie (1985:1) defines tense as the grammaticalisation of location in time, meaning that tense is a grammatical way of marking when an event took place. This location necessarily needs to be relative to some other point in time, and the most common such point is the present moment. The present moment is the basis for what has been termed "absolute tense" (Comrie1985:36), and this is a way of locating an event in relation to the present moment, that is, as either preceding the present moment (past tense), coinciding with the present moment (present tense), or being subsequent to the present moment (future tense).

There are other ways to locate an event in time, for instance by the use of adverbs like "today" or "yesterday", or by collocations, like "last week" and "before he arrived home". These strategies allows us to refer to points in time with infinite specificity, but this is importantly not tense, as tense is a grammatical, rather than lexical, feature. As grammaticalisation is a gradual process, however, there might not always be a clear dividing line between tense and other ways of marking location in time.

It is also possible to locate an event relative to an event other than the present moment, and this is often referred to as relative tense (Comrie1985:56). Comrie (1985) makes a distinction between what he calls "pure relative tense" and "absolute-relative tense". The former refers to non-finite forms that receive a temporal interpretation based on the context that they are found in. An example would be a sentence like "the passengers awaiting flight 26 proceeded to gate 5" (from Comrie1985:59), where one interpretation of "awaiting" is as referring to a past state of affairs because of the past tense verb "proceeded" (Compare "The passengers awaiting flight 26 will proceed to

gate 5 starting next week). It is also possible to interpret "awaiting" as concurrent with the present moment, and Comrie (1985) suggests that the present moment is always contextually available as a possible reference point. Pure relative tenses indicate how an event is located in relation to a reference point, but makes no indication of how it is located in reference to the present moment. In English the present participle indicates concurrence with the reference point, while the past participle indicates precedence to the reference point, and there are also languages with non-finite forms that indicate that something is subsequent to the reference point (Comrie1985:60).

Absolute-relative tense refers to tenses that mark location of an event in time in relation to both the present moment and a reference point (Comrie1985:64). Examples of this includes the English Pluperfect, the Future Perfect and the Past Conditional (which generally has modal uses, but can also be used to mark future in the past). In an example like "Alice had already left", the Pluperfect tells us that Alice's leaving occurred prior to a reference point located prior to the present moment. What this reference point is would need to be determined from the wider contexts.

Tense is a common category cross-linguistically, although there are languages that have no tenses. In general languages tend to have more distinctions in the past than in the future. There are languages that group the future and the present together, having a past and a non-past (this is particularly common in European languages), and there are likewise languages that contrast a future with a non-future (although often systems that appear to have a future/non-future divide can be be shown to actually have a difference in mood rather than tense) (Comrie 1985). Relative tenses are also quite common cross-linguistically, although less common than absolute tenses (Comrie1985:64).

To be able to accurately describe a tense, it is necessary to make reference to three different points in time: the speech time (or the present moment), the event time and the reference time. For absolute tenses the reference time coincides with the speech time, whereas for relative tenses the reference point is located either before or after the present moment.

2.4.1.2 Degrees of remoteness

Apart from locating an event before or after another event, tense can also be used to indicate the distance between two events. This is much rarer than just having tenses that are simply marked as being in a certain location in relation to a reference point or the present moment, and languages with remoteness distinctions tend to be found in one of three areas: It is common in the Niger-Congo languages of Africa, the Trans-New Guinea languages of Papua New Guinea, and the Amerindian languages of the Americas (Botne 2012:536).

Languages that have multiple past or future tenses will sometimes show a symmetry between the past and the future, although this is not necessary. If symmetry is lacking, it is common for languages to make more distinctions in the past than in the future. Finer distinctions tend to be made in the time closest to the present moment.

Where different languages draw the line between different past and future tenses differs quite a lot. One common kind of system is what Botne calls "hodiernal grounding", which draws a division between today and more remote tenses, i.e. a hodiernal and a pre- or post-hodiernal. Languages with more distinctions will then often divide up the pre- and post-hodiernal spaces further. Some languages have a dedicated hesternal tense for events that occurred yesterday, or a crasternal tense for events that will occur tomorrow. It is quite common to find systems with a three-way distinction between hodiernal, hesternal and distant past tenses, particularly among Bantu languages (Botne 2012:538). Other languages have tenses that are used for "a few days/weeks" before or after today, combined with a more remote tense for everything before/after that. Different cultures have different concepts of when a day begins or ends, and remoteness systems built around daily intervals will reflect this, so that for some languages the start of "today" will be at sunset, and for others it will be at sunrise.

Besides the hodiernal tense, there are other possibilities for basing a system of tenses on the natural daily cycle, such as a "24 hour cycle" system, or a "biduonal" system (Botne 2012:539). The first of these uses a concept of a 24 hour cycle surrounding the present moment as a basis for their system. This is seen for instance in Korafe (Trans-New Guinea; Papua-New Guinea), which has one tense for the current 24 hour

cycle, which starts from after noon of the preceding day and lasts up until the current moment, one tense for the 24 hour cycle preceding that, and a remote tense for anything preceding that (Botne 2012:539). What is included in the 24 hour cycle will sometimes depend on the time of day.

In languages with a biduonal system, today is merged with either the day preceding or following, so that a biduonal past, for instance, would include events earlier today, as well as yesterday, and a biduonal future will include events that occur later today, as well as tomorrow. This is seen for instance in Makaa (Niger-Congo, Bantu A83; Cameroon), which has a biduonal past as well as a remote past (Botne 2012:540). A biduonal future seems to be fairly common (Comrie 1985:88)

Multiple past or future tenses are not always based solely on the distance from the present. Botne (2012:541) suggests that for some systems an analysis in terms of "current relevant time unit" (CurTU) versus "adjoining time units" (AdjTU) might be more useful. In these languages there are tenses that are used to talk about the current time interval (either in terms of days (today), weeks (this week), months (this month), or years), and other tenses that are used to talk about the time units preceding or following the current unit, (i.e. yesterday/tomorrow, last/next week, last/next month, and last/next year). Often one tense can be used for CurTUs or AdjTUs at different scales: In Chindali (Bantu M30; Malawi) for instance, there are three past tenses. P3 is remote, and P1 and P2 is often referred to as hodiernal and hesternal. However, these tenses are also used for different time units; P1 can also be used in contexts where the relevant time unit would be "this month", "this year" or "this season". Similarly P2 can be used in reference to "last month/year/season". Botne (2012:542) describes this as being a "layering of levels of time units". Comrie (1985:88) uses the word "cyclic".

Some languages have rigid rules for which time intervals a certain tense can be used for, while in other languages the borders between different languages are more blurred, and might overlap. Sometimes it is possible to use a tense that is most commonly associated with an interval closer to the present moment in order to express subjective immediacy, and likewise it is possible to use a more remote tense in order to express subjective remoteness. This is the case, for instance, in Sotho (Comrie 1985:91).

Remoteness distinctions might also be tied to human experience. This is seen in many Amerindian languages. In Washo (Hokan; California), for instance, there are four past tenses: hodiernal, pre-hodiernal (yesterday or before) as well as two more remote past tenses: *-gul* is used for events within the remembered past of the speaker, while *-lul* denotes events that are beyond the memory of speaker, preceding his or her lifetime. Mvskoke (Muskogean, southern U.S.) also has four past tenses, one hodiernal, one used for events that happened within a year, one memorial past (remembered by the speaker), and one mythic past.

A fairly common system for denoting multiple past or future tenses, is by labels such as P1, P2, P3 and F1, F2, F3, where the letter indicates whether it is past or future, and the number indicates how far from the present the tense situates a situation, where smaller numbers indicate times closer to the present. I will adopt such labels in my discussion of the Lugwere tense system in Chapter 6.

2.4.1.3 Aspect

A commonly cited definition of aspect comes from Comrie (1976), who defines it as "different ways of viewing the internal temporal constituency of a situation". Unlike tense, it is not a directly deictic quality, and the same situation can often be described by different aspects, depending one how the speaker wishes to present a situation.

Perhaps the most fundamental aspectual distinction is that between imperfective and perfective aspect. The perfective aspect creates a viewpoint where a situation is seen as a complete whole, while the imperfective highlights the inner temporal structure of a situation (Comrie 1976). The perfective aspect does not need to indicate that the action is completed - it is possible to have future (and Nurse (2008) argues even present tense) perfective forms. Crucially, a past event does not need to be completed in order to be presented as a complete whole unit.

There are languages with more than one imperfective tense, and Comrie (1976) draws a hierarchy where 'imperfective' branches into 'habitual' and 'continuous', while 'continuous' can be further subdivided into 'progressive' and 'non-progressive continuous'. The habitual can be defined as "a situation that is characteristic of an extended

period of time" where the situation involved "is viewed not as an incidental property of the moment, but, precisely, as a characteristic feature of the whole period" (Comrie 1976:27-28), and Comrie (1976) defines 'continuous' negatively as 'imperfectivity that is not habituality' (Comrie 1976:26), and 'progressive' can be understood as "the combination of continuousness with non-stativity" (Comrie 1976:35), or, perhaps more concretely stated a "language-particular morphological category that signals that an event is dynamic over the event frame" (Mair 2012:804). The crucial difference between continuous and progressive is then the dynamic nature, and the limitation in time, which is highlighted in Nurse (2008)'s definition of the two as differing "in that the progressive refers to a shorter period of time closely around the time of reference, whereas continuous covers a longer period". A language might have one imperfective category that covers all of these usages, or it could choose to employ multiple different strategies to differentiate them. If a language has a specific aspectual category, then contexts that meet the semantics of that category might obligatorily require its use, such as the English Progressive, which needs to be used in the present tense if a non-stative predicate is ongoing. In other cases, it might be optional. Spanish has a progressive construction, but when talking about ongoing events it is also possible to use a present form not overtly marked as progressive (Comrie 1976).

While the two terms sound similar, and have at times been used interchangeably, it is important to differentiate between the perfect and the perfective. The perfective, as defined above, sits clearly within the category of aspect. The perfect, on the other hand (sometimes called anterior, e.g. in Comrie 1976) sits somewhere between aspect and tense. It refers to a past event with present relevance, that is, its meaning combines the idea of anteriority (past tense), and a relevance to the present. It is a category that is very commonly marked in languages cross-lignuistically, and it can be further subdivided into a few different types of perfect. With the 'perfect of result' a present state is understood as being the result of some past situation, while an 'experiential perfect' states that a given situation has held at at least one point prior to the current moment. Another type of perfect is the 'perfect of persistent situation', which indicates that a situation which started in the past still holds at the present moment (Comrie

1976). It is possible for a language to employ different strategies for some or all these different types of perfect, or to use one strategy for multiple types of perfect. There is often a link between the perfect and the recent past, where the perfect can sometimes be used to express (very) recent events. This is logical, since the recent past is more likely to have present relevance (Comrie 1976). In Chapter 6 it will be shown that the Lugwere Hodiernal Past (P2) is sometimes used about more distant events with present relevance, that is, it has some perfect usages.

2.4.1.4 Aktionsart

Related to the notion of grammatical aspect, but crucially different, is the concept of aktionsart, also sometimes called lexical aspect or aspectual class. Rather than referring to inflectional morphology that alters the aspect of the verb, this term relates to aspectual qualities of the inherent meaning of a verb, predicate or clause. Aspectual class is a topic that has been discussed since the time of Aristoteles (Filip 2012), but perhaps the most cited modern work on this topic is that of Vendler (1957), which classifies predicates as belonging to one of four classes: activities, states, achievements and accomplishments. Examples of activities would be predicates like 'to walk', 'to sing' and 'to work', while 'to walk a kilometer', 'to sing a song' and 'to cook dinner' are examples of accomplishments. 'to know', 'to want' and 'to be yellow' are states, and achievements would be predicates like 'to win', 'to die' and 'to find the book'.

Activities and states differ from achievements and accomplishments in that the first are atelic, while the latter are telic,[5] meaning that they have a natural endpoint. There is no natural endpoint baked into the idea of 'walking', while 'walking a kilometer' has such a natural endpoint, and indeed we could not say that someone 'walked a kilometer', unless he did actually reach that endpoint (i.e. having walked at least one kilometer). An achievement like 'to die' has a natural endpoint, the moment at which an individual goes from being alive to being dead. A state, like 'to be dead', on the other hand, has no such natural endpoint.

[5] Vendler (1957) did not use the term 'telic', but the telic/atelic terminology seems to be most common in the modern literature, so I will adopt that here.

A second dimension along which these groups differ, is that of homogeneity. A state is the same from beginning to end, if I 'know John', my knowing of John does not change throughout the day. In an achievement like 'to find the book', however, there is a clear change from not knowing where the book is, to having found the book. Similarly, if someone walked for half an hour, then for every interval within that time frame, it would also be correct to say that the person walked (unless we start dealing with time intervals so small that the predicate 'walking' no longer applies, we would probably not say that just lifting one's leg constitutes walking). If someone 'walked a kilometer in half an hour', however, saying that someone 'walked a kilometer' would not be true for any smaller interval of that half hour.

Another dimension is that of whether a predicate is punctual or durative. An achievement, like 'to die' or 'to reach the summit' takes place in an instant. Even though there might be a process leading up to reaching the summit, the 'reaching' only takes place the moment you step on the summit. Activities, accomplishments and states, however, have a certain duration to them.

Smith (1997) introduces a fifth group, that of the semelfactive, predicates which she describes as dynamic, atelic, instantaneous events with no result or outcome. These are predicates like 'to knock', 'to flap the wings', 'to blink' or 'to hiccup', where each instance is seen as being instantaneous, and once one instance has been carried out, the agent is back in the starting position, and can again carry out the action. Semelfactives often occur in repetitive sequences.

There are a handful of tests that have been proposed, which are meant to distinguish between aspectual classes. However, Bar-el (2015) points out that many of these are very language specific, and some do not fully work even within the languages they were designed for. A commonly given test to distinguish telic and atelic predicates, for instance, is to see whether it goes with 'in an hour' or 'for an hour', i.e. 'he walked a kilometer in/*for an hour' vs. 'he walked for/*in an hour'. As Bar-el (2015) points out, though, many languages, don't make the same distinction between 'for an hour' and 'in an hour' (The example she shows is from Sḵwx̱wú7mesh, alos called Squamish; Central Salish). A test meant to show whether a predicate is dynamic and durative, is

to see whether or not it can be used in a progressive aspect. The idea here is that in English, achievements and states are not typically allowed in the progressive. While this is often true, the generalisation misses cases like 'he is dying' and 'I am loving it'. (9) is a reproduction of the list given in Bar-el (2015:76) of standard tests for aspectual classes commonly found in the literature.

(9) a. Occurs with the progressive

b. Occurs as the complement of *stop/finish*

c. Occurs with adverbs such as *deliberately, carefully, vigorously, gently*

d. Has habitual interpretation in the simple present

e. Occurs with *φ for an hour, spend an hour φ-ing*

f. Occurs with *φ in an hour, take an hour to φ*

Bar-el (2015) highlights the importance of finding tests suitable for the language in question, and she calls for the creation of a toolkit that can help field linguists develop such tests and use them to describe the system of aspectual classes in the language that they work on. Section 7.6 in Chapter 7 will discuss whether these tests work for Lugwere, as well as give an overview of the differences between the different aspectual classes in Lugwere.

Bar-el (2015) also points out that this is a topic that has largely been ignored by field linguists, who traditionally have paid much more attention to grammatical aspect. She suggests the main reason for this to be the widely held belief that the inventory of aspectual classes is universal. In contrast to this belief, Bar-el (2015) summarises evidence from diverse languages to illustrate that the properties of aspectual classes differs widely from language to language.

Take achievement type predicates, for instance: Botne (2003) shows that the world's languages can be divided into at least four different groups with respect to how they treat their 'to die' verbs. An achievement can be seen as having three parts: the nucleus, which is the punctual change of state from alive to dead, the onset, which is the phase leading up to the nucleus, and the coda, which represents the resultative state of the achievement, in this case the state of being dead. The Norwegian 'å dø' refers only

to the nucleus itself, and is what Botne (2003) calls an acute achievement. In English, the verb 'to die' can refer either to the onset ('she is dying') or the nucleus ('she died'), which Botne calls an inceptive achievement. For languages like Korean, where the verb can reference either the nucleus or the coda, Botne uses the term resultative. Finally, in some languages (Lugwere being one, see Section 7.6.2), the verb can refer to either the onset, the nucleus or the coda, which he terms transitional achievements. Importantly, within English, achievement verbs fall into different categories; a verb like 'to die' or 'to reach' is inceptive, 'to notify' and 'to find' are acute, and 'to recognize' is resultative. This suggests that even within languages it might be necessary to operate with sub-categories of achievements.

Other features discussed in Botne (2003) which may vary across languages includes whether activities have termination entailments or implicatures, whether semelfactives should be counted as a part of the class of activity, or form their own class, whether accomplishments have culmination entailments or implicatures, and whether they include the inception of the accomplishment. When it comes to states, some languages have verbs that only refer to the state, while others also refer to entering the state, i.e. 'be wet' as opposed to 'get wet'.

2.4.1.5 Mood

The term 'mood' has been used in a variety of ways with widely varying definitions which encompass very different sets of categories. In Nuyts & van der Auwera (2016) for instance, the term 'mood' is used for two, somewhat separate concepts: "basic sentence types corresponding to illocutionary functions" and "indicative/subjunctive and (ir)realis" (Nuyts & van der Auwera 2016:4). The first category encompasses concepts such as 'declarative, interrogative, imperative', while the second relates to the often binary contrast of subjuctive/indicative and realis/irrealis, two sets of categories that overlap significantly, and which difference is sometimes mostly down to terminological traditions (Mauri et al. 2016:169).

Other authors have used the term 'mood' to cover a much wider set of categories, Doke (1935:146-147) for instance, lists the following eight categories as moods in Bantu

languages: imperative, infinitive, indicative, subjunctive, participial, potential, conditional and contingent. Some of these, such as infinitive and participle, are not commonly classified as moods elsewhere, and for others, there are differing opinions. While Mauri et al. (2016:177) term the conditional a mood, Dixon (2023 - 2010) states that this is mistaken, and that it is rather a marker of clause linking (Dixon 2023 - 2010:136).

In this thesis I use a looser definition of mood, and the term is mainly used as a convenient cover term for categories that Lugwere express morphologically, and which have frequently been considered 'moods'. Interrogatives will briefly be discussed in Chapter 5, and Section 8.1, which is dedicate to moods, discusses the Subjunctive, the Jussive and the Conditional.

2.4.1.6 Modality

In this thesis the term 'modal' follows the terminology laid out in Nuyts & van der Auwera (2016), which use the term 'modal' for the semantic domains of epistemic, deontic and dynamic modality (Nuyts et al. 2016b:3). Dynamic modality can be described as "an ascription of the capacity or ability to the first-argument (or controlling) participant (usually the agent participant) of the verb to realise or effectuate the state of affairs expressed in the clause" (Nuyts et al. 2016a:34). That is, it refers to either the 'participant-inherent' capability to do something, as in "John can speak Greek", or 'participant-imposed' conditions, as in "The garage is free so you can park there".

Deontic modality relates to concepts of permission and obligation, and is defined by Nuyts et al. (2016a) as "an indication of the degree of moral desirability of the state of affairs expressed in the utterance, typically but not necessarily on behalf of the speaker" (Nuyts et al. 2016a:36). "You may come in" and "He has to do his homework" are examples of sentences that express deontic modality.

Epistemic modality relates to the speakers assesment of the likelyhood of a proposition, and can be defined as "an estimation, typically but not necessarily by the speaker, of the chances or the likelihood that the state of affairs expressed in the clause applies in the world" (Nuyts et al. 2016a:38). An example of this type of modality would be a sentence such as "It is 6pm, he must be home by now", or "It might rain tomorrow".

There are additionally some further categories, which some might choose to classify as subcategories of deontic, epistemic or dynamic, while others treat as separate groups, such as the situational modality and boulomanic modality, but the discussion in Section 8.2 will pertain only to the tree types of modality outlined above.

2.4.1.7 Valency changing morphology

Chapter 9 looks at a variety of valency changing morphology in Lugwere, it is therefore useful to briefly define the most relevant terms.

In the discussion of all the valency changing morphology, I use the term 'base' to refer to the same verb without the relevant valency changing affix. Similarly I use the term 'base subject' or 'base object' to refer to the subject/object og the base verb, as opposed to the changed situation following the derivation in question. In a similar vein, I use terms such as 'applied object' to refer to the situation after the derivational process; in this case the term refers to an object that has been promoted by the Applicative suffix. This is the terminology used for instance by WALS (Dryer & Haspelmath 2013), e.g. in Polinsky (2013).

Both applicatives and causatives increase the valency of a verb, but in crucially different ways. The applicative promotes an (adjunct) non-core argument to the object position, while the causative introduces a new causative subject, and demotes the base subject to an object position. The definitions in (100) and (11), taken from Zúñiga & Kittilä (2019), clearly outline the two different processes.

(10) **Prototypical causatives**:

- The syntactic valency of a causative clause is one higher than that of the base, non-causativised, clause.
- A new A (the causer) is added into the semantic argument structure.
- The new A (the causer) is introduced as the subject of the causative clause; the base subject of the non-causative clause (the causee) may be a core argument or an adjunct in the causative clause.
- Causativisation is formally coded on the predicate complex.

(11) **Prototypical applicatives**:

- Its syntactic valency is one more than that of the non-applicative diathesis.
- Its subject corresponds to the subject of the non-applicative diathesis
- It's primary/direct object corresponds to an adjunct or non-core argument in the non-applicative voice, or to a participant that is introduced to the clause as primary/direct object
- Applicativisation is formally coded on the predicate complex.

Causatives differ along various dimensions, some of which include the control, volition and affectedness of the causee, and the directness of the causation, as well as the intention and involvement of the causer (Dixon 2012). When the causer also participates in the action, we have what is often termed 'sociative', where the causer causes the relevant event by either assisting the causee, doing the action along with them, or supervising (Zúñiga & Kittilä 2019). Most languages have a way to express a causative meaning, but the means by which this is done range from inherent lexical meanings (as in the pair die/kill) and morphological means, to syntactic constructions of either complex predicates or biclausal constuctions (Dixon 2012).

Applicatives differ cross-lingusitically as to what types of peripheral argument they can promote, common categories being locative, instrumental, comitative and goal arguments. Some languages will have different applicative strategies for different types of arguments (Dixon 2012). Languages also vary as to how they treat a potential base object. In some cases, the base object is demoted in the applied sentence, while in other languages, both objects share the main object properties. There are also cases where the applied object might not take on all object properties, and it is possible for it to carry oblique marking, for instance (Dixon 2012).

A passive construction reduces the valency of a verb, by making the base subject an optional adjunct, and promoting its base object to the passive subject. Zúñiga & Kittilä (2019) define a prototypical passive by the criteria laid out in (12). Passives vary cross-lingusitically as to how the base subject is marked if it is expressed. Only within the

Bantu languages, many different strategies have been reported, ranging from marking that is comitative, locative or instrumental, to using a copula (Dixon 2012).

Another point where languages vary, is in which arguments of a trivalent verb can become the passive subject. Some languages only allow the patient object to be promoted, others only allow the goal argument to become the passive subject, while yet others allow either one (Zúñiga & Kittilä 2019).

(12) **Prototypical passives**:

- Syntactic valency is one less than in the active diathesis
- Its subject corresponds to the nonsubject P of the active voice
- Its peripheral, and optional, argument (typically marked by a non-core case or adposition) corresponds to the subject A of the active voice.
- Passivisation is formally coded on the predicate complex.

Reciprocal and reflexive morphology does not change the valency of a verb, but are rather processes that mark a departure from the normal situation where each argument slot of the verb is filled by a different entity. The reflexive signals that the agent and (most commonly) the patient of a verb correspond to the same entity, as in "I see myself" where 'I' represents both the agent of the seeing event, and the object that is seen. It is also possible for the agent to be coreferential with an argument other than a patient, for instance a goal. Languages can have reflexive constructions where the reflexive nature is indicated not by the verb, but by the object, as is the case for the reflexive pronouns in many Germanic languages. Zúñiga & Kittilä (2019) considers only cases where the predicate complex encodes the reflexivity as instances of what they call "reflexive duplex voice".

In a reciprocal construction, it is signaled that several entities simultaneously occupy both the agent and patient posititons, as for instance in "John and Ann saw each other", which corresponds to "John saw Ann" and "Ann saw John" (Zúñiga & Kittilä 2019).

2.4.2 Bantu verbs

Bantu languages are known for their long and complex verbs, a result of their agglutinative morphology. While verb roots themselves are typically fairly short, various morphological material can be attached both before and after the root.

Bantu languages vary a lot in regard to which tense, aspect and mood categories are marked on the verb, and the variation in how similar categories are marked across different languages can be astounding, especially considering that they often utilise different combinations of a relative small set of inherited TAM markers, sometimes supplemented by newly grammaticalised material (Nurse 2008). The structure of the verb as a whole tends to be similar from language to language, however.

Verbal categories can be marked by a combination of segmental and tonal morphemes, and some tenses or aspects are associated with a tonal melody that applies itself to the whole verbal word, taking the place of any underlying tones associated with the root and other morphemes. Many Bantu languages also use auxiliary verbs to mark certain categories. In those cases you might have one inflected auxiliary followed by an infinitive main verb, or both verbs might be inflected, typically for different categories.

It is very common for Bantu languages to have multiple past and future tenses. Nurse (2008) reports that as many as 80% of the languages he looked at had more than one past tense, and having as many as four past tenses is not uncommon.

2.4.2.1 The Bantu verbal template

The idea of there being a general template for Bantu verbs has been around since the 1950s (Nurse 2008:31), and Meeussen (1967:108) proposed a formal template applicable to most modern Bantu languages, and also assumed to be the shape of verbs in Proto-Bantu. Nurse (2008) modifies this model slightly, resulting in the template given in (13). The main difference between the two templates is that Nurse (2008) uses terms that are more general and more transparent to general linguists who are less familiar with the Bantu linguistic tradition, while Meeussen (1967)'s terms are quite Bantu specific. In addition, Nurse (2008) has eliminated two of Meeussen (1967)'s slots and absorbed them into other slots. I will be using the terminology of Nurse (2008) moving forward.

(13) Pre-SM + SM + NEG_2 + TA + OM + root + extension + FV + post-FV

It is not necessarily the case that most (or any) verbs have each of these slots filled, but it is meant as a general "recipe" for how a Bantu verb is put together. While differences do exist between languages, and while different languages will have different materials in each slot, the template is very widely applicable. Newly grammaticalised material tends to be found at the edges of the verb, that is, in either Pre-SM or post-FV, and positions closer to the root often tend to be older, although not necessarily. Many languages have innovated new tense and aspect markers at TA, often grammaticalised from a double verb construction (Nurse 2008:291).

Pre-SM The Pre-SM slot (Meuseen's "Pre-Inital") can be used for a variety of functions, especially as it is a common locus for newly grammaticalised materials, but Meeussen (1967) reconstructed two kinds of morphemes in this position, the first being the primary negative, and the second being the relative object markers. The primary negative was likely used mainly in unmarked main clauses.

SM SM stands for subject marker, and that is primarily what this slot is used for. Meusseen use the term "inital". Subject agreement is typically obligatory in all contexts (although a few languages can delete subject markers (Nurse 2008:33)), so this slot is filled for most verbs, except for imperatives.

NEG_2 This slot is used for secondary negatives. Meusseen called it "post-initial". The secondary negative does not co-occur with the primary negative, and it was probably originally used in non-main clause contexts, such as for infinitives, relatives and subjunctives (Nurse 2008:34).

TA Nurse (2008)'s TA is a combination of two of Meeussen (1967)'s original slots, which he called "formative" and "liminal". This slot is used for a range of tense and aspect markers, and often works with the FV slot to indicate specific aspects and tenses. While in many languages today it is the combination of the morpheme at TA and at FV which gives rise to specific tense and aspect combinations, Nurse (2008) highlights that

traditionally this slot was more closely linked to tense, while FV had more to do with aspect. Most languages only allow one morpheme in this slot, while others allow two or even more. The most common morpheme in this position is some variation of *a(a)-*.

OM This slot is used for object agreement. Typically object marking is less obligatory than subject marking, and is optional in many languages and contexts. Languages differ as to how many objects they allow agreement with, and Nurse (2008:36) writes that this position can hold between zero and six morphemes. Meeussen (1967) called this slot the "infix".

Root This slot is where the verb root is found. The "standard" Bantu verb root is CVC, but shorter verbs exist, some 20 CV roots have been reconstructed to Proto-Bantu (Nurse 2008:36). Longer verbs also exist, but these are typically morphologically complex, at least in a diachronic perspective if no longer synchronically analysed as such (Nurse 2008:36). Meeussen (1967) called this slot the "radical". There are typically restrictions on which consonants can occupy the first C slot in the root, i.e. (underlying) prenasalised consonants are typically not allowed.

extension This slot (called "suffix" by Meeussen 1967) is used for a range of derivational morphemes mostly related to valency and valency changing operations. The most common categories are applicative, causative, extensive, impositive, passive, positional, reciprocal, separative, stative, and tentative (Nurse 2008:37). Sometimes several of these occur together. It is common for languages to have lexicalised verb + extension forms.

FV FV stands for "final vowel", and this slot (a combination of Meeussen 1967)'s "Pre-final" and "Final") is used for a series of morphemes related to aspect and mood. Typically morphemes found in this slot belongs to a small set of inherited morphemes. The most commonly seen morphemes are *-a* which is often the default, and could

be called neutral or indicative (Nurse 2008:37), *-e* which is the subjunctive marker, *-ile*, typically marking perfective, perfect or past, and *-a(n)ga* which marks different imperfective categories.

Post-FV This slot (called Post-final by Meeussen 1967) is often used for newly grammaticalised material, being at the end of the verbal word, and can therefore be used for a range of different categories, such as locatives, focus, aspect and tense. Some languages have object markers in Post-FV. The only morpheme that occurs in this position across most Bantu zones is **-ni*, which generally functions as a plural marker in imperatives (Nurse 2008:39).

Hierarchy within the verbal template Many researchers have suggested that the verbal template consists of a hierarchical structure, rather than being a linear string, and that certain elements are more closely linked than others. Evidence for this is often found in the domain of phonology, both segmental and supersegmental. It is generally suggested that the root and the extension are the two elements that are most closely linked together, and root + extension can be called the "derivational stem". The derivational stem is the domain of vowel harmony. Next, the derivational stem combines with FV, creating what is often called the "inflectional stem". In what follows, this is what I will be referring to when using the term "stem". The inflectional stem is the domain of nasal harmony, reduplication and vowel coalesence. The next level includes the OM, and the stem plus OM is sometimes called the "macro-stem". OM is often important for tone placement, and the macro-stem is the domain for various tonal processes. The final level is the macro-stem plus all the morphemes to the left, i.e. negation markers, TA markers, SM, and so on, forming the "verbal word" (Nurse 2008:41).

2.4.2.2 Bantu verbal tone

As many as 95% of the Bantu languages are tonal (Nurse 2008:41), and tone plays an important role in the TAM systems of many languages. It is not uncommon to have tenses or aspects that are differentiated on the basis of tone alone.

There are two different ways in which tone interacts with tense and aspect. The first is through the underlying tone of the root and the various morphemes. In many languages verbs fall into one of two tonal categories based on the lexical tone of the first syllable of the root, which can be either high or low/toneless (Nurse 2008:36). Other languages have lost this contrast, and in these languages verbal tone is purely grammatical. The various inflectional and derivational morphemes attached to a verb are often also associated with specific tones, and below is an overview of common tonal patterns, based on (Nurse 2008:32-39) and (Marlo & Odden2019:160-164).

Pre-SM: low

SM: SAP are low-toned, class markers are high-toned (although different divisions exist)

OM: singular SAP are low-toned, plural SAP and all class markers are high-toned

Root: some languages have a contrast between high-toned and low-toned roots

Extension: most are low-toned or toneless

FV: the subjunctive *-é* is reconstructed with a high tone

Post-FV: *-ni mostly has a high-toned final vowel

Sometimes a TAMP category is associated with a tonal melody, which functions like a tonal affix, specifying the tones of the verbal root, or the whole verbal word (Marlo & Odden2019:162). Such grammatical tonal melodies might override the lexical tones of affixes and verb roots in the categories where they exist.

2.4.3 Tense

Bantu languages are known for complex tense systems with multiple past and future tenses. In a sample of 100 Bantu languages, Nurse (2008) finds the most common is to have 2 pasts (41%), although 42% of the languages in the sample had either 3 (31%), 4 (10%) or 5 (1%) past tenses. No languages had zero past tenses, and only 17% had one.

The numbers for future tenses looks quite different, as around half (47%) had only one future, while 9% had zero. Only a quarter of the languages (25%) had two future tenses, and 16% had three, while any more than that is very rare, with only 1 language reported to have four future tenses, and two reported to have five (although note the reservations mentioned above). It is fairly common to have a symmetrical system, where the number of pasts equal the number of futures, as this is the case in 42% of the languages in the sample. It is very uncommon for a language to have more future tenses than past tenses, and the number of pasts is generally equal to or greater than the number of futures.

If a language has two past tenses, P1 will likely refer to the day of the utterance (hodiernal), or less commonly the day of the utterance and one day before that (hodiernal + hesternal). P2 refers to everything before this. Mostly Bantu days are considered to start at sunrise. When a third past is added, the most common division is between hodiernal, hesternal and anything earlier than that. Less commonly, the past that is added is an immediate past, used to refer to events happening seconds or minutes before the utterance. In systems with four tenses, an immediate past is quite common. Future tenses tend to mirror the past tenses: F1 typically represents hodiernal future, or hodiernal plus crasternal (potentially including a few more days after that), and in systems with three futures one commonly finds a contrast between hodiernal, crasternal and remote future.

Nurse (2008) finds sources reporting languages as having as many as 6 past tenses, and as many as 5 futures. In most of these cases, however, the analysis and semantics of the tenses is not clearly explained in the sources, and they generally did not include enough data or detailed enough descriptions for Nurse (2008) to be able to properly evaluate the claims. In multiple cases Nurse (2008) suspects that certain forms actually involve ungrammaticalised auxiliaries, or that the author might be conflating tense and aspect categories. Immediate past and perfect can for instance be difficult to tell apart. Further study and reexamination of the languages in question is needed in order to clearly establish the upper limits to the number of tense distinctions in Bantu languages (Nurse 2008:102). Some languages have been described as having more than one present

tense, but Nurse (2008) concludes that in such cases the difference between the forms have to do with aspect.

The terms given above, such as "hodiernal" and "crasternal" refer to the most typical usage of these tenses, but limits between tenses can be more or less strict, and overlap is possible. It is also not uncommon for tenses to take on new meanings when talking about events that occur yearly, such as planting, where the hodiernal tense could be referring to the current planting season, the hesternal to last years planting season, and so on.

If only one morpheme is used to encode tense, it is most commonly found at TA, but potentially also at FV, Pre-SM or, more rearely Post-FV (Nurse 2008:81). Another common way to encode tense is by a combination of morphemes, typically at TA and FV, potentially also Pre-SM. In this case it is often impossible to point to exactly what function each morpheme has, and it is the combination that gives rise to the specific tense. For marking past tense, the morpheme *a-* is commonly found at TA, and this morpheme can have different tones or vowel lenghts to differentiate between different past tenses. As many as 78% of the languages in Nurse (2008)'s sample had at least one past tense marked with this morpheme. Often past tenses are fomed by combining the *a-* prefix with a suffix, most commonly either FV *-a* or *-ile*. *a-* at TA can also be used to mark non-past tenses, and this is the case for 27% of the languages in the sample. FV *-ile* is a morpheme that is often associated with past tense as well, although it is also frequently used with perfective or perfect meanings. *-ile* is also often found in combination with a zero morpheme at TA.

Both TA **a-* and FV **-ile* likely date back to Proto-Bantu, as they are widespread thorughout the whole Bantu family (Nurse 2008:256, 276). For future tenses most morphemes are more recent innovations, and there is really only one, **laa-*, which might be reconstructable to Proto-Bantu (Nurse 2008:85). Another relatively frequent marker of future tense is *ka-*, occurring in 29% of the languages in the sample. *la(a)-* occurs in 12% of the sample languages, mostly in the eastern part of the Bantu area, including the area around Lake Victoria. Other tense/aspect morphemes that likely originated in Proto-Bantu are **ka-* 'itive, narrative', **kí-* 'imperfective' in TA (Nurse

2008:256), plus **-é* 'subjunctive' and **-ag* at FV (Nurse 2008:276). The present tense is commonly the least marked tense, often with a zero morpheme at TA, which likely goes back to PB. Nurse (2008:117) suggests that these forms are not actually marked for tense, but that the present is the default interpretation when there is no overt tense marking, and no context that would suggest a different interpretation. A progressive aspect marked by a copula + locative + verbal noun probably also goes back to PB.

Many Bantu languages also have narrative (sometimes called sequential) tenses. This is a relative tense which marks that an action occurred following a previous action. Generally the narrative verb has no morphology that overtly refers to absolute tense, instead the absolute tense needs to be interpreted based on the context, or rather from the first verb in the sequence. Other relative tenses can be expressed by what Nurse (2008:29) calls compounds. These are constructions with an auxiliary and a main verb which are both inflected (different from constructions consisting of an auxiliary plus an infinitive). It is possible for the first verb to establish a point of temporal reference related to the present while the second verb can then indicate a point in time relative to the first verb. A single, inflected verb can only have one tense. These compounds are also used for expressing combinations of tense and aspect, in which case tense is typically marked on the auxiliary, and aspect on the main verb (or on both verbs) (Nurse 2008).

2.4.4 Aspect

While there is a wide range of variation when it comes to the number and type of tenses in different Bantu languages, there is more uniformity in the aspects. The most frequent categories are perfective, imperfective, perfect,[6] progressive, persistive and habitual (Nurse & Devos 2019:211). Aspects can be marked either by inflectional morphemes, or by the use of auxiliaries. Like with tense, aspect can be created by a combination of morphemes, most often either at TA or FV. When marked by a single morpheme, aspect is typically found at FV, but many languages also have aspectual markers at TA. Some imperfective categories, such as progressive, persistive, habitual and general

[6]Both the perfect and the persistive are sometimes considered tenses rather than aspects, but I discuss them under aspect since Nurse & Devos (2019) also discusses them in the aspect chapter

imperfective are often expressed by compound constructions. The perfective aspect is never marked by periphrasis, but the perfect can be in some languages.

Nurse (2008:134) writes that all the languages he looked at had a perfective aspect. Typically, the perfective is less marked than the imperfective, meaning that forms that are not overtly marked for aspect are interpreted by Nurse (2008) as being perfective. Some languages have a general imperfective aspect, while other languages have a series of different imperfective forms, such as progressive, habitual, persistive and continuous. Yet other languages have both a general imperfective, and various more specific imperfective categories (Nurse 2008:137).

The FV suffix *-a(n)ga* is very often assossiated with imperfective, and is sometimes also used for more specific imperfective categories (Nurse 2008:138). Another common morphological strategy for marking imperfectivity is through reduplication (Nurse 2008:150). The FV *-ile* is often assossiated with perfetivity, and a lot of forms that are unmarked as to tense or aspect, having a zero morpheme at TA and the general (or neutral) FV *-a*, are also considered perfective by Nurse (2008).

66% of the languages in Nurse (2008)'s sample had a progressive aspect, and this can be marked in a range of ways. Inherited morphemes involved in forming progressives are TA *a-* or (rarely) FV *-a(n)ga*, but it is also very common to see innovations, typically based on locatives, or derived from constructions with 'have/be with', commonly based on the conjunction *na*.

A habitual aspect is found in a bit under half of Bantu languages (43% of Nurse (2008)'s sample). Like other imperfective categories, it is very often marked by *-a(n)ga*. Other morphemes that are found in habituals include *-(i)ka(:)*, *-ke*, or *-chere/-kele*, the latter based on the past tense form of the copula. Other verbs that sometimes get grammaticalised as habitual aspect markers are those with meanings such as 'live', 'remain' or 'sit'. There are often some limits on the tenses that the habitual can cooccur with. Often the number of past habitual forms will be lower than the number of perfective past forms, and in some languages the habitual can only occur with non-future tenses. There are also some languages where the habitual can be used in the future and the past, but not the present.

A phenomena that is rare cross-linguistically, but found in quite a few Bantu languages, is what is called a 'persistive' tense. This is what Comrie (1985) categorises as a grammatical category that is a combination of absolute tenses: 'a tense, in the strict sense of a single grammatical category, which indicates that a situation holds at one segment of the time line, but does not hold at certain other segments of the time line; or a tense indicating specifically that a given situation holds at different segments of the time line' (Comrie1985:54). In English, these are concepts that are covered by adverbs such as 'still', 'not yet', and 'no longer'. Luganda, for instance, has a prefix *kya-* that can be used to indicate that an action is still happening - i.e. that it was true in the past and is still true. The negative version of this, the 'no longer' form, indicates that it was true in the past, but is no longer true in the present, that is, the action is no longer taking place. Luganda also has a 'not yet' tense, marked with *nna-* (Comrie1985:54).

A bit over half of the Bantu languages have a persistive aspect (56%), this is commonly marked by *-kɪ*. This same marker is also often used to form situatives, as in the Kiswahili example in (14). The persistive can also be formed with the use of an auxiliary, often one based on a copula, for instance *-ngali*, where the *nga-* is persistive and *-li* is a copula often assossiated primarily with location.[7]

(14) Kiswahili

Tulimwona akienda.

tu-li-m-won-a *a-ki-end-a*
1PLS-PST-1O-see-FV 1S-KI-go-FV
'We saw him going.'

Perfect (also called anterior) is a category that is very common, found in 81% of Nurse (2008)'s sample. Around a third of these mark the perfect by a combination *Ø-* at TA and *-ile* at FV. Other common ways to mark the perfective is *-a-...-a* (19%) and *-a-...-ile* (14%).

Other categories that can sometimes be found in Bantu languages include pluractional (marking that an action is repeated, or carried out by multiple agents), inceptive

[7]There are three copulas commonly found in Bantu: *-lɪ* 'be (locative), *-ba* 'be, become', and *-nɪ* 'equational be' (Nurse 2008:145)

(a term that can be used for both an the start of an action, and an action just having finished, two aspects that can be marked by different kinds of morphology (Nurse 2008:162), completive (do something thoroughly to completion), precessive/antecessive ("first you do this, then..."), iterative, priorative, continuative, preferential, proximative.

Tense and aspect can often be combined in a myriad of ways. As mentioned above, however, there are limitations to which aspects can combine with which tenses. Tense and aspect can be marked simultaneously in the same verbal word, or a compound construction can be used. In general, the aspectual marking will be closer to the lexical verb. This is seen both in synthetic construction, where the aspect is typically found at FV, a slot that is a part of the verbal stem and more closely related to the root than TA, and analytic constructions, where the auxiliary will often be used to mark tense, while the aspectual marking will be on the lexical verb (Nurse & Devos 2019). (14) illustrates well how tense and aspect can be combined in this way. The auxiliary carries the past tense morpheme, and the lexical verb has the situative *-kɪ*.

2.4.5 Mood and modality

There has been much less research into mood and modality in Bantu languages, than into other verbal categories such as tense and aspect (Nurse & Devos 2019:225). There are a couple of mood categories that are very widespread, and marked in similar ways in most languages where they occur. One such category is the imperative, which generally consists of the bare stem for the second person singular, and the bare stem plus some kind of marker of plurality for the second person plural, most commonly a version of the suffix *-Vni*, which can be reconstructed for Proto-Bantu (Nurse & Devos 2019:220).

The subjunctive is another very common category, generally marked with the suffix *-e* in FV. Many languages use the subjunctive for polite commands, and it can also be used in cohortative and jussive functions. The subjunctive commonly has both main clause and subordinate clause usages (Nurse2008:224).

The conditional (sometimes also called potential) is less common, and is found in only 29% of the languages in Nurse' (2008) sample. The conditional often takes a form similar to *nga-* at TA or Pre-SM. Nurse (2008:251-252) suggests that the conditional and

potential meaning are derived from the particle *ngà* 'like, as'. This would then have gone through a grammaticalisation process, before ending up at TA in many languages.

2.4.6 Extensions

The term 'extension' is often used in Bantu studies to refer to one of the suffixes that go in the 'extension' verb slot, and which tend to change the valency of the verb. Schadeberg & Bostoen (2019) list 11 extensions that can be reconstructed for Proto-Bantu, and their table is reproduced in Table 9.2. Some of these, such as the causative **-ici* likely dates back to before PB, as cognates can be found even outside of Narrow Bantu, in Bantoid languages such as Cicipu (Kainji), Sama Mum (Dakoid) and Noone (East Beboid) (Blench 2022). Reflexes of these extensions can be found in languages from all zones (Schadeberg & Bostoen 2019). Some tend to be productive, while others are much more restricted or largely lexicalised. The most common shape for an extension is -VC, and the only exceptions to this are the causative and passive forms. The extensions would have been followed by a final vowel. Proto-Bantu had a seven vowel system, but in the extensions there are only five contrasting vowel qualities, seeing as the low mid vowels /e/ and /o/ occur only as allophones of the high mid vowels /ɪ/ and /ʊ/. Their distribution is dependant on harmony with the root.

Table 2.4: Proto-Bantu extensions, based on Schadeberg & Bostoen (2019)

Causative	*-i/*-ici
Applicative	*-ɪd
Impositive	*-ɪk
Neuter	*-ɪk
Positional (stative)	*-am
Associative (reciprocal)	*-an
Repetitive	*-ag ∼ *-ang
Extensive	*-ad
Tentative (contractive)	*-at
Separative	*-ʊd, *-ʊk
Passive	*-ʊ/*-ibʊ

Causative The two causative affixes listed in Table 9.2 are assumed to have been in complementary distribution originally. The short form would have occurred after consonants, and the long form after vowels. This would have meant that the long form

occurred with monosyllabic stems, while the short form occurred with CVC stems. In the modern languages it is not uncommon for the two affixes to no longer be in complementary distribution, and in many languages the long form has become the more common one. The short causative often causes spirantisation, which has lead to analogical reanalysis in many languages. Once spirantisation has occurred, the suffix itself is often no longer overtly present, something that has been called "y-absorption" (Schadeberg & Bostoen 2019). Which segments this process of spirantisation applies to, what the outputs are, and whether or not the rule applies cyclically is something that differs between languages (see Hyman 2002).

Typically, the causative extension can be added to both intransitive and transitive verbs, and can express both direct and indirect causation. In some languages the causative can have a sociative meaning, and there are languages where it has taken on the applicative function of promoting instrumental arguments to object position (Schadeberg & Bostoen 2019). Another common usage of this affix is the intensive, where the derived verb has the same syntactic and semantic argument structure as the base verb. In some languages a formal difference between the causative and the intensive has developed. In Shona, for instance, the intensive uses a reduplicated causative (Schadeberg & Bostoen 2019:174-176).

Applicative Reflexes of the applicative extension tend to be fairly productive. There are a range of semantic roles that the applied object might have, such as beneficiary, maleficiary, goal, experiencer, recipient, location, instrument, direction/goal, patient/theme, circumstantial and reason/motive (Pacchiarotti 2020). The most widespread and productive of these is the beneficiary (Schadeberg & Bostoen 2019). Applicative verbs can be derived from most verbs, both intransitive, transitive and ditransitive. The applied object generally takes on the properties of objecthood. Most prominently, this means being able to trigger object agreement on the verb, and being able to be the subject of a passivised verb. Where the base verb is transitive, it is common for the applied object to have more of the objecthood properties than the base object. There are exceptions to

this, however, and in Luganda (JE15) the base object can be marked by object agreement in cases where the applied object is not (Schadeberg & Bostoen 2019).

Impositive The impositive extension does not appear to be very productive in any language, and is assumed to have been highly lexicalised already at the time of PB (Schadeberg & Bostoen 2019). It is often found to alternate with positional **-am* or separative **-ʊd, *-ʊk*, rather than with a base form. The meaning that it has been most commonly associated with is the idea of 'putting something into some position', hence the term. It is also associated with causative meanings, more specifically direct causation. In most languages, this extension is homophonous with the neuter extension, but there are languages where the two differ in their effect on tone and vowel harmony (Schadeberg & Bostoen 2019:178-179).

Neuter The neuter extension (also called neutro-passive) is poorly represented in the body of PB reconstructions, but reflexes are probably found in all zones (Schadeberg & Bostoen 2019). There are two semantic classes of verbs that the extension is most often associated with, and which are reconstructed back to PB and found in languages where the extension is the least productive. These are verbs of destruction, which are transformed from transitive to intransitive, e.g. to break (tr.) –> to be breakable/be broken (intr.), and experiencer verbs, e.g. see (tr.) –> be visible (intr.) (Schadeberg & Bostoen 2019:179-181).

In some languages the neuter extension functions as a productive means of detransitivisation. One usage of this is quite similar to a middle voice. It is typically not possible to have a human agent present, even in a prepositional phrase, but non-agentive initiators can sometimes be expressed (e.g. 'The door was opened by the wind'). It is also generally not possible to include an adverbial indicating that the action was performed purposefully and with intention. These constructions, then, highlight that an event took place spontaneously, and without an intentional/animate agent. Similarly, it can often be used to form anticausatives, as when turning transitive verbs of destruction into intransitive verbs of destruction, e.g. to break (tr.) –> to break (intr.). In some languages the neuter can also be used for "emotion middles", as in Cuwabo (P34) *ó-fwáás-éy-a*

'to be calm'. In a couple of languages reflexes of this extension function as more of a canonical passive, for instance in Tumbuka (N21) (Schadeberg & Bostoen 2019:179-181).

Another common function of the neuter extension is to create patient orientated potentials. In these sentences the base object becomes the subject, and we get verbs meaning something like 'can be verbed'. Many language also use the neuter in constructions with detransitivised perception verbs, both stimulus constructions ('She appeared to be cooking') and evidential constructions ('It seems that she has left') (Schadeberg & Bostoen 2019:179-181).

Positional (stative) The core meaning of the positional **-am* is "assuming a position", or "to be in a position" when used with a perfective aspect. It is also often the intransitive counterpart to a transitive verb with the impositive extension. It commonly alternates with the impositive or the separative extensions. It covers several of the subcategories of middle voice listed by Kemmer (1993), such as "non-translational motion", "change in body-posture", "translational motion", "emotion", "cognition" and "spontaneous event". Some examples of the positional extension in reconstructed PB vocabulary is shown in (15) (taken from Schadeberg & Bostoen (2019) p.181).

(15) a. **-(j)ég-am-* 'lean against (intr.)'

b. **-jìn-am-* 'bend over'

c. **-bʊ̀ng-am* 'be sad'

d. **-cò-am-* 'hide (intr.)'

**-cò-ık-* 'hide (tr.)'

**-cò-* 'set (of sun)'

e. **-kúk-am-* 'kneel'

Associative (reciprocal) The associative extension is reconstructed as **-an*, and its most common function is reciprocal. If there is a coordinated subject, the two noun phrases are typically connected with the associative proclitic *na-* (Schadeberg & Bostoen 2019). In cases where the coordinated noun phrase comes after the verb, the subject agreement can in many languages be plural, even if the subject is logically singular.

In some languages, the **-an* forms have been replaced. Schadeberg & Bostoen (2019) write that in most languages of Angola, this happened first by the introduction of a compound suffix, something like *-asan* or *-angan*, and later this form was replaced by reflexive object concord, leading to reflexive-reciprocal polysemy.

Repetitive The repetitive is reconstructed as **-ag* ∼ **-ang*, where the two forms represent regional variants (Nurse 2008, Schadeberg & Bostoen 2019) and while it behaves tonally like an extension, it is often better considered a part of the inflectional paradigm, indicating various imperfective meanings such as durative or habitual (Schadeberg & Bostoen 2019). Meeussen (1967) classified this morpheme as belonging to its own slot in the verbal template, the 'Pre-final', which follows the extension slot and precedes the final vowel slot. In some languages today it can be considered a member of the set of extensions, while in other languages it has moved towards the final vowel slot, which is typically for inflectional morphemes (Nurse 2008). In most languages where it occupies the final vowel position, it can be split by the passive suffix, much like the suffix *-ile* (Nurse 2008).

Extensive The extensive is reconstructed as **-ad*. It is not fully productive in any language, but it comes closest in some Southern languages. The name 'extensive' comes from the fact that in some languages it expresses that an action is extended in time or space. In Northern Sotho it can be used to express "the (active) entering of a passive state where the action expressed by the basic verb potentially or actually affects the subject" (Schadeberg & Bostoen 2019). In (16) below are some examples of PB verbs that have been reconstructed with this extension (taken from Schadeberg & Bostoen 2019:184). A central element of its meaning in PB reconstructions is "to be in a spread-out position", and recurring derived meanings relate to being ill or suffering.

(16) a. **-(j)ik-ad-* 'sit, dwell, stay'
**-(j)ik-* 'decend'

b. **-tíg-ad-* 'remain'
**-tíg-* 'leave (behind)'

c. *-*dʊ́*-*ad*- 'be ill'

d. *-*dú*-*ad*- 'wear (clothes)'

*-*dú*-*ɪk*- 'put on (clothes)'

Tentative (contractive) The tentative extension, *-*at*, has not been reported to be productive in any language. Its semantic core can be described as "actively making firm contact" (Schadeberg & Bostoen 2019). Below are some reconstructed PB verbs whose reflexes are commonly seen in modern languages (taken from Schadeberg & Bostoen 2019:185).

(17) a. *-*kʊ́*-*at*- 'seize'

b. *-*dì*-*at*- 'thread on'

c. *-*kúmb*-*at*- 'hold, embrace'

d. *-*dàm*-*at*- 'stick to'

Separative The separative extension, also called "reversive" or "inversive", is reconstructed as having two forms, *-*ʊd* and *-*ʊk*. The first is considered to have been transitive, and the second intransitive (Schadeberg & Bostoen 2019). These affixes tend to occupy an intermediate position in the productivity scale, as there are often quite a few lexemes with the affixes, but they can generally not be freely combined with any verb root (Schadeberg & Bostoen 2019).

As the label "reversive" suggests, separative verbs often have a meaning that relates to undoing, reversing or redoing something, as for instance in Kiswahili *kuziba* 'block' and *kuzibua* 'unblock' (Schadeberg & Bostoen 2019). Schadeberg & Bostoen (2019) writes that for PB reconstructions, the meaning from which most of the various senses of the separative can be derived, is "movement out of some original position".

Passive Proto-Bantu is reconstructed as having two passive extensions, *-*ʊ* and *-*ibʊ*, considered to be allomorphs with a similar distribution pattern to the causative extensions, with *-*ʊ* occurring after consonants, and *-*ibʊ* following vowels (Schadeberg & Bostoen 2019). In PB the passive occupied the last spot in a sequence of extensions. It is

considered to have been very productive in PB, and both semantically and syntactically regular (Schadeberg & Bostoen 2019). That is still the case for many languages today, although in some areas the passive extension has largely disappeared, or has become much less used, particularly in zones A, B, H, K and L, where other passive strategies are used instead. Sometime other extensions, such as the associative or the positional, have taken over the passive function. Because of this, there has been some doubt as to whether or not the passive can be reconstructed to Proto-Bantu, but Schadeberg & Bostoen (2019) find that even in the zones where the passive is sparse, there are enough occurrences to justify its reconstruction.

2.4.7 Post-final locative

The majority of Bantu languages have object prefixes in the OM slot (Marlo 2015). There are some languages, however, which instead use object markers that follow the verb stem, either as suffixes, enclitics or independent words (Marlo 2015). Beaudoin-Lietz et al. (2003) classify languages with object prefixes as Type 1, and those with post-stem object markers as Type 2. A third group of languages, Type 3, use a combination of these. In Beaudoin-Lietz et al.'s original classification Type 3 is somewhat rare, but Marlo (2015) highlights that the original classification did not take locative markers into account, and once those are included, a lot more languages would have to be included in Type 3, as there are many languages that generally use object prefixes, but nevertheless have post-stem locative markers. Lugwere is such a language.

Persohn & Devos (2017) use the term 'post-final locatives' to describe this. They avoid terms like 'object suffix/enclitic' as their functions are much broader than just object marking, stating that 'the presence of a locative suffix/enclitic (...) cannot be taken as evidence for the syntactic objecthood of the corresponding locative noun phrase' (Persohn & Devos 2017:6).

In many languages, such post-final locatives have taken on a range of functions beyond the realm of location. Persohn & Devos (2017) discuss variation in form and the various axes of morphosyntactic variation that is found in this domain. As Lugwere

has such post-final locatives (see Chapter 10), it is worth briefly laying out here the variation that has been documented.

The post-verbal locatives are often built by combining a locative pronominal prefix with the so-called '-o of reference' (reconstructed for Proto-Bantu as **-e* for Class 1 and **-o* for all other classes). This is used to form short pronominal forms or short substitutives, which have a range of functions in different languages, such as being part of addressee oriented demonstratives, and functioning as a means of cross-indexing the antecedent in relative verb forms (Persohn & Devos 2017). The number of post-final locative markers in a language can be identical to the number of locative noun classes, but does not have to be. Most Bantu languages have three locative classes (16, 17 and 18), but some languages in zone J (including Lugwere) has an additional locative class 23.

Another dimension of variation is the morphological status of these markers. They are often classified as enclitics, amongst other things because they can combine with a variety of word classes (Persohn & Devos 2017). In other cases they are clearly suffixes, as in Nyoro, for instance, where the Habitual marker can follow the locative, illustrated in (18) (taken from Persohn & Devos 2017.[8]) The number of post-final locatives in a sequence that a language allows also differs, with Lusoga JE16 allowing up to four (Persohn & Devos 2017).

(18) Nyoro JE11 (Muzale 1998:162)

Tinkagendayoga

ti-n-ka-genda-yo-ga
NEG-1SGS-PST-GO-LOC25-HAB
'I have never gone there'

Other dimensions of variation is the type of argument the post-final locatives can refer to, and whether they trigger formal or semantic agreements. Most languages can index locative objects this way, but some can also use them to index locative subjects (potentially in combination with a subject prefix, as in (19) (taken from Persohn & Devos 2017). The markers can also index more peripheral arguments, such as locative

[8] I have mostly kept the glosses from the source, but have made minor changes to ensure that the way subject marking and agreement marking is done is consistent across the examples in the thesis

adverbials, as in (20) (taken from Persohn & Devos 2017)). Generally, the markers are used for endophoric reference to a locative noun phrase, as illustrated in (20). The agreements can be strictly formal, but do not have to be, and at times languages can use a different locative class in the noun phrase from the one used in the verbal post-final locative. Languages have different restrictions regarding which nominal prefixes can co-occur with which verbal post-final locatives. In Ikizu, for instance, a Class 17 post-final marker cannot co-occur with a Class 17 nominal prefix in the sense 'at', and instead a Class 16 or Class 23 post-final marker is needed (Persohn & Devos 2017). Sometimes a language also allows reference to a noun phrase that is semantically, but not formally, locative, as in (21) (taken from Persohn & Devos 2017). Some languages do not allow a verb with a post-final locative to be followed by an overt post-verbal locative noun phrase at all, while other languages have no such restrictions.

(19) Ganda JE15 (Grégoire 1975:79)

Kubbalza kwange kwayiiseeko amazzi

ku-bbalza kw-ange kwa-yiis-ee-ko a-mazzi
17-veranda 17-POSS.1SG 17S.PST-spill-FV-LOC17 AUG-6.water
'On my veranda water has been spilt'

(20) Ikizu JE402 (Gray 2013:52)

Mumbih̵ira arabiikamu ~~u~~mu~~u~~karuka

mu-mbih̵ira a-ra-biik-a(-mu) ~~u~~-mu~~u~~-karuka
18-9.tomb 1S-CONT-bury-FV-(LOC18) AUG-1-old.man
'In a tomb, he is burying the old man (there)'

(21) Kinyarwanda JD61 (Kimenyi 1976:90)

Umugóre yooherejého isóko umubooyi.

u-mu-góre y-oohere-jé=ho isóko u-mu-booyi.
AUG-1-woman 1S-send-ASP=LOC16 5.market AUG-1-cook
'The woman sent the cook to the market.'

There are also languages in which a post-final locative is obligatory in certain contexts, such as in locative inversion constructions (see 2.4.9), or in existential constructions.

Persohn & Devos (2017) also report that in languages with post-final locatives these are commonly used in non-locative functions. Often, one locative marker within a language will have acquired multiple non-locative functions. The most common such non-locative function is that of a partitive, i.e. denoting "an indefinite partial degree to which an action is carried out or to which a situation pertains" (Budd 2014:524). This might mean that the scope is over the object, expressing that it was only partially affected, or it can be over the entire verb predicate, which then indicates the "degree of the state of affairs expressed". This could, for instance, be to indicate that a state/result held only for a short period of time.

Note that while many languages use post-final locatives to express partitives, different languages use different locative classes for this, Ndali M301 and Ruund L53, for instance, use Class 16, while Saamia JE34 and Bemba M42 (and Lugwere) use Class 17 (Persohn & Devos 2017).

Many languages also use post-final locatives as markers of politeness. In almost all cases the class used for the partitive is the same one that is used as a politeness marker, and so it is very likely that the politeness function developed from the partitive function (Persohn & Devos 2017). In some languages a post-final locative has taken on functions as a negative marker, and Persohn & Devos (2017) considers this function to also have developed from the partitive.

Other functions that Persohn & Devos (2017) found post-final locatives to have in their language sample was as a comparative marker, as a marker of concern (about'), to introduce an instrumental argument, as additive markers, as a substitutive maker, and in some languages the locatives indicated the manner in which an action was carried out. They could also be used to indicate that an action was performed to completion. They also found that in most languages verbs with locative enclitics had been lexicalised with meanings more or less unpredictable from the semantics of the verb stem and the locative itself.

2.4.8 Locative inversion

Locative inversion is a type of construction found in many Bantu languages, where a subject and a locative are linearly inverted (Salzmann 2011). (22) shows an example from Chichewa (taken from Salzmann 2011), and while the two sentences have the same propositional content, they differ in that in (22b) the locative has been fronted to the position normally occupied by the subject, and controls the subject agreement on the verb, while the agent now follows the verb. The locative often pass most (but not always all) tests for subjecthood, while the role of the logical subject/agent is often unclear, as it generally fails common objecthood tests (Salzmann 2011). In locative inversion construction there is no additional valency changing morphology on the verb, and the logical subject is obligatory, and cannot be omitted like in a passive. The discourse function of this type of construction is that of presentational focus, where the subject is focalised.

(22) Chichewa N30 (Bresnan & Kanerva 1989:2)

a. *Alendôwo anabwérá kumudzi*

a-lendô-wo *a-na-bwér-á* *ku-mu-dzi*
2-visitor-2those 2S-RECPST-come-IND 17-3-village
'Those visitors came to the village'

b. *Kumudzi kunabwérá alendôwo*

ku-mu-dzi *ku-na-bwér-á* *a-lendô-wo*
17-3-village 17S-RECPST-come-IND 2-visitor-2those
'To the village came those visitors'

In Bantu languages that have them, the locative inversion constructions differ in a few different respects (Salzmann 2011). Firstly, there is some variation as to what types of verbs can undergo locative inversion. Most commonly it happens to (active) unaccusative verbs, or passive transitive verbs, but locative inversion is also found with unergative or ditranisitive verbs in some languages. Some languages also require a locative suffix/enclitic in addition to the subject maker, and some even allow a location to be fronted without a locative noun class maker, and have a subject marker that agrees with the inherent class of the noun, but in such cases a locative suffix/enclitic agreeing

with the locative class is required. It is also argued that for some languages, the locative phrase does not become a subject proper, but can be analysed as an expletive phrase with a topicalised locative phrase (Salzmann 2011).

2.4.9 The conjoint/disjoint alternation

The conjoint/disjoint alternation is a term used to describe an alternation seen in some Eastern Bantu languages, where two verbal forms that have the same values for tense, aspect, mood and polarity alternate. Only one of the forms is allowed in clause final position, while the other form needs to be followed by another element (Downing & Marten 2019). The form that can occur in final position is called 'disjoint', and the form that cannot occur finally is called 'conjoint'. These terms were first introduced by Meeussen (1959), and while a range of other terms for this distinction exists in the literature, conjoint/disjoint appears to be the most commonly used in recent research (e.g. Van der Wal & Hyman 2017, Downing & Marten 2019). Form 2 is often considered to be more closely tied to the following element than the disjoint. While the disjoint can stand independently, it can also often be followed by other elements. Van der Wal (2017b:15) defines the distinction as follows: "The conjoint/disjoint alternation is an alternation between verb forms that are formally distinguishable, that are associated with an information-structural difference in the interpretation of verb and/or following element and of which one form is not allowed in sentence-final position."

An example from Makhuwa is given in (23) (taken from Van der Wal 2017b:15). In (23a) the conjoint verb form is used, and so the object obligatorily follows it, while in (23b) the object can be left out. The (23a) form indicates a closer relationship between the verb and its object (Van der Wal 2017b).

(23) Makhuwa P31 (Van der Wal 2011:1735)

a. *Nthíyáná ocaalé nramá*

nthíyáná o-c-aalé nramá
1.woman 1S-eat-PERF.CJ 3.rice
'The woman ate rice'

b. *Nthíyáná ohoócá (nráma)*

nthíyáná o-hoó-cá (nráma)
1.woman 1S-PERF.DJ-eat 3.rice
'The woman ate (rice)'

The languages that do have a conjoint/disjoint alternation vary a lot in how they mark it, which TAM categories have the distinction, and the distribution of the two forms. The fact that one form is restricted to non-final contexts is considered by Van der Wal (2017b) to be a defining feature of the conjoint/disjoint alternation, but there is variation as to whether the disjoint form can be non-final. Most languages mark the distinction segmentally in at least one tense, but it is common for grammatical tone to play a role in the marking, and there might be tenses where the distinction is only tonal. So far only one language, Rukiga, has been reported to have a purely tonal conjoint/disjoint distinction (Van der Wal & Asiimwe 2020). t is common for the distinction not to be present in negative or subordinate forms, and the verb form used in negative and subordinate clauses often resembles the conjoint form (Van der Wal 2017a). There are also languages that have been reported to have a similar alternation in the nominal domain (Van der Wal 2017b).

3 Phonology

Contents

3.1 Segmental phonology . . . 82
3.1.1 Consonant inventory . . . 82
3.1.2 Vowel inventory . . . 85
3.1.3 Segmental phonological processes . . . 87
3.2 Suprasegmental phonology . . . 101
3.2.1 Surface and underlying tones . . . 102
3.2.2 The tone-bearing unit . . . 103
3.2.3 Tone spreading . . . 105
3.2.4 Downdrift . . . 107
3.2.5 Downstep . . . 108
3.2.6 Floating tones . . . 108
3.2.7 Obligatory contour . . . 110
3.2.8 Tonal polarity . . . 111
3.2.9 Tonal assimilation . . . 112
3.2.10 Privative or binary? . . . 113
3.2.11 Lexical tone . . . 113
3.2.12 Morphological tone . . . 123
3.2.13 Morphosyntactic tone . . . 124
3.3 Syllable structure . . . 126
3.4 The phonological word . . . 128
3.5 Orthography . . . 131
3.5.1 The orthography presented in Nzogi (2005a) . . . 132
3.5.2 Tone marks . . . 134

Lugwere phonology has been described by Nzogi (2006). The following description

Table 3.1: Lugwere consonants

	Bilabial	Labio-dental	Alveolar	Alveo-palatal	Palatal	Velar
Plosive	p b		t d			k g
Nasal	m		n		ɲ	ŋ
Fricative	ß	f v	s z			
Affricate				t͡ʃ d͡ʒ		
Approximant	w				j	
Lateral approximant		l				

of the phoneme inventory (Sections 3.1.1-3.1.2) is largely based on his analysis, while description of the suprasegmental phonology is based on my own research, and differs slightly from that presented in Nzogi (2006). Descriptions of the segmental phonological processes (Section 3.1.3) are primarily based on my own observations, although many of these processes are also described in Nzogi (2006). Audio of all examples given here can be found at `https://tinyurl.com/phonologych` and the relevant audiofiles will be hyperlinked for each example. The examples are given in the orthography with tone marks (see Section 3.5 for a description of the orthography), in addition to phonological and/or phonetic transcriptions where relevant.

3.1 Segmental phonology

3.1.1 Consonant inventory

Lugwere has 20 consonant phonemes, illustrated in Table 3.1. There are two series of oral stops, one voiced and one voiceless, with three places of articulation. The /d/ is often pronounced a bit retroflex. Nasals are found in four places of articulation: bilabial, alveolar, palatal and velar. There is a distinction between the voiced bilabial stop /b/ and the voiced bilabial fricative /ß/. There is only one liquid /l/, and it has the two allophones [l] and [ɾ].

Below is a list of some minimal pairs and near minimal pairs, most of which were found using the Nzogi & Diprose (2012) dictionary. (24) – (26) show the contrast between the two bilabial stops and the bilabial fricative, (27) and (28) show the voicing contrast in the velar and alveolar stops. (29) and (31) show the difference between the two affricates, and (30) – (31) show the contrast between the affricates and the

voiced and voiceless alveolar and palatal stops. (32) shows the four contrasting places of articulation for nasals. (33) shows the contrast between /w/ and /ß/, and (34) – (35) illustrate the voicing contrast in alveolar and labiodental fricatives.

(24) a. *bàndí* /ßàndí/ 'other (AGR 2)'

b. *bbândí* /bândí/ 'band'

(25) a. *páàsí* /pâ:sí/ 'iron box'

b. *bbáàsí* /bâ:sí/ 'bus'

(26) a. *kùpàlálá* /kùpàlálá/ 'to fly while flapping wings'

b. *kùbbààláálá* /kùbà:lá:lá/ 'to bleat (sheep)'

c. *kùbàlá* /kùßàlá/ 'to count, add up'

(27) a. *kùnú* /kùnú/ 'this (AGR 15, AGR 17)'

b. *gùnú* /gùnú/ 'this (AGR 3, AGR 20)'

(28) a. *kùtèèbá* /kùtè:ßá/ 'to guess correctly'

b. *kùdèèbá* /kùdè:ßá/ 'to pester'

(29) a. *gìnú* /ɖʒìnú/ 'this (AGR 4, AGR 10)'

b. *kìnú* /ʧìnú/ 'this (AGR 7)'

(30) a. *kùdùùká* /kùdù:ká/ 'to stink'

b. *kùtùùká* /kùtù:ká/ 'to arrive'

c. *kùcùùká* /kùʧù:ká/ 'to turn'

d. *kùjùùká* /kùɖʒù:ká/ 'to hop'

e. *kùkùùká* /kùkù:ká/ 'to become uprooted'

(31) a. *kùjèrégá* /kùɖʒèlégá/ 'to mock'

b. *kùgèréká* /kùgèléká/ 'to determine'

(32) a. *kùkùnyá* /kùkùɲá/ 'to sneeze'

b. *kùŋàŋálá* /kùŋàŋálá/ 'to cry, howl'

c. *kùkùmá* /kùkùmá/ ‘to ignite’

d. *wá kúnà* /wá kúnà/ ‘fourth’

(33) a. *kùwùlírá* /kùwùlílá/ ‘to hear’

b. *kùbùùlírá* /kùßù:lílá/ ‘to preach’

(34) a. *kùvùgá* /kùvùgá/ ‘to drive’

b. *kùfùgá* /kùfùgá/ ‘to rule, control’

c. *kùwùgá* /kùwùgá/ ‘to swim’

(35) a. *kùzùbá* /kùzùßá/ ‘to weed’

b. *kùsùbá* /kùsùßá/ ‘to fail to reach’

Lugwere also has series of palatalised, labialised and prenasalised consonants. Most consonants can undergo all of these processes, with some exceptions. /ß/, /w/, /j/ and /l/ cannot be prenasalised, and in morphological context that would require prenasalisation, we get [mp], [mb], [ɲd͡ʒ] and [nd], respectively. /p/ and /ß/ cannot be labialised. In the latter case, the pronounciation becomes /w/, as in bwita [wita].[1] In the dictionary, Nzogi & Diprose (2012) lists only one word with labialised /t͡ʃ/ and none of /d͡ʒ/, although Nzogi (2006) includes two examples of this that I could not find in the dictionary, so this seems to be quite marginal. Likewise, there is no palatalised version of /t͡ʃ/ and /d͡ʒ/, or of /v/ and /f/. There is also no palatalised version of the palatal nasal /ɲ/. The velar stops /k/ and /g/ are realised as [t͡ʃ] and [d͡ʒ] when palatalised. Below are a few minimal pairs that illustrate these contrasts. (36) – (37) give minimal pairs with palatalisation, while (38) – (39) show labialisation, and (40) – (41) prenasalisation.

(36) a. *kùkùlá* /kùkùlá/ ‘to grow’

b. *kùkùlyá* /kùkùljá/ ‘to rear, bring up’

(37) a. *kùtàmá* /kùtàmá/ ‘to become clotted, of milk’

b. *kùtyàmá* /kùtjàmá/ ‘to sit’

[1] Nzogi (2006) does list /bw/, although the speakers I worked with seemed to pronounce all forms where /bw/ is expected as /w/. More work is needed on this.

(38) a. *kùtàlá* /kùtàlá/ 'to despise'

b. *kùtwàlá* /kùtwàlá/ 'to take, put'

(39) a. *mììgó* /mì:gó/ 'sticks'

b. *mwìgó* /mwìgó/ 'stick'

(40) a. *múpángò* /múpángò/ 'arrangement'

b. *ǹpángò* /ǹpángò/ 'pillar'

(41) a. *bùlí* /ßùlí/ 'every'

b. *ǹbùlí* /ǹbùlí/'goat'

Nzogi (2006) analyses these as sequences rather than separate phonemes, as the glides /w/ and /j/ and the nasals exist as phonemes in their own right. He argues that wherever prenasalisation changes the pronunciation of a phoneme, it changes it into something that already exist as a separate phoneme, and so it is more economical to posit that these processes lead to sequences rather than new phonemes. This is mostly true, although there is a labiodental prenasalised realisation (as in [ɱv] and [ɱf]) that does not occur as a separate nasal phoneme. Here I follow Nzogi (2006) in treating prenasalisation, labialisation and palatalisation as sequences, as I have not fully investigated this, and their status does not really impact my analysis.[2]

3.1.2 Vowel inventory

Lugwere has ten vowel phonemes, and the inventory consists of five vowel qualities that each have a long and a short phoneme. There are two pairs of front vowels, /i/,/i:/, /e/ and /e:/, and three pairs of back vowels, /u/, /u:/, /o/, /o:/, /a/ and /a:/.[3]

(42) – (45) below show minimal pairs with the different vowel qualities, and (46) – (47) illustrate that vowel length is contrastive (vowel length examples are taken from Nzogi 2006).

[2]One thing that I have noticed, and which might potentially be evidence in favour of treating prenasalised consonants as separate phonemes, is the fact that one of the speakers I work with often leaves out the nasal when typing. They might indicate that it is pronounced differently to a form without prenasalisation, but writes it the same way. While in no way conclusive, this could potentially be an indication that this person sees prenasalised consonants as single units, rather than sequences.

[3]The low vowel is pronounced [ɑ] [ɑ:], but as there is no contrast with other low vowels, I will use the symbol <a> for simplicity

(42) a. *kùnú* /kùnú/ ‘this (AGR 15, AGR 17)’

b. *kànú* /kànú/ ‘this (AGR 12)’

(43) a. *kùbònà* /kùßònà/ ‘to see’

b. *kùbùnà* /kùßùnà/ ‘to disperse’

c. *kùbìnà* /kùßìnà/ ‘to dance’

(44) a. *bántù* /ßántù/ ‘people’

b. *búntù* /ßúntù/ ‘human nature’

c. *bíntù* /ßíntù/ ‘things’

(45) a. *kwètá* /kwètá/ ‘to name’

b. *kwàtá* /kwàtá/ ‘to split’

c. *kwòtá* /kwòtá/ ‘to warm oneself by a fire’

d. *kwìtá* /kwìtá/ ‘to kill’

(46) a. *kùlàmá* /kùlàmá/ ‘to heal’’

b. *kùlààmá* /kùlà:má/ ‘‘to curse’’

(47) a. *kùlèrá* /kùlèlá/ ‘to baby-sit’

b. *kùlèèrá* /kùlè:lá/ ‘to float’

(48) a. *mùdòòdô* /mùdò:dô/ ‘species of mango’

b. *mùdòdí* /mùdòdí/ ‘wet’

(49) a. *múgúúlò* /múgú:lò/ ‘trench for water’

b. *ìgúlò* /ìgúlò/ ‘evening’

(50) a. *kùbììká* /kùßì:ká/ ‘to lay an egg’

b. *kùbìká* /kùßìká/ ‘to announce or report the death of s.b.’

Vowel length is neutralised in several contexts, where all vowels are realised long. These are before a prenasalised consonant, and following palatalised and labialised consonants.

There are only three diphthongs in Lugwere, namely /ei/, /ɑi/ and /oi/, and (51) – (53) illustrate the contrast.

(51) a. *àizâ* /àizâ/ 's/he comes'

b. *èizâ* /èizâ/ 'it comes (AGR 9)'

(52) a. *óísèngá* /óísèngá/ 'aunt'

b. *bàisèngá* /bàisèngá/ 'aunts'

(53) a. *éítéékà* /éíté:kà/ 'law'

b. *óítééwò* /óíté:wò/ 'father'

3.1.3 Segmental phonological processes

This section looks at some segmental phonological processes, many of which are relevant for the verbal morphology.

3.1.3.1 Prenasalisation

Directly before a consonant (i.e. as prenasalisation), the contrast between the four nasals is neutralised, and the nasal assimilates its place of articulation to the following consonant, as shown in (54).

(54) a. $N \rightarrow n \; / \; _C^{alveolar}$

b. $N \rightarrow m \; / \; _C^{bilabial}$

c. $N \rightarrow ɱ \; / \; _C^{labiodental}$

d. $N \rightarrow ŋ \; / \; _C^{velar}$

e. $N \rightarrow ɲ \; / \; _C^{(alveo)palatal}$

Nasal + nasals sequences The morphology sometimes leads to a situation where a nasal prefix is added to a stem that starts with a nasal. This is sometimes realised as a nasal that is pronounced longer, but the length difference is not always very pronounced. What is crucial, however, is that these sequences behave as a prenasalised consonant in that the preceding vowel is lengthened, meaning that underlyingly there

is still a prenasalised segment, or what might be better termed a nasal germinate in this case. This is exemplified in (55). The speaker who did the recording for (55b) and (55c) has a more distinct length difference for the nasal itself than the other speaker. In (55c) the velar stop assimilates to the nasal because of Meinhof's law (see Section 3.1.3.4).

(55) a. *yànàlìré* [jànàlìré] 's/he got used to'
yànnàlìré [jàːnàlìré] 's/he got used to me'

b. *lùmálà* [lùmálà] 'it is enough/over'
lúmmálà [lúːmːálà] 'it is enough for me'

c. *lùgùmbá* [lùgùːmbá] 'limb bone'
éŋŋùmbá [éːŋːùːmbá] 'limb bones'

d. *ànywézà* [àɲwézà] 's/he holds firmly'
ànnywézà [àːɲwézà] 's/he holds me firmly'

Prenasalised continuants /ß/, /w/, /j/ and /l/ cannot be prenasalised, and in morphological contexts that would require prenasalisation, we get [mb], [mp], [ɲd͡ʒ] and [nd], respectively. This is summarised by the rule in 56, where N symbolises prenasalisation.

(56) ß, w, j, l → b, p, d͡ʒ, d / N_

***n*- prefixes before vowels** When one of the nasal prefixes precedes a vowel, its form differs depending on which vowel it is, and whether the vowel is part of a stem or an affix. The 1st person singular subject marker is considered to be /n-/ underlyingly, and that is the shape it has before any vowel prefix. Directly before a vowel-initial stem, however, it is realised as a prenasalised affricate [ɲd͡ʒ-]. This is generally also the case for the Class 10 prefix, although it shows a bit more variation.

Table 3.2 gives an overview of the allophony related to prenasalisation, and shows that the Class 10 prefix has three possible forms in front of /e/, and is simply realised as /n/ before /u/. There are no contexts where the subject marker directly precedes /u/.

Table 3.2: An overview of prenasalised segments. Optional epenthetic vowels are added to the phonetic transcription where it was present in the recording

stem-initial phoneme	Prenasalised	Example
/b/	[mb]	*lùbbàálé* – *m̀bàálé* [lùbà:lé] –[m̀bà:lé] 'injury(/ies)'
/p/	[mp]	*lúpáálì* – *m̀páálì* [lúpá:lì] – [m̀pá:lì] 'papyrus mat(s)'
/g/	[ŋg]	*lùgàdá* – *ŋ̀gàdá* [lùgàdá] – [ŋ̀gàdá] 'elephant grass(es)'
/k/	[ŋk]	*lúkálálà* – *ŋ̀kálálà* [lúkálálà] – [ŋ̀kálálà] 'list(s)'
/t/	[nt]	*lútíndò* – *ǹtíndò* [lútí:ndò] – [ǹtí:ndò] 'bridge(s)'
/d/	[nd]	*kùdòdá ǹdódà* [kùdòdá] – [ǹdódà] 'to get wet' – 'I get wet'
/d͡ʒ/	[ɲd͡ʒ]	*lújò* – *ɲ̀jó* [lúd͡ʒò] – [ɲ̀d͡ʒó] 'piece(s) of broken clay pot.'
/t͡ʃ/	[ɲt͡ʃ]	*kùcùùká* –*ɲ̀cúúkà* [kùt͡ʃù:ká] – [ɲ̀t͡ʃú:kà] 'to turn' – 'I turn'
/w/	[mp]	*lùwé* – *m̀pé* [lùwé] – [m̀pé] 'roost(s)'
/j/	[ɲ]	*kùyàmbá* – *ɲ̀yámbà* [kùyà:mbá] – [ɲá:mbà] 'to help' – 'I help'
/ß/	[mb]	*lúbánì* – *m̀bánì* [lúßánì] – [m̀bánì] 'framework(s)'
/v/	[ɱv]	*lùvùlúlú* – *ɱ̀vùlúlú* [lùvùlúlú] – [ɱ̀vùlúlú] 'aroma(s) of meat being cooked'
/f/	[ɱf]	*lúfùlá* – *ɱ̀fùlá* [lúfùlá] – [ɱ̀fùlá] 'slaughter house(s)'
/l/	[nd]	*lùlìmí* – *ǹdìmí* [lùlìmí] – [ǹdìmí] 'language(s)'
/s/	[ns]	*lùsàyá* – *ǹsàyá* [lùsàyá] – [ǹsàyá] 'jaw(s)'
/z/	[nz]	*kùzìmúlá* – *ǹzìmúlà* [kùzìmúlá] – [ǹzìmúlà] 'to diagnose' – 'I diagnose'
/a/	[ɲd͡ʒa]	*lwàbí* – *ɲ̀jàbí* [lwà:ßí] – [ɲ̀d͡ʒàßí] 'sea(s)'
/e/	[ɲd͡ʒe]	*lwébè* – *ɲ̀jébè* [lwébè] – [ɲ̀d͡ʒéßè] 'colony(/ies)'
	[ɲe]	*lwèmbó* – *nyèmbó* [lwè:mbó] – [ɲè:mbó] 'song(s)'
	[mpe]	*lwèté* – *m̀pèté* [lwè:té] – [m̀pèté] 'rib(s)'
/i/	[ɲdʒi]	*lwígì* – *ɲ̀jígì* [lwí:gì] – [ɲ̀d͡ʒígì] 'door(s)'
/u/	[nu]	*lùùgá* – *nùùgá* [lù:gá] – [nù:gá] 'courtyard(s)'
/o/	[ɲd͡ʒo]	*kwòzá* – *ɲ̀józà* [kwò:zá] – [ɲ̀d͡ʒózà] 'to wash' – 'I wash'
/n/	[n:]	*yànàlìré* – *yànnàlìré* [yànàlìré] – [yà:nàlìré] 's/he got used to' – 's/he got used to me'
/m/	[m:]	*gìmálà* – *gímmálà* [d͡ʒìmálà] – [d͡ʒì:m:álà] 'it is enough' – 'it is enough for me'
/ŋ/	[ŋ:]	*kùŋèèŋá* – *ŋ̀ŋééŋà* [kùŋè:ŋá] – [ìŋ:é:ŋà] 'to cry' – 'I cry'
/ɲ/	[ɲ:]	*ànywézà* – *ànnywézà* [àɲwézà] – [à:ɲwézà] 's/he holds firmly' – 's/he holds me firmly'

3.1.3.2 The liquid

/l/ is generally realised as [ɾ] when following a front vowel, illustrated in (57). This phoneme shows a lot of variation, and would benefit from more in-depth study, along the lines of Zellers et al. (2021).

(57) /l/ → [ɾ] / i, e _

3.1.3.3 Spirantisation

The consonants /k/ and /g/ are pronounced as the affricates [t͡ʃ] and [d͡ʒ] when palatalised. They are also sometimes spirantised when preceding the front high vowel /i/, although this is not a rule that applies across the board, but appears to be sensitive to morphological context, and allows for variation. The spirantisation is common, but optional,

when the consonants appear in noun class prefixes or agreement markers followed by the high vowel /i/, as in *kídà* 'stomach' [ʧídà]/[kídà] and *gìnú* [ʤìnú]/[gìnú].

The interrogatives *=ki* 'which' and *níkì* 'what' can also optionally be spiratised. When a prefix with /k/ or /g/ is palatalised, they are obligatorily spirantised, as in *kyàngé* 'my AGR 7' [ʧàːŋgé] or *gyàngé* 'my (AGR 10)' [ʤàːŋgé]. Note, however, that neither /k/ nor /g/ spirantise before the past *-ire*, which is a context that is prone to cause spirantisation in Bantu languages (Bostoen 2008).

There are other, more sporadic instances of spirantisation as well. There are, for instance, a few examples of agentive nouns, formed with the suffix *-i* (see Section 5.9.1), where spirantisation has taken place. Specifically, the cases I have seen have been where /l/ spirantalised to /z/, as in (58a), (58b) and (58d).

(58) a. *kùkòlá* /kùkòlá/ 'to do'
múkózì /múkózì/ 'worker'
mùkòlí /mùkòlí/ 'worker'

b. *kùjùlírá* /kùʤùlílá/ 'to testify'
mùjúlìzí /mùʤúlìzí/ 'witness'

c. *kùbàlá* /kùßàlá/ 'to count'
múbálì /múßálì/ 'accountant'

d. *kùlàmúlá* /kùlàmúlá/ 'to pronounce a judgement'
múlámúzì /múlámúzì/ 'magistrate, judge, arbitrator'

As far as I have found, however, there are no synchronically active rules of spirantisation in this context, and many agent nouns ending in /-li/, with no spirantisation, also exist, like in (58a) and (58c). Bostoen (2008) finds that having only some, lexicalised agent verbs with spirantisation is rather common for Bantu languages, and might be due either to a rule that was active at one point, and where its effects survive in lexicalised words, or perhaps borrowing, which for multiple reasons he finds less likely as a general explanation. In the case of Lugwere, however, borrowing from Luganda, a language

that appear to have more widespread processes of spirantisation (Ferrari-Bridgers 2009), and which Lugwere speakers are exposed to quite frequently, does seem plausible.[4]

Another context that triggers spirantisation, is preceding the short Causative *-y*. In this context /k/ regularly spirantises, while there are lexicalised (pseudo-)causatives with /l/ and /g/ that display spirantisation, despite no such productive process currently existing. See Section 9.2.1.1 for examples.

3.1.3.4 Meinhof's law

A version of Meinhof's law applies in Lugwere. When a prenasalised /l/, /w/ (e.g [nd] or [mb]) or /g/ precedes a syllable with a nasal, the prenasalised stop is (optionally) assimilated, resulting in a germinate nasal.

(59) /l, w, g/ → [n, m, ŋ] / N_V(C)N

In a few cases, particularly with /l/, this law is obligatory, but in most cases the speakers accepted versions both where the law had applied, and where it had not. The context where this is most apparent is in verbs with a 1st person singular subject or object marker, since it is a nasal and therefore commonly creates prenasalised consonants in a context where they can easily be compared to how the verb root appears in other contexts, as illustrated in (60). The rule can also be seen in some nouns with the Class 9/10 nasal prefix, so the plural of *lùlìmí* 'tongue' can be either *ǹdìmí* or *ǹnìmí*. The rule can apply both when the next syllable has a simple nasal (61b – d), and when it has a prenasalised consonant (61a and e).

(60) a. *kùlùmá* [kùlùmá] 'to bite'

b. *Gínnúmà.* [d͡ʒí:númà]

gì´-n-lum-a\LHL
10S-1SGO-bite-FV\PRES
'They bite me (of mosquitos).'

(61) a. *kùlèmbá* [kùlè:mbá] 'to stick'

ǹnémbà [ǹ:é:mbà] 'I stick'

[4] In elicitation, when testing whether spirantisation could apply in some case, speakers would sometimes reject a form saying 'that is Luganda'.

b. *kùlìmá* [kùlìmá] 'to dig'
ǹnímà/ǹdímà [ìn:ímà] [ìndímà] 'I dig'

c. *kùbònà* [kùßònà] 'to see'
m̀mónà /m̀bónà [m̀:ónà] [ìmbónà] 'I see'

d. *lùlìmí* [lùlìmí] 'language'
éndìmí/énnìmí [é:ndìmí] [é:nìmí] 'languages'

e. *ólúgéndò* [ólúgé:ndò] 'journey'
éŋŋéndò [é:ŋé:ndò] 'journeys'

3.1.3.5 Vowel lengthening

As described above, vowel length is contrastive in Lugwere. There are, however, contexts where this contrast is neutralised and all vowels are long. This is the case for vowels preceding a prenasalised consonant, and non-word-final vowels following a palatalised or labialised consonant, which can be described as in (62).

(62) $$/V/ \rightarrow [V:] \; / \; \begin{Bmatrix} _NC \\ Cy_CV \\ Cw_CV \end{Bmatrix}$$

Lengthening preceding a prenasalazed consonant applies across word boundaries, so a vowel preceding a word that starts with a prenasalised segment will be pronounced long (see the discussion around Table 6.9).

Another context for vowel lengthening is when a bisyllabic word starts with a V syllable. In these cases, the vowel is pronounced long. The orthography writes a double vowel in many such cases, but it is not completely consistent, and I follow the spelling used in the written materials even when not consistent.

(63) $$/V/ \rightarrow [V:] \; / \; \#_CV\#$$

(64) provide some examples of long vowels derived by the rules in (62) and (63).

(64) a. *mùgàndá* /mùgàndá/ [mùgà:ndá] 'same sex sibling'

b. *lùgwérè* /lùgwélè/ [lùgwé:rè] 'Lugwere'

c. *kùbyàlá* /kùbjàlá/ [kùbjà:lá] 'to give birth'

d. *ììní* /ìní/ [ì:ní] ‘liver’

e. *àlyà* /àljâ/ [à:ljâ] ‘s/he eats’

3.1.3.6 Vowel harmony

Within the domain of the verbal stem (that is, the root + extensions + the final vowel, see Section 5.1) there is a process of vowel harmony that applies to extensions and the past suffix *-ire*. The five vowels /u, o, a, e, i/ can be divided into two groups, the mid vowels /e, o/ and the high and low vowels /u, i, a/. When a suffix with a high vowel is attached to a root with a mid vowel, /i/ alternates with /e/ and /u/ alternates with /o/. In all other contexts, the suffixes use the high vowel. This is summarised in (65). (66) shows how the past suffix differs based on the vowel of the root, and (67) shows how the vowel of the Separative extension changes (see Section 9.8.4). The Habitual suffix *-nga* is also subject to vowel harmony, and becomes *-nge* following a vowel /e/ in the FV slot.

(65) i, u → e, o / $V^{mid}C+^{verb\ root}$_

(66) a. *àgònérè* /àgòn-ílè/ [àgòn-érè] ‘s/he slept (P2)’

b. *àlìmírè* /àlìm-ílè/ [àlìm-írè] ‘s/he dug (P2)’

c. *àmàlírè* /àmàl-ílè/ [àmàl-írè] ‘s/he finished (P2)’

(67) a. *kùbìnúlá* /kùßìn-úl-á/ [kùßìn-úl-á] ‘to sprain, dislocate’

b. *kùtàmbúlá* /kùtànb-úl-á/ [kùtà:mb-úl-á] ‘to walk’

c. *kùsòbólá* /kùsòß-úl-á/ [kùsòß-ól-á] ‘to be able’

3.1.3.7 Vowel combinations

Most nominal class prefixes and subject markers have a CV shape, and as there are both nominal and verbal stems that start with a vowel, in addition to vowel-initial TAM markers that directly follow subject markers, it is necessary to examine what happens when the morphology creates a sequence of vowels across morpheme boundaries. Most commonly, a noun class or subject prefix has a high or low vowel, i.e. /u/, /i/ or /a/. /o/ and /e/ are not found in nominal class prefixes at all, but they do occur in the subject markers *o-* ‘2SGS’ and *e-* ‘9S’, as well as being the agreement markers for Class 1 and

Class 9 in some contexts (see Section 4.2). The contexts in which /u/ appear as the second element is somewhat limited, there are very few nominal stems that start with /u/, and there do not appear to be any such verbal stems.

Let us first look at what happens when we get a sequence of two identical vowels. In nouns, this typically results in a long vowel, as in (68a–b). In the verbal domain, if the sequence is the result of two prefixes, it is often simplified to a short vowel, as in (68c). If the second vowel is a part of the verb root, there might be a choice between using a long vowel, or inserting a glide between the vowels, as in (68d). For the mid vowels, /e/ and /o/, a long vowel is not normally possible before a stem vowel in verbs, and instead the vowels are separated by a glide, as in (68e).

(68) a. *lùùgá* (lu-ùgá) /lù:gá/ 'yard'

b. *lììnó* (li-ìnó) /lì:nó/ 'tooth'

c. *bágùlá*

ba-a-gul-a\H.LH
2S-TNS-buy-FV\F1
'they will buy'

d. *bàágírè/bàyágírè* /bà:gílè/ /bàjágílè/

bà´-ag-ire\LHL
2S-scratch-PST2\P2
'they scratched'

e. *òyózà* /òjózà/

ò-oz-a\LHL
2SGS-wash-FV\PRES
'you SG wash'

When morphology leads to a combination of non-identical vowels that is not one of the three diphthongs /oi/, /ei/ or /ai/, one of three things can happen: gliding, assimilation or the creation of two syllables separated by a glide. Which process applies depends on the vowels involved, the word class, and whether the second vowel is part of an affix or a stem. Sometimes there are multiple versions in free variation.

If the first vowel in the sequence is /i/ or /u/ there is almost always a process of gliding, where /i/ becomes /j/ and /u/ becomes /w/. In CV prefixes, we get a syllable

with a palatalised or labialised onset. As a majority of the subject markers have either a vowel /i/ or /u/, this is a common process that applies whenever there is a vowel-initial verb stem, or a verb has a vowel-initial tense or mood marker directly following the subject marker. The subject markers *o-* '2SGS', *a-* '1S' and *e-* '9S' also undergo gliding before a vowel prefix, becoming, *w-*, *y-* and *y-* respectively. The gliding process is illustrated by the examples in (69). The one exception to this is when a /i/ or /u/ final prefix is added to a vowel-initial stem, where one option is for the prefix vowel to become a glide, but a second option is for a glide to be inserted between the two vowels, as in *tùyózérè* 'we washed (P2)', which means the same as *twòzérè*.

(69) a. *kwàgá* /kwàgá/

ku-ag-a\LH
INF-scratch-FV\INF
'to scratch'

b. *twàgâ* /twàgâ/

tù´-ag-a\LHL
1PLS-scratch-FV\PRES
'we scratch'

c. *byàgâ* /ßjàgâ/

bì´-ag-a\LHL
8S-scratch-FV\PRES
'they (animals) scratch'

d. *wágùlá* /wágùlá/

o-a-gul-a\H.LH
2SGS-TNS-buy-FV\F1
'you SG will buy'

Gliding is also a common process in the nominal domain, and occurs whenever a prefix ending in /i/ or /u/ is attached to a noun stem that starts with a vowel, as shown in (70).

(70) a. *mwànká* (mu-ànká) – *myànká* (mi-ànká) /mwànká/ /mjànká/ 'year(s)'

b. *mwóyò* (mu-óyò) – *myóyò* (mi-óyò) /mwójò/ - /mjójò/ 'heart(s)'

c. *mwèrí* (mu-èrí) – *myèrí* (mi-èrí) /mwèlí/ - /mjèlí/ 'month(s)'

d. *mwìgó* (mu-ìgó) – *mìigó* (mi-ìgó) /mwìgó/ - /mì:gó/ ‘stick(s)’

If a nominal or verbal stem starts with a vowel /i/, on the other hand, prefixes with /a/, /e/ or /o/ lead to diphthongs, as in (71a). Since Lugwere has no diphtong /ui/, a prefix with /u/ undergoes the same gliding process as described above, as seen in (71b).

(71) a. *bàibbâ* /ßàibâ/

bà´-ibb-a\LHL
2S-steal-FV\PRES
‘they steal’

b. *twìbbâ* /twìbâ/

tù´-ibb-a\LHL
1PLS-steal-FV\PRES
‘we steal’

c. *bìibbâ* /ßì:bâ/

bì´-ibb-a\LHL
8S-steal-FV\PRES
‘they (animals) steal’

When nominal morphology results in a sequence of /a/ plus a mid vowel, the /a/ often assimilates to the following vowel and we get either /o:/ or /e:/, as in (72a–b). In the verbal domain, the result depends on the specific subject marker, and whether the following vowel is a prefix or part of the stem. When the Class 2 subject marker *ba-* precedes a vowel prefix, the /a/ is deleted, as in (72c). Vowel-only subject markers, like *a-* ‘1S’, undergo gliding, as in (72d). When these subject markers directly precede a vowel-initial stem, either assimilation occurs, or a glide can be inserted between the two morphemes (see Chapter 6).

(72) a. *mwònyókó* (mu-ònyókó) – *bòònyókó* (ba-ònyókó) /mwòɲókó/ – /ßò:ɲókó/ ‘opposite sex sibling(s)’

b. *mwègí* (mu-ègí) – *bèègí* (ba-ègí) /mwègí/ – /ßè:gí/ ‘learner(s)’

c. *bèbónà* /ßèßónà/

bà´-e´-bon-a\LHL
2S-REFL-see-FV\PRES
‘they see themselves’

d. *yèbónà* /jèßónà/

à-e´-bon-a\LHL
1S-REFL-see-FV\PRES
's/he sees her/himself'

All of the possibilities are summarised in Table 3.3 below.

Table 3.3: Overview of possible surface forms for different vowel combinations

	/u/	/o/	/a/	/e/	/i/
/u/	/u:/ lu-ùgá *lùùgá* 'courtyard'	/wo/ or /uyo/ ku-oza, tù´-oza *kwòzá*, *tùyózà* 'to wash', 'we wash'	/wa/ or /aya/ ku-aba, tù´-aga *kwàbá*, *tùyágà* 'to go', 'we scratch'	/we/ or /uye/ ku-ega, tù´-ega *kwègá*, *tùyégà* 'to learn', 'we learn'	/wi/ ku-iza *kwìzá* 'to come'
/o/	– – – –	/ojo/ ò-oza *òyózà* 'you SG wash'	/wa/, /oja/ o-a-gula, ò-aga *wágùlá*, *òyágà* 'you SG will buy' 'you SG scratch'	/we/, /oje/ ò-e´-raga, ò-egere *wèrágà*, *òyègérè* 'you SG show yourself' 'you SG learned P2'	/oi/ ó-ìsèngá *óísèngá* 'aunt'
/a/	– – – –	/o:/ or /ajo/ ba-ònyókó, à-oza *bòònyókó*, *àyózà* 'cross-siblings', 'he washes'	/a:/, /a/ or /aja/ bà´-agire, ba-a-gula *bàágírè*/*bàyágírè*, bágùlá 'they scratched (P2)', 'they will buy'	/e:/, /e/, /aje/ ba-ègí, bà´-e´-bona, à-egere *bèègí*, bèbónà, *àyègérè* 'learners', 's/he learned'	/ai/ bà´-ibba *bàìbbâ* 'they steal'
/e/	– – – –	/ejo/ è-oza *èyózà* 'it washes (AGR 9)'	/ja/, /eja/ e-a-aga, è-aga *yágà*, *èyágà* 'it will scratch (AGR 9)', 'it scratches (AGR 9)'	/eje/ è-ega *èyégà* 'it learns (AGR 9)'	/ei/ é-ìká *éíkà* 'house'
/i/	– – – –	/jo/ mi-óyò *myóyò* 'hearts'	/ja/ bì´-aga *byàgâ* 'they scratch (AGR 8)'	/je/ mi-èrí *myèrí* 'months'	/i:/ li-ìnó *lììnó* 'tooth'

3.1.3.8 Liaison

Liaison is a very widespread process in connected speech, where a vowel that is word-final is assimilated into a following word-initial vowel. The resultant vowel is realized short, and has the vowel quality of the second vowel, but the tone of the first vowel might be preserved, depending on the morphological function of the second vowel. When the second vowel is an augment, as in (74a), no trace of the underlying tone of the first vowel is preserved. When the second vowel is an agreement morpheme, as in (74b), however, the tonal value of the preceding vowel is most often preserved in the surface form.

(73) $V \rightarrow \emptyset$ / _#V

(74) a. *J̌én àbóna ómwàná.* /àbónà ómwàná/ [àbón-ómwàná]

J̌én à-bon-a\LHL ó-mu-àná
PN.F 1S-see-FV\PRES AUG-1-child
'Jen sees the child.'

b. *ómùsàìza óònú* /ómùsàìzá ònú/ [ómùsàìz-óònú]

ó-mu-ˋsàìzá o-ˋnú
AUG-1-man AGR1-DEM_PROX
'this man'

There is a small set of function words for which, when they precede a vowel-initial word, the tone of the function word completely overrides the tone of the first syllable of the following word. The vowel quality will be that of the second vowel, however. Examples include *èrâ* 'and, but', *sìngá* 'if (counterfactual)' and *lwákí* 'why'. (75a) shows that when following *sìngá*, the subject marker of *òtákà* 'you SG want' is realised with a high tone. Since *èrâ* ends with a falling tone, when it is followed by a word that starts with a vowel and has a high tone on the second syllable, there is a downstep effect on the tone of the second syllable, as shown in (75c). That is, the high tone of the fall is realized on the subject marker of *ògúlà*, while the low tone leads to a downstepped second syllable.

(75) a. *òtákà* 'you SG want'

sìnga ótákà [sìŋg-ótákà] 'if you SG had wanted'

b. *ògùlírè* 'you SG bought (P2)'
èra ógùlírè [èr-ógùlírè] 'and you SG bought'

c. *ògúlà* 'you SG buy'
èra ó↓gúlà [èr-ó↓gúlà] 'and you SG buy'

3.1.3.9 Vowel devoicing or deletion

Vowels are commonly devoiced or even deleted when following a voiceless obstruent, and even more commonly when it occurs between two voiceless obstruents. However, this is a probabilistic rule rather than one that applies in all cases, and there seem to be individual differences between speakers, as well as differences based on the style of speech - i.e. for some speakers it is less likely to occur in more careful speech, such as recording words form a wordlist. This is something that makes it difficult at times to determine the tone of certain syllables, but for the most part, careful renditions by speakers less prone to devoicing made it possible to investigate the tones of such syllables. High vowels are generally realised very short, and so are extra prone to undergo devoicing in these contexts.

Word-final high vowels /i/ and /u/ can be deleted or devoiced when they are pre-pausal and following specific consonants: /i/ often deletes after /s/, /z/ or /t/, but not in all cases. /u/ can delete after /m/, /n/, /f/ and /v/. This does not happen in all cases of /i/ and /u/ in final position following these onsets, and it is at present unclear exactly what determines when it happens. A final vowel that is deleted in isolation, is sometimes pronounced when there is an augment, for instance. Many of the words that undergo this are also loanwords, like *sáyànsí* 'science' or *kálòtí* 'carrot', but it also applies to native words, like some demonstratives.

3.1.3.10 Simplification of identical/similar syllables

In some cases where identical or very similar syllables follow each other, these might merge, leading to the first vowel disappearing, and the consonant being pronounced somewhat long. See for instance (76), where in the recording, the final syllable of the possessive pronoun /ge/ merges with the /ga/ of the following word. This is also

seen with 2nd person singular objects in Infinitives, where speakers never pronounce *[*ókúkùkòbá]* 'to tell you', but rather something like *[ókùkòbá]* or *[ó.ùkòbá]*. The Causative *-isisy* also frequently ends up being pronounced [-is:j], especially in rapid speech. These are just some observations I have made about what appears to be a somewhat common process, and this should be studied more systematically.

(76) *Ámàdòlé gàngè gàbbá ↓mú kíséngè.* [ámàdòlé gà:ŋg-àbá ↓múkíséŋgè]

á-ma-`dòlé ga-àngé gà´-bb-a\LHL mu=ki-´séngè
AUG-6-doll AGR6-1SG.POSS 6S-COP-FV\PRES 18=7-room
'My dolls are in the room.'

3.1.3.11 Epenthetic vowels before initial prenasalised segment

Word-initial prenasalised consonants are commonly, although not always, pronounced with a preceding epenthetic vowel. The quality of this vowel differs somewhat, but is typically mid and either central or front, or sometimes it can be somewhat high and front. These epenthetic vowels are always low-toned in nouns, and reflect the tone of the subject marker in verbs. The vowel disappears when there is another prefix added to the word (such as an augment, or secondary class markers), or when the word is in a context where it is preceded by another word.

(77) a. *ǹgónà* /ŋ̀gónà/ [ìŋgónà] 'I buy'

b. *ǹtíndò* /ǹ̪tíndò/ [ìntí:ndò] 'bridges'

3.2 Suprasegmental phonology

Lugwere is a tonal language, and it has both lexical and grammatical tone. The grammatical tone can be divided into two categories, which I term morphological and morphosyntactic tone. The former refers to the fact that different TAMP categories have different tonal melodies. At times, the tone is crucial in differentiating between different morphological categories, most notably the Hesternal and Distant past tenses. By morphosyntactic tone, I refer to two phenomena where tone is influenced by the morphosyntactic context. Firstly, a phrase-final high tone is lowered in certain syntactic positions, for instance when preceding a predicate. Secondly, many verbs have a

high and a low-toned version, where the former can be in final position, and the latter is always followed by another element. Lexical tone is found on nouns, adverbs and adnominal elements, which have inherent, contrastive tonal melodies. Verb stems, on the other hand, have no inherent lexical tone.

3.2.1 Surface and underlying tones

A syllable can carry one of four surface tones: high, low, falling or, in rare cases, rising (Nzogi (2006) describes Lugwere as having only high, low and falling tones). A falling tone can occur both word-medially and word-finally. When a word with a falling tone on the final syllable is followed by another word, the final syllable is realised with a high tone, and the low part of the fall is realised as a downstep effect on the following word. In word-medial position, a falling tone can only occur on a syllable with two moras. That is, it is only found on long vowels or diphthongs. Although there are cases of rising tones, these are very restricted in their distribution, and are only seen as an optional version of the negative P2 of vowel-initial bisyllabic stem verbs. In the relevant cases, there is a choice between a long vowel with a rising tone, and two syllables separated by a glide, with a LH pattern. As this variation is still present, it might be assumed that the rising tone is a newer development, occurring as the result of the loss of the glide. There are many other contexts where a rising tone might be expected based on the tonal melody, but where no rising tone is found. As a general rule, then, rising tones are avoided.

In verbs, it is clear that all the surface tones can be explained by two underlying tones; a low and a high. The tonal melodies can be described as sequences of high and low, and any surface contours are always the result of a tonal melody being applied to a verb that is somehow 'defective' and does not have the right number of syllables to accommodate the whole tonal melody, so that more than one tone needs to fit into one syllable. The discussion in Chapter 6 will give more detail and examples.

Most of the tonal melodies on nouns can also be explained by breaking down the contour tones into tonal melodies consisting of high and low underlying tones. While there is more irregularity in nouns, and the tonal melodies do not fulfil a grammatical

function like in verbs, and thus it might be less obvious that a trisyllabic noun with a falling tone has the same underlying melody as a quatrosyllabic noun with a LHLH melody, breaking the contours down into high and low underlying tones still appears to be the most concise and efficient way to describe nominal tones, and this is the approach taken in Section 3.2.11.1. In line with this, it will be assumed that also adverbs and adnominal words have only low and high tones underlyingly.

3.2.2 The tone-bearing unit

The question of the tone-bearing unit is one which requires some discussion. On the one hand, the fact that falling tones seem to be analysable as a sequence of HL attached to a bimoraic syllable, would seem to indicate that the TBU is the mora. On the other hand, there are contexts in which bimoraic syllables are treated as a unit to which only one tone attaches.

Firstly, let us look at the arguments for the mora as the TBU. There is the fact that word-medial falling tones always attach to bimoraic syllables, suggesting one tone attaches to each mora. In nouns with a LHLH tonal melody, a penultimate long vowel gets a falling tone, even if the word has four syllables and thus could have attached each tone to a different syllable, as illustrated by *mùlìrwâná* 'neighbour', which is not **mùlírwàná*, with one tone assigned to each syllable. In such cases, if we assume the underlying melody is LHLH, then we have to assume that the relevant unit is the mora.

Another instance where the number of moras play a role in tone assignment in nouns, can be seen with LH nouns. In a LH melody, the L attaches to the first two moras, and any subsequent syllables get a high tone, as in *lùlùbí* 'boundary'. When the first syllable is bimoraic, however, the high tone starts from the second syllable, as in *mwònyókó* 'cross sibling', where the first vowel is long since it follows a labialised consonant. On the other hand, when the second syllable of a LH noun is long, we don't end up with a rising tone, as illustrated by *lùgàndá*, where the second vowel is long because it precedes a prenasalised consonant. This could be explained as an avoidance of rising tones.

Similarly, in the P2 (Hodiernal Past) negative, the melody is LHLH, where the first syllable of the stem and the final syllable get a high tone. (78a) shows two possible versions of P2 negative for the verb *kwàkáná* 'to argue', which has a vowel-initial stem. In the first version, the prefix merges with the stem-initial vowel, giving a low-toned long vowel. In this case, the high vowel that would normally sit on the first vowel of the stem, has been moved to the second syllable of the stem. In the other version, a glide is inserted between the prefix and the stem, and the stem-initial vowel gets the high tone as expected. This case can also be explained by an avoidance of rising tones. (78b), however, cannot be explained in this way. Here the form has a long vowel preceding a prenasalised consonant, i.e. it is pronounced [tèbàjá:njàbìré]. If the first high tone of the melody attached to the first mora of the stem, we would expect a fall here, [*tèbàjâ:njàbìré], but that is not what is found. Since falls do in fact appear in F2 negative forms of monosyllabic verbs, as in (78c), this is best explained by the tonal melody making reference to syllables rather than mora. The first high tone attaches to the first syllable of the stem, and only when the verb form is too short for each tone to attach to its own syllable, do we see contours, like in (78c).

(78) a. *tìbàákánìré/tìbàyákànìré*

ti-ba-ak.an-ire\LHLH
NEG-2S-argue.ASO-PST2\P2.NEG
'they argued'

b. *tìbàjánjàbìré* [tèbàjá:njàbìré]

ti-ba-janjab-ire\LHLH
NEG-2S-treat-PST2\P2.NEG
'they did not treat'

c. *tìndîìré*

ti-n-ly-ire\LHLH
NEG-1SGS-eat-PST2\P2.NEG
'they did not eat'

There are also processes of assimilation of tones within a syllable, (see Section 3.2.9), showing that in heteromorphemic syllables there is a preference for the whole syllable

to share a tone, even when a contour would mean a fall, which is not uncommon morpheme-internally.

This paints a complicated picture. In nouns, it appears that the mora often functions as the TBU, and where tonal assimilation happens within a long vowel, this can be explained by the avoidance of surface rising tones. In the verbal domain, however, tones are assigned to whole syllables, and only in defective verbs can one syllable carry two tones. In verbs, then, the syllable appears to be the most common unit for tones to attach to, but the mora can be used when it is the only way to fit the melody onto a verb form.

3.2.3 Tone spreading

When a verb or a noun is longer than the required number of moras needed for a tonal melody, one of the tones will spread, so that all moras receive a tone. Some tonal melodies can best be explained if we assume that they apply from the rightmost edge, and that the leftmost tone of the melody spreads to any remaining vowels to the left. Other melodies can best be explained if the opposite is assumed: the melody applies from the leftmost edge, and the rightmost tone spreads rightward to the end of the word. These two approaches seem to account for nominal tone pretty well, and it might be assumed that each noun is specified for a tonal melody, and that each tonal melody specifies how it should be applied to the word.

For verbs it is not uncommon for a medial tone to spread, rather than the leftmost or the rightmost tone of the melody, and for TAMP categories with a pre-stem and a stem melody, each can have a tone that spreads. If we assume that each melody comes with a specification of how it is applied and which of the underlying tones spread to remaining syllables, however, this can be explained. It does mean that the melody needs to make reference to both edges of the domain, however. For example, the Present tense has a LHL stem melody, where the leftmost L attaches to the first syllable (unless the stem is only two syllables, in which case is not realised), while the rightmost L attaches to the final syllable. Intervening syllables are high.

Evidence for the fact that this is indeed one underlying tone which has spread to multiple syllables, can be found in contexts where there is a process of tone lowering. In verbs or nouns where a high tone has spread to multiple syllables in sequence, all of these syllables are low in contexts that trigger lowering, as illustrated by (79a-c) (see Section 5.10 for more on the Form 1/Form 2 alternation in verbs, as in (79a-b) and Section 3.2.13 on final lowering in nouns and adnominal words as in (79c)). When a Present tense verb is in a Form 2 context, all medial high-toned syllables are lowered as in (79b) (floating tones complicate this picture, see Sections 5.2 and 6.3).

(79) a. *tàgúlá*

ti-a-gul-a\LH
NEG-1S-buy-FV\PRES.NEG
's/he doesn't buy'

tàgùlà nyânyá

ti-a-gul-a\LH\FO2 *nyânyá*
NEG-1S-buy-FV\PRES.NEG\FO2 tomato
's/he doesn't buy tomatoes'

b. *àkàlábándà*

à-kalaband-a\LHL
1S-roast-FV\PRES
's/he roasts'

àkàlàbàndà nyámà

à-kalaband-a\LHL\FO2 *nyámà*
1S-roast-FV\PRES\FO2 meat
's/he roasts meat'

c. *mwònyókó* 'opposite sex sibling'

mwònyòkò yàgònèré

mu-ònyókó\FL *a-a-gon-ire\L.LH*
1-opposite_sex_sibling\FL 1S-TNS-sleep-PST2\P5
'the opposite sex sibling slept'

In the Distant Future (F2), verbs with a bisyllabic stem have a LHHL melody. In this case, there are really two high tones in sequence, rather than one tone which spreads. This can be seen in Form 2 contexts, where only the second high tone lowers. For verbs

with trisyllabic stems, a low tone is inserted between the two high tones, giving further evidence to the hyphothesis that these are two separate tones. This is illustrated in (80).

(80) a. *yàlígúlà*

a-ali-gul-a\LH.(L)HL
1S-FUT-buy-FV\F2
's/he will buy'

b. *yàlígùlà nyânyá*

a-ali-gul-a\LH.(L)HL\FO2 nyânyá
1S-FUT-buy-FV\F2\FO2 tomato
's/he will buy tomatoes'

c. *yàlíjànjábà*

a-ali-janjab-a\LH.LHL
1S-FUT-treat-FV\F2
's/he will treat'

3.2.4 Downdrift

When a H tone follows an L tone, there is a downdrift effect, and the high tone is realised lower than at the beginning of an utterance. This effect is strongest directly following a HL sequence, where a following H can often be at the same level as the previous L. If this H is followed by another L, however, it becomes clear that we are indeed dealing with a H tone, as a following L will be markedly lower. If the HL sequence is followed by multiple L syllables before the next H, the downdrift effect is weaker, and the H is more distinctly higher than the preceding L tone. A HL sequence across one syllable - that is, a falling tone - seems to have the strongest downdrift effect. This effect seems to be the source of one of the main differences between my description and that found in Nzogi (2006). There are several nouns that Nzogi (2006) describe as having a final L tone, which in my analysis are described as having a final H. This is mostly the case for words with a medial falling tone. In isolation, the syllable following a falling tone will appear to be quite low, and when looking at the pitch trace in Praat, the final syllable is often at the same level as the endpoint of the fall. When put in a context where it is followed by a low tone, however, there is a marked difference between the height of

the final syllable of the noun, and the following low syllable, showing that these post-fall syllables are actually high underlyingly. When a HL sequence is followed by more than one H syllable, these will generally lie at the same level, but any subsequent low will be markedly lower. The effect of the downdrift is thus that the ceiling level of all subsequent tones of the utterance is lowered.

3.2.5 Downstep

Lugwere also has a process of downstep. This happens when a word ending in a falling tone is followed by a word which starts with a high tone. These words are realised with a final fall when produced in isolation, but when followed by another word, the syllable that the falling tone is attached to is realised high, and the next syllable is downstepped, as illustrated in (81). When the next syllable is high-toned, this means it will be realised noticeably lower than the preceding syllable. If the downstepped high tone is followed by a low, this is again noticeably lower, so the effect of downstep is similar to that of downdrift. If the syllable that would be downstepped is low, the syllable with the fall attached to it is still realised high, but there is no noticeable effect on the following low tone.

Quite a lot of function words end in a falling tone, like *nàyê* 'but', *èrâ* 'and', *àtê* 'and, but', *ìrâ* 'already'. Additionally, Present tense monosyllabic verbs cause downstep.

(81) a. *èrâ* 'and'

b. *èrá ↓yásòmà Lùgwérè* 'and s/he will study Lugwere'

3.2.6 Floating tones

To describe certain verbal tonal phenomena, it is necessary to make reference to floating tones. Certain subject prefixes, along with the Reflexive marker, while themselves mostly realised with a low tone, give a high tone to the first syllable of the stem. This only happens in the Present tense affirmative and the Hodiernal Past (P2) affirmative. When the verb has an object marker, the floating tone is "trapped" - it cannot be realised on the object prefix, and cannot "jump over" the object prefix to the stem, and as a

result it is realised on the subject prefix itself. Compare the tone of the Class 2 subject marker *ba-* in (82a) and (82b).

(82) a. *bàjánjábà*

bà´-janjab-a\LHL
2S-treat-FV\PRES
'they treat'

b. *bámùjànjábà*

bà´-mu-janjab-a\LHL
2S-1O-treat-FV\PRES
'they treat him'

Floating tones are also the best way to explain how noun class prefixes and adnominal agreement prefixes get their surface tone assigned to them. Noun class prefixes and agreement prefixes do not have any inherent tone, and are instead assigned a tone by the stem that they attach to. Each noun root has a tonal specification which indicates which tones are realised on the stem, as well as which tone is assigned to the prefix. This is why the same prefix will have different tones when attached to different stems, as illustrated for the Class 1 and Class 7 prefixes in (83). The tone assigned to a prefix is not predictable on the basis of the tones realised on the stem itself, and has to be lexically determined in each case, i.e. a noun stem with a HL tone can have either an L prefix or a H prefix.

(83) a. *músómì* 'student'
mùgólè 'bridegroom'
mùkàlí 'woman'

b. *kísólò* 'animal'
kìrábò 'gift'
kíbàlá 'fruit'
kìkòbé 'sentence'

When different noun class prefixes attach to the same stem, the tone of the prefix stays consistent, because the stem assigns the same tone in all cases, as illustrated by (84).

(84) a. *Bùgwérè* 'the area where the Bagwere live'

b. *Mùgwérè* 'a member of the Bagwere tribe'

c. *Bàgwérè* 'the Bagwere tribe, plural of mùgwérè'

d. *Lùgwérè* 'the Lugwere language'

3.2.7 Obligatory contour

Lugwere also seems to have some version of an obligatory contour principle, or at least a strong preference for words to have both a low and a high tone when realised in isolation. In a sequence there is not necessarily a contour within each word, but the phrase as a whole will have at least one low and one high tone. Generally, a verbal form in isolation will have at least one H and one L tone, while in context it is not uncommon for a verb to have only low tones in Form 2, as in (85b). In such cases, the object or adverbial following the verb will have at least one H.

(85) a. *àgúlà*

à-gul-a\LHL
1S-buy-FV\PRES
's/he buys'

b. *àgùlà nyânyá*

à-gul-a\LHL\FO2 nyânyá
1S-buy-FV\PRES\FO2 tomatos
's/he buys tomato'

There are some exceptions to this principle. In the negative Subjunctive, verbs with certain subject markers end up having a high tone on every syllable, as in (86a). There is also a very small number of nouns where all syllables are high. In my sample of close to a thousand nouns, I could only find four that are pronounced with all high tones. These are nouns without an overt prefix, and when a plural Class 6 prefix is added, it gets a low tone, illustrated in (86b–c). There are also a couple of high-toned adverbs; *dálá* 'really' and *lwákí* 'why'.

(86) a. *Tógúlá!* 'Don't read!'

b. *wáálú*, *màwáálú* 'crested crane(s)'

c. *gólógóló, màgólógóló* 'container(s)'

Apart from this very small set of exceptions, the language does appear to avoid single-toned words in isolation, to the extent that an underlying lexical tone is altered in a context where keeping it would lead to a plateau. This is best seen in short nouns. The Class 5 prefix *ì-* aways has a low tone, and when the lexical stem it attaches to is only one syllable long, this will always be realised with a high tone, regardless of its underlying lexical tone. The augment always has a high tone, and when prefixed to a noun with the Class 5 prefix, the class prefix assimilates to this high tone, and as a result, the lexical stem gets a low tone. This is exemplified by (87a–b), where the relevant noun stems are *-ˊbbwà* and *-ˋgí*.

(87) a. *ìbbwá - éíbbwà - mábbwà* 'wound(s)'

b. *ìgí - éígì - màgí* 'egg(s)'

c. *ǹté - éntè - gátè* 'cow, big cows'

Something similar happens to Class 9, 10 or 1a words with one syllable stems. When in initial position, a prenasalised segment is assigned a low tone by default (see Section 3.3). This low tone can be realised on the nasal itself, or an epenthetic vowel. Because of this default low tone, the monosyllabic stem gets a high tone, regardless of underlying tonal specification, so that the noun root *-ˊtè* 'cow' is realised [ǹté]. When the word has an augment, which is always high-toned, the stem gets a low tone, as in *éntè*. In order to see the underlying tone of the noun stem, it is necessary to add a different class prefix. A Class 6 prefix can often be used to pluralise such nouns, otherwise a diminutive or augmentative class can be added, as in (87c), and this shows that the stem is *-ˊtè*.

3.2.8 Tonal polarity

Enclitics, for instance the attributive possessive pronouns *-o* 'your (SG)' and *-e* 'his/her', and the locative enclitics (see Chapter 10), are realised with a tone that is opposite of the final syllable of the stem that they attach to. This is illustrated in (88), where the possessive enclitics are separated by <=>. Note that for the possessive pronouns, the realisation of a tone following a low-toned syllable tends to be more like a fall in isolation.

(88) a. *ómwàná=wò* 'your child'

b. *ómúbálì=wô* 'your accountant'

3.2.9 Tonal assimilation

There are at least two words whose tones swaps to the opposite values depending on the tone of the syllable preceding it. These are the adverbs *ììnó* 'very' and *ììrâ* 'already', which are pronounced *ínò* and *írà* when directly following a high tone, as illustrated in (89). This process applies to these particular words because they start with /i/, which forms a diphthong with the preceding vowel, instead of assimilating in value.

(89) a. *àgùlíírè ìrâ* 's/he bought (for someone) already'

b. *yágùlá írà* 's/he will buy already'

A very similar process applies to nouns with the Class 5 prefix *ì*. This prefix has a lexical low tone, but is pronounced with a high tone when the noun has an augment, assimilating its tone to that of the augment. It is unclear why the tonal assimilation occurs in these cases, while in many other instances similar contexts result in falling tones.

The locative proclitics also display a kind of tonal assimilation. When there is an augment, the locative proclitic always gets a high tone. When there is no augment, the proclitic assimilates in tone to the syllable that it attaches to, being high when the next syllable is high, and low when the next syllable is low, as shown in (90).

(90) a. *ómú=nyùmbá* 'in the house'

b. *mù=nyùmbá* 'in the house'

c. *kú=lútíndò* 'on the bridge'

d. *kàménzà* 'small table'

e. *kú=ménzà* 'on the table'

This differs from how tone is assigned to the other noun class prefixes. The stem *ménzà* 'table' assigns a low tone to prefixes, giving the diminutive form *kàménzà* 'little table', with a low-toned prefix. When a locative proclitic is added, this gets a high tone like the first syllable of the root, as in *kúménzà* 'on the table'.

3.2.10 Privative or binary?

I consider Lugwere to have two underlying tones, low and high, both of which are phonologically active. Falling tones are considered sequences of high and low tones, and so are the few rising tones that exist. Evidence for the high tone being phonologically active is perhaps best seen in the cases of floating high tones attached to some subject prefixes, as was shown in (82) (see also Section 5.2). The fact that low tones have to be considered underlying is clear from cases of downstep, such as that shown in (81) above (see also Section 6.3). Additionally, the fact that a HL or LH sequence in an underlying verbal melody results in surface falling or rising contours, is further evidence that both low and high tones need to be underlying, as if only one of them was, we would not expect a contour tone.

3.2.11 Lexical tone

The fact that Lugwere has lexical tone, can be shown by minimal pairs such as those listed in (91). Most non-verbal words, such as nouns, adjectives, demonstratives, adverbs, quantifiers etc. have lexical tone. Verbs and most affixes and clitics lack a lexical tone, and receive their tone either through grammatical tonal affixes (verbal stems and affixes), predictably from the tone of the element they attach to (clitics) or from a tone specified by the root they attach to (nominal and adnominal affixes).

(91) a. *mùgàndá* 'same sex sibling'
múgándà 'small bundle'

b. *Mpîndí* 'Mpindi (personal name)'
mpìndí 'cowpeas'

c. *mùsènyé* 'sand'
mùsényè 'young female chicken'

d. *mùzìgó* 'fat, butter'
múzígò 'entrance, gate'

3.2.11.1 Nouns

Most noun stems consist of a CV noun prefix and a root. Some nouns, particularly of Class 1a and 9 or 10 have no prefix, and many Class 9 and 10 nouns have a nasal prefix that mostly result in a prenasalised consonant (unless the root starts with certain vowels, see Table 3.2). Class 5 has the prefix *ì-*, which always has a low tone, except for certain contexts where it assimilates to high-toned elements. Other class prefixes have no inherent tone, and get their tone assigned from the noun root.

There are five main tonal melodies, most of which have several sub-patterns when applied to longer verbs, based on which underlying tone spreads to additional mora. When there is a CV prefix, the whole melody can be realised. With Class 9/10 nasal-initial nouns or nouns with a zero prefix, it is not uncommon for the whole underlying melody to only become apparent when another prefix is added, be that a class marker used to form the plural, or a diminutive or augmentative class marker. With Class 5 nouns, since they all have the low-toned *ì-* prefix, the underling tone melody can only be seen from the plural, or from using the root with diminutive or augmentative class prefixes. A noun stem always has the same tone in the singular and the plural, and when used with augmentative and diminutive prefixes (except for the types of nouns discussed in Section 3.2.7 where the surface tone of the stem does not correspond to the lexical tone in some contexts).

This study is based on a tone-marked list of about 950 nouns. The nouns were taken from the Nzogi & Diprose (2012) dictionary, and selected so as to include a balanced selection of nouns from each class. The list includes both common and uncommon nouns. The dictionary includes a bit more than 4000 nouns, meaning the study looked at about a quarter of these. The dictionary includes words that were unfamiliar to the speakers I worked with, and these were left out.

The nouns were recorded in isolation and in isolation with an augment. Most were also recorded with a Class 1 or 2nd person possessive clitic, and many were recorded in a context that would trigger final lowering, for instance directly followed by a verb (see Section 3.2.13 for more on final lowering). After an initial investigation of several hundred nouns in a wider variety of frames, the form in isolation and followed by

a possessive enclitic were settled on as the best way to get the underlying tone. The underlying form is considered to be the one found in isolation and followed by elements not causing final lowering, as the version with final lowering is the most restricted in its distribution, only occurring when directly followed by specific elements. The form found in isolation is also found when followed by an adnominal within the same clause, and when followed by a clitic. Since the melody-final high tone is present in multiple non-final contexts, it cannot be a boundary tone.

The five main tonal melodies are LH, HL, LHL, HLH and LHLH. Table 3.4 gives some examples of each melody and how it is realised over different numbers of moras, and shows multiple sub-patterns where relevant. Table 3.5 then gives a overview of how the melodies can be realised on nouns with a zero or nasal prefix, and how the melody changes when a tone-bearing prefix is added (the Class 6 plural *ma-* or the Class 2 plural *ba-*). Some of the tone realisations illustrated in the table are quite rare, for instance the data included only one noun with the LF pattern i.e. *màjê* 'army'. It is also likely that the table has some gaps, particularly for longer nouns, where there are likely more possible combinations of long and short vowels that just did not turn up in the sample.

Initial prenasalisation is counted as a mora in Table 3.5, but the default low tone that the prenasalisation carries initially is not counted as part of the melodies, as the low tone is assigned by default. Tones that spread in longer words are followed by a star, and where a tone attaches to a specific number of mora this is indicated by the mora symbol.

Table 3.4: Nominal tone melodies

	2 moras	3 moras	4 moras	5 moras	6+ moras
HL **H*L**	HL múlyà 'daughter-in-law'	HHL múkózì 'worker' H:L múntù 'person'	HHHL lúkálálà 'list' HH:L músááyè 'blood'	HHHHL múgúlúkírà 'outsider' HH:HL kínáábírò 'bathroom'	HH:H:L múkúmbáánì 'collector' HH:H:HL mákúmbáánìryò 'dictionaries'
LH	LH mùfú 'corpse'				

Table 3.4 continued from previous page

	2 moras	3 moras	4 moras	5 moras	6+ moras
LμμH*		L:H mwànáˊ 'child'	LLHH mùzìbúlíˊ 'fisherman'	L:HHH mwìgúkíróˊ 'front'	LL:HHH bùtùùkíríryéˊ 'righteousness'
		LLH mùkàlíˊ 'woman'	LL:H lùkìikóˊ 'meeting'	LLHHH mùkàlángúkíˊ 'tough person'	LL:H:H mùfùùdúúkíˊ 'dirty person'
			L:HH mwègésíˊ 'trainer'		
LμH*		LHH bùtánywáˊ 'state of not drinking'	LHHH mùkámíryáˊ 'bareley fruit'	LHH:H bùtéyéézyáˊ 'inability'	LHHH:HHH bùtátégéérágánáˊ 'misunderstanding'
L*H			LLLH màtàkàlíˊ 'lands'		
HLH **H*LH**	–	F:H líìdóˊ 'groundnut'	H:LH mwáwùlé 'clergyman'	HHF:H múfénênsíˊ 'jackfruit'	
		HLH kíbàlá 'fruit'	HF:H pápáàlíˊ 'papaya'		
LHL	LF màjêˊ 'army'	LHL mùwógòˊ 'cassava'			
LH*L			LH:L mùsáálè 'tree'	LHHHL mùnákánísàˊ 'church member'	LHHH:L mùnámátéékàˊ 'lawyer'
			LHHL mùzábbíbbùˊ 'grapevine'	LHH:L mùnácáálòˊ 'villager'	

Table 3.4 continued from previous page

	2 moras	3 moras	4 moras	5 moras	6+ moras
L*HL		LLF mùlèkwâ 'orphan'	LLHL màsùlúbbù 'beard' LL:F mùdòòdô 'mango sp.'	LL:HL kìsààníkò 'garbage'	LLLH:L kìgàlàbááyò 'palm' LL:LH:L kìdùùmàdúúmè 'dried maize stalk'
LHLH	–	–	LF:H mùzéèyí 'old person' LHLH mùjúlìzí 'witness'		
L*HLH				LLHLH mùkàtúlìkí 'Catholic person' LLF:H mùlìrwâná 'neighbour'	
LH*LH				LH:LH mùwéérèryá 'servant'	LH:F:H mùzáítúùní 'olive tree' LHHHLH mùnámáwúlìré 'reporter' LH:HF:H mùsúmbácáàyí 'cassava species'

Table 3.5: Tonal melodies on nouns with a prenasalised or zero prefix, and their plurals in NF 6 or NF 2

	2-3 moras	3-4 moras	4-5 moras	5-6 moras
HL				

Table 3.5 continued from previous page

	2-3 moras	3-4 moras	4-5 moras	5-6 moras
H*L	H/L – HL ǹté/é-ntè – gátè 'cow – big cows'	HL – HHL ǹsákà – mánsákà 'pot(s)'	HHL – H:HHL ǹdímírò – mándímírò 'field(s)'	HHHL – HHHHL m̀pólógómà – mámpólógómà 'lion(s)'
LH **L-(LL)H**	H/L – L:H ǹgó/é-ngò – màngó 'leopard-(s)' LH – LLH dòlé – màdòlé 'doll(s)'	LLH – LLLH bbògòyá – màbbògòyá 'banana species'		
L-LμμH*				LLH:H – LLLH:H ìkùmbáániá – bàìkùmbáániá 'cultural leader'
L-L*H			LLLH – LLLLH bbòtòkòló – màbbòtòkòló 'pedle(s)'	
L-H*		H:H – LH:H móndí – màmóndí 'doughnut(s)'	HHHH – LHHHH gólógóló – màgólógóló 'container(s)'	
LHL **L-H*L**	HL - LHL gámà – màgámà 'mug(s)'	HHL – LHHL nábínwè – mànábínwè 'banana species'	HHHL – LHHHL Nábúlérè – Bànábúlérè 'a family name'	HHHHL – LHHHHL nálúkálálà – bànálúkálálà 'fundamentalist' HH:HL – LHH:HL námúmbúyè – mànámúmbúyè 'spider(s)'

Table 3.5 continued from previous page

	2-3 moras	3-4 moras	4-5 moras	5-6 moras
L-L*HL		LHL – LLHL bbàlúwà – màbbàlúwà 'letter(s)'	LH:L – LLH:L ìtééwò – bàìtééwò 'father(s)'	LLH:L – LLLH:L gàbìríndì – màgàbìríndì 'glasses'
HLH **H-H*LH**	–			HF:H – HHF:H ǹkófíìrá – mánkófíìrá 'hat(s)'
LHLH **L-H*LH**	–	F:H – LF:H jáàjá - bàjáàjá 'grandmother(s)' HLH -LHLH mótòká – màmótòká 'car(s)'	HF:H – LHF:H pápáàlí – màpápáàlí 'papaya(s)' H:LH – LH:LH náíkòntá – mànáíkòntá 'borehole(s)'	HHF:H – LHHF:H ǹkóngóbyâlí – mànkóngóbyâlí 'woman who has long gap between children'
L-LHLH			LF:H – LLF:H kàláàmú – màkàláàmú 'pen(s)'	LH:LH – LLH:LH fùlámpèní – màfùlámpèní 'frying pan'

HL HL and LH are the two most common tonal melodies, and HL is the one with the most regular application. Regardless of the length of a word, the final syllable will be low, while all preceding syllables are high. The melody is applied from the right, the L tone attaches to the rightmost mora, and the H tone attaches to the next mora and spreads leftward to all remaining moras. No exceptions to this pattern were found, and the same pattern applies to nouns with zero prefixes.

LH The LH melody is slightly more complicated, and there are a couple of sub-patterns. In a two syllable word, the first syllable will be low, and the second high. For longer words, the most common sub-pattern is Lμμ H*. In a tri-moraic word, the first two mora are low, and the last one high. For longer nouns, the H tone speads: the first two

moras are low, and the H spreads to all remaining moras. We can hypothesise a rule that attaches the L tone to the first two moras at the leftmost edge, and then spreads rightwards. If the second mora is in the second syllable and part of a long vowel, the third mora is also low to avoid a rising tone. Infinitives follow this pattern.

A second pattern consists of Class 14 abstract nouns that contain the negative *ta-* between the class marker and the root. This is always high, and all following mora are high as well. Infinitives have the LμμH* melody, but if the *ta-* prefix is added following the Infinitive marker *ku-*, the verb similarly gets a LμH* pattern, e.g. *kùbìná* 'to dance', *kùtábíná* 'not to dance'. There are also nouns with the LμH* pattern which do not have the *ta-* prefix. In the sample, only a handful of such nouns were found. An example is *Mùgwányá* 'Mugwanya (personal name)'. There was also two words with a L*H melody found, as in *màtàkàlí* 'lands', but this appears very rare.

For nouns with zero or prenasalised prefixes, bi-moraic words either have a LH melody, or they are prenasalized monosyllabic roots and behave as described in Section 3.2.7. Tri-moraic words get LLH in the singular, and the plural suffix adds another low tone. For longer nouns, the first two moras are typically low, and that low tone can either expand to further moras, as in *bbòtòkòló* 'pedle', or the H tone can spread, as in *ìkùmbáániá* 'cultural leader'. In either case, the sample only had a couple of examples.

Another pattern entirely is found in a small handful of nouns, which have only high tones in the singular, like *móndí* 'doughnut'. When a plural prefix is added to these, it has a low tone.

LHL The pattern of the LHL melody is again a bit more complicated, and for longer nouns, there are two sub-patterns that appear to be about equally common. Firstly, the sample only includes one bimoraic and bisyllabic word that belongs to this group, and that is *ìjê – màjê* 'sg. company – pl. army.' For tri-moraic nouns, the most common pattern by far is LHL, and there is one noun that instead have a LLF pattern.

For longer nouns, either the H tone or the initial L tone spreads, so we either get L*HL as in *kìsààníkò* 'garbage' or LH*L as in *mùzábbíbbù* 'grapevine'. For the L*HL

nouns, there are three nouns that have a fall on the final syllable, like *mùlèkwâ* 'orphan', but most commonly the H and the final L attach to one mora each.

For the zero prefix nouns, bimoraic nouns are HL, and become LHL in the plural. For longer nouns there are again two common patterns, they can be either L*HL or H*L, with a low toned prefix in the plural.

It should be noted that the longer nouns are almost always more morphologically complex in some way, either by containing affixes, or because they are compounds. It would appear that quite a lot of the nouns that have the H tone spreading have additional prefixes. In some cases, such as *bùtáfááyò* 'carelessness' we have the *tá-* prefix, discussed above, and a locative suffix at the end, which always have the opposite tone of the final tone of the stem to which they attach. Quite a few of these nouns also have a *mùná-* prefix, which denotes that a person is related to or belongs to the noun it attaches to (e.g. *mùnámátéékà* 'lawyer' from *mátéékà* 'laws'). These exceptions count for most of the L-H*L nouns, the only remaining noun being *mùzábbíbbù* 'grapevine', which might very well also be more complex morphologically, although it is unclear at present.

Similarly, amongst the zero prefix nouns, most of the L-H*L nouns are either loans (*dákííkà* 'minute' originally from Arabic, probably borrowed through Swahili) or have what is likely a prefix *na-*, found on quite a few Class 1a nouns.

It would seem, then, that the L*HL pattern is the most regular, and that the LH*L pattern is found on nouns that can be expected to behave irregularly for various reasons. The L*HL pattern applies from the right edge, attaching each tone to one syllable, and extending the final L leftward to the beginning of the word. Importantly, in words with a penultimate bimoraic syllable, we do not get two tones attaching to two moras of the syllable, as this would lead to a rising tone.

HLH The HLH melody is found on a handful of two syllable words. These all have vowel-initial roots, and as a result have a long vowel or diphthong in the first syllable that can carry a falling tone, as in *lîìdó* 'groundnut'. For tri-moraic and tri-syllabic nouns, the three tones can attach to one syllable each, as in *kíbàlá* 'fruit'. In longer nouns, if the penultimate syllable has a long vowel, it will have a falling tone, as in

líndáàzí 'type of fried cake'. Based on this, it would appear that this tone melody is applied by a rule that starts at the rightmost edge, and attaches each tone to a mora, before extending the leftmost high tone to any remaining syllables to the left.

From the zero prefix nouns there are a couple of words with five mora that belong to this tonal melody. These all have a HF:H tone, and the plural is HHF:H.

This melody, as well as the LHLH melody, is quite common in loanwords.

LHLH The LHLH tonal melody is found on tri-syllabic nouns with a heavy second syllable, or on longer nouns. In tri-syllabic nouns the melody is realised as LF:H. In quatro-syllabic nouns, the melody is LHLH if all syllables are light. When the noun has more than four mora, there are two common patterns: Either L*HLH or LH*LH. Occationally there is some variation where a word can use either pattern. When the penultimate syllable is heavy, as in *màdòbóòzí* 'voices', it has a falling tone.

There are four five syllable nouns in the sample, and two have a L*HLH pattern, while the other two are LH*F:H. The LH*F:H nouns both appear to be more morphologically complex, one resembling a compound, and the other having the *mùná-* prefix discussed above. However, one of the L*HLH nouns is reduplicated, and the other, *mùkàtúlìkí* 'catholic person' is a loan, so due to the small amount of relevant nouns, it is hard to say currently what pattern is more common. As a general rule, however, we can say that this melody applies from the rightmost edge, and is sensitive to syllable weight, applying one tone to each mora, and then spreading either the L or the final H leftward if there are more syllables.

As Table 3.5 shows, the zero prefix nouns appear to have the same two sub-patterns, where either the H or the L spreads in longer nouns. In the 22 relevant words in the sample, the two sub-patterns appear more or less equally common. The four words with only three mora all pattern similarly, and have F:H in the singular and LF:H when a prefix is added.

3.2.11.2 Verbs

Verbs do not have lexical tone, and the same tonal melodies are applied to all verb stems. The Infinitive is nominal in nature, and has the LμμH* melody.

3.2.11.3 Affixes

Most affixes get their tones either from the lexical tone of the stem (nominal and adnominal prefixes), or from the tonal melody of the relevant TAMP category (verbs). There are some affixes that have an inherent tone attached, which might be realised on the affix itself, or on a following syllable. The Reflexive marker and some subject markers have a floating high tone. The augment, which can be realised either *ó-*, *é,* or *á-*, always has a high tone.

3.2.11.4 Adnominals

Adnominals have an underlying tonal melody, and we find the same melody regardless of what noun class the adnominal is agreeing with. The stem has a fixed combination of tones, and the agreement prefixes all have the same tone, and what tone the agreement prefixes get is specified by the underlying melody of the word they attach to. Further discussion of this will be found in Section 4.2, along with examples and information about all the different agreement patterns.

3.2.11.5 Adverbials, conjunctions and particles

Adverbials, modifiers and conjunctions have an inherent lexical tone. Some examples are given in (92).

(92) a. *mángù* 'quickly'

b. *pákà* 'until'

c. *bùlí* 'every'

d. *ìnó* 'very'

e. *èrâ* 'and, but'

3.2.12 Morphological tone

Verbs have no inherent lexical tone, and the tone is in every case determined by the tense, aspect, mood and polarity of the verb form in question. The different tonal melodies associated with different morphological forms is discussed at great length in Chapter 6, so will not be covered here. I analyse the verbs as having two types of

tonal melody: one stem melody, which attaches to the stem, and one pre-stem melody, which attaches to the prefixes before the stem. The justification for this is given in Section 6.10.1. Normally, tones can spread between the stem and the pre-stem, but an object marker cuts off the two different parts. Some verb forms only have stem melodies, and normally these spread to the pre-stem prefixes. When there is an object marker, however, these are left without any tones, and a default (L)H is inserted. The discussion in Chapter 6 will exemplify why this default tone is theorised, as it explains certain high tones which appear only when there is an object marker.

When discussing underlying tonal melodies in the text, as well as when indicating tonal melodies in the glosses, a period is used to separate the pre-stem melody from the stem melody, P3 affirmative, for example, has a H.LHL melody.

3.2.13 Morphosyntactic tone

There are two tonal processes that are sensitive to morphosyntax, and I am therefore calling these phenomena "morphosyntactic tone". The first is an alternation between a version of the verb with a high tone, and one where that high tone has been lowered, which will be discussed in Section 5.10. In short, when a verb is followed by certain elements, it needs to be in the low-toned form.

A very similar process applies to nouns and adnominal words, where in certain contexts, words that end in a high tone are realised with a final low tone instead. Most commonly, this happens to any word directly preceding a predicate, be that a verbal or nominal/adjectival predicate, as shown in (93). *mwàná* 'child' has a LH melody. In (93a) it directly precedes a verb, so the final high tone is lowered. In (93b), the final high tone is also lowered. There is no overt verb here, but we could consider there to be a zero copula (see Section 6.8.1). (93c) shows that what is important is the placement directly before a predicate. When followed by a possessive pronoun, the word *mwàná* does not undergo final lowering. Instead, it is the possessive pronoun *wàngé* which has its final tone lowered.

(93) a. *Ómwànà yáízírè.*

ó-mu-ànáFL a-a-iz-ire\H.(L)HL
AUG-1-child\FL 1S-TNS-come-PST2\P3
'The child came.'

b. *Ómwànà músómì.*

ó-mu-ànáFL mu-´sómì
AUG-1-child\FL 1-student
'The child is a student.'

c. *Ómwàná wàngè yáízà.*

ó-mu-ànáFL o-àngéFL a-a-iz-a\H.L(H)
AUG-1-child AGR1-1SG.POSS\FL 1S-TNS-come-FV\F1
'My child will come.'

In some cases, this appears to mark phrase boundaries. See for instance the sentences in (94). In (94a), the possessive is clearly part of the same NP as 'child', i.e. forming the object NP 'our child'. Then look at (94b) and (94c). In (94b), *mwàná* 'child' has not undergone final lowering, like in (94a), while in (94c) it has undergone final lowering. My theory of such instances is that in (94c), *wàisú* 'ours' is the predicate, and not part of the same NP as *mwàná*. Note also that in these types of phrases, the augment always coincides with final lowering.

(94) a. *(Mbònà) (mwàná wàisú)*

ǹ-bon-a\LHL\FO2 mu-àná o-àisú
1SGS-see-FV\PRES\FO2 1-child AGR1-1PL.POSS
'I see our child.'

b. *(Òònù) (mwàná wàisú)*

o-`nú\FL mu-àná o-àisú
AGR1-DEM_PROX\FL 1-child AGR1-1PL.POSS
'This is our child.'

c. *(Òònu ómwànà) (wàisú)*

o-`nú mu-ànáFL o-àisú
AGR1-DEM_PROX 1-childFL AGR1-1PL.POSS
'This child is ours.'

Any word preceding the verb undergoes final lowering, not just a subject, but also an adverbial phrase as in (95). Other contexts where final lowering occurs includes

when a nominal precedes a numeral, as in (96), and when two direct objects follow each other, and the second does not have an augment, as in (97). This is an interesting phenomenon, and much more research is needed into its distribution, its relationship with the augment, and its exact function. Hopefully fully tone marking a portion of the corpus will allow more insight into this.

(95) *Ómwànká gùnù tùlímírè mùtyêré.*

ó-mu-ànká gu-`nú\FL tù´-lim-ire\LHL mu-`tyêré
AUG-3-year AGR3-DEM_PROX\FL 1PLS-plant-PST2\P2 3-rice
'This year we have planted rice.'

(96) a. *ésáàwá yàngé* 'my time'

b. *ésáàwà mòizá* 'one hour/seven o'clock'[5]

(97) *Ànywìsírye ómwànà màtá.*

à-nyw-isy-ire\LHL ó-mu-ànà\FL ma-`tá
1S-drink-CAUS2-PST2\P2 AUG-1-child\FL 6-milk
'S/he made the child drink milk.'

3.3 Syllable structure

The syllable structure of Lugwere is quite simple. There are no codas (at least not underlyingly, although see Section 3.1.3.8 on final vowel deletion), and the onsets are either simple, or consist of a palatalised, labialised or prenasalised consonant. If we follow Nzogi (2006) in considering these as sequences, then that would mean that clusters of C+glide or N+C are allowed. Onsetless syllables are also possible, and vowels can be either simple, long, or diphthongs, so a syllable can have at most two moras. (98) shows a list of all the possible syllable types. N represents any nasal. A non-capital <v> indicates vowel length that is non-contrastive in the environment.

(98) V

VV

Vv

[5]Lugwere starts counting the hours of the day from six in the morning. 'One o'clock' in Lugwere thus refers to 7 o'clock in English

CV

CVV

CVv

CwvV

CyvV

NCV

NCVV

NCVv

N

Of these possible syllable types, most can occur at any point in a word or a phrase. One exceptions to this are V, VV or Vv syllables, which only occur at the beginning of a word. Word-internally, a vowel-only affix would undergo the hiatus avoidance strategies discussed in Section 3.1.3.7, and would either get a glide onset, or become part of a long vowel or diphthong.

There is reason to believe that phrase-initially, the nasal element of a prenasalised consonant is moraic and syllabic. In clapping games, a speaker consistently did an extra clap when there was an initial prenasalised consonant, but not when the prenasalised segment was non-initial. Nzogi (2006) finds something similar. He writes that about half the speakers he tested added an extra clap for the initial prenasalised segment, and adds that this corresponded with a word being said in isolation. While in nouns, the nasal of a word-inital prenasalised segment always gets a default low tone, there is at least one context in which word-initial prenasalised segments receive a high tone. In the Subjunctive, all subject makers have a high tone, and in isolation the 1st person singular, which is realised as prenasalisation, also carries a high tone on the nasal. When preceded by another word, however, that high tone is 'offloaded' onto the preceding vowel (see Section 8.1.1, particularly (415)). Using nasals as TBUs seems thus to be a 'last resort' for the language, and whenever possible the responsibility is passed on to a vowel.

The low tone that a prenasalised segment has in nouns and other non-verbal words can either be realised on the nasal itself, or on a epenthetic vowel. This low tone disappears, however, when the segment is no longer initial. Because of this, it will not be considered underlying, but simply the default tonal realisation of syllabic nasals when no other tone is specified. Following this, NCV syllables are not found utterance-initially, instead there are N syllables. When an initial word or a word in isolation starts with a prenasalised segment, it will be written with a tone mark in this thesis.

3.4 The phonological word

This section will briefly outline some of the features that can be used to define the Lugwere phonological word, and these are features that will be referenced when arguing for the wordhood of various elements in Sections 5.4.4, 6.6.3 and 7.3.1.

Firstly, the strategies for hiatus resolutions between two vowels within a word, and vowels at the word boundary, differ in some regards. Within a word, the strategies outlined in Section 3.1.3.7 are employed. Importantly, a high vowel becomes a glide. Between words, on the other hand, there is a process of liaison, where the final vowel of the first word deletes, as in (142). A glide is therefore a good indication that something is part of the same phonological word. Besides gliding, some affixes with a low vowel assimilate in value to a following mid vowel, and this does not happen across word boundaries. Looking at hiatus resolution is a sufficient criteria to decide that something is part of one phonological word, but not necessary as there are contexts where liaison and word internal hiatus resolution would give the same result (for instance in some sequences of /a/ + /a/), and not all morphemes have a vowel at the beginning and/or end. Vowel length can also tell us something about word boundaries. Within a phonological word, a CG sequence is followed by a long vowel, but this is not the case if the CG sequence is at the end of a word, and when a word final CG sequence undergoes liaison, we still have a short vowel, as in (99a-b). The lengthening before a NC sequence does however apply across word boundaries, as in (99c).

(99) a. *Àsòmésya ábàànà.* [àsòmésy-á̲bà:ná]

à-som.isy-a\LHL *á-ba-ànà*
1S-teach.CAUS2-FV\PRES AUG-2-child
'S/he teaches the children.'

b. *Ómùkáágwa àsómà.* [ómùká:gw-à̲sómà]

ó-mu-ʾkáágwà à-som-a\LHL
AUG-1-friend 1S-read-FV\PRES
'The friend reads.'

c. *Mùlyâ mbáátì.* [mùljâ: mbá:tì]

mù´-ly-a\LHL *m.báátì*
2PLS-eat-FV\PRES 9.duck
'You PL eat duck.'

Another indication is tone. Elements that are part of the same word might carry a tone that is part of the tonal melody (verb), get their tones assigned from the lexical tone of the root (nouns and adnominal elements), or have a tone that is predictably determined by the tone of the syllable it attaches to (clitics). Note that an element can receive its tone from another phonological word, as in the cases discussed in Sections 3.2.5 and 3.2.9 above, and with 1st person singular Subjunctive verbs (see 8.1.1). In these cases, however, it is a tone that would be realised on the word that it is underlyingly attached to if pronounced in isolation, but which for various reasons ends up affecting an adjacent syllable instead. This differs from how affixes and clitics are assigned their tones. In the nominal domain, roots assign tones to their affixes, and these are unpredictable from context, and are never realised on the roots themselves. Clitics receive tones that are predictable based on the tones of the word they attach to, but the tones they carry are likewise not displaced from the word they attach to, unlike what happens in 1st person singular Subjunctives, for instance.

In verbs, we can argue that the reduplicated forms in Section 7.2.2 are one phonological word, seeing as the tonal melody of the non-reduplicated verb stretches across the whole reduplicated verb. Similarly, we can also argue that the *-nga* suffix is indeed a suffix, seeing as it receives its tone from the tonal melody of the verb. Here again, clitics, like the locative enclitics, receive a tone that is predictable from the tone of the syllable they attach to. There are certain affixes that have an inherent tone, and so

while this seems to be a sufficient criteria to consider something part of a phonological word, it is not necessary.

Another tonal indication of word boundaries, are the two tonal processes discussed in Section 3.2.13 above. If a noun has undergone final lowering, or a verb is in Form 2, this is an indication that what follows is a separate phonological word. See for example Section 7.3.1, where the fact that the first verb forms are in Form 2 are used as an argument that the reduplicated form with Class 14 *bu-* is indeed a separate word. Suffixes and clitics do not generally cause final lowering or Form 2, but see Section 10.1 where the Present tense and F2 affirmative forms do have Form 2 before locative enclitics. As these are the only forms affected, however, I argue that we are likely still looking at something like a clitic (the tonal behaviour is also that of a clitic). Because of these exceptions, this might be neither a fully sufficient nor a necessary criteria, but can nonetheless be helpful.

Other things, like the ability to pause at the edge of a phonological word, is sufficient but not necessary. When asked to insert pauses wherever possible, for instance, a speaker frequently pronounced a noun and a following modifier together as a unit, but looking at the hiatus resolution shows that these are indeed two words, undergoing liaison. If you can insert a separate phonological word between two elements, that is likewise a good indication that we are dealing with two separate phonological (and grammatical) words.

When it comes to the grammatical word, I adapt the criteria outlined in Dixon & Aikhenvald (2003:19), which is considered to be more or less universal, as opposed to criteria for the phonological word, which is more language specific. They define a grammatical word as follows:

(100) **A grammatical word consists of a number of grammatical elements which:**

- always occur together, rather tan scattered through the clause;
- occur in a fixed order;
- have a conventionalised coherence and meaning

3.5 Orthography

While Lugwere does not have a long history of writing, there are a variety of materials published in the language, mainly by the Lugwere Bible Translation Society and through the support of SIL. In connection with this, an orthography has been established, which is used (with minor variations) in all the materials published in Lugwere. The orthography is an effective and fairly simple one in regard to the segmental phonology, but it does not indicate tone at all. The decision to not mark tone was taken after an orthography workshop came to the conclusion that extensive tone marking was undesirable for multiple reasons, and decided instead to rely on disambiguating adverbs in order to clarify grammatical tone (see Nzogi 2009b). While most lexical tone can be disambiguated by context, the difference between the Hesternal and Distant Past tenses can only be highlighted through the use of the adverb *éízò* 'yesterday/tomorrow', which is not generally needed in speech.

The orthography is fairly accessible, and speakers that I worked with who had not been trained in Lugwere literacy were able to quickly start reading in the language just by being presented with written materials.

The orthography used in all the SIL materials is fairly standardised and largely follows Nzogi (2005a), although there are some inconsistencies. In some of the storybooks the proximal demonstrative pronouns that start with a vowel are written with a long vowel (<eenu>, <oonu>), whereas in the Bible translation this is written as <enu>, <onu>.

Nzogi (2005a) gives a thorough introduction to the orthography, and SIL has also published a series of primers and other materials that are intended to train speakers in using the orthography. This is the orthography used in the Nzogi & Diprose (2012) dictionary. The dictionary by Kagaya (2006) uses a different orthography altogether, grounded in an analysis of the phonology which differs from that presented by Nzogi (2006) and here in several ways.[6] He also marks tone for each of the words, which

[6] Kagaya (2006) gives a consonant phoneme inventory which includes three geminate stops, and has no bilabial fricative /ß/. He also analyses prenasalised stops as separate phonemes, while Nzogi (2006) treats them as combinations of two phonemes.

is absent from the orthography presented by Nzogi (2005a). Besides his dictionary, however, the orthography presented in Kagaya (2006) has not, as far as I am aware, been used in any other contexts. I therefore chose to rely primarily on the orthography from Nzogi (2005a), which although not known by all speakers of Lugwere, is the orthography used by those who actively engage in promoting Lugwere literacy, and it is the orthography that is used in past and current publications in the language. Because this thesis focuses quite a bit on tone, however, I have choose to modify the orthography by including tone marks (see below for a description of the system I have opted to use). All following examples in this thesis, if not explicitly put in phonemic or phonetic brackets (i.e. // or []) follow this orthography with my modification of adding tone marks.

3.5.1 The orthography presented in Nzogi (2005a)

Nzogi (2006) gives a table showing how his analysis of the phonology maps onto the orthography, and this is reproduced in Table 3.6 below. For the most part, there is a one to one relationship between phoneme and grapheme, and where there is not, there are structured rules explaining the difference.

Most of the characters are quite self-explanatory, and all belong to the standard Latin alphabet, with the exception of <ŋ>. The phoneme /l/ is realised as [ɾ] after a front vowel (/e/ or /i/), and this is reflected by the orthography. What is spelt <ky> and <gy> is generally pronounced as [t͡ʃ] and [d͡ʒ], respectively, meaning that they are pronounced the same as the letters <c> and <j>. The usage of these different spellings differ, however. While <ky> and <gy> are used for allomorphs of the nominal prefixes and agreement morphemes *ki-* and *gi-*, <c> and <j> are used stem-internally. The prefixes *ki-* and *gi-* are also optionally pronounced [t͡ʃi-] and [d͡ʒi-]. This spelling convention thus maintains the link between the allomorphs *ki-* and *ky-* and *gi-* and *gy-*, with the drawback of compromising the one to one relationship between graphemes and phonemes. Similarly, spelling [d͡ʒi] as <gi> and [t͡ʃi] as <ki> maintains a link to the historical pronunciation and cognates in other languages. To what extent this is beneficial

Table 3.6: Lugwere orthography, taken from Nzogi (2006)

Phoneme	Grapheme
/p/	P, p
/b/	Bb, bb
/t/	T, t
/d/	D, d
/k/	K, k
/g/	G, g
/t͡ʃ/	C, c
/d͡ʒ/	J, j
/ß/	B, b
/f/	F, f
/v/	V, v
/s/	S, s
/z/	Z, z
/m/	M, m
/n/	N, n
/ŋ/	ŋ, ŋ
/ɲ/	Ny, ny
/l/	L, l & R, r
/w/	W, w
/j/	Y, y
/i/	I, i
/e/	E, e
/ɑ/	A, a
/o/	O, o
/u/	U, u
/iː/	Ii, ii
/eː/	Ee, ee
/ɑː/	Aa, aa
/oː/	Oo, oo
/uː/	Uu, uu

or harmful can of course be discussed, but it does seem like this could be a complication for speakers that might not be very aware of the morphology of their language.

Some breaches of the one to one principle relate to simplifying the spelling where contrasts have been neutralised. Long vowels are spelled with two vowel symbols when it is contrastive, but with one in contexts where vowel length is phonetic rather than phonemic. Similarly, there is a contrast between <b> /ß/ and <bb> [b] in most contexts, but not when prenasalised, and so [mb] is spelled <mb> rather than <mbb>. Similarly, /n/ and /ŋ/ and /ɲ/ contrast, but not in prenasalised consonants, where the nasal agrees in place with the following consonant, so that all of these consonants are spelled <n> in this context, e.g. [ŋk, ŋg] is spelled <nk>, <ng>, [ɲdʒ] <nj>, and [nt, nd] is spelled <nd>, <nt>, and so on. Labial prenasalised realisations are spelled with an <m>, so [mp] an

[mb] are <mp> and <mb>. Labiodental nasals are not separate phonemes, but do occur in prenasalisation, and are spelled with <n>, so [ɱv] and [ɱf] become <nv> and <nf>.

The phoneme /l/ has the two allomorphs [l] and [ɾ]. While there is some level of free variation, the [ɾ] realisation is most commonly found following the front vowels /e/ and /i/, and the orthography reflects this, by spelling /l/ as <r> when following a front vowel, and <l> elsewhere. As this relates to allomorphy, and processes that are likely below the level of consciousness for the speaker, this is something that can make the orthography harder to use for speakers. However, the fact that most speakers who attempt to use the orthography will already be familiar with English spelling conventions helps, and makes it perhaps more natural to use different symbols for the two allophones.

A full explanation of the orthography both in Lugwere and English, including rules for punctuation, can be found in Nzogi (2005a).

3.5.2 Tone marks

Since tone is one of the focuses of this thesis, all examples will be tone-marked. The system that will be used follows the IPA conventions of using a <◌́> for high tone, and <◌̀> for low tone. Falling or rising tones only occur on bimoraic syllables, and in cases where these are written with two vowel symbols, a falling tone will be represented by a sequence of two diacritics; <◌́◌̀>. In cases where what is phonetically a long vowel is spelt with a single vowel symbol (that is, in cases where vowel length is predictable), the symbol <◌̂> will be used. Rising tone is very rare, but will be indicated by either a sequence of low and high, i.e. <◌̀◌́> or the symbol <◌̌>. These conventions are illustrated in (101).

(101) a. *mùkàlí* 'woman'

b. *mùzéèyí* 'old person'

c. *mùpângó* 'agreement'

d. *tìtwǒzèré* 'we did not wash (earlier today)'

When words are given in isolation, their underlying tones will be indicated. When words are given in context, the first line of the gloss will give the surface tones, while

the underlying tones will be given in the second line. In cases of liaison, the underlying vowel is written, but without any tone marks, as in (102a). Where the tone of the final vowel of a word remains even though the vowel quality is that of the first vowel of the following word, the tone marks are written on the first vowel of the next word, as in (102b).

(102) a. *J̌én àbóna ómwàná.*

J̌én à-bon-a\LHL ó-mu-àná
PN.F 1S-see-F\PRES AUG-1-child
'Jen sees the child.'

b. *ómùsàìza óònú*

ó-mu-`sàìzá o-`nú
AUG-1-man AGR1-DEM_PROX
'This man'

In the cases where the orthography also chooses not to write certain underlying vowels, I have also left them out. This is the case for some particles, like the assosiative particle *-á*, for instance *wá* for Class 1, and certain conjunctions like *ngà* and *nè*. These are written *w'*, *ng'* and *n'*, respectively, when preceding a vowel, e.g. *w'ómwàná* 'of the child'. Similarly, in contexts where vowel devoicing takes place and it is difficult to determine what the underlying tone is, a vowel might be left without a tone mark both in the surface and the underlying representations.

An illustration of how this will be done is given in (103) below. The final high tone of *lùgàlí* has been lowered because it directly precedes the predicate, and the verb is in Form 2, which, for a P5 (Distant Past) verb, means that the final high tone is realised low.

(103) *Ólùgàlì lwàmàlìrè mwàná.*

ó-lu-`gàlí\FL *lu-a-mal-ire\L.LH\FO2* *mu-àná*
AUG-11-winnowing_basket\FL 11S-TNS-finish-PST2\P5\FO2 1-child
'The winnowing basket was enough for the child.'

In cases of downstep, a down arrow will be placed in front of the syllable that is downstepped. Downstep only affects high tones, and so no symbol is used when the tone that would be affected is low. This is exemplified in (104).

(104) a. *Tùlyâ.*

tù´-ly-a\LHL
1PLS-eat-FV\PRES
'We eat.'

b. *Tùlyá ↓mángù.*

tù´-ly-a\LHL *mángù*
1PLS-eat-FV\PRES quickly
'We eat quickly.'

c. *Tùlyá bùlì lùnákù.*

tù´-ly-a\LHL *bùlí\FL* *lu-`nákù*
1PLS-eat-FV\PRES every\FL 11-day
'We eat every day.'

4 Noun Classes and Agreement

Contents

4.1 Nominal inflectional morphology . . . 138
4.1.1 Noun classes . . . 138
4.1.2 Nouns derived from associative constructions . . . 142
4.1.3 The missing classes . . . 146
4.1.4 Plural/singular pairs . . . 147
4.1.5 Nominal form classes . . . 147
4.1.6 Deriflectional classes . . . 148
4.1.7 Agreement classes . . . 149
4.1.8 Genders . . . 151
4.1.9 Semantics . . . 151
4.1.10 Augments . . . 155
4.1.11 Nouns with multiple nouns classes . . . 156
4.1.12 Loanword incorporation . . . 160
4.1.13 Diminutives and augmentatives . . . 162
4.1.14 Locatives . . . 162
4.2 Agreement . . . 165
4.2.1 Agreement pattern I . . . 168
4.2.2 Agreement pattern II . . . 173
4.2.3 Agreement pattern III . . . 176
4.2.4 Agreement pattern IV . . . 177
4.2.5 Agreement pattern V . . . 178
4.2.6 Agreement pattern VI . . . 178
4.2.7 Agreement pattern VII . . . 179
4.2.8 Agreement pattern VIII . . . 179
4.2.9 Coordination and Agreement . . . 180

This chapter describes Lugwere nominal morphology, as well as adnominal agreement. Section 4.1.1 will give an overview of the Lugwere nominal prefixes within the framework traditionally used in Bantu linguistics, and compare them to the reconstructed Proto-Bantu prefixes that were given in Table 2.3. Sections 4.1.5 – 4.1.8 will break the noun class system of Lugwere down into the four concepts introduced in Güldemann & Fiedler (2019) (see Section 2.3.2). In Section 4.1.11 the fact that sometimes one noun can be used with different agreement classes is discussed. Section 4.2 will then look at the different agreement patterns, detailing which agreement targets are found with which set of agreement morphemes.

4.1 Nominal inflectional morphology

4.1.1 Noun classes

Lugwere has reflexes of 21 of the noun classes that have been proposed for Proto-Bantu, and the nominal prefixes of these can be found in Table 4.1 alongside the reconstructed Proto-Bantu prefixes that were given in Table 2.3. The prefixes are given in IPA, but the examples use the orthography. The only noun class prefix that has an inherent tone is the Class 5 prefix *ì-*.

Comparing the two sets of prefixes shows that the Lugwere system is quite conservative. Except for the two classes that are missing in Lugwere (see Section 4.1.3), the largest difference can be seen in Class 10, where Proto-Bantu has a double prefix according to Maho (1999). It should be noted that some reconstructions, like Meeussen (1967), give a Class 10 prefix that is identical to Class 9 (*n-*). Where the double prefix is reconstructed, the presumption is that what was originally the Class 10 prefix at an earlier stage of Proto-Bantu, i.e. *lì-*, has been added on top of the Class 9 prefix. Some have even suggested that at some point the plural was systematically formed by adding the plural prefix onto the singular in all classes, not just in Class 10 (Cole 1967). Currently it is quite common to have the same prefix for Class 9 and Class 10, and the fact that some have reconstructed this state back to Proto-Bantu means that any potential loss of an earlier Class 10 prefix would have happened quite early.

Otherwise there are some consonants that have changed their pronunciation. /k/ is often pronounced [t͡ʃ] by some speakers when followed by a front vowel, so the Class 7 prefix is often pronounced [t͡ʃi]. PB [ɣ] has changed into [g]. In Class 16 the /p/ has changed to /w/. Another prefix that differs slightly is Class 5, where *ì-* is the regular prefix, and *li-* is found on vowel-initial stems.

Not every reconstruction of the Proto-Bantu noun class system includes classes 20–23. All of these classes are quite rare, and are typically restricted to a few smaller clusters. Classes 20 and 22 are rare overall, but there is a cluster in zones E and JE, so it is not surprising to find a Gender 20/22 in Lugwere. Kadima (1969:184) claims that Class 22 is the result of an earlier split with Class 6. As will be seen in 4.2, the agreements of Class 22 and Class 6 are often identical, but not always, so that it is justified to treat it as a separate agreement class synchronically.

Class 23[1] is a locative class, and it is found as a preposition in many languages throughout the Bantu region, but it is only in a small area in the North-East, around where Lugwere is spoken, that it is associated with agreement markers, and can qualify as a separate gender (Maho 1999:206). Lugwere does have a Class 23, which in almost all cases has identical agreements to Class 9, the exception being the object agreements, where Class 23 uses enclitics like the other locative classes. This is consistent with what has been reported in the literature, as Maho (1999:254) writes that in Luganda Class 23 have the same agreements as Class 9. The prefix for Class 23 is reconstructed as *ì-*. In Lugwere, there is a prefix *é-* associated with this class. In the orthography, it is generally written as a separate word, i.e. *é Kámpálà* 'in Kampala'. As this is always high-toned, it makes more sense to analyse it as an augment, however, and to consider the class to use a zero prefix. As Class 23 shares almost all of its agreements with Class 9, it makes sense that it would also have a zero prefix like a large portion of the Class 9 nouns.

In Table 4.1 most examples are nouns whose primary classification is in the given noun class. For some of these classes, however, the secondary functions are much

[1]The numbering for this class is a bit confusing. The number 23 was originally used for a proposed infinitive class that has later been dropped (Maho 1999). Later Cole (1965) used this number for a locative class in Luganda, which is likely cognate with the Lugwere class, but others have used other numbers for this particular class, "24" in Meeussen (1967) and "25" in Bastin (1983). I follow Maho (1999)'s terminology here, and use the number 23.

Table 4.1: The Lugwere nominal prefixes alongside the Proto-Bantu prefixes from Table 2.3. The prefixes are given in IPA, while the example words are in the orthography.

Class number	PB prefix	Lugwere prefix	Lugwere Example
1	mù-	mu-	*músómì* ‘student’
1a	∅	∅	*jáàjá* ‘grandparent’
1b	–	w-	*w’ámàjê* ‘soldier’
2	ßà-	ßa-	*básómì* ‘students’
2x	ßà- ∼ ßɔ̀-	–	–
2c	–	ß–	*b’ámàjê* ‘soliders’
3	mù-	mu-	*mùsáálè* ‘tree’
4	mì-	mi-	*mìsáálè* ‘trees’
5	lì-	ì-, li-	*ìkótì* ‘neck’, *lìinó* ‘tooth’
6	mà-	ma-	*màìnó* ‘teeth’
7	kì-	ki- ∼ ʧi-	*kíbàlá* ‘fruit’
8	ßì-	ßi-	*bíbàlá* ‘fruits’
9	nì-	n-	*nzógì* ‘elephant’
9a		∅	*fírímbì* ‘whistle’
10	lì- nì-	n-	*nzógì* ‘elephants’
10 a		∅	*fírímbì* ‘whistles’
11	lù-	lu-	*lútíndò* ‘bridge’
12	kà-	ka-	*kàtàágó* ‘spleen’
13	tù-	tu-	*túbbóólà* ‘a little bit of money’
14	ßù-	ßu-	*bùtàágó* ‘spleens’
15	kù-	ku-	*kùsòmá* ‘to read, to study’
16	pà-	wa-	*wàkàtí* ‘centre’
17	kù-	ku-	*kúngúlù* ‘top’
18	mù-	mu-	*múndà* ‘inside’
19	pì-	–	–
20	ɣù-	gu-	*gùnyànzá* ‘ocean’
21	ɣì-	–	–
22	ɣà-	ga-	*gànyànzá* ‘oceans’
23	ì-	∅	*é Kámpálà* ‘in Kampala’

more widespread. The locative classes are 16, 17, 18 and 23. The diminutive classes are 12, 13 and 14 and the augmentative classes are 20 and 22 . Out of these, Class 14 has a large number of primary nouns, as it is commonly used for abstract non-count nouns. There are around 50 entries for 12/14 nouns listed in the dictionary, and the majority of these seem to be primary. There are only two entries for 20/22, *gùnyànzá* 'ocean' and *gàìnó* 'tusk', and both of these are augmentatives of other words listed in the dictionary, i.e. *nyànzá* 'lake, sea' and *lììnó* 'tooth', so there do not seem to be any primary 20/22 nouns. There are no Class 13 nouns in the dictionary, and this class is only used for secondary classification. Similarly, I have not found any nouns whose primary classification is 17. For classes 16 and 18 I have only found one or two nouns that are likely primary. It is perhaps possible to consider place names to have Class 23 as their primary classification.

There are five classes that have more than one possible prefix. As expected, there is a Class 1a with a zero prefix, which commonly contains nouns for people, kinship terms and some animals as well as loanwords and some other nouns that typically describe organic substances like food, cloth and plants. Classes 9 and 10 typically have a homorganic nasal prefix, and each has a subclass with a zero prefix. Class 9a and Class 1a are often used for loanwords, because the zero prefix makes it easy to incorporate nouns of any phonological shape. Often nouns with a zero prefix can be used with either AGR 1 or AGR 9 (see Section 4.1.11).

In many Bantu languages the most appropriate analysis of classes 9 and 10 is as having a homorganic nasal prefix. It is less apparent, however, how the nasal element that often appears on Class 9 and 10 words in Lugwere should be analysed synchronically. This is because it remains in some cases where we might expect the prefix to be removed or replaced, much as if it were a part of the stem rather than a prefix. When a noun of Class 9 has a plural in Class 6, the *ma-* prefix is added on top of the nasal, as in *mbùlí*/*mà-mbùlí* 'goat(s)'. With augmentative and diminutive class prefixes, the secondary prefix can be added on top of the nasal, or, in some cases, the nasal can be removed, so that 'a small goat' can be either *kàbùlí* or *kàmbùlí*. When nouns of Class 11 have their plurals in Class 10, however, the nasal is clearly still analysable as a prefix,

as it alternates with the Class 11 prefix, as for instance in *lùbírì/m̀bírì* 'palace(s)'. The fact that the homorganic nasal is more closely attached to the stem than other prefixes is true also in phonological terms, as the prefix does not always constitute its own syllable, unlike all other noun class prefixes (see Section 3.3).

Class 5 also has two prefixes, *li-* and *ì-*. The most widespread of these is *ì-*, and there are only 8 nouns in the dictionary that have *li-*. All but one of these have a stem that starts with a vowel, and the stem that does not, *líndáàzí* 'doughnut-like pastry' is listed in the dictionary as a loan from Kiswahili. It is therefore likely that the onset was lost on the prefix in all cases except when preceding a vowel. There is a few words that start with a long /i:/, written <ii>, like *ììní* 'liver'. These words are all two syllables, and the plural does not have an /i/ vowel, e.g. *mánì* 'livers', so these do not seem to have vowel-initial stems. Rather, this can be explained by the lengthening process discussed in Section 3.1.3.5. Compare this to *lììsó/màìsó* 'eye(s)', where the /i/ is part of the stem, and therefore retained in the plural. I consider *li-* as a phonetically conditioned allomorph of *ì-*, rather than a subclass.

4.1.2 Nouns derived from associative constructions

The Nzogi & Diprose (2012) dictionary lists about 20 words that start with *w'-* in the singular and *b'-* in the plural, written with an apostrophe. One example is *w'ámàjê* 'soldier' which becomes *b'ámàjê* 'soldiers'. These appear to be derived from associative constructions, where the Class 1 or Class 2 associative particle *wá* or *bá* has attached to a noun, most often with an augment. *màjê* means 'army', and in *w'ámàjê* it is prefixed by the *á-* augment. These words probably developed out of constructions like *múntù w'ámàjê* and *bántù b'ámàjê*, meaning 'man/men of army'.

The dictionary entries contain some professions, such as *w'éígómbólólà* 'subcountry chief' and *w'ébyámásányálázè* 'electrician', as well as quite a few nominalised qualities like *w'énsòní* 'shy person' and *w'ékìtíísyà* 'honourable person', and some relational terms like *w'ómúndà* 'insider', *w'éíkà* 'homeboy (someone from same homeplace), and *w'áámò* 'associate'.

A search through the corpus also revealed a few additional words, like *wábódà* 'bodaboda driver', *b'épíkí* 'motorbike drivers', *w'ómùgùmú* 'brave person', and *w'ókúkyálò* 'village citizen'. This then appears to be a fairly productive way to derive new nouns for human beings. Most of these don't appear more than once or twice in the corpus, and the words listed in the dictionary did not appear at all. It is therefore questionable how established these terms are, but they are very transparent, and a consultant had no problems giving me example sentences where the words from the dictionary were used as independent nouns. (105) and (106) show two examples from the corpus.

(105) *Ébá- ébámùkùbbíra ákásímù ng'ówábóda àizâ.* (C)

FS é-bà´-mu-kubb-ir-a\LHL(H) á-ka-´símù ngà ó-wá-bódà à-iz-a\LHL
FS SBR-2S-1O-hit-APPL-FV\PRES.SBR REL-12-phone SIM AUG-1B-boda_driver 1S-come-FV\PRES
'When they called him, the bodaboda came.'

(106) *Ábépíkí, bàtándíka ókùgùlà màpíkí.* (C)

á-b-épíkí ba-tand.ik-a\LHL ó-ku-gul-a\LH\FO2 ma-`píkí
AUG-2C-motorcycle_rider 2S-start.IMP-FV\PRES AUG-INF-buy-FV\INF\FO2 6-motorbike
'Motobike riders, they started buying motorbikes.'

This creates a subclass of Class 1 that uses the Class 1 agreements, but has a *w-* prefix. The plural prefix *b-* is very similar to the regular Class 2 prefix *ba-*, but differs minimally in some contexts. As discussed in Section 3.1.3.7, when the Class 2 *ba-* prefix precedes a vowel-initial stem, it assimilates in quality, and the result is a long vowel /a:/, /e:/ or /o:/. For nouns that have been created by the associative particle, the vowel of the particle is deleted preceding a vowel. Because these are created based on a noun with an augment, nouns starting with a syllable with a short middle vowel is possible, i.e. *b'ébyámásányálázè* 'electrician', *b'ómúndà* 'insider'. The only difference between *ba-* and *b'*, then, is that the former results in long vowels when attached to a vowel-initial stem, while the latter results in short vowels. Additionally, only *b'-* can precede a diphthong other than /ai/, as in *b'éíkà* 'village mate'. I will call these subclasses 1b and 2c.[2] In some cases, the speakers used the regular Class 2 prefix rather than the Class 2c prefix. While the dictionary lists 'goalkeepers' as *b'égóòló*, a speaker recorded it as

[2]I choose to use 2c rather than 2a or 2b because these terms are often used to refer to different prefixes in the Bantu literature, see Maho (1999)

bágóòló, even thought the singular was *w'égóòló*, and in a corpus recording a speaker said *ábákúkyálò*, but this was transcribed by another speaker as <abokukyalo>. The status of 2c as a subclass is therefore somewhat tenuous, and it often seems to be replaced by the regular Class 2 prefix.

The same derivational process can also be used with nouns from other classes, most commonly Class 7/8. Some of these words are more common, such as words for meals, like *ky'ámàkéézì* 'breakfast (lit. of the morning)' and *kyéígúlò* 'evening meal (lit. of the evening)'. Nzogi (2005a:24) notes that this is a common way to form deverbal nouns, for instance *kyókùlyá* 'food, edible thing' and *kyókùnywá* 'a drink'. Class 7/8 nouns derived in this way are generally written without an apostrophe in the dictionary. These Class 7/8 nouns do not constitute a separate subclass, however, seeing as the result is identical to the regular *ki-/bi-* Class 7/8 prefixes attaching to a vowel-initial stem.

Unlike most of the examples given here, *wábódà/bábódà* 'bodaboda driver(s)' do not appear to be built on a noun with an augment, since the augment of *bódà* would be either *ó-* or *é-*. *w'ébyámásányálázè* in interesting, because here the same process has applied twice, first creating *byámásányálázè* 'electric equipment' from *másányálázè* 'electricity' and the Class 8 associative particle *byá*, then adding the Class 1 or 2 associative particle on top. Table 4.2 illustrates how some of these nouns can be broken down.

Table 4.2: Class 1, 2, 7 and 8 nouns derived from associative constructions

Singular	Plural	Translation	Associative particle	Augment	Original noun	Translation
wábódà	bábódà	motorcycle taxi driver	wá/bá	–	bódà	motorcycle taxi
wámúlíránò	bámúlíránò	neighbour	wá/bá	–	múlíránò	neighbourhood
w'égóòló	b'égóòló/bágóòló	goalkeeper	wá/bá	é/–	góòló	goal
w'ékìtíísyà	b'ékìtíísyà	honourable person	wá/bá	é-	kìtíísyà	honour
w'ámázímà	b'ámázímà	truthful person	wá/bá	á	màzímá	truth
w'ókúkyálò	b'ókúkyálò/bákúkyálò	villager	wá/bá	ó-/–	kyálò	village
w'ómúndà	b'ómúndà	insider	wá/bá	ó-	múndà	inside
w'éíkà	b'éíkà	someone from same homeplace	wá/bá	é-	ìká	home
w'áámò	b'aamo	associate	wá/bá	–	aamo	together
w'ébyámásányálázè	b'ébyámásányálázè	electrician	wá/bá	é-	byámásányálázè	electronic equipment
kyámásányálázè	byámásányálázè	electronic equipment	kyá/byá	á-	másányálázè	electricity
kyámàkéézì	–	breakfast	kyá	á-	màkéézì	morning
kyókùlyá	–	food	kyá	ó-	kùlyá	to eat
ky'émbìsó	by'émbìsó	hidden thing	kyá/byá	é-	m̀bìsó	secrecy

4.1.3 The missing classes

From the Proto-Bantu reconstructions in Table 2.3 there are two reconstructed classes that are not present in Lugwere, namely 19 and 21. Maho (1999:255) suggests that there is only enough evidence to reconstruct classes 1 – 19 and possibly also 20 to Proto-Bantu, and Meeussen (1967:97) only reconstructs classes 1 – 19.

Class 19 has a quite restricted distribution, and is mainly confined to the rainforest area in the northwest of the Bantu speaking region (Maho 1999:199). It is found in a handful of languages of zones D[3] and F, but is generally absent in the Northeast and the South.

Class 21 is also rare. It is mainly found in the South, and Maho (1999:203)'s map shows one occurrence in zone E, and a couple in zone G, but none in zone J. However, the real distribution of this form is somewhat obscured by different notational traditions. Maho (1999:204) writes that Class 21 is generally an augmentative class, and typically has the same agreements as Class 5. He writes that while the reported occurrences are restricted to the south, "many more occurrences of this class could have been recognised", seeing as many Eastern languages have two Class 5 prefixes, one of which is used for primary classification and one functions as an augmentative. Maho concludes that Class 21 is likely the result of a split in Class 5, and that the difference between 5a and 21 is mainly a notational convention.

Lugwere does have two prefixes for Class 5, *li-* and *i-*. Maho (1999:204) writes that many instances of a subclass 5a in the Eastern languages are likely to have a common origin. Often one prefix seems like a more complex version of the other, as for instance *di-* and *liz-* in Zigula (G31) (Maho 1999:204), and this can perhaps be said of the Lugwere prefixes as well, as one prefix is the onset-less version of the other. However, as mentioned in Section 4.1.1, at least synchronically, the choice between the two markers is based on phonology, whereas the term 'subclass' is typically used only about situations where the choice of prefix is lexical, so it is unclear what relationship the Lugwere situation has with the 5/5a split in other Eastern languages. According

[3] Maho (1999)'s maps do not have zone J, but one of the occurrences that he places in zone D might be considered part of zone J today, although there are none in zone JE

to Maho (1999), Class 21 or 5a is typically used as an augmentative class, and that is also not the case in Lugwere.

4.1.4 Plural/singular pairs

All the most common noun class pairings are found in Lugwere; that is, the pairings that are found throughout the whole Bantu speaking region, and which Maho (1999) terms "maximally wide". These are 1/2, 1a/2, 3/4, 5/6, 7/8 and 9/10. 11/10 is also found.

The plural of 12 is 14, and this pair is used for diminutives. 14 itself is used as the primary class for many abstract concepts, which do not have a plural. Class 13 is used for the diminutive of mass nouns as well as plural diminutives, and can be paired with Class 12. 16, 17, 18 and 23 are locative classes, and these are therefore not paired with any other classes. 20 is paired with 22, and these are the augmentative classes. There is also the pairing 1b/2c.

In addition to the 1a/2 pairing, 1a can also be paired with Class 6 or Class 10. Which class is used is related to semantics to some extent. When the Class 1a noun describes a human being, the plural will always be in Class 2. Many Class 1a words that do not denote human beings can also be used as a Class 9 noun, with AGR 9 agreement. Most Class 1a nouns that do not denote human beings can have their plural in both Class 10 and Class 6. There are exceptions, however, and some nouns cannot be used in Class 9 and/or have only one possible plural. There is also a pairing 9/6. See section 4.1.11 for further discussion of nouns that can use different agreements and plural forms.

4.1.5 Nominal form classes

The next four sections discuss the four concepts of 'gender', 'agreement class', 'deriflectional class' and 'nominal forms class' introduced in Section 2.3.2 (following Güldemann & Fiedler 2019), and will use the notations described there.

There are 19 different nominal form classes, listed in Table 4.5, alongside the Bleek-Meinhof numbers traditionally assigned to those classes. The nominal form class NF MU corresponds to three traditional noun classes, and NF ∅ corresponds to three traditional subclasses. Similarly NF N and NF KU correspond to two traditional classes.

Table 4.3: Nominal form classes

Prefix	Bleek-Meinhof numbers
MU	1, 3, 18
∅	1a, 9a, 10a, 23
W	1b
BA	2
B	2c
MI	4
I	5
MA	6
KI	7
BI	8
N	9, 10
LU	11
KA	12
TU	13
BU	14
KU	15, 17
WA	16
GU	20
GA	22

4.1.6 Deriflectional classes

There are 21 distinct deriflectional classes. As illustrated in Table 4.4, there is a crossed system, where there are several singular NF classes that correspond to more than one plural class, as well as several plural classes that correspond to more than one singular class. This means that determining the plural form on the basis of the singular form alone (or vice versa) is not always possible, although information about agreement class and semantics does help in determining the deriflectional class in many cases, especially when it comes to determining the plural of a noun of NF MU.

Some of these classes are in free variation with each other at least to some extent. This is the case with NF KA/BU and KA/TU, since both NF BU and TU are diminutive classes that can be the plural of a Class 12 diminutive, so that *tùsáálè* and *bùsáálè* both mean 'small trees'. This is not an option, however, with the nouns which primary classification is Class 12/14. Many nouns in NF ∅ can likewise have a plural in either NF MA or NF ∅, and many NF N nouns can have their plural either in NF N or in NF MA. See section 4.1.11 for further discussion of this.

Table 4.4: Deriflectional classes

Deriflectional class	Singular	Transnumeral	Plural
W/B	W		B
MU/MI	MU		MI
MU/BA			BA
Ø/BA	Ø		Ø
Ø/Ø			MA
Ø/MA	I		
I/MA			
N/MA	N		N
N/N	LU		
LU/N	KI		BI
KI/BI	KA		BU
KA/BU			TU
KA/TU	GU		GA
GU/GA			
MA		MA	
MU		MU	
BU		BU	
TU		TU	
KU		KU	
WA		WA	
Ø		Ø	

4.1.7 Agreement classes

Lugwere has 21 agreement classes. In Table 4.5 these are listed alongside the agreement markers that they correspond to. As can be seen, some agreement classes have several agreement markers, and which is used depends on the element agreeing. See Table 4.9 for a full breakdown of the different agreement paradigms. Agreement Class 23 shares most of its agreement morphemes with Class 9, the only difference being that the locative class uses object enclitics instead of object prefixes. Similarly, the only difference between Class 15 and Class 17 is that Class 15 uses an object prefix, and Class 17 an object enclitic. The subclasses that were listed in Table 4.1 are not sub-agreement classes, but only nominal form classes that share their agreements with another nominal form class.

Table 4.5: Agreement classes

Agreement class	Agreement marker(s)
AGR 1	O/A/MU/G
AGR 2	BA
AGR 3	GU/MU
AGR 4	GI/MI/E
AGR 5	LI
AGR 6	GA/MA/E
AGR 7	KI
AGR 8	BI
AGR 9	E/N/G/GI
AGR 10	GI/N/I
AGR 11	LU
AGR 12	KA
AGR 13	TU
AGR 14	BU
AGR 15	KU
AGR 16	WA ~A/=WO
AGR 17	KU/=KU
AGR 18	MU/=MU
AGR 20	GU
AGR 22	GA
AGR 23	E/N/G/=YO

An exception to the regular agreements is found in the possessive suffixes of a very small number of Class 1a nouns, see Section 4.2.1.1.

In Table 4.6 the NF classes and the AGR classes are mapped onto each other. As can be seen, the relationship between the form of the noun and the agreement it can take is quite complex. The order of the classes have been changed so as to allow the table to be as clear as possible. The dotted lines represent agreement with locative classes, where there is a large degree of optionality. Generally speaking, it is possible to have agreement with the primary classification of a noun, even if there is a locative prefix. It is also possible, however, to get agreements with the locative class, and it looks like AGR 16 can also function as a general locative agreement class, appearing in clauses that have nouns with NF KU, MU or ∅. See Section 4.1.14 (as well as Chapter 10) for further discussion of the locative classes. While the top of the table includes a lot of crossed lines, it is also worth commenting on how tidy the bottom part of the table is. There are some nominal form classes that can use various agreements, but for most classes there is a one to one relationship between nominal form class and agreement class.

4.1.8 Genders

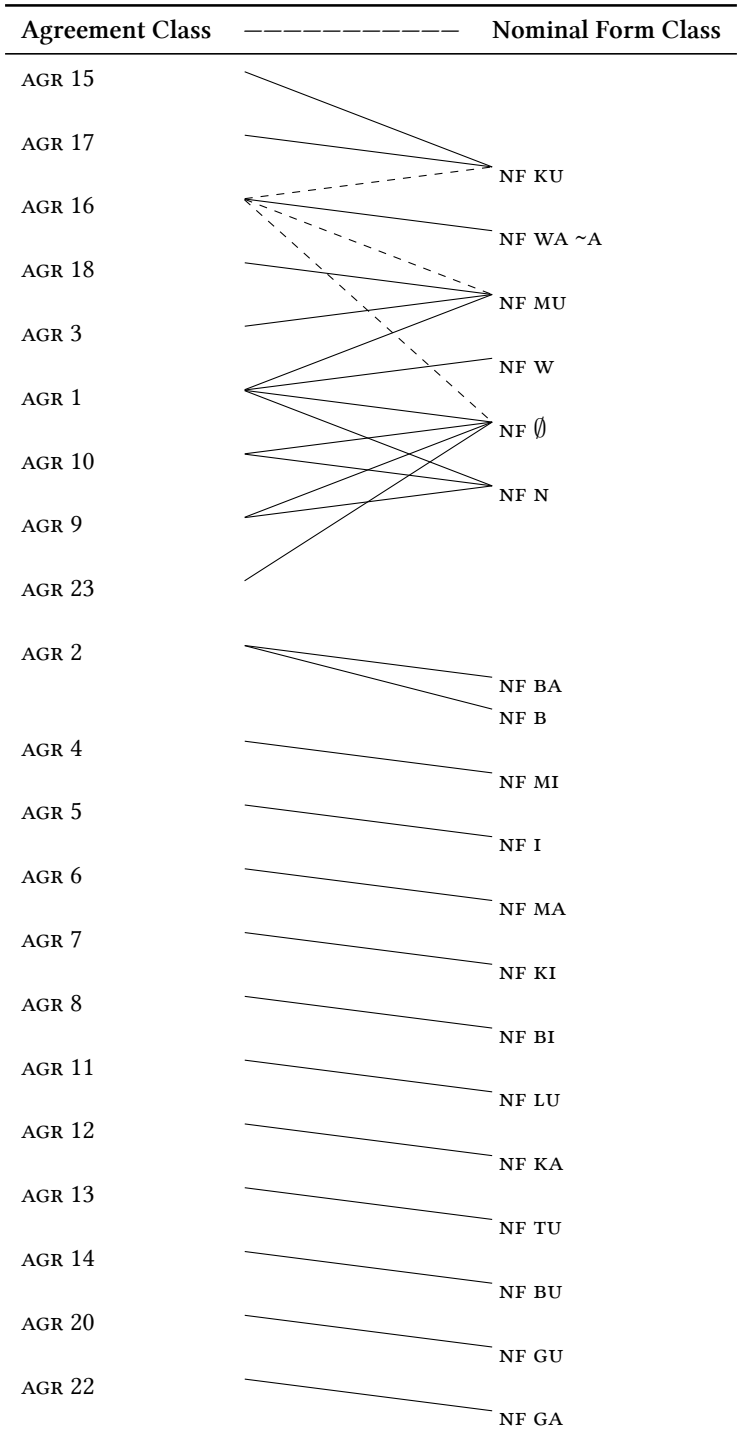
The 21 agreement classes combine into 12 genders of singular/plural pairings for count nouns. Additionally, there is a range of transnumeral genders, either used for mass nouns, non-count abstract nouns, locatives, or Infinitives. This is illustrated in Table 4.7 (the order of the classes have been rearranged in order to make the table as clear as possible). The table includes the classes that are most commonly used for non-count nouns (NF 6 and NF 14), but it should be noted that most agreement classes contain a few non-count nouns, such as for instance AGR 1 *màgérà* 'split pea soup'.

Some of these genders are in free variation to a greater or lesser extent. This is the case with AGR 1/6 and AGR 1/10, which can typically be used with the same nouns, as long as the NF class is also changed accordingly, and both of these are often interchangeable with AGR 9/6 and AGR 9/10, again as long as the appropriate nominal morphology is used. AGR 12/13 and AGR 12/14 are also interchangeable when they are used for diminutives of count nouns.

4.1.9 Semantics

While most noun classes contain nouns from a range of semantic fields, there are some tendencies that are worth noting. Firstly, Class 1 is typically used with human beings, but there are also some loanwords and other words that can be used with AGR 1. AGR 1 words that have NF MU are always human beings, while Class 1a, which has a zero prefix, contains words for humans, animals and inanimate objects. Class 2 is the plural for human nouns, and can also be used to form associative plurals; a consultant once referred to her daughter and the daughter's cousins who she is raised alongside by adding the *ba-* prefix to her daughter's name (see (618b)).

Table 4.6: Nominal form classes and agreement classes



Class 3/4 is associated with plants in many Bantu languages, and that is the case also in Lugwere. Many names for species of plants and trees are found in this class, and so is the general word for 'tree', *mùsáálè*. In many cases the same word is used for

Table 4.7: Genders

Gender	AGR singular	AGR transnumeral	AGR plural
AGR 5/6	LI		GA/MA/E
AGR 1/6			
AGR 1/2	O/A/MU/G		BA
AGR 1/10			
AGR 9/6	E/N/G/GI		GI/I/N
AGR 9/10			
AGR 11/10	LU		
AGR 3/4	GU/MU		GI/MI/E
AGR 7/8	KI		BI
			BU
AGR 12/14	KA		TU
AGR 12/13			
AGR 20/22	GU		GA
AGR 14		BU	
AGR 6		MA	
AGR 15		KU	
AGR 16		WA ~A/=WO	
AGR 17		KU/=KU	
AGR 18		MU/=MU	
AGR 23		E/N/G/=YO	

a tree and the fruit it produces, as in *múyémbè* ‘mango tree sp. or mango fruit’. This differs from for instance Kiswahili, where trees tend to be Class 3/4 while fruit are in Class 5/6. Other classes can also be used for plants, most common are 7/8 and 9/10. However, often Class 7/8 is used for parts of a plant, rather than the whole species, such as *kisàgátá* ‘husk’, or *kìsáálè* ‘dead tree, pole, timber, wood’, while Class 3/4 more often has the names of species.

Class 3/4 is also used for a range of other semantic fields, and there are quite a few words for man-made objects, as well as some abstract concepts like *mùkàgó* ‘friendship’ and *múkísà* ‘luck’, and some body parts. The word for ‘body’, *múbírì*, is itself found in this class.

Lugwere has two sets of names for the months of the year, and one of these are originally ordinal numerals, with an associative particle that agrees with Class 3, probably because the word for ‘month’, *mwèrí*, is Class 3/4.

It is hard to define a semantic core for Class 5/6, and it contains a variety of inanimates of different kinds, like *ígáàlí* 'bicycle' and *ìká* 'home'. The class contains a few words for body parts, like *ìkótì* 'neck' and *lìínó* 'tooth'. There are also a number of deverbal nouns, like *ìsómò* 'lesson' from *kùsòmá* 'to study'. Class 6 also forms its own transnumeral gender, which is used for mass nouns, including liquids but also uncountable abstract concepts like *màbìná* 'dancing' or *màgèzí* 'wisdom'. Additionally there are some more concrete nouns, like *mágóólà* 'savannah, grassland' or *mágómbè* 'tomb, grave', which do not have a plural.

Class 7/8 is quite a large class, and it contains a range of different inanimate objects, particularly a large amount of manmade objects, but also plants and natural phenomena like *kídíbà* 'pond' and *kímúlì* 'flower', as well as some abstract concepts like *kìséèrá* 'time'. Class 7/8 also has quite a few body part nouns. There are also a handful of nouns for human beings that belong to NF KI/BI, often with a derogatory meaning. These generally get AGR 1/2, but for some of them it is possible to use AGR 7/8, in which case the derogatory meaning is intensified.

Class 9/10 likewise has a variety of different words. There are quite a lot of words for animals, like *m̀bùlí* 'goat', and a variety of inanimate objects like *ǹgáítò* 'shoe'.

Language names, as well as some other words related to language, such as *lùlìmí* 'tongue, language' and *lúgérò* 'proverb, story, tale' belong to Class 11. Also the word for 'music/song', *lwèmbó* is in this class. Otherwise there is a variety of different inanimate objects and some abstract nouns, as well as the days of the week, likely because of *lùnákù* 'day'. Some adverbs of time, like *lwátyânú* 'today' also have Class 11 prefixes.

Class 12/14 is a diminutive class (see 4.1.13), but there are also some nouns that have this class as their primary classification. These are a variety of different inanimate nouns; quite a few words for tools and man-made objects, and some body parts. Most of the names for regions that are listed in the dictionary also have NF KA or BU. In addition to the diminutive usage, there are also ameliorative connotations to this class.

Class 14 also forms a separate gender which contains abstract non-count nouns, like *búfúmbò* 'marriage'. Some of these denote abstract qualities or states, like *bùdòdí* 'wetness'. There are also some concrete nouns that fall under this gender, such as *búlírì*

'bed', which does not have a separate plural form, and there are some mass nouns, like *búùjí* 'porridge'.

There is also a diminutive Class 13. It can be used either for the diminutive of mass nouns, like *tùtyêré* 'a little bit of rice', or as a diminutive plural class for count nouns.

Class 15 is only used for Infinitives. Classes 16, 17, 18 and 23 are locative, and indicate that something is in or on the noun that it is attached to. See Section 4.1.14 for a further discussion of the usage and meaning differences between these classes.

Classes 20 and 22 are augmentative, and in addition they also have pejorative connotations.

Comparing the semantics of Lugwere noun classes with the canonical semantics of each noun class (see Table 2.3), it appears most of the Lugwere noun classes have similar semantics to what is found in Bantu languages in general, such as classes 1/1a and 2 being used for human beings, Class 3/4 for plants and some other inanimate things, Class 6 for liquids, Class 7/8 for inanimate nouns, Class 9/10 for animals, and abstract nouns in Class 14. Class 15 is the most common infinitive class, and classes 16, 17, 18 and 23 are generally locative wherever they exist. Which classes are diminutive or augmentative varies quite a bit, but 12 is a common diminutive class, and 20 is commonly used either for diminutives or augmentatives. There are three classes that are commonly used for language names, namely 5, 7 and 11. Out of these, 7 is the one that is most common, and the only one that is distributed across the whole Bantu region, but Class 11 is also quite common, especially in zones J and E (Maho 1999:209).

Some languages keep classes 1 and 1a only for human beings, while others also include animals. It is a bit less canonical to include inanimate nouns in this class, but as 1a generally has a zero prefix, it is not uncommon to use this class for loanwords (Maho 1999). Many of the inanimate nouns in Lugwere that can be used with AGR 1 are either loanwords, or they are words of NF N or NF ∅ that can be used either with AGR 1 or AGR 9.

4.1.10 Augments

Lugwere has augments, and as is the case for most Bantu languages with augments, the augmented form seems to be the default (see Section 2.3.3). A noun can appear with-

out an augment in certain syntactic and pragmatically determined conditions. More research is needed into this, and the conditions for when the augment appears will not be covered in this thesis.

The augment takes the form of a vowel preceding the class prefix, and it can be either *ó-*, *á-* or *é-*. It always has a high tone. Table 4.1 indicates which vowel is used with which agreement class. All prefixes that have an /u/ get *ó-*, prefixes with /i/ get *é-*, and prefixes with /a/ get *á-*. In addition classes 9 and 10 have *é-* as their augment. The vowel of the augment therefore generally assimilates to the vowel of the prefix, but in the case of high vowels the augment has the mid vowel with the corresponding backness. While the form of the augment can be inferred from the nominal prefixes, it is tied to agreement class rather than nominal form class. That means that nouns of NF ∅ or NF N have *ó-* if it takes AGR 1 and *é-* if it takes AGR 9 or AGR 10, i.e. *ómbwà wàngé* 'my dog' or *émbwà yàngé* 'my dog', but not **émbwà wàngé*, which has the *é-* augment but an AGR 1 agreement on the possessive pronoun.

4.1.11 Nouns with multiple nouns classes

One nominal stem can generally be used with more than one nominal prefix. There are four reasons why a prefix might change. Firstly, the prefix changes when a noun is pluralised. Secondly, there are classes used for secondary classifications, and their prefixes might replace or be added on top of the prefix of a given noun. Thirdly, sometimes one stem combines with different prefixes to form different primary meanings. A good example of this is how *-ńtù* can combine with different prefixes to become *múntù* 'person', *búntù* 'human nature' or *kíntù* 'thing, object'. Lastly, there are noun stems that can occur with the nominal morphology and agreement patterns of more than one noun class, without changing its primary meaning or number.

This can be somewhat sporadic and lexically determined, as for instance with *búlógò* and *ìrógò* which both mean 'sorcery, black magic', and both have the stem *-ĺógò*. But there are also cases where two whole classes are interchangeable to a very large extent. This is seen with NF ∅ and NF N, which encompasses classes 1a and 9. A large amount of these nouns can change between AGR 1 and AGR 9. When they do move from one

Table 4.8: The augment

AGR	Augment	Example
AGR 1	ó-	*ómúsómì* 'student'
AGR 2	á-	*ábásómì* 'students'
AGR 3	ó-	*ómùsáálè* 'tree'
AGR 4	é-	*émìsáálè* 'trees'
AGR 5	é-	*éídúúkà* 'shop'
AGR 6	á-	*ámàìnó* 'teeth'
AGR 7	é-	*ékítábò* 'book'
AGR 8	é-	*ébítábò* 'books'
AGR 9	é-	*émbùlí* 'goat'
AGR 10	é-	*émbùlí* 'goats'
AGR 11	ó-	*ólùlìmí* 'tongue, language'
AGR 12	á-	*ákámbè* 'knife'
AGR 13	ó-	*ótùtyêré* 'a little bit of rice'
AGR 14	ó-	*óbwámbè* 'knives'
AGR 15	ó-	*ókùsòmá* 'to read, to study'
AGR 16	ó-	*ówántù* 'place'
AGR 17	ó-	*ókú ménzà* 'on the table'
AGR 18	ó-	*ómúndà* 'inside'
AGR 20	ó-	*ógùnyànzá* 'ocean'
AGR 22	á-	*ágànyànzá* 'oceans'
AGR 23	é-	*é Kámpálà* 'in kampala'

agreement class to the other, the augment changes in accordance with the class that the noun agrees with, and all of the agreements are consistent, i.e. the noun uses one consistent agreement pattern, and does not mix agreements from the two classes. Nouns of NF N retain the nasal, which is typically associated with classes 9 and 10, even when it is used with AGR 1. This is further evidence that in most cases the nasal is treated as part of the stem, rather than as a prefix.

Not all NF ∅ nouns behave this way. The most consistent exception are nouns that denote human beings, which always get AGR 1. Otherwise, there is a set of nouns that always get AGR 9, and a set of non-human nouns that always get AGR 1. All the nouns that can only be used with AGR 9 are inanimate. Amongst the nouns that can have either AGR 1 or AGR 9 there are many animals and otherwise quite a lot of nouns for inanimate objects, especially inanimate objects of organic materials, such as foods, plants and clothes. Amongst the nouns that only take AGR 1 there are nouns

for people, as well as quite a few nouns for animals, and various inanimate nouns, many of which denote food.

NF ∅ nouns that denote human beings use Class 2 as their plural. Of the other NF ∅ nouns, as well as NF N nouns, a majority can have their plural in either Class 6 or Class 10. Both the nominal morphology and the agreements will correspond to the same class, so that if a noun has AGR 6 it will also be of NF 6. There are a few nouns which can only use one class for their plurals, but there does not seem to be any clearcut way of figuring out which nouns this applies to. When a noun of NF N uses Class 6 to form its plural, the homorganic nasal remains.

Given these circumstances, it seems prudent to ask whether what we are seeing is an ongoing merger of AGR 1 and AGR 9, and AGR 6 and AGR 10.

Maho (1999) gives an overview of mergers and near mergers involving classes 1 and 1a (p.153) and class 9 (p.176). Overall, mergers involving class 1 are rare. There are a few cases of 1 and 3 merging, and then there are a few cases of nouns with the class 1 prefix using class 9 agreements, but not close to the area where Lugwere is found. Mergers or near mergers involving class 9 is more common, often it merges completely with class 10, or it takes on class 4 agreements. There does not therefore seem to be a lot of precedents for class 9 and class 1a merging.

If this situation continues, it seems likely that there might eventually be a merger, at least in non-human nouns. This could happen for instance by one of the agreement patterns becoming more common than the other amongst all (non-human) NF ∅ and NF N nouns. If AGR 9 becomes more prevalent, the human nouns are perhaps likely to still keep using AGR 1, alongside nouns of NF MU/BA, but if AGR 1 ends up being the most prevalent, it is possible that AGR 9 might be lost altogether. Potentially there could be an equilibrium, and both agreement patterns could remain in use like they are now. Another possibility is that we see different developments for inanimate and animate non-human nouns. Further study of the corpus might suggest which of these developments are more likely, or indeed if any of them are underway already.

When it comes to why these specific classes would merge, there are a few different factors to consider. Firstly, there is the fact that AGR 1 and AGR 9 are both used for nouns

of NF ∅. This would of course make it easier to use different agreement classes with the same nouns, as the nouns fit into both classes morphologically. I have also argued above that the *n-* prefix is closely tied to the stem and might in many cases be best analysed as part of the stem. While on nouns of NF LU/N (AGR 11/10) the homorganic nasal is clearly still a prefix, it is harder to argue that this is the case for nouns of NF N/N or NF N/MA. In these cases the prefixes are always present, even in cases where one would expect them to be absent, such as when another plural prefix is used (i.e. *ma-*), and often also when diminutive or augmentative prefixes are attached (see Section 4.1.13). This would mean that synchronically NF N nouns might actually be better analysed as not having a prefix, which would explain why they can also be found with AGR 1.

Secondly, there are some semantic factors to consider. AGR 1 is the class for human beings, while a lot of the words for animals were originally in AGR 9. There are, however, many Bantu languages that have changed or are in the process of changing the semantics of their noun class systems, making AGR 1 a class for all animates, rather than just all humans (Maho 1999). Different languages are at different stages in this process. Some languages have systems that are completely semantic, where all animate nouns are obligatorily AGR 1 and some languages have even adapted their morphology to reflect this, so that nouns that were originally NF N/N can now use the *ba-* prefix in the plural, and in some cases the nouns even take on the singular *mu-* prefix (Corbett 1991:248). In other languages animate nouns are hybrid, and take semantic agreements in some cases, and syntactic in others (see Section 2.3.2).

It is possible that what is seen in Lugwere could be related to this general development. As noted above, nouns that are NF N and which denote animals can almost always be used with AGR 1. But it has to be pointed out that what is seen in Lugwere differs from what is found elsewhere in the literature in one important respect: this variation between AGR 1 and AGR 9 is not found only with animates, but is also found for inanimates. It is perhaps possible that what started as semantic agreement was extended to other nouns with similar morphology.

When it comes to the alternation between AGR 6 and AGR 10, there are a couple of factors that might have played a role. Firstly, if nouns of Class 1a used Class 6 for their

plural before the beginning of the alternation between AGR 1 and AGR 9, this would perhaps explain why there are two possible plurals now. Maho (1999:155) shows that the 1a/6 pairing does exist in few languages. It is also possible that both AGR 6 and AGR 10 were plurals for AGR 9, and that both of these plurals were made available to AGR 1 nouns when they started to alternate with AGR 9. Perhaps this was helped by some 1a nouns already using one of these two plural classes.

9/10 is a pairing which is found throughout the whole Bantu speaking region. 9/6, while a bit less widespread, is still very common, and Maho (1999:175) shows that there are several languages in and around what is now Zone J that use both Class 6 and Class 10 as the plural for Class 9.

Another element that might have played a role is that while the agreements differ, Class 9 and Class 10 have the same nominal prefix. It is therefore not possible to tell on the basis of the noun itself whether it is singular or plural. In this regard Class 6 is a "better plural", in that it has a prefix that unmistakably marks number. It is possible that a need to differentiate between singular and plural has led to the expansion of Class 6 to be the plural of NF N and NF ∅ nouns.

4.1.12 Loanword incorporation

Since Nzogi & Diprose (2012)'s dictionary includes information about which words are borrowed, it is possible to investigate how borrowed nouns are incorporated into the noun class system.

Most of the loanwords from English are NF ∅, and take either AGR 1 or AGR 9. Many of them can use both these agreement classes. The plural is either NF MA and AGR 6 or NF ∅ and AGR 10, and often both of these plurals are possible. I also found one word that belongs to Class 5/6, *ìkóónà/mákóónà* 'corner(s)'. Many English loan words, including many names, have a HLH or LHLH tonal melody, e.g. *wîìkí* 'week'. These melodies are also common with loans from Kiswahili and Arabic.

The words are modified to fit Lugwere phonotactics, meaning that consonant clusters are broken up, syllables with codas are broken up into two syllables, and the

realisation of /l/ changes depending on the vowel preceding it, so that we get for instance *dîìrú* 'deal'.

Words that denote human beings are always AGR 1/2, and while most of them are NF ∅ in the singular and NF BA in the plural, some noun also adopt the *mu-* prefix in the singular, such as for instance in *Mùkàtúlìkí* 'catholic (person)'.

There are several names for religions that are listed in the dictionary as being English loans, and these are all NF BU, meaning that they are treated like native abstract nouns.

When it comes to other Bantu languages, there are quite a few loans from Luganda, and some from Kiswahili. It is not surprising that the Luganda loans tend to be found in a variety of noun classes, as they were borrowed from a language with a very similar noun class system. In general the Luganda loans are assigned to the class that their morphology or semantics would suggest. For the handful of Kiswahili loans, the nouns are also divided into noun classes based on their morphology. These words are also adopted to Lugwere phonotactics, so that Kiswahili *kelele* 'noise' is pronounced [kèréèré].

There are a couple of loans that are listed as being from Arabic, but it is not clear whether these were borrowed into Lugwere from Arabic directly or through other Bantu languages. Besides the words that are listed as Arabic loans in the dictionary, I also found several nouns that likely originate in Arabic, but might have been borrowed into Lugwere from other Bantu languages, such as *kítábò* 'book', which is found in many Bantu languages. In the majority of these cases the nouns behave like the English loans - they are NF ∅ and have either AGR 1 or AGR 9, and they use either Class 6 or Class 10 for their plurals.

There are some words, however, that are found in other classes, such as *kítábò*, which is Class 7, as it is in most Bantu languages that have the word, presumably because it fits so perfectly within the morphology and semantics of this class. There is also the word *músíráàmú* 'muslim', which is Class 1/2, and which is another case where the original Arabic fits perfectly into a noun class both morphologically and semantically.[4] With these nouns that are assigned to a class based on the shape of the

[4](Literary) Arabic active participles start with *mu* for many verbs, which means that many Arabic agent nouns fit nicely into Bantu Class 1.

noun, the first syllable is reinterpreted as a class prefix, and they get plurals such as *bítábò ´*books' and *básíráàmú* 'muslims'. Otherwise there are some words that can be either NF I or NF ∅ such as *ìdîìní*/*dîìní* 'religion'.

4.1.13 Diminutives and augmentatives

Lugwere has two augmentative classes and three diminutive classes.

The augmentative classes are 20 and 22, where the former is singular and the latter plural. Class 12 is the singular diminutive class, and the other two, 13 and 14, are both plural.

In all cases except for those involving a noun of NF N, the augmentative and diminutive prefixes replace the prefix of the primary classification of the nouns. Thus we have for instance *kíbàlá* 'fruit', *kábàlá* 'small fruit' and *gúbàlá* 'large fruit'. The agreements also change so that they follow the agreements associated with the new class of the nouns, i.e. *músómì òònú* 'this student' but *kásómì kànú* 'this small student'.

Tonally, the augmentative and diminutive nouns have the same tonal melody as the primary form. For NF ∅ nouns the full tonal melody might not be apparent from the base noun, but the tonal melody is consistent between the diminutive, augmentative and any plural prefix that might be added.

Occasionally, nouns that appear to have the same noun root can have different tonal melodies associated with them. This is the case with *kínyànzá* 'fish' and *nyànzá* 'lake', which become *gúnyànzá* 'large fish' and *gùnyànzá* 'sea' with the augmentative prefix.

4.1.14 Locatives

Lugwere has four nominal prefixes which have locative functions: Classes 16, 17, 18, and 23.

All four classes can trigger agreements, although it is generally possible to use agreements associated with the primary class even when a locative class marker is added. See for instance (107), taken from the storybook "The day Froggie went to town", where the first time the phrase "in this town" occurs, the demonstrative agrees with the

locative prefix *mu-*, while in the second instance, the demonstrative has AGR 7, agreeing with the primary classification of the noun *kìbúgà* 'town'.

The locative prefixes do not behave like other class prefixes in regard to tone, and the tone is predictable, rather than assigned by the noun stem (see Section 3.2.9).

(107) *Óíkèré w'ómú kìbúgà nì yèèbúúlya áàtî: "Gázi ágànène ágàsávù, kú lwákí gàbúla ómú kìbúgà mùnú? Ìswe ómú kìbúgà kìnú, túlì nè nzì ntónòtónò gyónkánì".* (W)

ó-ì-kèré o-á ó-mu=ki-`búgà ni à´-e´-buul.y-a\LH(LH) à-tî
AUG-5-frog AGR1-ASS AUG-18=7-town NAR 1S-REFL-ask.CAUS1-FV\PRES.SBR AGR1-QUOT
ga-´zì á-ga-`nèné á-ga-`sávù ku=lwákí gà´-bul-a\LHL ó-mu=ki-`búgà
22-fly AUG-AGR22-big AUG-AGR22-fatty 17=why 22S-lack-FV\PRES AUG-18=7-town
mu-`nú ì´-swe ó-mu=ki-`búgà ki-`nú tù´-li\LH(L) nè
AGR18-DEM_PROX PRO-1PL AUG-18=7-town AGR7-DEM_PROX 1PLS-COP2\PRES CONJ
n.´zì n∼tónò∼`tónò gi-ónkánì
10-fly AGR10∼REDUP∼small AGR10-only
'The frog from town asked itself: "Big fatty flies, why are they not in this town? As for us, in this town we only have small flies."'

Class 16 agreements are quite common in locative expressions, often without agreeing with any overt Class 16 noun. As a secondary classifier for nouns, it is most commonly used to indicate 'the place of X', as for instance in *ówá Ɉáàjá* 'Grandma's place' in (108). Class 17 can also be used as a general locative, or specifically with the meaning 'on, on top of'. Class 18 has the meaning 'in, inside', while Class 23 is mainly used with place names. Its functions as a noun class differs a bit from the usage of the Class 23 locative enclitic, see (Chapter 10).

(108) *Átyânú nze ókwàbá, ókùzwà ìka ókwìrá, ówá Ɉáàja égyè ndí, tíkwàbbáíre nti óbà kùtàká kwàngé.* (C)

á-tyânú nz-`é ó-ku-ab-a\LH ó-ku-zw-a\LH\FO2 ì-`ká
AUG-NOW 1SG-PRO AUG-INF-GO-FV\INF AUG-INF-COME_FROM-FV\INF\FO2 5-HOME
ó-ku-ir-a\LH ó-wa=Ɉáàjá é-gi-è ǹ-li\LH(L)
AUG-INF-RETURN-FV\INF AUG-16=GRANDPARENT REL-23O.REL-O.REL 1SGS-COP2\PRES.SBR
ti-ku-a-bb-ire\HL.HL ǹtî òbâ ku-tak-a\LH ku-àngé
NEG-15S-TNS-COP1-PST2\P5.NEG LIKE OR INF-WANT-FV\INF AGR15-1SG.POSS
'Now for me to go, to return from home to Grandma's where I am now, it wasn't to my liking.'

The Class 16 and 23 demonstratives are most commonly used for general spatial deixis, i.e. *èènú* 'here', *èèyó* 'there' and *èèdí* 'yonder' and *àànú* 'here', *ààwó* 'there' and *ààdí* 'yonder'. When they are used, all locative prefixes are added on top of the nominal prefix corresponding to the primary classification of the noun. In the orthography the prefixes are written as separate words (with the augment in most cases), but I consider them to be clitics, and they are therefore written with a <=> symbol in the glosses (see Section 5.4.4 for a discussion of this.)

The meaning of some of the locative classes overlap a bit, and often multiple classes can be used to express the same idea, as seen in (244).

(109) *Ǹdì mú/é Kámpálà.*

*ǹ-li\LH(L)*FO2 *mu=/é-Kámpálà*
1SGS-COP2\PRES\FO2 18=/AUG-PN.P
'I am in Kampala.'

Class 16 shows some variation between *wa* and *a(a)* both in the agreements and the nominal prefixes, so that my informant gave me both *àkàtí* and *wàkàtí* for 'centre', and *àànú* and *wànú* for 'here'. Example (110) below show that the two can co-occur. Class 16 also seems to be the most general of the locative classes, and it appears that most locative nouns can get Class 16 agreements, regardless of what locative class prefix they carry, see for instance (112) or (111).

(110) *Wása àànù kù ntèbe éènú.*

wa-ˊsà *a-ˋnú*FL *ku=n.ˋtèbé e-ˋnú*
AGR16-good AGR16-DEM_PROX\FL 17=9.chair AGR9-DEM_PROX
'It is nice on this chair here.'

(111) *Ómúnda èènù wàwúgúmà.*

ó-mu-ˊn.dà *e-ˋnú*FL *wàˊ-wugum-a\LHL*
AUG-18-9.inside AGR9-DEM_PROX\FL 16S-be_warm-FV\PRES
'In here it is warm.'

(112) *Wásà mú Kámpálà.*

wa-ˊsà *mu=Kámpálà*
AGR16-good 18=PN.P
'It is nice in Kampala.'

All the locative classes use object enclitics instead of object prefixes. In addition to functioning as object markers, these enclitics have a range of other usages, discussed in Chapter 10.

4.2 Agreement

As in most Bantu languages, the Lugwere noun triggers agreement with most other elements of the sentence. This includes adjectives, modifiers, possessive pronouns, as well as subject and object markers on the verbs, in addition to some more uncommon elements like the subordinator *-tî*, which agrees with the subject of the matrix verb.

Lugwere has a very complicated system of adnominal agreement, with a range of different markers used with different modifiers. For cardinal numerals alone there are four different groups: The numeral 'one' has its own pattern that involves suffixes for Classes 1 and 9, as well as prefixes for the other singular classes. The numerals 'two', 'three', and 'five' then share a pattern, while 'four' has its own pattern again. Cardinal numerals above 'five' do not agree with their noun.

Verbs can agree with both their subjects and objects, and while subject agreement is obligatory, object agreement is mainly done for pronominal objects. Additionally, verbs can carry relative object markers, which in some cases involves a different marker from other objects (see Chapter 5 for more on verbal agreement).

In addition to agreeing with a noun class, there are elements that also agree with person. Not surprisingly, verbal subject and object markers agree with their subject in both person, number and noun class, but there are other elements, such as *-énkánì* 'only, alone' and *-tya* 'how' that also agree with 1st and 2nd person. For agreement targets that do not have specific 1st and 2nd person forms, Agreement Classes 1 and 2 are used, as illustrated in (113). So 1st and 2nd person agreement controllers can be considered to belong to the Class 1/2 gender, and take agreements according to agreement class when no person specific agreements exist.

(113) a. *Ǹdìyò músà.*

ǹ-li\LH(L)\FO2=yo mu-´sà
1SGS-COP2\PRES\FO2=23 AGR1-good
'I am good.'

b. *Túlìyò básà.*

tù´-li\LH(L)=yo ba-´sà
1PLS-COP2\PRES=23 AGR2-good
'We are good.'

c. *Múlì bàméká?*

mù´-li\LH(L) ba-`méká
2PLS-COP2\PRES AGR2-how_many
'How many are you?'

Altogether the agreement targets can be divided into eight groups based on the agreement markers that are used. These eight agreement patterns are shown in Table 4.9. I have chosen to name the patterns by using roman numerals, so as not to confuse them with the class numbers. These numbers are my own, and are not based on comparative notions like the Bleek-Meinhof numerals. 3 of the patterns include agreement by person. Class 1 has different agreements in 6 of the agreement patterns, while most of the classes use only one or two different markers. Class 9 also shows a lot of variety in its agreement markers, and Class 23 is identical to Class 9, except for the fact that the former uses object enclitics instead of object prefixes. This is also the sole difference between Class 15 and Class 17.

A majority of the classes (2, 7, 8, 11, 12, 13, 14, 15, 16, 17, 18, 20 and 22), have the same consonant as in the nominal prefix in all of its agreement markers. AGR 5 uses *li-* as its agreement morpheme in all contexts. Classes 16, 17 and 18 use object enclitics instead of prefixes, and Classes 16 and 23 have a *-o* added to their enclitics. This is likely what has been termed the '-o of reference' (Persohn & Devos 2017) (see Section 2.4.7).

AGR 3, 4, 6 and 10 have a nasal in their nominal prefix, and they have agreement morphemes that start with /g/ for many adnominal elements. For adjectives their agreement markers are identical to their nominal prefixes. For cardinal numerals 'two', 'three' and 'five', AGR 4 and 6 have markers identical to the nominal prefixes, whereas

for cardinal numeral 'four' they both get the agreement marker *e-*. AGR 10, on the other hand, gets the agreement marker *ì-* for all cardinal numerals 'two' – 'five'.

In Agreement pattern I and II the agreement markers for AGR 1 and 9 are vowels, and when these are attached to a stem that starts with a vowel, we get an allomorph that is a semivowel. In agreement pattern I, the Class 1 marker can be realised as either *y-* or *w-* depending on the agreement target.

Table 4.9: An overview of all agreement morphemes, for 1st and 2nd person, and all agreement classes. Classes are grouped by similar variation in agreement marking. Dashes indicate that no specific morpheme exists for the class or person.

	I	II	III	IV	V	VI	VII	VIII
1ST SG	(n)z-	n-	–	–	n-	–	–	–
1ST PL	sw-	tù´-	–	–	tu-	–	–	–
2ND SG	o- (w-)	o- (w-)	–	–	ku-	–	–	–
2ND PL	mu-	mù´-	–	–	ba-	–	–	–
AGR 1	o:- (w-/y-/wu-)	a- (y-)	mu-	g-	mu-	-iza	–	–
AGR 9	e:- (y-/yi-)	e-(y-)	n-	g-	gi-	-iza	–	–
AGR 23	e:- (y-/yi-)	e-(y-)	n-	g-	=yo	–	–	–
AGR 4	gi-	gì´-	mi-	gi-	gi-	–	mi-	e-
AGR 3	gu-	gù´-	mu-	gu-	gu-	gu-	–	–
AGR 6	ga-	gà´-	ma-	ga-	ga-	–	ma-	e-
AGR 10	gi-	gì´-	n- (nyi-)	gi-	gi-	–	i-	i-
AGR 16	a:-/wa-	wà´-	wa-	wa-	=wo	–	–	–
AGR 17	ku-	kù´-	ku-	ku-	=ku	–	–	–
AGR 18	mu-	mù´-	mu-	mu-	=mu	–	–	–
AGR 2	ba-	bà´-	ba-	ba-	ba-	–	ba-	ba-
AGR 5	li-	lì´-	li-	li-	li-	li-	–	–
AGR 7	ki-	kì´-	ki-	ki-	ki-	ki-	–	–
AGR 8	bi-	bì´-	bi-	bi-	bi-	–	bi-	bi-
AGR 11	lu-	lù´-	lu-	lu-	lu-	lu-	–	–
AGR 12	ka-	kà´-	ka-	ka-	ka-	ka-	–	–
AGR 13	tu-	tù´-	tu-	tu-	tu-	–	–	–
AGR 14	bu-	bù´-	bu-	bu-	bu-	–	bu-	bu-
AGR 15	ku-	kù´-	ku-	ku-	ku-	ku-	–	–
AGR 20	gu-	gù´-	gu-	gu-	gu-	gu-	–	–
AGR 22	ga-	gà´-	ga-	ga-	ga-	–	ga-	ga-

Table 4.10 gives an overview of what types of agreement targets use what agreement pattern, which will be discussed in more detail in the following sections.

Table 4.10: An overview of the agreement targets for the different agreement patterns

Pattern	Agreement Targets
I	demonstratives, associative particles, possessive pronouns, personal pronouns, comitative pronouns, *-énà* 'also', *-énà- -énà* 'all', *-énkánì* 'only'
II	subject agreement, the *-ȁtì* quotative/subordinator, *-tyâ* 'how', *-tyô* 'like that'
III	adjectives
IV	relative object agreement, *-èndí* 'other'
V	object agreement
VI	numeral *-ǻmò* 'one'
VII	numerals *-ȁbírí* 'two', *-ȁsátú* 'three', *-ȁtáánú* 'five', *-ȁmékà* 'how much/many'
VIII	numeral *-ǻnà* 'four'

4.2.1 Agreement pattern I

The first agreement pattern is used with the demonstratives, the associative particle and the possessee in possessive pronouns, as well as 3rd person possessors. Lugwere has three sets of demonstratives; for an analysis of the pragmatics of the different demonstrative series, see Ahn & Van der Wal (2019). The medial demonstratives have an initial vowel preceding the agreement markers. The quality of the vowel is the same as that of the augment for the class in question. This vowel is not itself an augment, however, as it has a low tone, and cannot be left out. These elements all agree by class, but not person, and are shown in Table 4.11.

The associative particle can often be translated as 'of', and is used to connect two noun phrases, as illustrated in (114). The possessee noun phrase precedes the possessor noun phrase, and the particle agrees with the possessee noun.

(114) a. *ámàbbàálè gá mùkàlí*

*á-ma-ȁbbàálé*FL *ga-á* *mu-ȁkálí*
AUG-6-stone\FL AGR6-ASS 1-woman
'the woman's stones'

b. *mùlábè wá mùkàlí*

mu-ȁlábè o-á *mu-ȁkálí*
1-enemy AGR1-ASS 1-woman
'the woman's enemy'

There are also some words belonging to this agreement pattern that are conjugated by both class and person, shown in Table 4.12. This includes the pronoun, as well as the quantifiers *-énà/-ónà* 'also, too', which is reduplicated to *én(á)- -énà/-ón(á)- -ónà* 'all, whole, any' (e.g. *swénáswénà* 'all of us'), and *-énkánì/-ónkánì* 'only, alone'. There is also a set of comitative pronouns like *nànzê* 'with me'. These are analysed as comitative pronouns instead of simply the combination of the conjunction and a pronoun, because the conjunction has a special form *na-* instead of *ni* or *ne* seen elsewhere, and because the vowel /i/ of the pronoun is often not present, as in *nàgô* 'with them', compare this to *ììgó* 'them (class 6)'. There is also a difference in tone, with a fall on the final vowel of the comitative pronoun. All of these have the so-called '-o of reference', which is realised as *-e* with a 1st or 2nd person agreement controller, as well as with Agreement Class 1, and *-o* for all other classes.

The classes that alternate between the nasal stops and /g/ use the /g/ forms in this pattern. AGR 1 and 9 both have a vowel as their marker, and these become semivowels when the stem they attach to start with a vowel. AGR 1 uses *y-* in some cases, i.e. *òòyó* 'that', and *w-* in others, i.e. *wàngé* 'my'. 1st person singular alters between *z-* and *nz-*, i.e. *zénà* 'me too', but *ìnzé* 'I'.

4.2.1.1 Possessive pronouns

Lugwere possessive pronouns agree in number, person and gender with both the possessor and the possessee. When it comes to marking the possessor, the speech act participants and AGR 1/2 nouns differ from the other noun classes in that each has a unique possessive stem, listed in Table 4.13. For all other agreement classes the possessor is marked with an agreement marker from Agreement pattern I, attached to the possessive stem *-ò*.

When the possessor is a SAP or AGR 1/2, a possessee agreement marker attaches directly to the possessive stem listed in Table 4.13. For example, if the possessor is AGR 2, and the posseesee is AGR 3, that would give *gwàbé*. This group of possessive pronouns all have a LH tonal melody.

Table 4.11: Agreement pattern I

	-`nú 'DEM_PROX'	V̀- *-ó* 'DEM_MED'	*-`dí* 'DEM_DIST'	*-á* 'ASS.PTC'	*-àngé* 'my'
AGR 1	òònú	òòyó	òòdí	wá	wàngé
AGR 2	bànú	ààbó	bàdí	bá	bàngé
AGR 3	gùnú	ògwó	gùdí	gwá	gwàngé
AGR 4	gìnú	ègyó	gìdí	gyá	gyàngé
AGR 5	lìnú	èryó	lìdí	lyá	lyàngé
AGR 6	gànú	ààgó	gàdí	gá	gàngé
AGR 7	kìnú	èkyó	kìdí	kyá	kyàngé
AGR 8	bìnú	èbyó	bìdí	byá	byàngé
AGR 9	èènú	èèyó	èèdí	yá	yàngé
AGR 10	gìnú	ègyó	gìdí	gyá	gyàngé
AGR 11	lùnú	òlwó	lùdí	lwá	lwàngé
AGR 12	kànú	ààkó	kàdí	ká	kàngé
AGR 13	tùnú	òtwó	tùdí	twá	twàngé
AGR 14	bùnú	òbwó	bùdí	bwá	bwàngé
AGR 15	kùnú	òkwó	kùdí	kwá	kwàngé
AGR 16	wànú /àànú	ààwó	wàdí/ààdí	wá	wàngé
AGR 17	kùnú	òkwó	kùdí	kwá	kwàngé
AGR 18	mùnú	òmwó	mùdí	mwá	mwàngé
AGR 20	gùnú	ògwó	gùdí	gwá	gwàngé
AGR 22	gànú	ààgó	gàdí	gá	gàngé
AGR 23	èènú	èèyó	èèdí	yá	yàngé

The 2nd person singular and Agreement Class 1 have different forms for predicative and attributive possessive pronouns. The attributive pronouns are enclitics, and consist of a possesee agreement marker attached to the possessive stems *-o* and *-e*. In predicative position, they instead use independent words, consisting of a reduplicated possesee agreement morpheme attached to the *-o* and *-e* stems, i.e. *gùgwó* 'yours (AGR 3)'. The pronouns with a AGR 1 possessee are irregular: *wùwô* 'yours (AGR 1)' and *wùwê* 'his/hers (AGR 1)'. So are the 2nd singular/Agreement Class 1 possessor with a Class 9 possessee pronouns, which are *yìyô/yìyê*.

There are two different 1st person plural possessive stems, *-àìsú* and *-àìswé*. The first of these is the one most commonly found in the corpus recordings, while the second is the one used in the written materials, and it does also occur in a few corpus recordings.

When the possessor is from one of the other agreement classes (i.e. AGR 3–23), the possessive pronoun is formed by combining an associative particle agreeing with the possessee, and a possessor agreement marker (from Agreement Pattern I) attached to the possessive stem *-ò*. An possessee from Agreement Class 5 and a possessor from

Table 4.12: Agreement pattern I - agreement by person and class

	-énà/-ónà 'also'	***ìì- -é/-ó*** 'PRO'	***nà(i)- -ê/ô*** 'with, by'
1ST SG	zénà	(ì)nzé	nànzê
1ST PL	swénà	ììswé	nàswê/nàìswê
2ND SG	wénà	ììwé	nàìwê
2ND PL	mwénà	ììmwé	nàìmwê
AGR 1	yénà	ììyé	nàyê/nàìyê
AGR 2	bónà	ììbó	nàìbô
AGR 3	gwónà	ììgwó	nàgwô
AGR 4	gyónà	ììgyó	nàgyô
AGR 5	lyónà	ììryó	nàlyô
AGR 6	gónà	ììgó	nàgô
AGR 7	kyónà	ììkyó	nàkyô
AGR 8	byónà	ììbyó	nàbyô
AGR 9	yónà	ììyó	nàyô
AGR 10	gyónà	ììgyó	nàgyô
AGR 11	lwónà	ììlwó	nàlwô
AGR 12	kónà	ììkó	nàkô
AGR 13	twónà	ììtwó	nàtwô
AGR 14	bwónà	ììbwó	nàbwô
AGR 15	kwónà	ììkwó	nàkwô
AGR 16	wónà	ììwó	nàwô
AGR 17	kwónà	ììkwó	nàkwô
AGR 18	mwónà	ììmwó	nàmwô
AGR 20	gwónà	ììgwó	nàgwô
AGR 22	gónà	ììgó	nàgô
AGR 23	yónà	ììyó	nàyô

Agreement Class 3 would be *lyágwò*.

When a non-human possessor is combined with a human possessee, the possessee is often not expressed, and instead we only get a possessor agreement marker attached to *-ò*, as illustrated in (117).

There are too many possible combinations to provide a comprehensive list, but Table 4.14 illustrates some possible combinations of possessor and possessee, and (115) – (117) provide examples.

(115) a. *Òònù mùgàndá wàngé, àte éènù nyùmbá yè.*

o-`nú\FL* *mu-`gàndá *o-àngé* *àtê* *e-`nú\FL*
AGR1-DEM_PROX\FL 1-same_sex_sibling AGR1-1SG.POSS CONJ AGR9-DEM_PROX\FL
ny.`ùmbá=e-e
9.house=AGR9-1POSS
'This is my sister, and this is her house.' (Spoken by a woman)

Table 4.13: Possessive stems

Person	Predicative possession	Attributive possession	Example (AGR 3)
1ST SG	-àngé	-àngé	gwàngé
1ST PL	-àìsú/-àìswé	-àìsú/-àìswé	gwàìsú/gwàìswé
2ND SG	- -`ó	-o	gùgwó, =gwo
2ND PL	-ànyú	-ànyú	gwànyú
AGR 1	- -`é	-e	gùgwé, =gwe
AGR 2	-àbé	-àbé	gwàbé
AGR 3–23	-á- -ò	-á- -ò	gwágwò

Table 4.14: Some examples of possessive pronouns

Possessor \possessee	AGR 1	AGR3	AGR7	AGR9
1ST SG	wàngé	gwàngé	kyàngé	yàngé
2ST SG	=wo, wùwô	=gwo, gùgwô	=kyo, kìkyô	=yo, yìyô
AGR 3	=gwo	gwágwò	kyágwò	yágwò
AGR 9	=yo	gwáyò	kyáyò	yáyò

b. *Èènù nyùmbá yàngé. Ómúlángò gwáyò mùtùkúlíkí.*

e-`nú\FL* *ny.`ùmbá *e-àngé* *ó-mu-´lángò* *gu-á-e-ò*
AGR9-DEM_PROX\FL 9.house AGR9-1SG.POSS AUG-3-door AGR3-ASS-AGR9-POSS
mu-`tùkúlíkí
AGR3-red
'This is my house. Its door is red.'

(116) a. *Mùsómèsyáki ówùwô?*

mu-`somèsyá=ki* *ó-wu-o-`ó
1-teacher=which AUG-AGR1-AGR1-2SG.POSS
'Which teacher is yours?'

b. *Nyùmbáki éyìyô?*

ny.`ùmbá=ki* *é-yi-e-`ó
9.house=which AUG-AGR9-AGR9-2SG.POSS
'Which house is yours?'

(117) *Ǹbóna ényùmbá, ónyèréyo ààlì yáìná?*

ǹ-bon-a\LHL *é-ny.`ùmbá* *ó-nyèré=e-o* *à-li\LH(L)\FO2* *yáìná*
1SGS-see-FV\PRES AUG-9.house AUG-owner=AGR9-POSS 1S-COP2\PRES\FO2 where
'I see a house, where is its owner?'

In a very small set of words for human beings that normally use AGR 1, it is possible to use an AGR 9 attribute possessive pronoun for 2nd person singular or Agreement Class 1 possessors. Notably, this includes the words *mámà* 'mom' and *ìtééwò* 'dad'.

These can become *máá-yè* 'his/her mother' and *óítéé-yè* 'his/her father'. This exists in free variation with forms *mámà wê* 'his mother', which uses Agreement pattern I. Agreement pattern II was also found with the word *mwìná* 'sibling, colleague', as in *mwìná-yè* 'his/her sibling', meaning it is not restricted to 1a nouns. This noun is a bit unique, however, as it does not seem to ever occur without a possessive enclitic.

4.2.2 Agreement pattern II

The main function of agreement pattern II is subject agreement, and all the words using this paradigm agree both with class and person. Besides verbs, there are a handful of function words that use this set of prefixes, and it seems likely that many of these have verbal origins. The quotative *-tî*, for instance, is probably a reflex of the PB root **tì* 'say, quote' (Bastin et al. 2002). Other words that use this set of agreements are *-tyâ* 'how', *-tyô* 'thus'. All the elements that use this agreement pattern show a difference between prefixes with and without a high tone, see Section 5.2 for more on how this functions in verbs. For the adnominal elements shown in Table 4.15, when the underlying melody is LH(L), with the four agreement markers that do not have a high tone, i.e. 1SG, 2SG, AGR 1 and AGR 9, the element is realised with a LH(L) melody. All the other prefixes have a high tone associated with them, and this is realised on the marker itself. In order to avoid a word that is all high tones, the second syllable is realised with a low tone. Compare *òòtyâ* 'how (are) you SG' and *mútyà* 'how (are) you PL'.

Table 4.15 shows these forms. AGR 1 and 9, which have markers that consist of only a vowel, use a semivowel allomorph when preceding a vowel. The classes that alternate between a nasal and /g/ use the /g/ morphemes in this set. See Section 5.2 and Chapter 6 for more examples of the subject markers.

4.2.2.1 The quotative *-tî*

The subordinator *-ti* is used as a quotative and content clause subordinator, and can agree with the subject of the matrix clause. It can also be used meaning 'like this'. As it is used with verbs of speech and cognition it occurs most commonly with human beings, meaning either 1st or 2nd person or AGR 1 and 2. Subordinators agreeing with matrix

Table 4.15: Agreement pattern II

	-li	***-tî***	***-tyâ***	***-tyô***
	COP	'QUOT'	'how'	'like that'
1st SG	ǹdí	ǹtî	ǹtyâ	ǹtyô
1st PL	túlì	tútì	tútyà	tútyò
2nd SG	òòlí	òòtî	òòtyâ	òòtyô
2nd PL	múlì	mútì	mútyà	mútyò
AGR 1	ààlí	ààtî	ààtyâ	ààtyô
AGR 2	bálì	bátì	bátyà	bátyò
AGR 3	gúlì	gútì	gútyà	gútyò
AGR 4	gírì	gítì	gítyà	gítyò
AGR 5	lírì	lítì	lítyà	lítyò
AGR 6	gálì	gátì	gátyà	gátyò
AGR 7	kílì	kítì	kítyà	kítyò
AGR 8	bílì	bítì	bítyà	bítyò
AGR 9	èèrí	èètî	èètyâ	èètyô
AGR 10	gílì	gítì	gítyà	gítyò
AGR 11	lúlì	lútì	lútyà	lútyò
AGR 12	kálì	kátì	kátyà	kátyò
AGR 13	túlì	tútì	tútyà	tútyò
AGR 14	búlì	bútì	bútyà	bútyò
AGR 15	kúlì	kútì	kútyà	kútyò
AGR 16	wálì	wátì	wátyà	wátyò
AGR 17	kúlì	kútì	kútyà	kútyò
AGR 18	múlì	mútì	mútyà	mútyò
AGR 20	gúlì	gútì	gútyà	gútyò
AGR 22	gálì	gátì	gátyà	gátyò
AGR 23	èèrí	èètî	èètyâ	èètyô

subjects does happen in other Bantu languages as well, for instance Lubukusu (Diercks 2013), which is also found in zone J. Diercks (2013:358) notes that the Lubukusu construction is "particularly relevant in the present state of Minimalist syntactic theory, as it presents an agreement configuration that is highly problematic to explain". The main problem that he notes is the fact that the complementiser agrees with a noun phrase that is structurally higher. Further research into this Lugwere structure might therefore prove quite interesting, and could potentially present challenges to prevailing theories.

Some examples are given in (118) – (121).

(118) *Ómwànà n'àkóba ààti: "Zénà! (...)"* (C)

ó-mu-ànáFL ni à´-kob-aLHL(H) à-tî z-énà
AUG-1-childFL NAR 1S-say-FVPRES.SBR AGR1-QUOT AGR1SG-also
'The child said: "Me too! (...)"'

(119) *Àzwà kwàgíírya ábàkàlí ngà bàkóbà báti ómáma ààlì n'ékyámà!* (W)

à-zw-a\LHL\FO2 ku-ag.ir.y-a\LH á-ba-`kàlí ngà bà´-kob-a\LHL
1S-exit-FV\PRES\FO2 INF-find.APPL.CAUS1-FV\INF AUG-2-woman SIM 2S-say-FV\PRES
bà´-tî ó-mámà à-li\LH(L)\FO2 nè é-ki-ámà
AGR2-QUOT AUG-mom 1S-COP2\PRES\FO2 CONJ AUG-7-secret
'She just found the women saying that Mama has a secret!'

(120) *Ólúgérò lùnù lùsómésya ábántù lútì (...)* (W)

ó-lu-´gérò lu-`nú\FL lù´-som.esy-a\LHL á-ba-´ntù
AUG-11-proverb AGR11-DEM_PROX\FL 11S-teach.CAUS2-FV\PRES AUG-2-person
lù´-tî
AGR11-QUOT
'This proverb teaches people that (...)'

(121) *Ékisòlo ékisàizà kikóbà kiti (...)* (C)

é-ki-´sòló é-ki-`sàizá\FL kì´-kob-a\LHL kì´-tî
AUG-7-animal AUG-AGR7-male\FL 7S-say-FV\PRES AGR7-QUOT
'The male animal said that (...)'

The 1st person singular form *ntî* is sometimes used as an unchanging quotative marker or subordinator, that can be used with any class. (122) – (123) shows a couple of examples of this from the corpus. In (122), there is a Agreement Class 2 subject, but the quotative used is *ntî* rather than *bátì*, and in (123) the subject is Agreement Class 7, but the quotative used is *ntî*, rather than *kítì* (Compare to 119 and 121).

(122) *Bàkóbérè ntì túlì n'ókutùmùlà lùgwére ólwónká.* (C)

bà´-kob-ire\LHL ntî\FL tù´-li\LH(L) na ó-ku-tum.ul-a\LH\FO2
2S-say-PST2\P2 QUOT\FL 1PLS-COP2\PRES CONJ AUG-INF-speak.SEP1-FV\INF\FO2
lu-`gwérè ó-lu-ónkánì
11-Lugwere AUG-AGR11-only
'They said that we must only talk Lugwere.'

(123) Discussing a proverb

Kìtégèèzà nti ómú nyùmbà òba òlèkérèmu bìgèré byô. (C)

kì´-tegeez-a\LHL\FO2 ntî ó-mu=ny.`ùmbá òbâ ò-lek-ire\LHL=mu
7S-mean-FV\PRES\FO2 QUOT AUG-18=9.house maybe 2SGS-leave-PST2\P2=18
bi-`gèré=bi-o
8-leg=AGR8-2SG.POSS
'It means that in the house, you have left your legs there.'

4.2.3 Agreement pattern III

Agreement pattern III is used with adjectives, and in all cases the prefixes are identical to the nominal prefixes, with a homorganic nasal for Classes 9 and 10. Lugwere has a medium-sized inventory of adjectives. Some concepts that could be expressed by adjectives in other languages, are either verbs, like *kùsòòká* 'to be first' *kùbùgúmá* 'to be warm', or are expressed with an associative construction, like *-á bùlábè* 'dangerous (lit. of danger)' and *-á bbùlú* 'blue (lit. of blue)'. There are also nominalised forms ending in *-i* which are used to express many gradable qualities, such as *-ˋdòdí* 'wet' and *-ˋdèmbí* 'tired'.

Nevertheless, Lugwere has quite a few adjectives, and the class is probably bigger than what is typical for a Bantu language. Some examples are given in Table 4.16, which also includes quantifier *-ˋngí* 'many, a lot'. Other examples of adjectives include *-ˋtùkúlííkí* 'red', *-ˊbbà* 'big', *-ˋnèné* 'big', *-ˋbbúù -bbí* 'bad', *-ˋtónòtónò* 'a few, a little bit, small', *-ángù* 'easy', *-ˋkùlú* 'grown-up, elder', and *-ˊnyúlù* 'overripe'.

Table 4.16: Agreement pattern III

	-ˋtónò **'small'**	***-ˊsà*** **'good'**	***-ˋngí*** **'many, a lot'**
AGR 1	mùtónò	músà	mùngí
AGR 2	bàtónò	básà	bàngí
AGR 3	mùtónò	músà	mùngí
AGR 4	mìtónò	mísà	mìngí
AGR 5	lìtónò	lísà	lìngí
AGR 6	màtónò	másà	màngí
AGR 7	kìtónò	kísà	–
AGR 8	bitono	bísà	bìngí
AGR 9	ǹtónò	ǹsâ	–
AGR 10	ǹtónò	ǹsâ	nyìngí
AGR 11	lùtónò	lúsà	–
AGR 12	kàtónò	kásà	kàngí
AGR 13	tùtónò	túsà	tùngí
AGR 14	bùtónò	búsà	bùngí
AGR 15	kùtónò	kúsà	kùngí
AGR 16	wàtónò	wásà	–
AGR 17	kùtónò	kúsà	–
AGR 18	mùtónò	músà	mùngí
AGR 20	gùtónò	gúsà	–
AGR 22	gàtónò	gásà	gàngí
AGR 23	ǹtónò	ǹsâ	–

4.2.4 Agreement pattern IV

Agreement pattern IV includes the agreement markers for relativised objects, as well as the quantifier -*`ndí* 'another'. AGR 3, 4, 6 and 10 have the prefixes that start with a /g/, and similarly, AGR 1 and 9 also have agreement prefixes with /g/. This means that all classes whose nominal prefix starts with a nasal, with the exception of Class 18, have a /g/ in this declension.

The Class 1 and Class 9 forms of -*`ndí* 'another' are *gòndí* and *gèndí*, respectively. These have the vowels /o/ and /e/, which are not part of the relative object makers. At first glance this resembles the '-o of reference', but the vowels have been swapped in relation to how they appear elsewhere. If this is indeed the '-o of reference', perhaps the two quantifiers were swapped at some point. See Section 5.3 and 6.6.3 for more information and examples of the relative object markers.

Table 4.17: Agreement pattern IV

	***-ndi* 'another'**	***kùbòná* 'to see'** with relative object markers
AGR 1	gòndí	ógwàbónà
AGR 2	bàndí	ábàábónà
AGR 3	gùndí	ógwàbónà
AGR 4	gìndí	égyàbónà
AGR 5	lìndí	élyàbónà
AGR 6	gàndí	ágàábónà
AGR 7	kìndí	ékyàbónà
AGR 8	bìndí	ébyàbónà
AGR 9	gèndí	égyàbónà
AGR 10	gìndí	égyàbónà
AGR 11	lùndí	ólwàbónà
AGR 12	kàndí	ákàbónà
AGR 13	tùndí	ótwàbónà
AGR 14	bùndí	óbwàbónà
AGR 15	kùndí	ókwàbónà
AGR 16	wàndí	ówàábónà
AGR 17	kùndí	ókwàbónà
AGR 18	mùndí	ómwàbónà
AGR 20	gùndí	ógwàbónà
AGR 22	gàndí	ágàábónà
AGR 23	gèndí	égyàbónà

4.2.5 Agreement pattern V

Agreement pattern V is only found on object agreement markers. The classes that alternate between nasals and /g/ have /g/, and AGR 1 has *mu-*, which is identical to the nominal prefix. AGR 9 uses *gi-*, which is identical to AGR 10. The locative classes use enclitics instead of prefixes. The object markers agree by person, and the marker for 1st person singular and plural are identical to the subject markers, while both 2nd person markers differ from the subject markers. 2nd person singular uses *ku-* and 2nd person plural is identical to Agreement Class 2, using *ba-*. See Section 5.3 for more information, and Table 5.3 for examples.

4.2.6 Agreement pattern VI

The last three agreement patterns are found with the numerals 'one' to 'five'. Agreement pattern VI is used for the cardinal numeral *-ḿò* 'one'. As this word can only be used with the singular classes, it only occurs in 9 agreement classes. Classes 1 and 9 share the same form, which is quite exceptional in that the element that indicates agreement is a suffix. Note that this form, *mòìzá*, is also the one used in counting (i.e. when the numerals do not agree with any nouns), so it might be considered to be the most basic form of the numeral. The classes that alternate between a nasal and /g/ use the /g/ form.

Table 4.18: Agreement pattern VI

	-mo (mo-) **'one'**
AGR 1	mòìzá
AGR 3	gúmò
AGR 5	límò
AGR 7	kímò
AGR 9	mòìzá
AGR 11	lúmò
AGR 16	wámò/áámò
AGR 17	kúmò
AGR 20	gúmò

4.2.7 Agreement pattern VII

This group is used with the cardinal numerals 'two', 'three' and 'five', as well as the question word -*`méká* 'how many'. According to Maho (1999) the word for 'how many' patterns with the lower numerals in other Bantu languages as well. As all of these concepts are linked to plurality, it is only found with the plural classes. The agreement prefixes are identical to the nominal prefixes in all classes except AGR 10, which has the agreement marker *ì-*.

Table 4.19: Agreement pattern VII

	-***`bírí*** 'two'	-***`sátú*** 'three'	-***`táánú*** 'five'	-***`méká*** 'how many'
AGR 2	bàbírí	bàsátú	bàtáánú	bàméká
AGR 4	mìbírí	mìsátú	mìtáánú	mìméká
AGR 6	màbírí	màsátú	màtáánú	màméká
AGR 8	bìbírí	bìsátú	bìtáánú	bìméká
AGR 10	ìbírí	ìsátú	ìtáánú	ìméká
AGR 14	bùbírí	bùsátú	bùtáánú	bùméká
AGR 22	gàbírí	gàsátú	gàtáánú	gàméká

4.2.8 Agreement pattern VIII

This pattern is found only with the cardinal numeral 4. It is only possible with the plural classes. AGR 4 and 6 share the prefix *e-*, and AGR 10 has the prefix *ì-*, like in Agreement pattern VII, discussed above. Note that this prefix, much like the Class 5 prefix, has an inherent low tone. When attached to *´nà* 'four', which has a HL melody, the tone on the numeral root changes to avoid both syllables being pronounced low.

Table 4.20: Agreement pattern VIII

	-***´nà*** 'four'
AGR 2	bánà
AGR 4	énà
AGR 6	énà
AGR 8	bínà
AGR 10	ìnáˉ
AGR 14	búnà
AGR 22	gánà

4.2.9 Coordination and Agreement

(124) shows some examples of coordinated noun phrases, and the copulas shows what agreement class the coordinated unit falls into. Unsurprisingly, when both elements represents humans, there is AGR 2 agreements, as in (124a). When neither element is human, Agreement Class 8 is used. This is the case when the two nouns are from different classes, as in (124b), but it can also be used when both elements are from the same class, as in (124c), where both *lùgàlí* 'winnowing basket' and *lúlágálà* 'banana leaf' are AGR 11. When both elements are plural and from the same class, it is also possible to use the relevant plural class as in (124c), but it does not seem possible for two singular nouns from the same class to use the class that would normally constitute the plural, i.e. in (124d), the AGR 10 form *gírì* was rejected, even though both nouns are Class 11 and would normally have their plurals in Class 10. When a human and a non human noun are coordinated, it is possible to use either AGR 2 or AGR 8, as shown in (124e–f).

(124) a. *Ábáísúkà n'ábàálà bálì nzá*

á-ba-ísúkà nè á-ba-àlá\FL bà´-li\LH(L) n.zá
AUG-2-boy CONJ AUG-2-girl\FL 2S-COP2\PRES 9.outside
'The boys and the girls are outside.'

b. *Ákámbè n'égìráásì bíri ókú ménzà*

á-ka-ámbè nè é-gìráásì bì´-li\LH(L) ó-ku=`ménzà
AUG-12-knife CONJ AUG-glass 8S-COP2\PRES AUG-17=table
'The knife and the glass are on the table'

c. *Ámàsòwáàni n'ámàséfúryà bírì/gálì nzá.*

á-ma-`sòwáàní nè á-ma-`séfúryà bì´-li\LH(L) / gà´-li\LH(L) n.zá
AUG-6-plates CONJ AUG-6-pot 8S-COP2\PRES / 6S-COP2\PRES 9.outside
'The plates and the pans are outside.'

d. *Ólúlágálà n'ólùgàlì bírì/*gírì nzá*

ó-lu-´lágálà nè ó-lu-`gàlí\FL bì´-li\LH(L)/
AUG-11-banana_leaf CONJ AUG-11-winnowing_basket\FL 8S-COP2\PRES/
**gì´-li\LH(L) n.zá*
*10S-COP2\PRES 9.outside
'The banana leaf and the winnowing basket are outside.'

e. *Ómwàná n'ékítábò bíri ómú kíséngè.*

ó-mu-àná nè é-ki-´tábò bì´-li\LH(L) ó-mu=ki-´séngè
AUG-1-child CONJ AUG-7-book 8S-COP2\PRES AUG-18=7-room
'The child and the book are in the room.'

f. *Ékítábò n'ómwàlà báli ómú kíséngè.*

é-ki-´tábò nè ó-mu-àná bì´-li\LH(L) ó-mu=ki-´séngè
AUG-7-book CONJ AUG-1-child 2S-COP2\PRES AUG-18=7-room
'The book and the girl are in the room.'

5 The Lugwere Verb

Contents

5.1 The Lugwere verbal template . . . 183
5.2 Subject indexation . . . 189
5.3 Object indexation . . . 190
5.4 Properties of Subjects and Objects . . . 195
5.4.1 Subjects . . . 195
5.4.2 Objects . . . 196
5.4.3 Oblique arguments . . . 197
5.4.4 Locative nouns: NPs or PPs? . . . 198
5.5 Negation . . . 204
5.5.1 Negation with *ti-* . . . 204
5.5.2 Negation with *ta-* . . . 204
5.5.3 Negation with *nàndí* . . . 204
5.6 Interrogatives . . . 206
5.7 Verbal stem syllables . . . 209
5.8 The stem . . . 209
5.8.1 The general stem and the subjunctive stem . . . 210
5.8.2 The past tense stem . . . 210
5.9 TAM: Inventory of categories . . . 211
5.9.1 Non-finite categories . . . 212
5.9.2 Tense . . . 213
5.9.3 Aspects . . . 214
5.9.4 Moods . . . 215
5.10 The Form 1/Form 2 alternation in verbs . . . 215
5.10.1 Distribution of the Form 1/Form 2 alternation . . . 217
5.10.2 Potential analysis of the Form 1/Form 2 alternation . . . 220
5.11 Coverbs . . . 222
5.12 Loanword adaption . . . 223

This chapter looks at some of the basic features of the Lugwere verb, providing a basis for the more detailed discussion of verbal categories in the following chapters. Section 5.1 discusses the verbal template and the order of affixes, while Sections 5.2 and 5.3 give an overview of subject and object indexation. Section 5.4 then examines the properties of subjects, objects and oblique arguments, providing a detailed discussion of how to treat locative noun phrases. Sections 5.5 and 5.6 talk about strategies for negation and question formation, while 5.7 and 5.8 introduce the variation that exist in the shape of verbal roots, and briefly discusses some irregularities that exist with regards to the verbal stem. This will be explored much more thoroughly in Chapters 6 and 9. Section 5.9 summarises the tense, aspect and mood categories that Lugwere marks, and this will be expanded upon in Chapters 6, 7 and 8, which give detailed descriptions of the morphology and usage of these forms. Section 5.10 then describes the Lugwere Form 1/Form 2 alternation, and briefly looks at the distribution of each form, as well as which TAMP categories have the distinction. Section 5.11 gives some examples of the verbs *kùzwá* 'to leave' and *kùtùùcá* 'to bring' functioning as coverbs, and finally Section 5.12 shows how (English) loanword verbs are adapted to fit the Lugwere verbal template.

5.1 The Lugwere verbal template

The verbal template of Lugwere has 12 spots, and is illustrated in (126). The structure is mostly very similar to that discussed in section 2.4.2.1 for Bantu in general (reproduced in (125)), however TA and NEG_2 have switched places. This can be seen in a word such as *ówèyátàgùlírè* 'when s/he did not buy (yesterday)', where the subject marker (*y-*) is directly followed by the past morpheme *-a*, which precedes the negative *ta-*. I use the term TA for consistency with the literature, despite the fact that this slot in Lugwere only holds tense and some mood morphology (although as discussed in Section 7.2.3, a progressive prefix might be in the process of grammaticalising in this slot).

(125) **General Bantu**:

Pre-SM + SM + NEG2 + TA + OM + root + extension + FV + post-FV

(126) **Lugwere**:

SBR + pre-SM + SM + TA + NEG2 (+ T2)+ OM + root + EXT + FV + post-FV + locative

The Lugwere template also has the additional slot SBR (short for subordinator) at the beginning, so as to allow for combinations of a subordinator followed by the primary negative. It is common for Bantu languages to use the secondary negative in subordinate clauses, and so the primary negative and the subordinator is often considered to occupy the same slot. In Lugwere as well, the secondary negative (*ta-* in the NEG2 slot) is often found in subordinate clauses, but in most cases the language also permits a variant which uses the negative morpheme in the Pre-SM slot (*ti-*). (127d) and (127e) have the same meaning, but the former uses the *ta-* negative in NEG2, while the second used the *ti-* negative in Pre-SM.

The EXT slot and the FV slot partake in a morphophonological process called imbrication. This is a process described for many Bantu languages (Morrison 2025), and can be understood as a phonological process where in certain suffixes (most commonly reflexes of **-id-e*) undergo metathesis with the last consonant of the verb stem. It is only the first part of the **-id-e* suffix that is targeted, and a CVCVC stem, for instance, could thus become CVCVidCe. The language specific rules of hiatus resolution then apply, and the /d/ of the suffix is generally deleted as CC sequences are disallowed in most Bantu languages. Hyman (1995) explains this as consonant circumscription rather than metathesis.

In many languages the triggering context for this process is best explained in phonological terms, in Cibemba for instance, the number of syllables is relevant (Hyman 1995). In Lugwere, imbrication is best explained as being conditioned by morphology. It only applies when certain morphemes are involved, either productively or as part of a lexcalized stem. An example is *kùlòlérá* 'to search on behalf of', which becomes *àlòléírè* 's/he searched on behalf of' in P2. See Chapter 9 for more on this.

Another difference, is that the second negative (*ta-*) is able to interfere between the first and second syllable of bisyllabic prefixes (i.e. the past/conditional *anka-*, the future *ali-* and the conditional *andi-*). The contexts where this would become apparent are very rare, as it would include a negative subordinate clause. I cannot find any evidence in the corpus for this, but in elicitation speakers do give forms such as *ówèyàtàlígùlà* in (127f), where *-ali* appears to be split by *ta-*. The same idea can be expressed by a form that instead uses the negative in Pre-SM, shown in (127g). The need for the T2 slot is therefore marginal. As a rule, I will treat all the separable affixes, i.e. the past *-ire*, Causative *-isy*, as well as *anka-*, *ali-* and *andi-*, as units, and they will not be split up in the glosses.

Finally, Lugwere has an additional slot at the end, where the locative enclitics go. This is needed because the locative enclitics can follow Habitual *-nga*, which goes in Post-FV. Additionally, the enclitics behave differently from *-nga* tonally, which is why the former is treated as a suffix while the locative markers are considered clitics (see Section 10.1).

SBR In the SBR slot, the most common affix is *ó-*, or one of it's allomorphs *á-* or *é-*. When attached to the Infinitive, this functions much like the augment on nouns, whereas when attached to a finite verb it indicates that the verb is relative. Which allomorph to use is determined largely by harmony with the following vowel.

The marker *ówè-*, which is used to form subordinate adverbial clauses, likely derives from the relative object marker/pronoun for Class 16. Class 16 can have both *a-* and *o-* augments, and the subordinator also shows quite a lot of variation when it comes to the vowel qualities involved. It can be assumed that this has grammaticalised further towards a subordinator, however, as shorter versions, where the glide is lost and we instead have a long vowel with a falling tone (see for example (189d)) are found. Synchronically, this is probably best analysed as being in the SBR slot, as it can be combined with the primary negative marker.

Pre-SM This slot is used for the primary negative *ti-*, and the relative object marker, much like what Meeussen (1967) reconstructs for Proto-Bantu. See Section 6.6.3 for a justification of Lugwere having relative object prefixes. In addition, there is potentially the jussive marker *ka-*, although it is a bit unclear whether this is best understood as a prefix, a clitic or a particle.

SM This slot is used for subject markers, both in main clause verbs and in subordinate clauses.

TA This slot contains various morphemes that, in combination with affixes at T2, FV and post-FV determine the tense, aspect and mood of the verb. The most common affix in this position is *a-*, which is used in P3, P5 and F1. The Present tense, P2 and the Subjunctive have no morpheme in TA.

NEG2 This slot contains the negative marker *ta-*, which is often used in negative subordinate clauses, as well as in the negative Infinitive.

T2 As discussed above, there is some evidence that the prefixes *ali-*, *anka-* and *andi-* occupy two slots (TA and T2), as the negative *ta-* can intervene, as in (127f).

OM This is where non-relative object markers are found. It is also where the Reflexive marker is located.

root This is the slot where the verbal root goes.

EXT This slot is used for the range of suffixes typically termed *extensions* (see Section 2.4.6 and Chapter 9). While extensions typically have to do with valency, there are a couple of markers found in this position that relate to aspect as well. Lugwere has reflexes of many of the extensions reconstructed for Proto-Bantu, and in some cases these have been reduplicated. There are also some cases where more than one extension is used. While two productive extensions can be combined in elicitation, when there

is more than one extension in the corpus there is often some level of lexicalisation of at least one of them.

FV This slot, along with the root and the extensions, form the stem of the word. There are three affixes in this slot: *-a*, *-e* and *-ire*. The first of these is a sort of default, which occurs on a range of different forms. The second is the Subjunctive marker and the third is a past tense marker.

Post-FV This slot contains the Habitual *-nga*. See Section 7.2.1 for a justification for why this morpheme is best analysed as belonging to the Post-FV slot, rather than EXT or FV.

Locative The locative slot is used for locative enclitics, of which there are four: *=ku*, *=mu*, *=wo*, and *=yo*. These correspond to the four locative noun classes. Tonally, the markers always have the opposite tone of the final syllable of the stem they attach to. It is possible to have more than one locative marker in this slot.

Below are some examples of how elements in the different slots combine. (127) shows examples of negative subordinate forms, showing how the two negative markers interact with relative markers, relative objects, the Infinitive marker, and the subordinator *ówè-*. (128) shows combinations of elements in FV, Post-FV and LOC. EXT in parenthesis means that it is a lexicalised extension. (129a) and (129c) show examples of imbrication. (130) shows a few examples of a verb with more than one extension (although the Causative is likely lexicalised to some extent). In (130b) the Causative *-isy* is split in two due to imbrication, and (see Chapter 9).

(127) a. *étìyáízírè* (SBR+Pre-SM+SM+TA+root+FV)

é-ti-a-a-iz-ire\LH.(L)HL
REL-NEG-1S-TNS-come-PST2\P3.NEG
'who did not come'

b. *ógùwàtágùlírè* (SBR+Pre-SM+SM+TA+NEG2+root+FV)

ó-gu-o-a-ta-gul-ire\LH.LHL
REL-3O.REL-2SGS-TNS-NEG2-buy-PST2\P3.NEG
'which you did not buy yesterday'

c. *ókùtámùlìngírírá* (SBR+SM+NEG2+OM+root(+EXT1)+FV)

ó-ku-ta-mu-ling.irir-a\LH
AUG-INF-NEG2-1O-look_at.DUR1-FV\INF.NEG
'not to look at him'

d. *ówèyátàgùlírè* (SBR+SM+TA+NEG2+root+FV)

ówè-a-a-ta-gul-ire\H.LHL
SBR-1S-TNS-NEG2-buy-PST2\P3
'when s/he did not buy'

e. *ówètìyágùlírè* (SBR+Pre-SM+SM+TA+root+FV)

ówè-ti-a-a-gul-ire\LH.LHL
SBR-NEG-1S-TNS-buy-PST2\P3.NEG
'when s/he did not buy'

f. *ówèyàtàlígúlá* (SBR+SM+TA+NEG2+T2+root+FV)

ówè-a-a-ta-li-gul-a\LH
SBR-1S-FUT-NEG2-FUT-buy-FV\F2.NEG
'when s/he will not buy'

g. *ówètìyàlígùlá* (SBR+Pre-SM+SM+TA+T2+root+FV)

ówè-ti-a-ali-gul-a\LH.LH
SBR-NEG-1S-FUT-buy-FV\F2.NEG.SBR
'when s/he will not buy'

(128) a. *Nàmùwùlìràngákù.* (SM+TA+OM+root(+EXT)+FV+Post-FV+LOC)

n-a-mu-wul.ir-a-nga\L.LH=ku
1SGS-TNS-1O-hear.APPL-FV-HAB\P5=17
'I have heard about him.'

b. *Òwùlìràngàkúwò?* (SM+root(+EXT)+FV+Post-FV+LOC+LOC)

o-wul.ir-a-nga\LHL\FO2=ku=wo
2SGS-hear.APPL-FV-HAB\PRES\FO2=17=16
'Have you ever heard about this place?'

(129) a. *àbàlísíryè* (SM+root+EXT+FV)

à-bal-isy-ire\LHL
1S-count-CAUS2-PST2\P2
's/he made (someone) count'

b. *àbyàlíwírè* (SM+root(+EXT)+EXT+FV)

à-by.al-iw-ire\LHL
1S-give_birth.EXT-PASS2-PST2\P2
's/he was born'

c. *àbyàlíwírwè* (SM+root(+EXT)+EXT+EXT+FV)

à-by.al-iw-w-ire\LHL
1S-give_birth.EXT-PASS2-PASS1-PST2\P2
's/he was born'

(130) a. *twèsómésyángánírè* (SM+OM+root(+EXT)+EXT+FV)

tù´-e´-som.esy-angan-ire\LHL
1PLS-REFL-teach.CAUS2-RECIP-PST2\P2
'we taught each other'

b. *bátùsòméséíryè* (SM+OM+root(+EXT)+EXT+FV)

bà´-tu-som.esy-ir-ire\LHL
2S-1PLO-teach.CAUS2-APPL-PST2\P2
'they taught for us'

c. *àsòmésyéwà* (SM+root(+EXT)+EXT+FV)

à-som.esy-iw-a\LHL
1S-teach.CAUS2-PASS2-FV\PRES
'he is taught'

5.2 Subject indexation

All finite verbs have a subject prefix, and these are shown in table 5.1. The table shows both the forms found before a consonant, and the forms found before any of the TAM prefixes, all of which start with /a/. The affixes follow the general phonological rules regarding prenasalisation and vowel combinations. The exact realisation of the 1st person singular prefix is dependent on the following element, as described in Section 3.1.3.1. When preceding a vowel-initial TAM prefix, the marker is an alveolar /n-/. When preceding a stem-initial vowel, however, it becomes /nʤ-/.

When directly followed by a vowel-initial prefix, markers with a high vowel use a glide, i.e. *tu-* becomes *tw-*, and prefixes that only consist of a vowel, such as *o-*, *a-* and *e-* (2nd person singular, Agreement Class 1 and Agreement Class 9, respectively), also use a glide allomorph, becoming *w-* and *y-*. The latter is the prevocalic allomorph of both

Class 1 and 9. Subject markers ending in /a/ are simply reduced to the consonant. That is, we end up with a single, short /a/ (or long if it precedes a prenasalised consonant).

There are two sets of subject makers. One set has inherent lexical tones, while the other does not. The set with tones is only used in the Present tense affirmative, and in P2 affirmative. The prefixes mostly have a LH melody, where, in most cases, the low tone is realised on the subject prefix itself, and the high tone is a floating tone that attaches to the first syllable of the stem. There are, however, four subject markers that do not have this floating tone. These are the subject prefixes that do not have the regular CV shape, i.e. 1st person singular, 2nd person singular, and Agreement Classes 1 and 9 (underlined in Table 5.2). For the prefixes that do introduce a floating high tone, this will mostly be realised on the first syllable of the stem. If, however, there is an object marker interceding between the subject marker and the root, the high tone is realised on the subject marker itself. This is understood as the object marker blocking the high tone from spreading to the stem, and it is realised on the subject marker instead. The low tone is not realised, because that would lead to a rising tone, which is avoided in most contexts. Table 5.2 shows all subject markers immediately followed by an object marker, and illustrates well the difference between subject markers with and without a floating high tone. In subordinate clauses and the Narrative tense, all subject markers have a floating high tone in the Present affirmative and P2 affirmative.

5.3 Object indexation

Table 5.3 shows the object indexation markers that go in the OM slot. For most agreement classes the object markers have the same form as the subject markers, but some differ. Note the 2nd person singular object marker *ku-*, and that the 2nd person plural object maker is identical to the AGR 2 object marker (*ba-*). Agreement classes 9 and 10 also have identical object markers, both using *gi-*.

As with the subject marker, the 1st singular *n-* takes on the place of articulation of a following consonant. The locative classes use enclitics rather than object prefixes, and this is discussed further in Chapter 10. An Infinitive can carry object prefixes, but if there is a 2nd person singular object, the expected sequence of /kuku/ i.e. **ókúkùbòná*

Table 5.1: Subject indexation

	Prefixes with tone		Toneless prefixes	
	Before a consonant	Before a vowel	Before a consonant	Before a vowel
1st SG	ǹ-	n-, (nj-)	n-	n-, (nj-)
1st PL	tù́-	tẃ-	tu-	tw-
2nd SG	ò-	w-	o-	w-
2nd PL	mù́-	mẃ-	mu-	mw-
AGR 1	a-	y-	a-	y-
AGR 2	bà́-	b́-	ba-	b-
AGR 3	gù́-	gẃ-	gu-	gw-
AGR 4	gì́-	gý-	gi-	gy-
AGR 5	lì́-	lý-	li-	ly-
AGR 6	gà́-	ǵ-	ga-	g-
AGR 7	kì́-	ký-	ki-	ky-
AGR 8	bì́-	bý-	bi-	by-
AGR 9	è-	y-	e-	y-
AGR 10	gì́-	gý-	gi-	gy-
AGR 11	lù́-	lẃ-	lu-	lw-
AGR 12	kà́-	ḱ-	ka-	k-
AGR 13	tù́-	tẃ-	tu-	tw-
AGR 14	bù́-	bẃ-	bu-	bw-
AGR 15	kù́-	kẃ-	ku-	kw-
AGR 16	wà́-	ẃ-	wa-	w-
AGR 17	kù́-	kẃ-	ku-	kw-
AGR 18	mù́-	mẃ-	mu-	mw-
AGR 20	gù́-	gẃ-	gu-	gw-
AGR 22	gà́-	ǵ-	ga-	g-
AGR 23	è-	y-	e-	y-

Intended: ‘to see you’, is generally reduced to just /ku/. The Infinitive prefix can be dropped with other object makers as well.

The tonal effects of the object are quite interesting, and has an impact on the analysis on tonal melodies overall, see Section 6.10.1 for a discussion.

It is possible for one verb to have multiple object prefixes at once, at least as many as three. It is not clear whether this is a strict upper limit, but as it is difficult to create clauses with more objects than this that still make sense, it is the highest number that was successfully tested in elicitation. The order of the object prefixes is somewhat flexible, as illustrated by the two orders show in (131). Other orders were not accepted in this case, although other speakers looking at other sentences accepted more possible orders. More research is needed into what determines which orders are possible in which contexts.

Table 5.2: The bisyllabic verb *kùmàlá* 'to finish, to be enough' in the Present tense with the AGR 1 object marker *mu-*

	FO1 AFF
1st SG	m̀mùmálà
1st PL	túmùmálà
2nd SG	òmùmálà
2nd PL	múmùmálà
AGR 1	àmùmálà
AGR 2	bámùmálà
AGR 3	gúmùmálà
AGR 4	gímùmálà
AGR 5	límùmálà
AGR 6	gámùmálà
AGR 7	kímùmálà
AGR 8	bímùmálà
AGR 9	èmùmálà
AGR 10	gímùmálà
AGR 11	lúmùmálà
AGR 12	kámùmálà
AGR 13	túmùmálà
AGR 14	búmùmálà
AGR 15	kúmùmálà
AGR 16	wámùmálà
AGR 17	kúmùmálà
AGR 18	múmùmálà
AGR 20	gúmùmálà
AGR 22	gámùmálà

(131) a. *Ómùkàlì àsùsísírye ómwísúka óbùjò kámbè.*

ó-mu-ˋkàlí\FL à-sus-isisy-ire\LHL ó-mu-ísúkà ó-bu-ˋjó\FL ka-ámbè
AUG-1-woman\FL 1S-peel-CAUS3-PST2\P2 AUG-1-boy AUG-14-potato\FL 12-knife
'The woman made the boy peel potatoes with a knife.'

b. *Àkàmùbùsúsisíryè.*

à-ka-mu-bu-sus-isisy-ire\LHL
1S-12O-1O-14O-peel-CAUS3-PST2\P2
'She made him peel it with it.'

c. *Àkàbùmùsúsisíryè.*

à-ka-bu-mu-sus-isisy-ire\LHL
1S-12O-14O-1O-peel-CAUS3-PST2\P2
'She made him peel it with it.'

Unlike the subject markers, which are obligatory even when there is an overt lexical subject, the object markers are most commonly used with a pronominal object, i.e. when there is no overt object NP, as in (132b). It is possible, however, to have an object

Table 5.3: Object indexation

Agreement class	Object makrer	Example verb
1st SG	n- (nj-)	àmbónà
1st PL	tu-	àtùbónà
2nd SG	ku-	àkùbónà
2nd PL	ba-	àbàbónà
AGR 1	mu-	àmùbónà
AGR 2	ßa-	àbàbónà
AGR 3	gu-	àgùbónà
AGR 4	gi-	àgìbónà
AGR 5	li-	àlìbónà
AGR 6	ga-	àgàbónà
AGR 7	ki-	àkìbónà
AGR 8	bi-	àbìbónà
AGR 9	gi-	àgìbónà
AGR 10	gi-	àgìbónà
AGR 11	lu-	àlùbónà
AGR 12	ka-	àkàbónà
AGR 13	tu-	àtùbónà
AGR 14	bu-	àbùbónà
AGR 15	ku-	àkùbónà
AGR 16	=wo	àbònàwó
AGR 17	=ku	àbònàkú
AGR 18	=mu	àbònàmú
AGR 20	gu-	àgùbónà
AGR 22	ga-	àgàbónà
AGR 23	=yo	àbònàyó

marker with an overt object NP, as in (132c). In such cases, the augment generally needs to be present. Without it the clause might become ungrammatical, or the NP cannot be interpreted as an object. For (132d), for instance, one speaker said it would mean something like 'Jenny sees him as a child', meaning that the NP and the object prefix cannot be coreferential here. Another speaker rejected this sentence completely. More research into the pragmatics of using an object marker with an overt object NP is still needed.

(132) a. *Jén àbóna ómwàná.*

Jén à-bon-a\LHL ó-mu-àná
PN.F 1S-see-FV\PRES AUG-1-child
'Jen sees a/the child.'

b. *Jén àmùbónà.*

Jén à-mu-bon-a\LHL
PN.F 1S-1O-see-FV\PRES

'Jen sees him/her.'

c. *Jén àmùbóna ómwàná.*

Jén à-mu-bon-a\LHL ó-mu-àná
PN.F 1S-1O-see-FV\PRES AUG-1-child
'Jen sees him/her, the child.'

d. ? *Jén àmùbònà mwàná.*

Jén à-mu-bon-a\LHL\FO2 mu-àná
PN.F 1S-1O-see-FV\PRES\FO2 1-child
Questionable, potential interpretation is: 'Jen sees him as a child.'

When an object is relativised, we need either a relative object marker, or a relative object pronoun. These use the same class affixes and are shown in Table 5.4. The relative object marker is found in Pre-SM, and thus precedes the subject marker. Unlike main clause object markers in OM, a relative object marker or pronoun is always present, even when there is an overt NP.

Table 5.4: Relative object indexation

Agreement class	Relative object maker	Relative object pronoun	Example verb
AGR 1	gu-	ógwè	ógwàbónà
AGR 2	ba-	ábè	ábààbónà
AGR 3	gu-	ógwè	ógwàbónà
AGR 4	gi-	égyè	égyàbónà
AGR 5	li-	élyè	élyàbónà
AGR 6	ga-	ágè	ágààbónà
AGR 7	ki-	ékyè	ékyàbónà
AGR 8	bi-	ébyè	ébyàbónà
AGR 9	gi-	égyè	égyàbónà
AGR 10	gi-	égyè	égyàbónà
AGR 11	lu-	ólwè	ólwàbónà
AGR 12	ka-	ákè	ákàbónà
AGR 13	tu-	ótwè	ótwàbónà
AGR 14	bu-	óbwè	óbwàbónà
AGR 15	ku-	ókwè	ókwàbónà
AGR 16	wa	áwè	áwààbónà
AGR 17	ku-	ókwè	ókwàbónà
AGR 18	mu-	ómwè	ómwàbónà
AGR 20	gu-	ógwè	ógwàbónà
AGR 22	ga-	ágè	ágààbónà
AGR 23	gi-	égyè	égyàbónà

5.4 Properties of Subjects and Objects

This section will look at some of the properties of Lugwere subjects and objects. I am considering the presence of subject agreements to be the defining criteria for subjecthood, and thus describe the properties of words that can trigger subject agreements. Similarly, I consider the possibility to trigger object agreements to be the defining feature of an object, although note that most objects do not trigger object agreements when directly following the verb, so I am concerned with the possibility of an object marker replacing the noun, rather than its actual presence on the verb. The situation is more complicated when it comes to locative enclitics, which are used to mark locative objects, but which also have a range of other functions. In these cases, we might consider something an object if it can be indicated by an enclitic, and have (most of) the other object features described below.

Taking subject markers to be the defining property of a subject means that in cases of locative inversion, where a locative argument is fronted and triggers subject agreement, the locative argument is considered to be the subject, not the agent argument which follows the verb.

5.4.1 Subjects

The default word order of Lugwere is SVO, and the subject therefore canonically precedes the verb. (133) illustrates the SVO order.

(133) *Jén àsùmbà màtóókè.*

*Jén à-sumb-a\LHL*FO2 *ma-ˋtóókè*
PN.F 1S-cook-FV\PRES\FO2 6-matooke
'Jen cooks matooke.'

When one of the Causative suffixes is used causatively (see Section 9.2), the subject of the base verb is demoted to object, as in (134), where the base subject (Shanita) follows the verb. Note that the Causative suffixes also have non-causative usages where the base subject remains a subject of the derived verb.

(134) *Ɉén àsùmbísya óShàníta ámátóókè.*

Ɉén à-sumb-isy-a\LHL ó-Shànítà á-ma-´tóókè
PN.F 1S-cook-CAUS2-FV\PRES AUG-PN.F AUG-6-matooke
'Jen made Shanita cook matooke.'

Note, however, that it is possible for an argument other than the subject to immediately precede the verb. It is common for topicalised elements to be fronted. If an object is fronted and the subject is pronominal, then the NP immediately preceding the verb is not the subject, as in (135) where the object *ébìrá* 'yams' is fronted as it is the topic.

(135) *Ébìrà tìndyá kùbbá↓ bíndwályà.* (C)

é-bi-`rá\FL ti-n-ly-a\LHL kùbbâ bì´-n-lwal-y-a\LHL
AUG-8-yam\FL NEG-1SGS-eat-FV\PRES because 8S-1SGS-get_sick-CAUS1-FV\PRES
'Yams I don't eat because they make me sick.'

5.4.2 Objects

In a transitive clause, the direct object can directly follow the verb, as in (136a), and can be replaced by an object prefix in the OM slot on the verb, as in (136b). If relativised upon, the object triggers an object relative prefix in the Pre-SM slot, as in (136c), which differs from subject relatives, which are formed by adding an augment to the verb.

(136) a. *Ɉén àsùmbà màtóókè.*

Ɉén à-sumb-a\LHL\FO2 ma-`tóókè
PN.F 1S-cook-FV\PRES\FO2 6-matooke
'Jen cooks matooke.'

b. *Ɉén àgàsúmbà.*

Ɉén à-ga-sumb-a\LHL
PN.F 1S-6O-cook-FV\PRES
'Jen cooks it.'

c. *Ámátóóke ágàbàsúmbà másà.*

á-ma-´tóókè á-ga-bà´-sumb-a\LHL ma-´sà
AUG-6-matooke REL-6O.REL-1S-cook-FV\PRES AGR6-good
'The matooke which they cook is good.'

An object can become the subject of a passive clause, as in (137a), or the subject of a clause with the neuter extension, as in (137b).

(137) a. *Ámátóókè gàsúmbíwà.*

á-ma-ˊtóókè gà ˊ-sumb-iw-a\LHL
AUG-6-matooke 6S-cook-PASS2-FV\PRES
'The matooke is cooked.'

b. *Ámátóókè gàsúmbíkà.*

á-ma-ˊtóókè gà ˊ-sumb-ik-a\LHL
AUG-6-matooke 6S-cook-NUT-FV\PRES
'The matooke can be cooked.'

It is possible for a verb to have multiple objects, and while only one can be immediately following the verb, or be the subject of a passive clause at one time, it is common for the order of objects to be somewhat flexible (although one order might be more common), and it is also sometimes possible for either one of the objects to be the subject of a passive clause (see Chapter 9).

Some arguments fulfil only some of these qualities. There are, for instance arguments that can follow the verb, without any oblique marking, but which cannot become a passive subject, such as some instrumental arguments (see for instance (540) in Chapter 9).

As a midpoint, there are certain arguments that require a locative enclitic in order to be able to be passivised or be the subject of a neuter verb. This generally applies to arguments with the thematic role of location, and it is not completely clear whether these should still be considered objects (see the discussion in Section 5.4.4 below).

5.4.3 Oblique arguments

Arguments headed by a preposition or a conjunction will be considered to have oblique marking. Lugwere has few prepositions, as it relies more on locative noun class prefixes (see discussion below), or on coverbs such as *kùzwá* 'exit, (be) from'. Some true prepositions do exist, however, such as *èèrí* 'to, towards' and *pákà* 'until'.

The conjunction *na* ∼ *ne*, which can mean either 'and', 'with' or 'by' commonly heads oblique arguments, and is for instance a way to introduce the agent argument in a passive clause, or a comitative argument.

In Lugwere the line between oblique and core argument is not as clear-cut as it might be in other languages, however. The status of locative nouns is a question that has been much discussed for Bantu languages (Pacchiarotti 2020:59), and additionally there are cases where an applied object can optionally keep an oblique marker, most commonly *na* ∼ *ne*, even though with the applicative morphology on the verb, it is no longer an adjunct, and the argument passes all the other tests for objecthood. With the Applicative verb in (138), the conjunction can be included or left out, for instance.

(138) *Àsìmúlíra éménzà (n'é)kítímbò*

à-simul-ir-a\LHL é-`ménzà (nè é-)ki´-tímbò
1S-wipe-APPL-FV\PRES AUG-table (with AUG-)7-cloth
'She wipes the table with a cloth'

5.4.4 Locative nouns: NPs or PPs?

As mentioned above, Lugwere uses locative noun class prefixes in contexts where many other languages use prepositional phrases. The Bantu locative classes, and the question of whether Bantu locative nouns should be considered oblique, have been much debated (Pacchiarotti 2020:59). In some languages, it is possible to make a very good case for why they should be considered NPs. In Chewa, for instance, nouns with locative noun class prefixes can occur as subjects and objects, and they can be the object of a preposition. When they occur as subjects or objects, they have all the properties of a subject or an object. Additionally, all elements within the noun phrase agrees with the locative class (Bresnan 1994:111).

The status of the Lugwere locative prefixes are a bit less clear than what the case is for Chewa. Below, I will look at five properties of locative noun classes that might be helpful in determining whether they should be considered more like oblique arguments along the lines of a prepositional phrase, or more like an NP core argument.

In the orthography, the locative markers are written as separate words, unless they precede a vowel-initial word.

1. Are they prefixes, proclitics, or separate words? It is immediately quite clear that the locative classes differ quite a bit from the other noun class prefixes, even other secondary ones.

Firstly, the locative markers never replace a primary noun class prefix, and are always added on top of it. The other group of secondary noun classes, the diminutives and augmentatives, generally replace the primary noun class prefix, except in the case of Class 9/10, where they can be added on top of the nasal. The locative prefixes also have a predictable tone, which is not assigned from the noun root, unlike what happens for primary class prefixes, as well as the augmentative and diminutive prefixes. The tone of the locative prefixes do partially depend on the tone of the first syllable of the noun, however, being predictably low before a low syllable and high before a high syllable (when there is no augment). This predictable tone, rather than the unpredictable lexical tone assigned by the root to other class prefixes, resembles what is seen for enclitics, whose tone also depends on the tone of the syllable they attach to. Unlike the locative markers, however, enclitics get the opposite tone of the element they attach to.

There are also some cases where a demonstrative intervenes between a noun and the locative prefix. This is rare, but there are enough convincing cases in the corpus to prove it is possible, like (139) and (140), and speakers have also accepted forms like (141) in elicitation. As far as I am aware, nothing can intervene between the other noun class prefixes and the noun roots, so this is another thing that sets the locative markers apart.

(139) *Bìntùki ébímwàkólére ókùbìtá mwèyo énzálà?* (C)

bi`-ntú=ki *é-bi-mu-a-kol-ire\HL.HL* *ó-ku-bit-a\LH*
8-thing=which AUG-8O.REL-2PLS-TNS-do-PST2\P5.SBR AUG-INF-pass-FV\INF
mu=e-`ó *é-n.zálà*
18=AGR9-DEM_MED AUG-9.famine
'What things did you do to get through that famine?'

(140) *Kwòlwo ólùnákù wàlìwo éyàli ábàtùmìre ékítábò.* (C)

ku=olu-`ó* *ó-lu-`nákù *wa-a-li\LH(L)=wo* *é-a-a-li\LH(L)*
17=AGR11-DEM_MED AUG-11-day 16S-TNS-COP2\P5=16 REL-1S-TNS-COP2\P5
à´-ba-tum-ire\L.LH *é-ki-´tábò*
textsc1S-2O-send-PST2-FV\P2.SBR AUG-7-book
'That day there was a person who had sent them to get a book.'

(141) a. *ókú ménza èènú*

ó-ku=`ménzà e-`nú
AUG-17=table AGR9-DEM_PROX
'on this table'

b. *Kwèènu éménzà kwèndékére éséènté.*

ku=e-`nú* *é-`ménzà ku-e-n-lek-ire\LHL *é-séènté*
17=AGR9-DEM_PROX AUG-table 17S-REFL-1SGO-leave-PST2\P2 AUG-money
'I left money on this table.'

c. *ómú nyùmba éènú*

ó-mu=ny.`ùmbá e-`nú
AUG-18=9.house AGR9-DEM_PROX
'in this house'

d. *Mwèènu ényùmbà mwèndékére éséènté.*

mu=e-`nú* *é-`ny.ùmbá\FL mu-e-n-lek-ire\LHL *é-séènté*
17=AGR9-DEM_PROX AUG-9.house\FL 18S-REFL-1SGO-leave-PST2\P2 AUG-money
'I left money in this house'

So, the locative markers do not behave like other nominal prefixes. Neither do they behave like separate, free words. When preceding a vowel such as in *mwífúmbírò* 'in the kitchen', the locative marker has the allomorph with a glide. Gliding is generally a strategy for hiatus resolution within a word, while between words the general strategy is for the final vowel of the first word to be deleted/fully assimilated to the following vowel. Compare (142), where the underlying /lìnù ìtóókè/ is pronounced [lìn-ìtóókè]. When a demonstrative intervenes between the locative marker and the noun, the same gliding happens if the demonstrative starts with a vowel. Taking all of these facts together, it seems that the locative noun class markers are perhaps best classified as proclitics.

(142) *Lìnu ìtóókè lyàngé.* [lìn-ìtóókè lyàngé]

li-`nú *ì-´tóókè* *li-àngé*
AGR5-DEM_PROX 5-banana_bunch AGR5-1SG.POSS
'This banana bunch is mine.'

2. Do they control adnominal agreements? The locative markers can control agreement within the noun phrase, but this is not obligatory. The examples below show

that speakers allow the adnominal elements to either agree with the primary class of the noun, or the locative class.

(143) a. *Ékítábò kírì kú ménza èènú.*

é-ki-ˊtábò kìˊ-li\LH(L) ku=ˋménzà e-ˋnú
AUG-7-book 7S-COP2\PRES 17=table AGR9-DEM_PROX
'The book is on this table.'

b. *Ékítábò kírì kú ménzà kùnú.*

é-ki-ˊtábò kìˊ-li\LH(L) ku=ˋménzà ku-ˋnú
AUG-7-book 7S-COP2\PRES 17=table AGR17-DEM_PROX
'The book is on this table.'

3. Can they be subjects? Locative phrases can be subjects, as illustrated by (144) and (145), although when used with a verbal predicate there generally needs to be a locative enclitic present.

(144) *Mú nyùmbà músà.*

mu=ny.ˋùmbá\FL mu-ˊsà
18=9.house\FL AGR18-good
'In the house is good.'

(145) *Ókú ménzà kúlìku ékítábò.*

ó-ku=ˋménzà kùˊ-li\LH(L)=ku é-ki-ˊtábò
AUG-17=table 17=COP2\PRES=17 AUG-7-book
'On the table there is a book.'

There is also a process called 'locative inversion' (see Sections 2.4.9 and 10.5) where a locative phrase is placed in subject position, displacing the agent, as illustrated in (146). This is only possible with a locative enclitic on the verb.

(146) a. *Ábàànà bàzényèrà mù nyùmbá.*

á-ba-ànáˋ\FL bàˊ-zeny-ir-a\LHL\FO2 mu=ny.ˋùmbá
AUG-2S-child\FL 2S-play-APPL-FV\PRES\FO2 18=9.house
'The children are playing in the house.'

b. *Mù nyùmbà mùzényèràmu ábàànáˋ.*

mu=ny.ˋùmbá mùˊ-zeny-ir-a\LHL\FO2=mu á-ba-ànáˋ
18=9.house 18S-play-APPL-FV\PRES\FO2=18 AUG-2S-child
'In the house the children are playing.'

4. Can they be objects? Arguments with locative markers can have all the properties of an object; they can trigger object agreement, although the agreement markers occur in a different slot of the verbal template than non-locative object markers. An example is given in (147). They can also directly follow the verb, as in (148).

(147) *Àbóínèwó?*

à-bon-ire\LHL=wo
1S-see-PST2\P2=16
'Did he see that place?'

(148) *Ékísólò nè kìngíra ómù nyùmbá.* (C)

é-ki-ˊsólò ni kìˊ-ing.ir-a\LHL(H) ó-mu=ny.ˋùmbá
AUG-7-animal NAR 7S-enter-FV\PRES.SBR AUG-18=9.house
'The animal entered the house.'

Compare also (149) and (150), where the verb *kùlòwózá* 'to think' is used with an object with (150) and without (149) a locative prefix. The locative Class 17 noun appears to occupy exactly the same spot as the Class 8 noun in (149).

(149) *Òtàndíka ókùlòwóza ébíntù bìngí.* (C)

ò-tand.ik-a\LHL ó-ku-lowoz-a\LH é-bi-ˊntù bi-ˋngí
2SGS-begin.IMP-FV\PRES AUG-INF-think-FV\INF AUG-8-thing AGR8-many
'You start thinking about many things.'

(150) *Ǹti ómúntu àfa àlòwòzà kú mbéra èèyó.* (C)

ǹtî ó-mu-ˊntù à-f-a\LHL à-lowoz-a\LHL\FO2 ku=m.bérà e-ˋó
SBR AUG-1-person 1S-die-FV\PRES 1S-think-FV\PRES\FO2 17=9.situation AGR9-DEM_MED
'A person cares about that situation.'

A locative argument can also trigger a relative object marker, as in (151).

(151) *Nè twíngìra ómú nyùmba ómùbátutéékérè.* (C)

ni tùˊ-ing.ir-a\(L)HLH ó-mu=ny.ˋùmbá ó-mu-bàˊ-tu-teek-ire\LHL
NAR 1PLS-enter.APPL-FV\PRES.SBR AUG-18=9.house REL-18O.REL-2S-1PLO-put-PST2\P2
'And we enter the house which they have put us in.'

When it comes to passivisation, locative nouns commonly require a locative enclitic on the verb in order to be the subject of a passive clause. While this is one additional complexity added to the verb that is not necessary for most other types of argument,

it is not clear that this would diminish its objecthood status. Interestingly, even in cases where the locative would appear to be an adjunct based on the semantics, it is possible for the location to be promoted to a passive subject position, as long as there is a locative enclitic. While in (152a) there is an Applicative marker, in (152b) there is not, and yet the location could be promoted to subject position.

(152) a. *Ábàànà bàsóméra ókú ménzà.*

á-ba-ànáFL bà´-som-ir-aLHL ó-ku=`ménzà
AUG-2-childFL 2S-study-APPL-FVPRES AUG-17=table
'The children are studying at the table.'

b. *Ókú ménzà kusómèwàku ábàànà.*

ó-ku=`ménzà kù´-som-iw-aLHLFO2=ku á-ba-ànà
AUG-17=table 17S-study-PASS2-FVPRESFO2=17 AUG-2-child
'The table is studied on by the children.'

5. Can they be the object of a preposition? As Lugwere does not rely much on prepositions in general, it is not surprising that there are few examples of locative nouns being the object of a preposition. A handful of examples were nonetheless found in the corpus, all of which include the preposition *pákà*, as in (153).

(153) *pákà mù nyùmba áànú* (C)

pákà mu=ny.`ùmbá a-`nú
until 18=9.house AGR16-DEM_PROX
'up to (inside) the house here'

Based on all of this, it is clear that locative nouns share a lot of the features of a noun phrase, both in distribution, and in being able to control agreements. While they can occupy core syntactic positions, they are also generally able to be added to any clause, and so presumably do not need to be licensed by the verb in question. Perhaps it makes most sense to consider the locatives akin to case marking. When it comes to whether or not locative phrases should be considered oblique, they seem to be somewhere in between truly oblique phrases, and non-locative noun phrases. While they share a lot of properties with other noun phrases, they do occasionally require additional morphology on the verb to be able to occupy certain syntactic slots (locative enclitics).

5.5 Negation

5.5.1 Negation with *ti-*

A Lugwere main clause predicate is negated by the addition of the prefix *ti-* in the Pre-SM slot, which pronunciation varies between /te/ and /ti/. These variants seem to be in free variation, although the phonetic environment might play a role in determining which pronunciation is more likely. Before a prenasalised consonant, for instance, /ti-/ is the more common pronunciation. The written materials tend to use /ti-/. I have standardized the tables in the next chapters to use *ti-*, although the examples use both *ti-* and *te-*. When it is attached to a verb with a vowel-initial subject marker, the vowel of the negator is dropped, and the marker is pronounced /t-/. Often, but not always, the tonal melody of a verb form is different in the negative and the affirmative. This is discussed in detail in Chapter 6, where plenty of examples can be found.

5.5.2 Negation with *ta-*

Most subordinate clause verbs are negated with the prefix *ta-* in the NEG2 slot. This is also the case for the Infinitive. Examples and further discussion is found in Chapter 6, particularly Section 6.6.

5.5.3 Negation with *nàndí*

In addition to *ti-* and *ta-*, there is a further strategy for negation, which uses the particle *nàndí*. This is a much rarer strategy, and is not the standard way to negate a given TAM category.

To form a negative, *nàndí* is followed by the Narrative particle *ni* and a verb in the Present tense. When *ni* precedes a vowel-initial verb form, the vowel of the particle is deleted. While the verb itself does not have an overt negative marker, the tone melody is LH, which is what is found in the Present tense negative, rather than the LHL melody used in affirmative main clauses. Table 9.21 shows some examples.

While there are exceptions, many of the cases where the *nàndí* construction is used in the corpus relate to general statements, rather than specific events. (154), for instance, relates to a general fact.

Table 5.5: The verb *kùlímá* 'to farm' negated by *nàndí*. Form 2 is given with *mùtyêré* 'rice'

FO1 NEG	FO2 NEG	Translation
nàndí n'àlímá	nàndí n'àlìmà mùtyêré	S/he has not farmed (rice)
nàndí nì bàlímá	nàndí nì bàlìmà mùtyêré	They have not farmed (rice)

(154) *Twàbbàirè n'ámátéékà, ng'òsála ómbùlí, nàndí n'òwáku ómùlìránà wàwô, kízíbù.* (C)

tu-a-bb-ire\L.LH\FO2 nè á-ma-´téékà ngà ò-sal-a\LHL ó-m.`bùlí
1PLS-TNS-COP1-PST2\P5\FO2 CONJ AUG-6-law SIM 2SGS-cut-FV\PRES AUG-9.goat
nàndí ni o-w-a\LH=ku ó-mu-`lìránà o-a-o-`ó
NEG3 NAR 2SGS-give-FV\PRES.NEG=17 AUG-1-neighbour AGR1-AGR1-2SG.POSS
ki-´zíbù
7-problem
'We had laws, when you slaughter a goat and without giving your neighbour, it's a problem.'

However, the construction can also be used in concrete situations, as for instance in (155), which was heard when talking about the dinner for a particular day.

(155) *Nàndí n'àsúmbá.*

nàndí ni a-sumb-a\LH
NEG3 NAR 1S-cook-FV\PRES.NEG
'S/he has not cooked (yet).'

In many cases, the *nàndí* verb phrase occurs in conjunction with another verb phrase. Typically, this happens in contexts where English might use 'instead of' or 'without V-ing', as in (156) and (157) below.

(156) *Òfùndàkú n'ómwìmí, nàndí n'òfúndákù n'ómúlógò.* (C)

ò-fund-a\LHL\FO2=ku nè ó-mu-ìmí nàndí ni
2SGS-prefer-FV\PRES\FO2=17 CONJ AUG-1selfish_person NEG3 NAR
o-fund-a\LH=ku nè ó-mu-´lógò
2SGS-prefer-FV\PRES.NEG=17 CONJ AUG-1-witch
'You would rather stay with someone selfish, than a witch.'

(157) *Bátùtàka ìinó, èrá mùnú àbúla ákúbba éísímù nàndí n'àbúúlya ómúntu òòyó.* (C)

bà´-tu-tak-a\LHL\FO2 ìnó èrâ mu-`nú à-bul-a\LHL
2S-1PLO-love-FV\PRES\FO2 very CONJ AGR18-DEM_PROX 1S-lack-FV\PRES

á-à-kubb-a\LHL é-ì-´símù nàndí ni a-buul.y-a\LH ó-mu-´ntù
REL-1S-hit-FV\PRES AUG-5-phone NEG3 NAR 1S-ask.CAUS1-FV\PRES.NEG AUG-1-person
o-`ó
AGR1-DEM_MED
'They love us a lot, and there is no one that calls and without asking about this person here.'

In terms of tense, the *nàndí* construction is best seen as present. While there are a few cases where the construction was translated with an English past tense form, these seem to be best understood as present perfect, as for instance in (155) above, where the point is to say that the dinner has not yet been cooked. The present consequence is perhaps the most important aspect of the meaning here. Other examples are given in (158) and (159), where again the present consequences seem to be relevant.

(158) *Ólwátyânu nàndí n'óntègékéráku éky'ókùkòlá níkì? Ékyá kùzwàlá.* (C)

ó-lu-átyânú nàndí ni o-n-teg.ek-ir-a\LH=ku
AUG-11-today NEG3 NAR 2SGS-1SGO-prepare.IMP-APPL-FV\PRES.NEG=17
é-ki-á ó-ku-kol-a\LH níkì é-ki-á ku-zw.al-a\LH
AUG-AGR7-ASS AUG-INF-do-FV\INF what AUG-AGR7-ASS INF-wear.EXT-FV\INF
'Today you didn't prepared for me the thing to do what? The thing to wear.'

(159) *Nì nk-átì sìngá nàmèìté nàndí nì mfúmbírwa ómùsàìza óònú.* (C)

ni ǹ´-kob-a\LHL(H) ǹ-tî sìngá n-a-many.IRR\LH nàndí ni
NAR 1SGS-say-FV\PRES.SBR AGR1-QUOT OPT 1SGS-TNS-know.IRR\P5 NEG3 NAR
n-fumb.ir.w-a\LH ó-mu-`sàìzá o-`nú
1SGS-marry.APPL.PASS1-FV\PRES.NEG AUG-1-man AGR1-DEM_PROX
'I said that I wish I knew and never married this man.'

5.6 Interrogatives

In order to turn a declarative sentence into a polar question, the only thing which changes is the intonation. There tends to be a steep rise or an extra high tone at the end of the question, and in some cases the general level of the tone of the whole utterance might be raised. Another feature of questions are tones that are realised more like contours than what they would be in declarative sentences, so a transition between low and high might be realised as a more drawn out rise than what is often the case in declaratives.

(160) – (162) show examples, with recordings. The change in intonation does not appear to change the lexical, grammatical or syntactic tone, but manipulates the existent tones in the ways outlined above. If the final tone is low, the speaker might first lower to that level, before making a steep rise, indicating the question intonation. A rise at the end of a clause is not only found in questions, but is also sometimes used as a boundary tone between clauses, or is found in list intonation. More research is needed into the exact ways that question intonation is realised across speakers and contexts.

(160) a. *Ààli ìká.*

à-li\LH(L) ì-ˈká
1S-COP2\PRES 5-home
'S/he is at home.'

b. *Ààli ìká?*

à-li\LH(L) ì-ˈká
1S-COP2\PRES 5-home
'Is s/he at home?'

(161) a. *Ómwísúka ààlì kùlìmá.*

ó-mu-ísúkà à-li\LH(L)\FO2 ku-lim-a\LH
AUG-1-boy 1S-COP2\PRES\FO2 INF-dig-FV\INF
'The boy is digging.'

b. *Ómwísúka ààlì kùlìmá?*

ó-mu-ísúkà à-li\LH(L)\FO2 ku-lim-a\LH
AUG-1-boy 1S-COP2\PRES\FO2 INF-dig-FV\INF
'Is the boy digging?'

(162) a. *Ómámà wànge ààbírè mù kànísà.*

ó-mámà o-àngé à-ab-ire\LHL mu=kànísà
AUG-mom AGR1-1SG.POSS 1S-go-PST2\P2 18=church
'My mom went to church.'

b. *Ómámà wànge ààbírè mù kànísà?*

ó-mámà o-àngé à-ab-ire\LHL mu=kànísà
AUG-mom AGR1-1SG.POSS 1S-go-PST2\P2 18=church
'Did my mom go to church?'

For questions with an interrogative pronoun, the pronoun stays in situ, as in (163) and (164). In these cases, the intonation is more similar to what is found in declarative

sentences. As shown in (163a–b), it is common for a verb with *nâàní* 'who' as the subject to have a relative marker. The question words *=ki* 'which' and *=di* 'when' function as enclitics, and take on the opposite tone of the syllable they attach to.

(163) a. *Nâàni álèètére émèré?*

nâàní á-a-leet-ire\LHL é-mèré
who REL-1S-bring-PST2\P2 AUG-food
'Who brought food?'

b. *Nâàni éyáliìsya émbùlí?*

nâàní é-a-a-ly.isy-a\H.LH é-m.bùlí
who REL-1S-TNS-graze.CAUS2-FV\F1 AUG-10.goat
'Who will graze the goats?'

c. *Wàábìrè kùbònà nâàní?*

o-a-ab-ire\L.LH\FO2 ku-bon-a\LH\FO2 nâàní
2SGS-TNS-go-PST2\P5\FO2 INF-see-FV\INF\FO2 who
'Who did you go to see?'

(164) a. *Òkòlà níkì?*

ò-kol-a\LHL\FO2 níkì
2SGS-do-FV\PRES\FO2 what
'What are you doing?'

b. *Lwáki áízírè?*

lwákí à-iz-ire\LHL
why 1S-come-PST2\P2
'Why did s/he come?'

c. *Òsùmba òòtyá ↓mátóókè?*

o-sumb-a\LHL\FO2 ò-tyâ ma-´tóókè
1SGS-cook-FV\PRES\FO2 AGR1SG-how 6-matooke
'How do you cook matooke?'

d. *Ààlì kwìzádì?*

à-li\LH(L)\FO2 ku-iz-a\LH=di
1S-COP2\PRES\FO2 INF-come-FV\INF=when
'When is s/he coming?'

e. *Éísómérò lírì yáìná?*

é-ì-sómérò lì´-li\LH(L) yáìná
AUG-5-school 5S-COP2\PRES where
'Where is the school?'

f. *Òìna ésêntè ìmékà?*

ò-li\LH(L)\FO2=nà *é-sênté\FL* *i-ˋmékà*
2SGS-COP2\PRES\FO2=CONJ AUG-money\FL AGR10-how_much
'How much money do you have?'

5.7 Verbal stem syllables

There are a few different verbal stem shapes that need to be kept in mind when examining Lugwere verbal morphology. Verb stems can have different numbers of syllables, from as few as one syllable, to quite a lot. The most common structure for a base verb stem (without any extensions), is CVCV, and while longer stems exist, these are as a rule more morphologically complex, and in most cases there will be one or more extensions (or at least something that is diachronically analysable as an extension, see Chapter 9), or other kinds of additional morphology, such as full or partial reduplication.

Shorter stems also exist, and a few very common verbs have a stem with the structure CV. There is also a group of verbs are that have a stem-initial vowel, either /a, e, o/ or /i/. For these verbs semivowels are often required to separate the subject prefixes from the root, and the verbs are typically irregular in regards to tone.

In Chapter 6, I classify verbs as monosyllabic, bisyllabic, trisyllabic (and so on), depending on the number of syllables found in the general stem, meaning the root plus the final vowel *-a*. Note that this will differ from the number of syllables in the past tense stem (see section 5.8.2 below). For each tense, Chapter 6 gives examples of vowel-initial verbs (with different vowels), monosyllabic verbs, bisyllabic verb, trisyllabic verbs and quatrosyllabic verbs.

5.8 The stem

The stem of a Lugwere verb is formed by the lexical root, any extensions that might be added to it, and the final vowel. While these three will often be affixed together agglutinatively, some extensions fuse with the past tense suffix *-ire*, leading to imbricated forms.

5.8.1 The general stem and the subjunctive stem

The general stem is formed by adding *-a* in the FV slot. In many ways this is the default stem, and can be found in a range of different functions, such as the Infinitive, the Present and future tenses, and a couple of the past tenses. The general stem is very regular, but there are a couple of exceptions. The verb *kùmànyá* 'to know' has an irregular Present form, becoming *-máítè* (see Section 9.10.2). In all other contexts where we find the general stem, it remains *-manya*. The only other irregular general stem form I am aware of is the verb *kùtàká* 'to want', which has an irregular tonal melody in the Present negative forms(see Section 9.10.3).

The subjunctive stem has *-e* in FV, and is completely regular.

5.8.2 The past tense stem

P2, P3, P5, C1 and C2 all use the suffix *–ire* (or *–ere*, following a mid vowel). The tone of the suffix and the stem will vary based on the TAM category (see Chapter 6). For the most part, attaching this to the root is simply a matter of replacing the final vowel *–a*, but for verbs with certain extensions imbrication occurs (see Chapter 9). I will be using the term "past tense stem" or "past stem" to refer to the version of the stem that results from combining the verb with the *-ire* suffix.

For the sixteen or so monosyllabic verbs, there are two different ways to form the past tense stem. Firstly, by adding the suffix onto the root consonant and lengthening the first vowel of the suffix, as in *kùfá* 'to die' *àfíírè* 'he died (P2)'. Vowels are always long following a labialised consonant, and the orthography simply writes a single vowel in these cases, i.e. *kùgwá* 'to fall' *àgwírè* 'he fell (P2)'. Palatalised consonants and the vowel /i/ never cooccur, and thus *kùlyá* 'to eat' becomes *àlííre* 'he ate (P2)'. The second kind of monosyllabic past tense stems get a diphthong /ai/. This can be seen for instance in *kùwá* 'to give' *àwáírè* 'he gave (P2)'. How the past stem is formed can likely be explained with reference to the underlying vowel of the monosyllabic stem. When the stem is underlyingly Ci, this results as in a long -iire, as in *àlííre*. When the stem has a /u/ vowel, we get a labialised consonant, as in *àgwírè*. When the stem underlyingly contains /a/, we end up with a diphthongue, as in *àbbáírè* 'he was'. Note that some

monosyllabic verbs seem to have a labialized or palatalized consonant underlyingly, see for instance *àmwáírè*, which has a dipthongue, indicating that the /a/ is there in the underlying form.

All the monosyllabic verbs and their past tense stems are listed in Table 5.6.

Table 5.6: The general and past stems of monosyllabic stem verbs

	General stem	Past stem	Underlying stem
'to eat'	-lya	-liire	li
'to fear'	-tya	-tiire	ti
'to drink'	-nywa	-nywire	nyu
'to die'	-fa	-fiire	fi
'to be ready'	-ya	-yiire	yi
'to fall'	-gwa	-gwire	gu
'to be late'	-lwa	-lwire	lu
'to leave'	-zwa	-zwire	zu
'to give'	-wa	-waire	wa
'to be'	-bba	-bbaire	bba
'to shave'	-mwa	-mwaire	mwa
'to dawn'	-ca	-caire	ca
'to fly'	-ja	-jaire	ja
'to pay dowery'	-kwa	-kwaire	kwa
'to defecate'	-nia	-niaire	nia
'to grind	-sya	-syaire	sya

5.9 TAM: Inventory of categories

As is common for Bantu languages, Lugwere has a rich system of verb conjugation. Verbs agree with their subject, and on occasion also their object(s). Subject and object prefixes indicate person, number and agreement class. There are three persons, two numbers and 21 agreement classes (see Chapter 4).

Different tenses, aspects and moods are formed by using a combination of prefixes and suffixes. Many of these affixes are used in multiple inflectional forms. While it might in some cases be possible to determine the meaning contribution of a specific prefix or suffix, the category of the whole verb form is often the result of the specific combination of markers, rather than the sum of the meaning of different affixes. Tone also plays an important part in marking different verb forms, and there are cases where the tonal melody is the only thing distinguishing two verb forms from each other. The

following sections provide an overview of the categories that will be discussed in more detail in the remaining chapters of this thesis.

5.9.1 Non-finite categories

Lugwere has an infinitive, which is formed with the prefix *ku-* and the general stem. The Infinitive often has an augment, and functions as a noun in many ways, for instance by triggering agreements.

There are other processes for creating nominal elements from a verb root, some of which are common and productive, others which appear not to be productive at all. Firstly, an agentive noun can be created by use of a nominal prefix, and the final vowel *-i*, illustrated in (165a) *músómì*. This process appears to be quite productive. Something akin to a passive participle can be made from a nominal prefix attached to a verb with the final vowel *-e*, as illustrated in (165b) and (165c). Less commonly, agentive verbs can be formed by a nominal prefix attached to the regular verb stem ending in *-a*, as in *kìbbúmbà* 'God' and *mùsómèsyá* 'teacher' (165a and 165c) There are also some examples of verbs formed based on the past tense stem, such as *mùbyàìré* 'parent' (from *kùbyàlá* 'to give birth') and *mùlwàìré* 'sick, patient' (see 165d), or with a final vowel *-o* like in *músómò* 'studies'.

(165) a. *kùsòmá* 'to study'
músómì 'student'
mùsómèsyá 'teacher'
músómò 'study'
ìsóméró 'school'

b. *kùkòbá* 'to say'
kìkòbé 'sentence'

c. *kùbbùmbá* 'to mould, form'
kìbbúmbà 'God'
kìbbùmbé 'creature'

d. *kùlwàlá* 'to get sick'
mùlwàìré 'patient, sick person'

5.9.2 Tense

The Present tense is formed by adding the subject prefixes directly onto the verbal stem, which is followed by the final vowel *-a*. By itself this form is what one would most typically get when eliciting sentences with a Simple Present tense in English.

The past tenses have been labeled P1, P2, P3, P4 and P5, depending on how distant from the present moment the action took place, where P1 is closest to the present moment, and P5 is the most distant. P1 is formed with the prefix *a(n)ka-* in TA/T2, and *-a* in FV. This tense is used for things that have just happened. In the glosses, the *a(n)ka-* will be termed PST1, since it denotes the past closest to the present.

P2 is the Hodiernal past, used for events that took place the same day as the utterance was made. It is formed by the subject markers attached directly to a root with the past *-ire* suffix, which is glossed as PST2.

P3, the Hesternal past, is used to refer to events that took place the day before the utterance. P3 is similar in shape to P2, but has a prefix *a-* in TA, and this will be glossed TNS for tense, as it is also used in one future tense. The segmental makeup of verbs in the P3 tense is identical to those in P5, and the only difference between the two is the tonal melody. P5, the Distant Past, is used for events that took place at least two days before the utterance.

P4 is quite rare, but does appear a few times in the corpus. It tends to indicate an event that took place at an undefined time in the recent past. It is formed by a combination of the prefix *anka-*, the general verb stem ending in final vowel *-a*, and the Habitual suffix *-nga*.

The two future tenses are termed F1 and F2 for short, and can be described as "Near Future" and "Distant Future" respectively. The Near Future is formed by inserting the prefix *a-* in TA (glossed TNS) while using the general stem. It can be used for events happening later on the day of the utterance, or in the next couple of days following

the utterance time. The exact border between F1 and F2 seems to be fuzzier than that found in some past tenses, and there is some overlap. F2 is formed by adding the prefix *ali-* in TA/T2, glossed FUT.

It is also possible to combine tenses into what Comrie (1985) calls absolutive-relative tenses, i.e. a tense where the event is placed relative to a reference point which is located in relation to the present moment. By combining auxiliaries and tensed main verbs, Lugwere can form a pluperfect (past in the past), a future in the past and a past in the future.

Lugwere also has a narrative, or sequential, tense. This is a relative tense that places an event in a sequence following a previous verb, and the tense of the previous verb is understood to apply also to the verb in the Narrative tense. It is formed by adding the particle *nè* ∼ *nì* in front of a Present tense verb.

5.9.3 Aspects

There are multiple ways to overtly mark a verb as imperfective. Firstly, there is the Habitual marker *-nga*, which can combine with most tenses and moods.

In the Present tense, there is also a Progressive, which consists of the Present tense copula, plus the Infinitive. Less commonly, this is also found in the past tenses, where a past tense copula is placed in front of the Present tense copula.

There is also a general Imperfective construction, formed by a tensed copula and a Present tense verb.

Another, less frequent, way to overtly mark a verb as imperfective is to use one of the extensions *-iriry* and *-yag*, which have durative or repetitive interpretations. A similar repetitive/iterative/durative reading can also be achieved through reduplication of the whole stem.

A separate reduplication process, where the reduplicated stem is preceded by *bu-* and has a final vowel *-i* can be used to express meaning similar to those carried by 'just' in English "just do it".

There is also a couple of constructions that can be used to express the experimental aspect.

Lugwere also has a Persistive aspect, formed with a Present tense auxiliary with the Persistive prefix *ka-*. In the closely related language Luruuli, a cognate of this morpheme can appear on a main verb (Zellers 2021), but in Lugwere its distribution is restricted to appearing on a Present tense copula (*-li*). Depending on the construction it appears in, it can be used to express the concepts of phasal polarity expressed in English by the adverbials 'still', 'not yet' and 'no longer'.

5.9.4 Moods

There are four morphologically marked moods in Lugwere: Indicative, Subjunctive, Conditional, and Jussive.

The Subjunctive is formed with the suffix *-e* in the FV slot. This form is also used for imperatives, and while it is common for Bantu language to have an imperative form that only consists of the bare stem, Lugwere does not seem to have this. The Subjunctive also has hortative and jussive functions.

The Jussive is based on the Subjunctive form, and adds the prefix *ká-* in the Pre-SM slot.

There are two different ways to form the conditional, it is either a combination of *anka-* in TA and *-ire* in FV, or *andi-* in TA and *-ire*. Functionally and semantically these two morphological forms seem to be almost identical. I will refer to them as C1 and C2. They are used in the apodosis of counterfactual conditionals.

5.10 The Form 1/Form 2 alternation in verbs

Many verb forms show an alternation between a form used in isolation, which has one or more high tones, and one used when followed directly by certain elements, where one of those tones have been lowered. This phenomenon has certain resemblances to phenomena described in other Bantu languages, most notably the conjoint/disjoint alternation and metatony, but there are crucial differences that makes it hard at present to classify the alternation. For the time being, and until a more thorough investigation of the distribution of this alternation can be carried out - particularly its relationship to focus would be illuminating - I will adopt simple labels that only identify the form,

without making any claims of function, calling the version of the verb that can appear in isolation "Form 1", and the form that can only appear when followed by another element "Form 2". Below follows a description of what is know at present about the distribution of the two forms, as well as a discussion of how this compares to phenomena seen in other Bantu languages.

I consider the alternation to be a process where a high tone is lowered. The reason for assuming that Form 1 is underlying, is that this is the form that appears in the most contexts. It is the form found in isolation and in final position, and it can also be followed by a number of elements. Assuming that the high tones are underlying also gives a better explanation for where the high tones are. Depending on the TAMP category in question, the final high tone might have spread across multiple syllables, and all of these are lowered in Form 2 contexts. In the Present tense and F2 the tone that lowers is not the final tone of the melody. If we assume that the high tones are added in high tone contexts, it becomes difficult to explain why the tones are in such different locations, and spread to different numbers of syllables. We can also assume that this is a process where a high tone lowers, rather than two separate melodies, because besides the tone that lowers, everything else remains the same.

The Form 1/Form 2 alternation is present in some form for most TAMP categories. It is a purely tonal distinction. As a general rule, a final high tone in Form 1 will be lowered to a low tone in Form 2. Only in the Present tense and F2 does a non-final high tone lower in Form 2. Table 5.7 shows which TAMP categories have a Form 1/Form 2 alternation in main clauses. P3, C1 and C2 have no Form 1/Form 2 alternation at all, while P2 lacks an alternation in the affirmative, and P5 has no alternation in the negative. The tonal form of the following word has no impact on the tones of the verbs themselves.

Table 5.7: An overview of which tenses and polarities show a Form 1/Form 2 alternation in main clauses

	Affirmative	Negative
Present	Y	Y
P1	Y	Y
P2	N	Y
P3	N	N
P4	Y	Y
P5	Y	N
F1	Y	Y
F2	Y	Y
Subjunctive	Y	Y
C1	N	N
C2	N	N

5.10.1 Distribution of the Form 1/Form 2 alternation

When a verb is in isolation, or clause-finally, it is in Form 1. Because the distinction is purely tonal, however, it might be hard to tell whether an utterance final verb is in Form 1 or Form 2. Form 1 most often involves a final high tone, and processes of downdrift mean that an (underlying) high tone might not be very distinct from a preceding low tone at the end of an utterance. For the Present tense and F2, Form 1 involves a medial high tone, which is more clearly distinct in utterance final contexts.

When a verb is followed by another element, it might be in Form 2. Certain contexts, such as an immediately following object noun without an augment, always require Form 2. Other contexts, such as an immediately following object with an augment, never have Form 2. Examples of these contexts are given in (166) below.

(166) a. *Àgúla éítóókè.*

à-gul-a\LHL é-ì-ˊtóókè
1S-buy-FV\PRES AUG-5-matooke_bunch
'S/he buys a matooke bunch.'

b. *Àgùlà ìtóókè.*

à-gul-a\LHL\FO2 ì-ˊtóókè
1S-buy-FV\PRES\FO2 5-matooke_bunch
'S/he buys a matooke bunch.'

When the element that follows is adverbial, it is possible to use either Form 1 or Form 2, as in (167), although if the adverbial has an augment, Form 1 is used, as in (168a).

Before a temporal adverbial with *bùlí*, such as *bùlì lùnákù*, the speakers almost always used Form 1. Because of the low tone of the modifier *bùlí*, this is a great context for eliciting Form 1, as a verb final high tone is most distinct when followed by a low tone.

(167) a. *Àgónà kúsà.*

à-gon-a\LHL ku-´sà
1S-sleep-FV\PRES AGR15-good
'S/he sleeps well.'

b. *Àgònà kúsà.*

à-gon-a\LHL\FO2 ku-´sà
1S-sleep-FV\PRES\FO2 AGR15-good
'S/he sleeps well.'

(168) a. *Àgóna ólwátì.*

à-gon-a\LHL ó-lwátì
1S-sleep-FV\PRES AUG-today
'S/he sleeps today.'

b. *Àgònà lwátì.*

à-gon-a\LHL\FO2 lwátì
1S-sleep-FV\PRES\FO2 today
'S/he sleeps today.'

Other elements that can follow a verb, such as a as a subordinate clause headed by *ǹtî*, or a oblique argument headed by *na*, also allow either Form 2 or Form 2, shown in (169) and (170).

(169) a. *Ǹtákà nti ágùle ómùtyêré.*

ǹ-tak-a\LHL ǹ-tî a-gul-e\H.LH ó-mu-`tyêré
1SGS-want-FV\PRES AGR1SG-SBR 1S-buy-SUB\SUB AUG-3-rice
'I want him to buy rice.'

b. *Ǹtàkà nti ágùlè mùtyêré*

ǹ-tak-a\LHL\FO2 ǹ-tî a-gul-e\H.LH\FO2 mu-`tyêré
1SGS-want-FV\PRES\FO2 AGR1SG-SBR 1S-buy-SUB\SUB\FO2 3-rice
'I want him to buy rice.'

(170) a. *Àbínà n'ómùkáágwàwê.*

à-bin-a\LHL nè ó-mu-`káágwà=o-e
1S-dance-FV\PRES CONJ AUG-1-friend=AGR1-1POSS
'S/he dances with his/her friend.'

b. *Àbìnà nà mùkáágwàwê.*

à-bin-a\LHL\FO2 nè mu-ˋkáágwà=o-e
1S-dance-FV\PRES\FO2 CONJ 1-friend=AGR1-1POSS
'S/he dances with his/her friend.'

In elicitation, when asked if two tonal variants of a verb existed before different elements, the speaker produced both Form 1 and Form 2 before some types of direct objects. These are shown in (171) – (173). (173) involves the modifier *bùlí*, while the object in (172) is a possessive pronoun, and in (171) a numeral. When the direct object noun immediately follows the verb without an augment, that variation was not possible, and it was also deemed not possible with a range of other types of NPs, such a modifier, an adjective like *bìngí* 'many', or a different numeral, like *bìbírí*. More research is needed to fully understand these types of exceptions, their extent, and their usage.

(171) a. *Àgúlà gúmò.*

à-gul-a\LHL gu-ˊmò
1S-buy-FV\PRES AGR3-one
'S/he buys one.'

b. *Àgùlà gúmò.*

à-gul-a\LHL\FO2 gu-ˊmò
1S-buy-FV\PRES\FO2 AGR3-one
'S/he buys one.'

(172) a. *Àgúlà gwàngé.*

à-gul-a\LHL gu-àngé
1S-buy-FV\PRES AGR3-1SG.POSS
'S/he buys mine.'

b. *Àgùlà gwàngé.*

à-gul-a\LHL\FO2 gu-àngé
1S-buy-FV\PRES\FO2 AGR3-1SG.POSS
'S/he buys mine.'

(173) a. *Àgúlà bùlì múcúngwà.*

à-gul-a\LHL bùlí\FL mu-ˊcúngwà
1S-buy-FV\PRES every\FL 3-orange
'S/he buys every orange.'

b. *Àgùlà bùlì múcúngwà.*

à-gul-a\LHL\FO2 bùlí\FL mu-´cúngwà
1S-buy-FV\PRES\FO2 every\FL 3-orange
'S/he buys every orange.'

A more detailed description of how the Form 1/Form 2 alternation manifests for different TAM categories is found in the next few chapters. While this section has outlined some of the main contexts where Form 1 or Form 2 is expected, it would be beneficial to carry out a larger study of the distribution of these forms in natural data, since the information presented here is largely derived from elicitation.

5.10.2 Potential analysis of the Form 1/Form 2 alternation

Many Bantu languages have alternations between different verbal forms in the same STAMP category, often involving tonal changes. Perhaps most well studied is the conjoint/disjoint alternation, where one form that can occur finally alternates with another form that cannot occur finally in main clauses. This initially sounds very similar to the Lugwere Form 1/Form 2 alternation, but the Lugwere alternation differs in multiple ways from how the conjoint/disjoint alternation presents in other languages.

Firstly, the conjoint/disjoint alternation typically does not exist in subordinate clauses and negative verbs, while the Lugwere alternation is present in both those contexts. Secondly, the conjoint/disjoint alternation typically involves at least some segmental marking, often alongside tonal changes (Van der Wal 2017b). There is, however, at least one language where the alternation is purely tonal (Van der Wal & Asiimwe 2020), so this is not a fundamental problem, but it does make the Lugwere alternation less typical.

Thirdly, and perhaps most importantly, there is not at present a clear understanding of how the Lugwere alternation relates to information structure, if at all. The main criteria for whether a Form 1 or Form 2 is used when there is a direct object, appears to be the presence/absence of an augment. The distribution of the augment, of course, might very well be determined by information structure, but that has not been sufficiently studied at presence. There are also contexts, such a preceding a consonant-initial adverb, where either a Form 2 or a Form 1 verb can occur, but this has also not been studied sufficiently, and it is not clear whether a difference in meaning exists

between the two forms. Further study might revel that the alternation does relate to focus or information structure, and at that point it might be worth considering whether the labels disjoint/conjoint are applicable, but at present it is not clear. It is also possible that the Lugwere alternation might be diachronically related to the disjoint/conjoint alternation in some way, even if its distribution is no longer related to information structure.

Metatony is another phenomena that occurs in many Bantu languages, which at first appears to be related to the Lugwere alternation. Metatony is a process seen particularly in a lot of Northwest Bantu languages, where a verb receives a high tone when followed by certain elements (Hyman 2017). Originally the term was first used by Meeussen (1967) to describe cases involving the infinitive, but has later been expanded to describe similar tonal variation in conjugated verbs (Hyman 2017).

While there are some similarities to the Lugwere Form 1/Form 2 alternation, there are some important differences. Firstly, in metatony a verb in isolation uses the form with a low tone, and gets a high tone when followed by certain elements. This is the exact opposite of the Lugwere alternation, where the verb is high in isolation and uses the low variant before certain elements. This is not necessarily something that means there cannot be a link, however, as there are multiple reported cases in the literature of cognate tones that end up being realised in opposite ways in closely related varieties (Sæbø et al. 2025).

A second difference is that metatony elsewhere seems to target the final vowel, while the Lugwere alternation is not restricted to final vowels, and it is not always the final tone of the melody that is targeted. Another potential problem is the fact that metatony has been suggested to derive from a high-toned augment (Hyman 2017). In Lugwere, the augment is still in use, and when there is an object with an augment, we have the same form as in isolation. It is when there is no augment that we see a difference in tone from the form in isolation. The Lugwere Form 1/Form 2 alternation therefore does not seem to fit in with the phenomena termed metatony.

The Lugwere alternation can also not easily be described in terms of boundary tones, or even based on phrase structure, as there are multiple contexts where either form

can be used, and different forms are used with different types of direct objects. It is possible that an explanation in terms of phonological phrase boundaries might work, but this still needs to be investigated. Perhaps the presence/absence of the augment has an effect on whether or not a direct object belongs to the same phonological phrase as the verb. This cannot solely be caused by phonology, however, as we would then expect a uniform effect, rather than a process that mostly targets final high tones, but sometimes medial high tones. Of course, it is possible that the lowering of medial high tones and final tones have different diachronic origins, and it is tempting to think that the lowering of final high tones in verbs might be somewhat related to the lowering of final high tones in nouns and other adnominal words, but it is necessary to get a better understanding of the synchronic distribution and function of these phenomena, as well as preferably their diachrony, before any conclusions can be made.

5.11 Coverbs

The verbs *kùzwá* 'to come from, be from' and *kùtùùcá* 'to bring' often function like coverbs, indicating the ideas of 'since, from' and 'until', respectively. (174) – (176) show some examples.

(174) *Ékitégèèza éízò twàbá kùzwa áànú?* (W)

é-kì´-tegeez-a\LHLH *é-ìzó* *tù´-ab-a\LHL* *ku-zw-a\LH*
REL-7S-mean-FV\PRES.SBR AUG-tomorrow 1PLS-go-FV\PRES INF-leave-FV\INF
a-`nú
AGR16-DEM_PROX
'Does it mean we will leave here tomorrow?'

(175) *Ókùzwa ólwátyânú, òòlì mwàná wàngé.* (W)

ó-ku-zw-a\LH *ó-lu-átyânú* *ò-li\LH(L)\FO2* *mu-àná o-àngé*
AUG-INF-leave-FV\INF AUG-11-today 2SGS-COP2\PRES\FO2 1-child AGR1-1SG.POSS
'From today, you are my child.'

(176) *Ìiyé n'óKándè bàkòlère éndágáánò, ókùtàgóna áámò ókùtùùcá ngà bàfúmbíírwè.* (W)

ì´-ye *nè* *ó-Kándè* *ba-a-kol-ire\L.LH* *é-n.´dágáánò*
PRO-AGR1 CONJ AUG-PN.F 2S-TNS-do-PST2\P5 AUG-9.promise

ó-ku-ta-gon-a\LH a-´mò ó-ku-tuuk-y-a\LH ngà
AUG-INF-NEG2-sleep-FV\INF AGR16-one AUG-INF-bring-CAUS1-FV\INF SIM
bà´-fumb.ir.w-ire\LHL
2S-marry.APPL.PASS1-PST2\P2
'He and Kande made a promise not to sleep together until they were married.'

5.12 Loanword adaption

Lugwere has loan words both from other Bantu languages, and from English. The Nzogi & Diprose (2012) dictionary lists some verbs as being loans from Luganda, but because of the close relation, Luganda verbs easily fit the Lugwere verbal template. An example is *kùjàgùzá* 'to celebrate'.

English loans, however, are of course quite different, but are nonetheless adapted to fit the Lugwere verbal template as much as possible. Such loans are given an Infinitive form with the prefix *ku-* and the final vowel *-a*, and typically these are added on top of the English gerund, rather than the Infinitive, as in *kùrìkóódíngá* 'to record' and *kùcààjíngá* 'to charge'.

(177) shows a verb based on the English 'to budget' used in the Present tense with a 1st person subject marker, and (178) shows an example from the corpus of an English loan *kùplàníngá* 'to plan' being used in the past tense, with an Agreement Class 2 subject marker, and the past *-ire*.

(177) *Yes, m̀bàjétíngà nì mbónà.* (C)

yes ǹ-bajeting-a\LHL ni ǹ´-bon-a\LHL(H)
yes 1SGS-budget-FV\PRES NAR 1SGS-see-FV\PRES.SBR
'Yes, I budget and see.'

(178) *Bàpláníngíre ámàká gàbé.* (C)

bà´-planing-ire\LHL á-ma-`ká ga-àbé
2S-plan-PST2\P2 AUG-6-home AGR6-2POSS
'They plan for their homes.'

6 Tense

Contents

6.1 Tense semantics and usage . . . 225
6.1.1 The Present tense . . . 226
6.1.2 P1 - the Immediate Past . . . 229
6.1.3 P2 - the Hodiernal Past . . . 230
6.1.4 P3 - the Hesternal Past . . . 235
6.1.5 P4 - the Recent Past . . . 237
6.1.6 P5 - the Distant Past . . . 238
6.1.7 F1 - the Near Future . . . 239
6.1.8 F2 - the Distant Future . . . 241
6.1.9 Infinitive . . . 242
6.2 Infinitive . . . 244
6.3 Present tense . . . 245
6.4 Past tenses . . . 255
6.4.1 P1 - the Immediate Past . . . 256
6.4.2 P2 - the Hodiernal Past . . . 258
6.4.3 P3 - the Hesternal Past . . . 263
6.4.4 P4 - the Recent Past . . . 268
6.4.5 P5 - the Distant Past . . . 269
6.5 Future tenses . . . 271
6.5.1 F1 - the Near Future . . . 272
6.5.2 F2 - the Distant Future . . . 276
6.6 Tense in subordinate clauses . . . 280
6.6.1 Verbs with the subordinator *ówè-* and its variants . . . 282
6.6.2 Verbs in relative clauses . . . 286
6.6.3 Verbs with relative object markers . . . 289
6.6.4 Other contexts and further discussion . . . 293
6.7 Relative tense . . . 294
6.7.1 The Narrative tense . . . 294

6.7.2 The *ngà* construction 297
6.7.3 Absolute-relative tenses 298
6.8 The copulas 301
6.8.1 The inflection of the copulas 301
6.8.2 The usage of the copulas 304
6.9 Using auxiliaries to mark tense 317
6.10 Tense summary 318
6.10.1 A discussion of the analysis of tonal melodies 319

This chapter will outline in detail the segmental and supersegmental morphology of the Infinitive, the Present tense and the 5 past tense and 2 future tenses of Lugwere, as well as looking at how they are used in different types of subordinate clauses, and how they can be used in various relative tense constructions.

First, Section 6.1 will give a brief overview of the semantics and usages of the different tense categories. Sections 6.2 – 6.5 will then look at the morphology of the different tenses. Section 6.6 looks at a couple of subordinate constructions and shows how verbs in subordinate clauses differ tonally from main clause verbs, and can use a different negation morpheme. Section 6.7 then looks at relative tense, and describes the Narrative tense and the *ngà* constructions, as well as absolute-relative tense forms that can express more complex tense relations, such as the future in the past. Section 6.8 looks at the morphology and usage of the three different copulas found in Lugwere: the *-li*, *-bba* and *ni-* copulas, and Section 6.9 gives examples of a couple of other verbs that can function as tense auxiliaries. Finally, Section 6.10 gives a summary of the segmental and tonal morphology of the different tenses, and a discussion of the analytic choices made in the analysis of Lugwere verbal tone.

6.1 Tense semantics and usage

This section will outline the semantics and usage of the main 9 tense categories; the Present, the Immediate Past (P1), the Hodiernal Past (P2), the Hesternal Past (P3), the Recent Past (P4), the Distant Past (P5), the Near Future (F1) and the Distant Future (F2), as well as the Infinitive. The semantics and usage of the Narrative tense, and the different subordinate verb forms will be discussed in the relevant sections below.

There is some overlap in the field of reference of some of these tenses, while others are quite clearly delineated. P2, P3 and P5 neatly line up, without overlap in the time intervals that they refer to. The exception is when P2 is used with a perfect interpretation, in which case it can refer to events/changes of state that took place before the current day. P1, on the other hand, overlaps with P2, and P4 overlaps with P5. Both P1 and P4 are much rarer than the other past tenses, and can perhaps be considered sub-categories of P2 and P5. In that way, there is an obligatory system where something has to be marked as taking place either today, yesterday or before yesterday, and within the today and before yesterday classes, events can optionally be marked as having occurred in the later part of the interval in question, i.e. P1 indicates that something that happened today happened closer to the current time, while P4 indicate that something which happened before yesterday happened in the more recent end of the P5 spectrum of time. The perfect usage of P2 cuts across this system. Morphologically, the five tenses also divide into two groups: P2, P3 and P5 use a past tense stem, while P1 and P4 use the general stem.

6.1.1 The Present tense

The Present tense form has a range of uses. When used as a simple main verb, it can be interpreted either progressively (179a), habitually (179b), or as a general fact (179c). Some verbs indicating a state, such as *kùmànyá*[1] or *kùtàká* can be used in the Present tense, as in (179d). This is generally the case for verbs indicating mental states. Many verbs that relate to emotions or other states are inchoative, however, and are less felicitous in the Present tense if the intention is to indicate an ongoing state (but they could be used to indicate a habitual state). In these cases it is more common to use an adjective, or a P2 form (see 7.6.3 for more on this).

There are forms that can be used to overtly mark the aspect of a verb, i.e. the Progressive or the Habitual, but this is not obligatory to the extent that it is in English. To indicate a current ongoing action as in (179a), for instance, the Present Progressive

[1]Note, however, that the Present tense form of this verb probably originated as past tense form, see Section 9.10.2

form *ààlì kùwàndìkà màbbàlúwà* 'he is writing letters' could also have been used, and it is possible to use the Habitual suffix *-nga* to indicate a present habit.

(179) a. *Àwàndìkà màbbàlúwà.*

à-wand.ik-a\LHL\FO2 ma-ˋbbàlúwà
1S-write.IMP-FV\PRES\FO2 6-letter
'He is writing letters (right now).'/ 'He writes letters (habitually, it is his job...).'

b. *Bàwúgà bùlì lùnákù.*

ba-wug-a\LHL bùlí\FL lu-ˋnákù
2S-swim-FV\PRES every\FL 11-day
'They swim every day.'

c. *Énzógì gìlya ébíbàlá.*

é-n.zógì gìˊ-lya\LHL é-bi-ˊbàlá
AUG-10.elephant 10S-eat\PRES AUG-8-FRUIT
'Elephants eat fruit.'

d. *Ǹkìtákà.*

ǹ-ki-tak-a\LHL
1SGS-7O-want-FV\PRES
'I want it.'

The Present tense form also occurs in a few different complex verb constructions. It is used in Imperfective constructions, which use a tensed copula and a Present tense verb form. This is discussed in more detail in Section 7.2.4. The Narrative tense, discussed in 6.7.1 is formed by combining the marker *ni* with a Present tense verb (although this differs slightly tonally from a regular main clause Present tense form). In this case, the Present tense form often has a perfective reading, referring to events in a sequence. The particle *ngà* can also be combined with a Present tense verb, in which case it indicates that the action is ongoing at the time of a given reference point.

(180) shows an elicited short story about someone's daily routine. The story contains both finite Present tense verbs and Narrative verbs. All the Present tense forms are underlined.

(180) a. *Bùlì lùnákù nnàmùkà mángù.*

bùlí\FL lu-ˋnákù ǹ-lam.uk-a\LHL\FO2 mángù
every\FL 11-day 1SGS-wake_up.SEP2-FV\PRES\FO2 early
'Every day I wake up early'

b. *Bùlì sáàwá, ngònà kúsà ìnó.*

bùlí\FL sáàwá ǹ-gon-a\LHL\FO2 ku-´sà ìnó
every\FL time 1SGS-sleep-FV\PRES\FO2 AGR15-well very
'I always sleep very well.'

c. *Ǹzwálà kéísì nì ndya ékyámàkéézì.*

ǹ-zwal-a\LHL kéísì ni ǹ´-ly-a\(L)H(LH) é-ki-ámàkéézì
1SGS-get_dressed-FV\PRES then NAR 1SGS-eat-FV\PRES.SBR AUG-7-breakfast
'I get dressed, then I have breakfast.'

d. *Ímbá mmàlíre ókùlyá,*

í-n´-bb-a\LH(LH) ǹ-mal-ire\LHL ó-ku-ly-a\LH
SBR-1SGS-COP1-FV\PRES.SBR 1SGS-finish-PST2\P2 AUG-INF-eat-FV\INF
'When I have finished eating,'

e. *ǹjába ókú mwíga ókùlìmá mùtyêré.*

ǹ-ab-a\LHL ó-ku=mu-ígà ó-ku-lim-a\LH mu-ˋtyêré
1SGS-go-FV\PRES AUG-17=3-swamp AUG-INF-farm-FV\INF 3-rice
'I go to the swamp to farm rice.'

f. *Ókú sáà mùkáágá, ákàsànà kàbbá kànéné ínò, èrá ngà kòòcâ.*

ó-ku=sáàwá mùkáágá á-ka-ˋsáná\FL ka-bb-a\LHL ka-ˋnéné ìnó èrâ
AUG-17=hour six AUG-12-sun\FL 12S-COP1-FV\PRES AGR12-big very CONJ
ngà ká´-oc-a\LHL
SIM 12S-be_hot-FV\PRES
'At noon, the sun is shining a lot, and it is hot.'

g. *Kálè, mpùmùlàmúkù.*

kálè ǹ-wum.ul-a\LHL\FO2=mu=ku
INTJ 1SGS-rest.SEP1-FV\PRES\FO2=18=17
'So I rest for a bit.'

h. *Ǹtàmbúlà nè nkánga éíkà,*

ǹ-tamb.ul-a\LHL ni ǹ´-kang-a\LHL(H) é-ì-ˋká
1SGS-walk.SEP1-FV\PRES NAR 1SGS-return-FV\PRES.SBR AUG-5-home
'Then I go back home,'

i. *nì ndya ékyómùsànà n'ómwàlá wàngé n'ómùsàizá wàngé.*

ni ǹ´-ly-a\(L)H(LH) é-ki-ómùsànà nè ó-mu-àlá o-àngé nè
NAR 1SGS-eat-FV\PRES.SBR AUG-7-lunch CONJ AUG-1-girl AGR1-1SG.POSS CONJ
ó-mu-`sèizá o-àngé.
AUG-1-man AGR1-1SG.POSS
'and I have lunch with my daughter and husband.'

Speakers often translate Present tense verbs into English using a potential modal verb, for instance translating *ábàànà bàsóméra ókúménzà* as 'the children are reading at the table' or 'the children can read at the table'. It seems that Present tense verbs out of context can be interpreted either as relating to factual states or events, or potential states and events.

6.1.2 P1 - the Immediate Past

P1, or the Immediate Past, can be used for events taking place in the very near past, and is generally translated as 'just' having done something, i.e. *Nànkályá* 'I have just eaten'. An example from the corpus is given in (181) below.

(181) *Kéísi ìiye ógòndì n'àkóba ààtí, "Nànkágúla énte éndááwò égìríma ìkúmì, èrâ njàbà kúgìgèzésyá."* (W)

kéísi ì´-ye ó-g-òndí\FL ni à´-kob-a\LHL(H) à-tî
then PRO-AGR1 AUG-AGR1-other\FL NAR 1S-say-FV\PRES.SBR AGR1-QUOT
n-anka-gul-a\LH é-´n.tè é-n.dááwò é-gì´-lim-a\LHL ìkúmì
1SGS-PST1-buy-FV\P1 AUG-10.cow AUG-10-steer REL-10S-plough-FV\PRES ten
èrâ ǹ-ab-a\LHL\FO2 ku-gi-gez.esy-a\LH
and 1SGS-go-FV\PRES\FO2 INF-10O-test.CAUS2-FV\INF
'And another said, I have bought five yoke of oxen, and I go to prove them.'

While P1 is a lot more common than P4, it is still not a common verb tense. In the corpus, a majority of the examples of P1 are cases where it is either in a subordinate clause (with *ngà* or a relative clause marker), or in an absolute-relative tense construction, where it occurs following a tensed copula, indicating that the event of the lexical verb took place immediately before a reference point, as in (182).

While examples of P1 verbs functioning as a simple main clause verb are rare in the corpus, (181) illustrates that some examples could still be found, and all the speakers

who were consulted accepted examples of it in elicitation, as in (183a). Interestingly, while the form of the example in (183b) would suggest it to be a past in the past construction (i.e. 'had cooked'), a speaker judged that it could be used in the same contexts and with the same meaning as (183a).

(182) *Bààlì bànkákúúsa óNámòlí áwàtúúkìra ákààtí w'ékììná bámùkùùséyò, ékísáàlè w'ékyàbwátúkíírè nè kìményèka áàkàátí.* (W)

bà´-li\LH(L) ba-anka-kuus-a\LH ó-námòlí ówà-à´-tuuk-ir-a\LHLH
2S-COP2\PRES 2S-PST1-pull-FV\P1 AUG-antelope SBR-1S-reach-APPL-FV\PRES.SBR
á-a-´kàátí wa-á é-ki-`ìná ba-mu-kuus-e\H.LH=yo é-ki-´sáàlè
AUG-16-MIDDLE AGR-16-ASS AUG-7-hole 2S-1O-pull-SBJ\SBJ=23 AUG-7-stick
wa-á é-ki-a-bwat.uk-ire\H.LHL ni
AGR16-ASS SBR-7S-TNS-make_sound_of_explosion.SEP2-PST2\P5.SBR NAR
kì´-meny.ek-a\LHLH á-a-`kàátí.
7S-break.NUT-FV\PRES.SBR AUG-16-middle
'They had just pulled the antelope up to the middle of the pit when the stick broke in half.'

(183) a. *Nàkásúmbá.*

n-anka-sumb-a\LH
1SGS-PST1-cook-FV\P1
'I have just cooked.'

b. *Mbáírè nànkásúmbá.*

m-bb-ire\LHL n-anka-sumb-a\LH
1SGS-COP1-PST2\P2 1SGS-PST1-cook-FV\P1
'I have just cooked.'

6.1.3 P2 - the Hodiernal Past

P2, or the Hodiernal Past tense, is used to refer to events that happened earlier on the same day, and this usage is illustrated in the story in (184), where a speaker was asked to translate a story set earlier on the same day. Verbs in P2 have been underlined. The speaker combines phrases with a verb in P2 with phrases using a Narrative form (see Section 6.7.1).

Note that in (184b) P3 is used, as the limit between 'today' and 'yesterday' is at sunrise. This can be seen in the common greeting *Wágònérè òòtyâ?* 'How did you sleep?', which uses the Hesternal Past tense (P3) rather than the Hodiernal Past tense,

and so does the typical reply *Nágònérè kúsà* 'I slept well'. This view of time is also reflected in the way Lugwere tells time. Their count starts at 6 am, meaning that 7pm is referred to as *ésáàwá mòizá*, literally 'one o'clock', and noon is *sáàwá mùkáàgá*, literally 'six o'clock'.

The example in (185), however, shows that the limit between P2 and P3 is not completely strict, as a patient refers to having had a headache at night using P2 (although perhaps this can be interpreted as a perfect).

(184) a. *Ámàkéézì gá lwátyânù nnàmùkírè mángù.*

*á-ma-ˋkéézì ga-á lu-átyânù*FL *ǹ-lam.uk-ire\LHL* *mángù*
AUG-6-morning AGR6-ASS 11-today\FL 1SGS-wake_up.SEP2-PST2\P2 early
'This morning I woke up early.'

b. *Nágònérè kúsà ìnó.*

n-a-gon-ire\H.LHL ku-ˊsà ìnó
1SGS-TNS-sleep-PST2\P3 AGR17-well very
'I had slept very well.'

c. *Ǹzwéírè kéísì nì ndya ékyámàkéézì.*

ǹ-zw.al-ire\LHL kéísì ni ǹˊ-ly-a\LH(LH) é-ki-ámàkéézì
1SGS-get_dressed.EXT-PST2\P2 then NAR 1SGS-eat-FV\PRES.SBR AUG-7-breakfast
'I got dressed, and then I ate breakfast.'

d. *Ímmàlírè njàbíre ókú mwíga ókùlìma ómùtyêré.*

í-nˊ-mal-ire\LH\FO2 ǹ-ab-ire\LHL ó-ku=mu-ígà ó-ku-lim-a\LH
SBR-1SGS-finish-FV\P2.SBR\FO2 1SGS-go-PST2\P2 AUG-17=3-swamp AUG-INF-farm-FV\INF
ó-mu-ˋtyêré
AUG-3-rice
'When I had finished, I went to the swamp to farm rice.'

e. *Ókú sáà mùkáàgá éísànà lyàkírè èra éíbbúgùmù lìbbéírè lìnéné.*

ó-ku=sáàwá mùkáàgá é-ì-sàná lìˊ-ak-ire\LHL èrâ é-ì-bbúgùmú\FL
AUG-17=hour six AUG-5-sun 5S-shine-PST2\P2 CONJ AUG-5-heath\FL
lìˊ-bb-ire\LHL li-ˋnéné
5S-COP1-PST2\P2 AGR5-big
'At noon the sun was shining and the temperature was high.'

f. *Kálè m̀pùmwírèmúkù.*

kálè ǹ-wum.ul-ire\LHL=mu=ku
INTJ 1SGS-rest.SEP1-PST2\P2=18=17
'So I rested a bit.'

g. *Nì nkánga éíkà, nì ndya ékyómùsànà n'ómùsèizá wàngé n'ómwàlá wàngé.*

ni ǹ´-kang-a\LHL(H) é-ì-`ká, ni ǹ´-ly-a\LH(LH) é-ki-ómùsànà
NAR 1SGS-return-FV\PRES.SBR AUG-5-home NAR 1SGS-eat-FV\PRES.SBR AUG-7-lunch
nè ó-mu-`sèizá o-àngé nè ó-mu-àlá o-àngé.
CONJ AUG-1-man AGR1-1SG.POSS CONJ AUG-1-girl AGR1-1SG.POSS
'Then I returned home, and had lunch with my husband and my daughter.'

(185) *Mùsàwo, óbwìre ómùtwé gùnù gúnnùmírè.* (C)

mu-`sàwó o-bu-ìré ó-mu-`twé gu-`nú\FL gù´-n-lum-ire\LHL
1-doctor AUG-14-night AUG-3-head AGR3-DEM_PROX\FL 3S-1SGO-hurt-PST2\P2
'Doctor, I had a headache at night.'

P2 can also be used as a perfect, and in these cases it can be used for events that took place before the current day. Take, for instance, the paragraph in (186), where the speaker is talking about the general conditions of the Bagwere. There are multiple examples of P2, underlined, and these are unlikely to refer to events on the same day. Rather, they have a perfect meaning: completed events that have current relevance. For instance, in (186b), the child has returned to the village, and is presumably still there. Similarly, in (186k), having turned 18 is a past event that has current relevance for the point the speaker is making in (186l). Notice the rhetorical questions the speaker uses in (186d) and (186f), this is a common rhetorical tool in Lugwere.

(186) a. *Àtyânu áànú, tùsígàlá ngà túlì ààwó.* (C)

àtyânú a-`nú tù´-sig.al-a\LHLH ngà tù´-li\LH(L) awa-`ó
now here 1PLS-stay.EXT-FV\PRES.SBR SIM 1PLS-COP2\PRES AGR16-DEM_MED
'Now there we stay there like that.'

b. *Ómwàna, òsòmésérye ómwànà yéna àìrírè mú kyálò kùlìmá.*

ó-mu-ànà ò-som.esy-ire\LHL ó-mu-ànà a-énà à-ir-ire\LHL
AUG-1-child 2SGS-teach.CAUS2-PST2\P2 AUG-1-child AGR1-also 1S-return-PS2\P2
mu=ki-álò ku-lim-a\LH
18=7-village INF-farm-FV\INF
'A child, you have taught a child and he too stays in the village to farm.'

c. *Wéna ónyèré òkwéítè nkùmbì kùlìmá.*

o-énà ó-nyèré o-kw.at-ire\LHL n.kùmbí ku-lim-a\LH
AGR2SG-also AUG-self 2SGS-take.TENT-PST2\P2 9.hoe INF-farm-FV\INF
'You too, you have started farming (lit. you have taken a hoe to dig).'

d. *N'òbbánga òbùlà níkì? Òbúla óbúyámbì.*

nè o-bb-a-nga\LHL o-bul-a\LHL\FO2 níkì o-bul-a\LHL
CONJ 2SGS-COP1-FV-HAB\PRES 2SG-lack-FV\PRES\FO2 what 2SGS-lack-FV\PRES
ó-bu-´yámbì.
AUG-14-help
'And what do you not have? You have no help.'

e. *kyè obónà ìswé ábàgwérè tùfá ↓mángù.*

Kyè ò-bón-à\LHL ì-swé á-ba-`gwérè tù´-f-a\LHL mángù.
ADV 2SGS-see-FV\PRES PRO-1PL AUG-2-bagwere 1PLS-die-FV\PRES quickly
'Thats why for us, the Bagwere, we die easily.'

f. *Kùbbángà tùbbá tùbúlà níkì? Tùbúla óbúyámbì.*

kùbbángà tù´-bb-a\LHL tù´-bul-a\LHL níkì tù´-bul-a\LHL
because 1PLS-COP1-FV\PRES 1PLS-lack-FV\PRES what 1PLS-lack-FV\PRES
ó-bu-´yámbì.
AUG-14-help
'Because we don't have what? We don't have help.'

g. *Étùbbá tùkol- tùkúlírè, óbúyámbì tùbúlà, túlì ààwó túty̰ò.*

é-tù´-bb-a\LH(LH) FS tù´-kul-ire\LHL ó-bu-´yámbì tù´-bul-a\LHL
SBR-1PLS-COP1-FV\PRES.SBR FS 1PLS-grow-FV\P2 AUG-14-help 1PLS-lack-FV\PRES
tù´-li\LH(L) aw-`ó tù´-tyô
1PLS-COP2\PRES AGR16-DEM_MED AGR1PL-like_this
'When we have grown up, help, we don't have, we are just there.'

h. *Tùtámbùlìrà túty̰ô múngéri éfànànà ng'éèyó.*

tù´-tamb.ul-ir-a\LHL\FO2 tù´-tyô mú=n.´gérì
1PLS-walk.SEP1-APPL-FV\PRES\FO2 AGR1PL-like_this 18=9.manner
é-è-fan.an-a\LHL\FO2 ngà e-`ó
REL-9S-resemble.ASO-FV\PRES\FO2 SIM AGR9-DEM_MED
'We move like that in such a way.'

i. *Ébúlá o- óbúyámbì.*

é-e´-bul-a\LH FS ó-bu-´yámbì
REL-23S-lack-FV\PRES.SBR.UC FS AUG-14-help
'There is no help.'

j. *Ìswé n'áBàgwérè, ómwànà,*

ì´-swe nè á-ba-`gwérè ó-mu-àná
PRO-1PL CONJ AUG-1-Bagwere AUG-1-child
'For us, the Bagwere, a child,'

k. *bàkòbèré báti ómwànà átúúkírè émyàká éíkùmí nàmùnáánà,*

ba-a-kob-ire\L.LH bà´-tî ó-mu-ànà á-à´-tuuk-ire\LHL é-mi-àká
2S-TNS-say-PST2\P5 AGR2-QUOT AUG-1-child REL-1S-reach-PST2\P2 AUG-4-year
é-íkùmí na mùnáánà
AUG-ten CONJ eight
'they said that a child who has reached 18 years,'

l. *àbbà yèsóbólà, èbbá- àbbà mùsàizá.*

à-bb-a\LHL\FO2 à-e´-sob.ol-a\LHL FS à-bb-a\LHL\FO2 mu-`sàizá
1S-COP1-FV\PRES\FO2 1S-REFL-be_able.SEP1-FV\PRES FS 1S-COP1-FV\PRES\FO2 1-man
'would be capable, would be a man.'

There is also some evidence that P2 can be used to refer to events in a 'current time unit' on a larger scale than the day: Utterances such as the ones in (187), for instance, were judged to be acceptable. This at first glance resembles systems that Botne (2012:541) has described as relying on the concepts of a "current relevant time unit" and "adjoining time units" (see discussion in 2.4.1.2). In this view, P2 could be used to indicate a current time interval, be that the day, the week, the year, or the month. However, knowing that P2 can have a perfect function, the examples in (187) can probably be better understood as perfect. Especially since the other tenses do not fit the "adjoining time unit" pattern, as far as I can tell P3 cannot be used to refer to 'last year' or 'last week' in the same way.

(187) a. *Ómwànká gùnù tùlímírè mùtyêré.*

ó-mu-ànká gu-`nú\FL tù´-lim-ire\LHL mu-`tyêré
AUG-3-year AGR3-DEM_PROX\FL 1PLS-plant-PST2\P2 3-rice
'This year we have planted rice.'

b. *Éwíki èènù tùlímírè mùtyêré.*

é-wíki e-`nú\FL tù´-lim-ire\LHL mu-`tyêré
AUG-week AGR9-DEM_PROX\FL 1PLS-plant-PST2\P2 3-rice
'This week we have planted rice.'

With stative verbs, or verbs referring to entering a state, such as *kùgòná* 'to (fall) sleep' or *kùdòdá* 'to get wet', P2 can have a stative reading, i.e. *àgònérè* the P2 form of the verb *kùgòná*, can be interpreted as 'he is asleep' as well as 'he fell asleep'. A common way to greet a visitor is *tùsángéírè*, the P2 form of *kùsàngáálá* 'to become happy', which

uses a past tense form, but presumably indicates a present sense of happiness. Another example from the corpus is given in (188).

(188) *Némbà nè njírà n'éíkà ngá zénzénà ngà ndòdérè* (C)

n-e´.mb-a\H.LH ni ǹ´-ir-a\LHL(H) nè é-ì-ˋká ngà
1SGS-REFL.might-FV\F1 NAR 1SGS-return-FV\PRES.SBR CONJ AUG-5-home SIM
z∼én∼z-énà ǹ-dod-ire\LHL
AGR1SG∼REDUP∼AGR1SG-all 1SGS-wet-PST2\P2
'I might come back home, having become completely wet'

In absolute-relative tense constructions, P2 can be used to indicate a point that is past relative to the reference point. These constructions use a tensed copula, and either a Present tense, P1, P2, P4 or F1 to indicate tense relative to a reference point (see Section 6.7.3). A similar usage is found with the particle *ngà*, which can be used with P2 to indicate that an event was completed at a given reference point (see Section 6.7.2 for examples of this).

6.1.4 P3 - the Hesternal Past

P3 can be used for event that took place on the previous day, and up until the sunrise or start of the morning of the current day. In elicitation, it has not been possible to get clear examples of P3 being used at any time longer ago than yesterday. It should be noted, however, that asking for grammaticality judgements of P3 used for more distant time intervals involves the linguist trying to produce the correct tonal melody, and asking speakers if it can be acceptable in a given context. While speakers did at times agree that something was possible, when asked to repeat they would use the P5 melody, indicating that it is not actually possible. A related problem is that the vast majority of the corpus has not been tone-marked, meaning that it cannot be used in order to investigate the distribution of P3 and P5, as these two are segmentally identical in all cases, and can only be differentiated tonally. While the current evidence from elicitation seems to indicate that there is a strict border between P3 and P5, then, this is something that should be investigated further, ideally with the help of more tone-marked corpus texts.

(189) shows the same story as in (184), but set yesterday. As in (184), the speaker alternates between phrases with a tensed verb form (underlined), and phrases with a

Narrative verb form. Note that in (184b), the speaker used P5, as the sleep the night before is considered to have happened "before yesterday".

(189) a. *Éízò nálàmúkírè màkéézi ìinó.*

é-ìzó *n-a-lam.uk-ire\H.LHL* *ma-ˋkéézì ìnó.*
AUG-yesterday 1SGS-TNS-wake_up.SEP2-PST2\P3 6-morning very
'Yesterday, I woke up very early.'

b. *Nàgònèrè kúsà.*

n-a-gon-ire\L.LH\FO2 *ku-ˊsà*
1SGS-TNS-sleep-PST2\P5\FO2 AGR15-well
'I had slept well.'

c. *Názwéírè kéísì nì ndya ékyámàkéezi.*

n-a-zw.al-ire\H.LHL *kéísì ni* *ǹˊ-ly-a\LH(LH)* *é-ki-ámàkéézì*
1SGS-TNS-get_dressed.EXT-PST2\P3 then NAR 1SGS-eat-FV\PRES.SBR AUG-7-breakfast
'I got dressed, and then I ate breakfast.'

d. *Éènámàlíre ókùlya ékyámàkéézì, náàbíre ókú mwìga ókùlìma ómùtyêré.*

Éè-n-a-mal-ire\H.LHL *ó-ku-ly-a\LH* *é-ki-ámàkéézì*
SBR-1SGS-TNS-finish-PST2\P3 AUG-INF-eat-FV\INF AUG-7-breakfast
n-a-ab-ire\H.LHL *ó-ku=mu-ìgá* *ó-ku-lim-a\LH* *ó-mu-ˋtyêré*
1SGS-TNS-go-PST2\P3 AUG-17=3-swamp AUG-INF-farm-FV\INF AUG-3-rice
'When I had finished eating breakfast, I went to the swamp to farm rice.'

e. *Ókú sáà mùkáàga ákàsànà káàkírè ìinó n'éíbúgùmú ngà lìnèné íínò.*

ó-ku=sáàwá *mùkáàgá* *á-ka-ˋsànáFL* *ka-a-ak-ire\H.LHL* *ìnó* *nè*
AUG-17=hour six AUG-12-sunFL 12S-TNS-shine-PST2\P3 very and
é-ì-bbúgùmú *ngà* *li-ˋnèné* *ìnó*
AUG-5-heat NGÀ AGR5-big very
'At noon the sun was shining and the temperature was very high.'

f. *Kálè nì mbúmùlámù.*

kálè ni *nˊ-wum.ul-a\LHLH=mu*
INTJ NAR 1SGS-rest.SEP1-FV\PRES.SBR=18
'So I rested for a bit.'

g. *Nátàmbwírè njáàba éíkà,*

n-a-tamb.ul-ire\H.LHL *ǹ-ab-a\LHL* *é-ì-ˋká*
1SGS-TNS-walk.SEP1-PST2\P3 1SGS-go-FV\PRES AUG-5-house
'I walked back home,'

h. *èrá nì ndya ékyómùsànà n'ómwànà wàngé n'ómùsèìzá wàngé.*

èrâ ni ǹ´-ly-a\LH(LH) é-ki-ómùsànà nè ó-mu-ànà o-àngé
CONJ NAR 1SGS-eat-FV\PRES.SBR AUG-7-lunch CONJ AUG-1-child AGR1-1SG.POSS
nè ó-mu-`sèìzá o-àngé
CONJ AUG-1-man AGR1-1SG.POSS
'and had lunch with my husband and my child.'

6.1.5 P4 - the Recent Past

Verbs in P4 are generally translated as having occurred 'recently'. How recent something has to be for P4 to be acceptable depends on the nature of the event in question. For larger, less common events, such as getting married, graduating or having a baby, the form was judged felicitous for longer time periods than for more mundane and repeatable events. A speaker accepted intervals between a week ago and a year ago for the phrase in (190a), while (190b) was judged felicitous for intervals of time between a couple of days ago and three months ago, and (190c) was only acceptable for intervals of between two days and a week ago. This overlaps with P5, which can generally be used for any event that took place before yesterday, although further testing would be needed to determine whether there are any different connotations related to presenting an event as recent or distant associated with the two different forms.

(190) a. *ÓCálèsí yànkázímbánga énywùmbá.*

ó-Cálèsí a-anka-zimb-a-nga\LH é-ny.`ùmbá
AUG-PN.M 1S-PST1-build-FV-HAB\P4 AUG-9.house
'Charles recently built a house.'

b. *ÓJústìnì yànkábyálánga ómwànà.*

ó-Jústìn a-anka-by.al-a-nga\LH ó-mu-ànà
AUG-PN.F 1S-PST1-give_birth.EXT-FV-HAB\P4 AUG-1-child
'Justine recently had a baby.'

c. *Márì yànkásúmbánga ókéèkí.*

Márì a-anka-sumb-a-nga\LH ó-kéèkí
PN.F 1S-PST1-cook-FV-HAB\P4 AUG-cake
'Mary recently made a cake.'

In general, P4 is quite rarely used. Speakers accept and can produce examples of it when directly asked, but such examples are rarely volunteered as a translation without

being explicitly requested. The tense is also discussed in Nzogi (2005b). It is also very rare in the corpus, and I only found around 10 examples of it, more than half of which were from the Bible translation. One example is shown in (222).

(191) Context: Discussing goats

Kéísi òònu ógùbànkágúlángá ìzúùlí, ìiye àkáàlìwó? (C)

kéísi o-ˋnú ó-gu-ba-anka-gul-a-nga\LH ìzúùlí, ì´-ye
then AGR1-DEM_PROX REL-1O.REL-2S-PST1-buy-FV-HAB\P4 recently PRO-AGR1
a-kaa-li\LHLH\FO2=wo
1S-PRS-COP2\PRS\FO2=16
'How about this one that was bought recently, is it still there?'

6.1.6 P5 - the Distant Past

P5, or the Distant Past, can be used for any event that happened before yesterday. This tense therefore has a very wide frame of reference; it can be used for something that happened two days ago, or something that happened many years ago. There is therefore some overlap with P4, but P5 is much more commonly used.

(192) gives the same story as above, but in P5. The P5 forms are underlined, and they are used in combination with Narrative forms. In (192b) the speaker uses a past in the past construction, and this is similar to how in (184) and (189) the speaker shifted to a more distant past tense when describing how they had slept.

(192) a. *Ésábìiti éèyó, nàlàmùkìrè màkéézi ìinó.*

é-sábìití e-ˋó n-a-lam.uk-ire\L.LH\FO2 ma-ˋkéézì ìnó
AUG-sunday AGR9-DEM_MED 1SGS-TNS-wake_up.SEP2-PST2\P5\FO2 6-morning very
'Last Sunday I woke up very early.'

b. *Nààlì ngònérè kúsà ìnó.*

n-a-li\L.LH\FO2 ǹ-gon-ire\LHL ku-´sà ìnó
1SGS-TNS-COP2\P5\FO2 1SGS-sleep-PST2\P2 AGR15-well very
'I had slept very well.'

c. *Nàzwèiré, kéísì nì ndya ékyámàkéézì.*

n-a-zw.al-ire\L.LH kéísì ni ǹ´-ly-a\LH(LH) é-ki-ámàkéézì
1SGS-TNS-get_dressed.EXT-PST2\P5 then NAR 1SGS-eat-FV\PRES.SBR AUG-7-breakfast
'I got dressed, then I had breakfast.'

d. *Éénàmálírè nàábìré ókú mwíga ókùlìma ómùtyêré.*

Éé-n-a-mal-ire\LHL n-a-ab-ire\L.LH ó-ku=mu-ígà
SBR-1SGS-TNS-finish-PST2\P5.SBR 1SGS-TNS-go-PST2\P5 AUG-17=3-swamp
ó-ku-lim-a\LH ó-mu-`tyêré.
AUG-INF-farm-FV\INF AUG-3-rice
'When I had finished, I went to the swamp to farm rice.'

e. *Óku sáàwa ómùkáàgá, ákàsànà kàákìré ínò, n'éíbúgùmú ngà lìnéné ínò*

ó-ku=sáàwá ó-mùkáàgá á-ka-`sàná\FL ka-a-ak-ire\L.LH ìnó nè
AUG-17=hour AUG-six AUG-12-sun\FL 12S-TNS-shine-PST2\P5 very CONJ
é-ì-bbúgùmú ngà li-`nèné ìnó
AUG-5-heat NGÀ AGR5-big very
'At noon the sun was shining and the temperature was very high.'

f. *Kálè nàwùmwìré.*

kálè n-a-wum.ul-ire\LH
INTJ 1SGS-TNS-rest.SEP1-PST2\P5
'So I rested.'

g. *Nàtàmbwìré nì njába éíkà,*

n-a-tamb.ul-ire\L.LH ni ǹ´-ab-a\LHL(H) é-ì-`ká
1SGS-TNS-walk.SEP1-PST2\P5 NAR 1SGS-go-FV\PRES.SBR AUG-5-home
'I walked home,'

h. *Èrá nì ndya ékyómùsàná n'ómùsèizá wàngé n'ómwàná wàngé.*

èrâ nì ǹ´-ly-a\LH(LH) é-ki-ómùsàná nè ó-mu-`sèizá o-àngé
CONJ NAR 1SGS-eat-FV\PRES.SBR AUG-7-lunch CONJ AUG-1-man AGR1-1SG.POSS
nè ó-mu-àná o-àngé.
CONJ AUG-1-child AGR1-1SG.POSS
'and had lunch with my husband and my child.'

6.1.7 F1 - the Near Future

While the past tenses are quite clearly delineated (except for P1 and P4 which overlap with P2 and P5, respectively), the line between the two future tenses is quite fuzzy. F1 is the tense used to refer to more near future events, while F2 is used for more distant events, but on occation F1 can also be used to refer to more distant events. (193) is an example from the corpus where the speaker first uses F2 to talk about an event that might happen in the future (at the time no concrete plans existed). Then, the speaker switches to F1.

(193) *Èrá ↓zéna, óMírìkà, mméítè ntì yàlítúúka éNórwày. Yàlíízà, èrá ↓yáízà.* (C)

èrâ z-énà ó-Mírìkà ǹ-many.IRR.PRES\LHL ǹ-tî\FL
CONJ AGR1SG-also AUG-PN.F 1SGS-know.IRR.PRES\PRES AGR1SG-QUOT\FL
a-ali-tuuk-a\LH(L)HL é-Nórwày a-ali-iz-a\L(HL)HL, èrâ a-a-iz-a\HL(H)
1S-FUT-reach-FV\F2 AUG-Norway 1S-FUT-come-FV\F2 CONJ 1S-TNS-come-FV\F1
'And me too, Mirika, I know that she will reach Norway. She will come and she is to come.'

(194) shows the same story as given above in F1. F1 verbs have been underlined, and as above, the tensed F1 verbs alternate with Narrative verbs.

(194) a. *Éízò nálàmùkà màkéézì ìnó.*

é-ìzó n-a-lam.uk-a\H.LH\FO2 ma-̀kéézì ìnó
AUG-tomorrow 1SGS-TNS-wake_up.SEP2-FV\F1\FO2 6-morning very
'Tomorrow I will wake up early.'

b. *Názwàlá kéísì nì ndya ékyámàkéézì.*

n-a-zw.al-a\H.LH kéísì ni ǹ´-ly-a\LH(LH) é-ki-ámàkéézì
1SGS-TNS-get_dressed.EXT-FV\F1 then NAR 1SGS-eat-FV\PRES.SBR AUG-7-breakfast
'I will get dressed then I'll have breakfast.'

c. *Éènábbá mmàlíre ókùlya ékyámàkéézì,*

éè-n-a-bb-a\H(L)H ǹ-mal-ire\LHL ó-ku-ly-a\LH
SBR-1SGS-TNS-COP1-FV\F1.UC 1SGS-finish-PST2\P2 AUG-INF-eat-FV\PRES
é-ki-ámàkéézì
AUG-7-breakfast
'After I finish eating breakfast,'

d. *náába ókú mwíga ókùlìma ómùtyêré.*

n-a-ab-a\H.LH ó-ku=mu-ígà ó-ku-lim-a\LH ó-mu-̀tyêré
1SGS-TNS-go-FV\F1 AUG-17=3-swamp AUG-INF-farm-FV\INF AUG-3-rice
'I will go to the swamp to farm rice.'

e. *Óku sáà mùkáàga ákàsànà káàká ínò,*

ó-ku=sáàwá mùkáàgá á-ka-̀sàná\FL ka-a-ak-a\H.LH ìnó
AUG-17=hour six AUG-12-sun\FL 12S-TNS-shine-FV\F1 very
'At noon, the sun will be shining a lot,'

f. *èrá ↓n'éíbúgùmù lìbbá lìnèné.*

èrâ ni é-ì-búgùmú\FL li-bb-a\LH(LH) li-̀nèné
CONJ NAR AUG-5-heat\FL 5S-COP1-FV\PRES.SBR AGR5-big
'and the temperature will be high.'

g. *Kálè náwùmùlámù.*

kálè n-a-wum.ul-a\H.LH=mu
INTJ 1SGS-TNS-rest.SEP1-FV\F1=18
'So I will rest for a bit.'

h. *Nátàmbùlà nì njába éíkà,*

n-a-tamb.ul-a\H.LH\FO2 ni ǹ´-ab-a\LHL(H) é-ì-`ká
1SGS-TNS-walk.SEP1-FV\F1\FO2 NAR 1SGS-go-FV\PRES.SBR AUG-5-home
'I will walk home,'

i. *èrá nì ndya ékyómùsàná n'ómùsèizá wàngé n'ómwàlá wàngé.*

èrâ ni ǹ´-ly-a\LH(LH) é-ki-ómùsàná nè ó-mu-`sèizá o-àngé nè
CONJ NAR eat-FV\PRES.SBR AUG-7-lunch CONJ AUG-1-man AGR1-1SG.POSS CONJ
ó-mu-àlá o-àngé.
AUG-1-girl AGR1-1SG.POSS
'and have lunch with my husband and my daughter.'

6.1.8 F2 - the Distant Future

F2 is used for more distant future events, although as discussed above, there is not a clear line between F1 and F2. In (195) the story from above is retold in F2. F2 verb forms are underlined.

(195) Context: Next year on my birthday

a. *Ómwànka òògwó nàlíràmùkà màkéézì ìnó.*

ó-mu-ànká ogu-`ó n-ali-lam.uk-a\LH.LHL\FO2 ma-`kéézì ìnó
AUG-3-year AGR3-DEM_MED 1SGS-FUT-wake_up.SEP1-FV\F2\FO2 6-morning very
'Next year, I will wake up early.'

b. *Nàlízwálà kéísì nì ndya ékyámàkéézì.*

n-ali-zw.al-a\LH(L)HL kéísì ni ǹ´-ly-a\LH(LH) é-ki-ámàkéézì
1SGS-FUT-get_dressed.EXT-FV\F2 then NAR 1SGS-eat-FV\PRES.SBR AUG-7-breakfast
'I will get dressed and then eat breakfast.'

c. *Énàlíbbá mmàlírè,*

é-n-ali-bb-a\LH ǹ-mal-ire\LHL
SBR-1SGS-FUT-COP1-FV\F2.SBR 1SGS-finish-PST2\P2
'When I have finished,'

d. *nàlyába ókú mwíga ókùlìma ómùtyêré.*

n-ali-ab-a\L(HL)HL ó-ku=mu-ígà ó-ku-lim-a\LH ó-mu-`tyêré
1SGS-FUT-go-FV\F2 AUG-17=3-swamp AUG-INF-farm-FV\INF AUG-3-rice
'I will go to the swamp to farm rice.'

e. *Ókú sáà mùkáàga ákàsànà kààká ìnó,*

ó-ku=sáàwá mùkáàga á-ka-`sànà ka-ak-a\LHL ìnó
AUG-17=hour six AUG-12-SUN 12S-shine-FV\PRES very
'At noon the sun is shining a lot,'

f. *èrâ, éíbúgùmù lìbbá lìnèné*

èrâ é-ì-búgùmú\FL lì´-bb-a\LHL li-`nèné
CONJ AUG-5-heat\FL 5S-COP1-FV\PRES AGR5-big
'and the temperature is high.'

g. *Kálè, nàlíwùmùlàmú.*

kálè n-ali-wum.ul-a\LH.LHL\FO2=mu
INTJ 1SGS-FUT-rest.SEP1-FV\F2\FO2=18
'So I will rest for a bit.'

h. *Nàlítàmbúlà, nì njába éíkà,*

n-ali-tamb.ul-a\LH.LHL ni ǹ´-ab-a\LHL(H) é-ì-`ká
1SGS-FUT-walk.SEP1-FV\F2 NAR 1SGS-go-FV\PRES.SBR AUG-5-home
'I will walk home,'

i. *èrá nì ndya ékyómùsànà n'ómùsèìzá wàngé n'ómwàlá wàngé.*

èrâ ni ǹ´-ly-a\LH(LH) é-ki-ómùsànà nè ó-mu-`sèìzá o-àngé
CONJ NAR 1SGS-eat-FV\PRES.SBR AUG-7-lunch CONJ AUG-1-man AGR1-1SG.POSS
nè ó-mu-àlá o-àngé.
CONJ AUG-1-girl AGR1-1SG.POSS
'And I will have lunch with my husband and daughter.'

6.1.9 Infinitive

The Infinitive is a nominalised form, and therefore behaves like a noun in many ways. It often has an augment, and it can trigger agreement in rare cases. An example of this from the corpus is given in (196). In other cases, Class 15 agreement can be used to form an adverb, as in (197).

(196) *Nàye ókusòmá kwàngé tíkwàbbéírè kù- kùnènè bbé.* (C)

nàye ó-ku-som-a\LH ku-àngé ti-ku-a-bb-ire\H.LHL FS ku-`nèné\FL
but AUG-INF-study-FV\INF AGR15-1SG.POSS NEG-15S-TNS-COP1-PST2\P5.NEG FS AGR15-big\FL

bbé
no
'But I haven't studied much, no.'

(197) *Nágònérè kúsà.*

n-a-gon-ire\H.LHL ku-´sà
1SGS-TNS-sleep-PST2\P3 AGR15-well
'I slept well.'

The most common usages of the Infinitive, is as a complement of another verb. There is a large group of verbs that can take Infinitive arguments. This includes aspectual verbs such as *kùtàndííká* 'to begin' and *kùmàlá* 'to finish', modal verbs such as *-ainza* 'might', *kwèzyá* 'might' and *kùsòbólá* 'to be able', in addition to the modal constructions *kùbbá nè* 'have to', and a range of other verbs, for instance verbs such as *kùtàká* 'to want', *kùmànyá* 'to know', *kwègá* 'to learn', *kùbbèèrá* 'to help', and so on. A couple of examples are given in (198).

(198) a. *Àmála ókùlyá.*

à-mal-a\LHL ó-ku-ly-a\LH
1S-finish-FV\PRES AUG-INF-eat-FV\INF
'He is finishing eating.'

b. *Ǹtàkà kùsòmá.*

ǹ-tak-a\LHL\FO2 ku-som-a\LH
1SGS-want-FV\PRES\FO2 INF-read-FV\INF
'I want to read.'

An Infinitive can also be used to indicate a purpose, much like in English, exemplified in (199) below. As the Infinitive is a non-finite form, it cannot take a subject marker. It can, however, carry an object marker, as in (199) *ókúbàkòbá* 'to tell them' and (200) *ókútùbbèèrá* 'to help us'.

(199) *Kwàcèirè lúmò, ótéítè wàábe ómùtò n'àsíndìka ómúntù ókúbàkòbá àátî (...)*
(W)

ku-a-c-ire\L.LH\FO2 lu-´mò ó-téítè o-àbé
17S-TNS-dawn-PST2\P5\FO2 AGR11-one AUG-respected_elder AGR1-2POSS
ó-mu-`tó ni à´-sind.ik-a\LHLH ó-mu-´ntù ó-ku-ba-kob-a\LH
AUG-AGR1-small NAR 1S-send.IMP-FV\PRES.SBR AUG-1-person AUG-INF-2O-say-FV\INF

à-tî
AGR1-QUOT
'One day their relative sent someone to tell them that (...)'

There is also a negative Infinitive form, where the secondary negative marker *ta-* is inserted between the Infinitive marker and the stem. An example of the negative Infinitive is given in (200) below.

(200) *Tùtákà ìiwé n'ábàgàndábò ókútùbbèèra ókusòmésya ábántù éngérì y'ókwèkúúma ókùtáfúna óSìrîímú.* (W)

tù´-tak-a\LHL ì´-we nè á-ba-`gàndá=b-o
2PLS-want-FV\PRES PRO-2SG CONJ AUG-2-sibling=AGR2-1POSS
ó-ku-tu-bbeer-a\LH ó-ku-som.esy-a\LH á-ba-´ntù é-n.´gérì
AUG-INF-1PLO-help-FV\INF AUG-INF-teach.CAUS2-FV\INF AUG-2-person AUG-9.way
e-á ó-ku-e-kuum-a\LH ó-ku-ta-fun-a\LH ó-Sìrîímú
AGR9-ASS AUG-INF-REFL-protect-FV\INF AUG-INF-NEG2-get-FV\INF.NEG AUG-HIV
'We want you and your siblings to help teach people how to avoid getting HIV.'

Additionally, the Infinitive is used to form the Progressive, which is discussed in Section 7.2.3. This section has dealt with the usage of the different tenses, as well as the infinitive. The next sections will look at the morphology, starting with the Infinitive.

6.2 Infinitive

The Infinitive is formed by attaching the prefix *ku-* to the general stem. This *ku-* is sometimes reduced to *u-* or *bu-* in rapid speech. This is the prefix for noun Class 15. The tonal melody of the Infinitive is LμμH*, which attaches to the stem. If there are only two syllables, then the first is low and the second high. If the third mora is part of a diphthong/long vowel, then the first three moras are low. This is the same as for other nouns with the LμμH* pattern (see Section 3.2.11.1). In Form 2 contexts, the final H is lowered, so that the whole verb has a low tone.

In the negative, the negative prefix *ta-* is inserted between the Infinitive prefix and the verb stem. The *ta-* prefix has a high tone, and so do all following syllables. In Form 2 contexts, the final H is lowered, giving a word with low tones on all syllables. The

negative Infinitive does not have a pre-stem melody, only a Stem LH* melody. Table 6.1 shows some examples of affirmative and negative Infinitives in Form 1 and Form 2.

Table 6.2 shows examples of the Infinitive with object makers. The object marker gets a low tone in the affirmative, and does not affect the tone of the verb stem, which still has a low on the first syllable of the stem, and then a high tone on subsequent syllables. The Infinitive prefix, however, gets a high tone in the affirmative. This can be explained by the default (L)H pre-stem melody that applies when the pre-stem prefixes are left without a tone. In the negative, the pre-stem prefixes similarly has the default LH tone, and the LH* tone of the stem starts after the object marker.

The high tone that the Infinitive marker gets when there is an object marker, resembles what happens when a present tense verb with a high toned subject maker has an object. It differs, however, in that when there is no object marker, there is no evidence of a floating high tone. If one was present, we would expect to see it in Form 2 contexts, where it would not lower. As discussed in Section 6.10.1, a default tone inserted when the object marker cuts the pre-stem off from the stem, explains this best.

Table 6.1: Verbs in the Infinitive

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
'to eat'	kùlyá	kùlyà	kùtályá	kùtàlyà
'to finish'	kùmàlá	kùmàlà	kùtámálá	kùtàmàlà
'to buy'	kùgùlá	kùgùlà	kùtágúlá	kùtàgùlà
'to select'	kùlòndá	kùlòndà	kùtálóndá	kùtàlòndà
'to scratch'	kwàgá	kwàgà	kùtáágá	kùtàágà
'to steal'	kwìbbá	kwìbbà	kùtáíbbá	kùtàìbbà
'to treat'	kùjànjábá	kùjànjàbà	kùtájánjábá	kùtàjànjàbà
'to count for/with'	kùbàlírá	kùbàlìrà	kùtábálírá	kùtàbàlìrà
'to roast'	kùkàlábándá	kùkàlàbàndà	kùtákálábándá	kùtàkàlàbàndà
'to nurse'	kùgàlágálá	kùgàlàgàlà	kùtágálágálá	kùtàgàlàgàlà

6.3 Present tense

The Present tense is formed by attaching the subject markers directly to the general stem, and the tonal melody for the Present tense is LH*L in the affirmative, and LH* in the negative. Neither has a pre-stem melody, but in the affirmative the subject markers have lexical tones. In the negative, the negative marker and the subject makers get their

Table 6.2: Infinitive verbs with object markers. Object markers used are *gu-* 'AGR 3', *gi-* 'AGR 9' and *mu-* 'AGR 1'.

	FO1 AFF	FO2 NEG
kùlòndá 'to select'	kúgùlòndá	kùtágùlòndá
kùlyá 'to eat'	kúgùlyá	kùtágùlyá
kwàgá 'to scratch'	kúgwàgá	kùtágwàgá
kwìbbá 'to steal'	kúgìibbá	kùtágìibbá
kùgàlágálá 'to nurse'	kúmùgàlágálá	kùtámùgàlágálá
kùjànjábá 'to treat'	kúmùjànjábá	kùtámùjànjábá

tones from the stem melody. For both polarities there is a different Form 2 version. In the affirmative, the middle high tone is lowered, and in the negative the final high tone is lowered. In either case, we get a melody that is all low.

The picture is somewhat complicated by the fact that some subject markers have a floating high tone, as discussed in Section 5.2. This is the case only in the affirmative, and the floating tone attaches to the first syllable of the stem. Importantly, this floating tone is not lowered in Form 2.

Bisyllabic stems In the bisyllabic verbs, the final part of the LH*L stem melody attaches to the two syllables of the stem. In Form 2 contexts, the middle high is lowered. For verbs with a subject prefix that does not have a floating high tone, this means that the whole verb has a low tone, which can be seen for the first person singular, second person singular and Agreement Class 1 forms in Table 6.3. For those subject prefixes that have a floating tone, however, that high tone remains, and is realised on the syllable directly following the subject prefix. For bisyllabic verbs, that floating high tone basically just replaces the high tone that was lowered from the Present tense melody, and this means that we still get a LHL pattern on the whole verb. There is, therefore, no apparent difference between Form 1 and Form 2 in the affirmative for bisyllabic verbs with high toned subject markers, such a difference only becomes apparent in longer verbs. For the 1st and 2nd person plural forms, as well as Agreement Class 2, there is no difference between the verbal forms in the first and second columns of Table 6.3.

In the negative, there is no pre-stem melody, and the subject markers are toneless. The stem melody is LH*. When there is no object marker, the L tone from the stem

Table 6.3: The bisyllabic verb *kùgùlá* 'to buy' in the Present tense. Form 2 is given with the object *nyânyá* 'tomato'.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
1st SG	ǹgúlà	ǹgùlà nyânyá	tìngúlá	tìngùlà nyânyá
1st PL	tùgúlà	tùgúlà nyânyá	tìtùgúlá	tìtùgùlà nyânyá
2nd SG	ògúlà	ògùlà nyânyá	tògúlá	tògùlà nyânyá
2nd PL	mùgúlà	mùgúlà nyânyá	tìmùgúlá	tìmùgùlà nyânyá
AGR 1	àgúlà	àgùlà nyânyá	tàgúlá	tàgùlà nyânyá
AGR 2	bàgúlà	bàgúlà nyânyá	tìbàgúlá	tìbàgùlà nyânyá

Table 6.4: The bisyllabic verb *kùmàlá* 'to finish, be enough' in the Present tense. Form 2 is given with the object *mwàná* 'child', the meaning being 'X is (not) enough for the/a child'.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
AGR 3	gùmálà	gùmálà mwàná	tìgùmálá	tìgùmàlà mwàná
AGR 4	gìmálà	gìmálà mwàná	tìgìmálá	tìgìmàlà mwàná
AGR 5	lìmálà	lìmálà mwàná	tìrìmálá	tìrìmàlà mwàná
AGR 6	gàmálà	gàmálà mwàná	tìgàmálá	tìgàmàlà mwàná
AGR 7	kìmálà	kìmálà mwàná	tìkìmálá	tìkìmàlà mwàná
AGR 8	bìmálà	bìmálà mwàná	tìbìmálá	tìbìmàlà mwàná
AGR 9	èmálà	èmàlà mwàná	tèmálá	tèmàlà mwàná
AGR 10	gìmálà	gìmálà mwàná	tìgìmálá	tìgìmàlà mwàná
AGR 11	lùmálà	lùmálà mwàná	tìrùmálá	tìrùmàlà mwàná
AGR 12	kàmálà	kàmálà mwàná	tìkàmálá	tìkàmàlà mwàná
AGR 13	tùmálà	tùmálà mwàná	tìtùmálá	tìtùmàlà mwàná
AGR 14	bùmálà	bùmálà mwàná	tìbùmálá	tìbùmàlà mwàná
AGR 16	wàmálà/àmálà	wàmálà/ààmálà mwàná	tìwàmálá	tìwàmàlà mwàná
AGR 17	kùmálà	kùmálà mwàná	tìkùmálá	tìkùmàlà mwàná
AGR 18	mùmálà	mùmálà mwàná	tìmùmálá	tìmùmàlà mwàná
AGR 20	gùmálà	gùmálà mwàná	tìgùmálá	tìgùmàlà mwàná
AGR 22	gàmálà	gàmálà mwàná	tìgàmálá	tìgàmàlà mwàná

attaches to the negative and subject markers, and all subsequent syllables are high. There is no distinction between high and low subject prefixes. In Form 2 contexts, the final high tone lowers, and the whole verb is realised with a low tone.

Table 6.3 gives the full paradigm for the verb *kùgùlá* 'to buy' for the 1st and 2nd person, pluss AGR 1 and 2. Table 6.4 gives the forms for the verb *kùmàlá* 'to finish, be enough' for AGR 3 – 22. In the latter table, all the subject prefixes are high-toned, except for AGR 9.

Monosyllabic stems For monosyllabic stems, in the affrimative the subject markers are low, and the final two tones of the LH*L stem melody is realised on the last syllable, which means that in isolation the final syllable gets a falling tone. This is illustrated

in Table 6.19, which shows the forms of *kùlyá* 'to eat', and other monosyllabic verbs behave in the same way. When the verb is followed by another word, the final L tone is detached from the final syllable, and results in a downstep if the next syllable has a high tone, and has no effect if the next syllable is low. This is illustrated in (201a–b). When the next word starts with a prenasalised consonant, the final vowel lengthens, and the falling contour remains on the final syllable of the verb, as in (201c).

For Form 2, we see a difference between verbs that have a subject prefix with a floating high tone, and those that do not. For the forms where there is no floating high tone, such as 1st person singular, 2nd person singular, and AGR 1, the high tone is lowered, and the resultant form is all low-toned. The downstep illustrated in (201a) therefore only occurs in non-Form 2 contexts for a verb with a low-toned subject marker.

For verbs with a high-toned subject marker, this high tone remains when the H of the melody is lowered in Form 2 contexts, which means that we still have a high tone. A HL melody is therefore associated with the final syllable, and the downstep effect described above takes place. This can be seen in Table 6.19 for the 1st person plural, the 2nd person plural and AGR 2. In the negative, the melody is LH, and the final high lowers in Form 2 contexts.

(201) a. *Ààlyá ↓mángù.*

à-ly-a\LHL *mángù*
1S-eat-FV\PRES quickly
'S/he eats quickly.'

b. *Ààlyá bùlì lùnákù.*

à-ly-a\LHL *bùlí\FL* *lu-ˋnákù*
1S-eat-FV\PRES every\FL 11-day
'S/he eats every day.'

c. *Mùlyâ mbáátì.* [mùljâː mbáːtì]

mù´-ly-a\LHL *m.báátì*
2PLS-eat-FV\PRES 9.duck
'You PL eat duck.'

Table 6.5: The verb *kùlyá* 'to eat' in the Present tense. Form 2 is given with the object *múgáátì* 'bread'.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
1st SG	ǹdyâ	ǹdyà múgáátì	tìndyá	tìndyà múgáátì
1st PL	tùlyâ	tùlyá ↓múgáátì	tìtùlyá	tìtùlyà múgáátì
2nd SG	òòlyâ	òòlyà múgáátì	tòlyá	tòlyà múgáátì
2nd PL	mùlyâ	mùlyá ↓múgáátì	tìmùlyá	tìmùlyà múgáátì
AGR 1	ààlyâ	ààlyà múgáátì	tàlyá	tàlyà múgáátì
AGR 2	bàlyâ	bàlyá ↓múgáátì	tìbàlyá	tìbàlyà múgáátì

Vowel-initial stems Verb roots can start with either /i/, /o/, /a/ or /e/, and Tables 6.6 – 6.9 show the Present tense forms of the verbs *kwìbbá* 'to steal', *kwègá* 'to learn', *kwàgá* 'to scratch' and *kwòzá* 'to wash'. For verbs that start with /a/, /e/ or /o/ there are alternate forms in most tenses, where the sequence of the subject prefix + any TAM markers + the stem-initial vowel is handled in different ways. In the Present tense, there are alternate forms for 1st and 2nd person plural, as well as Agreement Classes 1 and 2 (other agreement class prefixes with the same vowels behave similarly). In such cases, what is generally seen is one form where the subject prefix, potentially the tense marker *a-* (in P3, P5 and F1), and the stem-initial vowels merge, giving a long vowel, and one version where the vowels are kept separate by a glide. This is exemplified by the forms *mwègâ* and *mùyégà* 'you PL learn' and *èègâ* and *àyégà* 's/he learns', which will be discussed in more detail below. No such alteration is found with /i/ initial verbs.

In the Present tense, in cases like *àyégà* there are three syllables, and so the verb behaves tonally like a regular bisyllabic verb. For forms that end up with only two syllables due to the merger of the subject marker and the stem-initial vowel into either a long vowel or a diphthong, the tone behaves similarly to monosyllabic verbs, where the verb gets a LHL melody, but the final HL is attached to only one syllable, resulting in a falling contour on the last vowel.

Table 6.6 shows the conjugation of *kwìbbá* 'to steal'. In /i/ initial verbs, we get a diphthong in those cases where the vowel of the prefix can participate in a diphthong with /i/. That is, for 2nd person singular, and for agreement classes 1, 2 and 9 and any other agreement classes whose subject marker ends in /a/. When the subject prefix ends in /u/, it is realised as a glide, and the stem-initial vowel is lengthened. With prefixes

that have an /i/ vowel, we get a long /i:/, and this is illustrated for Agreement Class 8 in Table 6.6. In all these cases, the initial syllable has a low tone. In a regular bisyllabic verb, the first stem vowel would be high, but here the stem-initial vowel assimilates to the tone of the subject prefix, which is low. The alternative would be a rising contour across a long vowel or a diphthong, but this is generally avoided (and is only found on P2 negative vowel-initial verbs). Because a rising tone is avoided, the first syllable is low throughout, and the rest of the melody is realised on the final syllable alone. When the verb is followed by another word, we see a similar change to what was discussed for monosyllabic verbs above: The final low tone detaches, and gives a downstep effect if the next word starts with a high tone. The one exception is the 1st person singular form, where the stem-initial /i/ is high, and the final syllable low. The 1st person singular prefix can be a TBU, carrying the first low tone, so that the next two syllables can each get one tone. If there is an epenthetic vowel before the nasal, this carries the low tone. The prefix and the stem-initial vowel are therefore in separate syllables, and there is no need for the stem-initial vowel to assimilate in tone.

In Form 2, we again see a similar picture to what was described for *kùlyá* 'to eat'. In the forms that have a subject prefix with a floating high tone, there is still a high tone on the last syllable, while the other forms are low-toned throughout.

In the negative forms, mostly the first two syllables are low, and the final syllable is high. Looking back at the forms for bisyllabic nouns given in 6.3, the negative prefix and the subject prefix have low tones, while the verb stem has all high tones. For *kwìbbá 'to steal'*, the stem-initial vowel is low, but this is likely due to assimilation with the tone of the subject prefix, much like what happens in the affirmative forms. Again the exception is the first person singular, where, as there is no subject marker vowel to assimilate to, the /i/ has a high tone.

Verbs that start in /a/, /e/ and /o/ all resemble each other, but behave somewhat differently from the /i/ initial verbs. Firstly, when there is a subject prefix in /u/ or /i/, it can either become a glide, and have the stem-initial vowel lengthen, or the prefix can be separated from the stem by a glide, giving the two variants *mwègâ* and *mùyégà* 'you PL learn'. For subject markers that end in /a/, there is a similar variation between

Table 6.6: The vowel-initial verb *kwìbbá* 'to steal' in the Present tense. Form 2 is given with the object *míyémbè* 'mangos'.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
1st SG	ǹjíbbà	ǹjìbbà míyémbè	tìnjíbbá	tìnjìbbà míyémbè
1st PL	twìbbâ	twìbbá ↓míyémbè	tìtwìbbá	tìtwìbbà míyémbè
2nd SG	òìbbâ	òìbbà míyémbè	tòìbbá	tòìbbà míyémbè
2nd PL	mwìbbâ	mwìbbá ↓míyémbè	tìmwìbbá	tìmwìbbà míyémbè
AGR 1	àìbbâ	àìbbà míyémbè	tàìbbá	tàìbbà míyémbè
AGR 2	bàìbbâ	bàìbbá ↓míyémbè	tìbàìbbá	tìbàìbbà míyémbè
AGR 8	bììbbâ	bììbbá ↓míyémbè	tìbììbbá	tìbììbbà míyémbè
AGR 9	èìbbâ	èìbbà míyémbè	tèìbbá	tèìbbà míyémbè

a form with a long vowel, and one where a glide separates the subject marker and the stem intital vowel, i.e. *bàyágà* and *bàágâ* 'they scratch'.

For the prefixes which consist of only a vowel, which is the 2nd person singular and agreement classes 1 and 9, in most cases a glide is inserted to separate the subject prefix and the verb stem, giving forms such as *òyégà* 'you SG learn' or *èyózà* 'it learns (AGR 9)'. For Agreement Class 1, however, there is also a possible variant where the subject marker merges with the stem-initial vowel, and assimilates to that vowel in quality, as in *èègâ* 'he learns', *àágâ* 'he scratches' and *òòzâ* 'he washes'.

When the verb form in question has three syllables, the LH*L melody applies as it would on a regular bisyllabic verb. The first person singular also behaves tonally in the same way, as the nasal or the epenthetic vowel can be a TBU.

In verb forms with two syllables, what happens is the same as what we saw for *kwìbbá* 'to steal'; the stem-initial (long) vowel is realised low, and the final syllable has a falling contour. For Form 2, the floating tone of the prefix again plays a role, and explains why *òyègà Lùgwérè* 'you SG learn Lugwere' has all low tones on the verb, while *mwègá Lùgwérè* 'you PL learn Lugwere' has a final high tone. For these verbs as well, the same process as described above takes place, with the detachment of the final low tone and the downstep of the following word, which is why we get *mwègá Lùgwérè* rather than **mwègâ Lùgwérè* (when the following syllable is low, the downstep does not have an overt effect). When the next word starts with a prenasalised consonant, the final vowel of the verb is lengthened. Except for in final position, only long vowels can have contour tones, which is likely why verbs seem to "dislike" having a final falling

Table 6.7: The vowel-initial verb *kwègá* 'to learn' in the Present tense. Form 2 is given with the object *Lùgwérè* 'Lugwere'. Alternative forms are given where relevant.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
1st SG	ǹjégà	ǹjègà Lùgwérè	tìnjégá	tìnjègà Lùgwérè
1st PL	twègâ	twègá Lùgwérè	tìtwègá	tìtwègà Lùgwérè
	tùyégà	tùyégà Lùgwérè	tìtùyégá	tìtùyègà Lùgwérè
2nd SG	òyégà	òyègà Lùgwérè	tòyégá	tòyègà Lùgwérè
2nd PL	mwègâ	mwègá Lùgwérè	tìmwègá	tìmwègà Lùgwérè
	mùyégà	mùyégà Lùgwérè	tìmùyégá	tìmùyègà Lùgwérè
AGR 1	èègâ	èègà Lùgwérè	tìègá	tìègà Lùgwérè
	àyégà	àyègà Lùgwérè	tàyégá	tàyègà Lùgwérè
AGR 2	bèègâ	bèègá Lùgwérè	tìbèègá	tìbèègà Lùgwérè
	bàyégà	bàyégà Lùgwérè	tìbàyégá	tìbàyègà Lùgwérè
AGR 8	byègâ	byègá Lùgwérè	tìbyègá	tìbyègà Lùgwérè
AGR 9	èyégà	èyàgà Lùgwérè	tèyégá	tèyègà Lùgwérè

Table 6.8: The vowel-initial verb *kwàgá* 'to scratch' in the Present tense. Form 2 is given with the object *múbírì* 'mangos'. Alternative forms are given where relevant.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
1st SG	ǹjágà	ǹjàgà múbírì	tìnjágá	tìnjàgà múbírì
1st PL	twàgâ	twàgá ↓múbírì	tìtwàgá	tìtwàgà múbírì
	tùyágà	tùyágà múbírì	tìtùyágá	tìtùyàgà múbírì
2nd SG	òyágà	òyàgà múbírì	tòyágá	tòyàgà múbírì
2nd PL	mwàgâ	mwàgá ↓múbírì	tìmwàgá	temwàgà múbírì
	mùyágà	mùyágà múbírì	tìmùyágá	tìmùyàgà múbírì
AGR 1	ààgâ	ààgà múbírì	tàágá	tààgà múbírì
	àyágà	àyàgà múbírì	tàyágá	tàyàgà múbírì
AGR 2	bààgâ	bààgá ↓múbírì	tìbàágá	tìbààgà múbírì
	bàyágà	bàyágà múbírì	tìbàyágá	tìbàyàgà múbírì
AGR 8	byàgâ	byàgá ↓múbírì	tìbyàgá	byàgà múbírì
AGR 9	èyágà/yágà	èyàgà múbírì	tèyágá	tèyàgà múbírì

tone, and resolve this by the downstep process when there is a following word that the low tone can be passed on to. In the cases where the verb is followed by a prenasalised consonant, however, the final syllable has two moras, and is therefore able to keep the HL falling contour. This can be seen for Form 2 of *kwòzá* 'to wash' in Table 6.9.

In the negative forms, the stem-initial vowel can be either low or high. In the cases which tonally behave like regular verbs, that is 1st person singular, 2nd person singular and agreement classes 1 and 9, the negative prefix has a low tone, while the stem is high throughout. In the other cases, the stem-initial vowel has a low tone when it has merged with the subject prefix, but a high tone when it is separated from the subject prefix by a glide. In all cases, the negative Form 2 is all low.

Table 6.9: The vowel-initial verb *kwòzá* 'to wash' in the Present tense. Form 2 is given with the object *ngwéyè* 'clothes'. Alternative forms are given where relevant.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
1st SG	ǹjózà	ǹjòzà ngwéyè	tìnjózá	tìnjòzà ngwéyè
1st PL	twòzâ	twòzâ ngwéyè	tìtwòzá	tìtwòzà ngwéyè
	tùyózà	tùyózà ngwéyè	tìtùyózá	tìtùyòzà ngwéyè
2nd SG	òyózà	òyòzà ngwéyè	tòyózá	tòyòzà ngwéyè
2nd PL	mwòzâ	mwòzâ ngwéyè	tìmwòzá	tìmwòzà ngwéyè
	mùyózà	mùyózà ngwéyè	tìmùyózá	tìmùyòzà ngwéyè
AGR 1	òòzâ	òòzà ngwéyè	tòòzá	tòòzà ngwéyè
	àyózà	àyòzà ngwéyè	tàyózá	tàyòzà ngwéyè
AGR 2	bòòzâ	bòòzâ ngwéyè	tìbòòzá	tìbòòzà ngwéyè
	bàyózà	bàyózà ngwéyè	tìbàyózá	tìbàyòzà ngwéyè
AGR 8	byòzâ	byòzâ ngwéyè	tìbyòzá	tìbyòzà ngwéyè
AGR 9	èyózà	èyòzà ngwéyè	tèyózá	tèyòzà ngwéyè

Longer stems Table 6.10 illustrates how the LH*L melody is applied to longer verbs, where the first L tone of the stem melody is able to be realised. The verbs in the table are, in general, more morphologically complex in one way or another than the verbs we have looked at so far, but extensions do not influence the tone, and so the surface tone is still determined by the tonal melody of the tense. The first and second lines show vowel-initial verbs that also have an extension. The third and fourth lines also have extensions, and line five has a verb with full reduplication. The other forms are a bit more obscure, but it is fairly safe to assume they are likely morphologically complex as well, at least historically.

Looking first at the forms with a low-toned subject marker, we see that on trisyllabic verb stems, there is an additional low tone, on the first syllable of the verb stem. In quadrisyllabic verb stems like *kùgàlábááyá* 'to rinse', the H tone is found on the two middle syllables of the stem. In Form 2, the verb has low tones throughout. In verbs with a high-toned subject marker, the first syllable of the stem has a high tone. This makes it clear that there is a difference between the H tone of the Present tense tonal melody, and the floating H tone that comes with subject prefixes such as *mù´-*. For the verb *kùjànjábá* 'to treat', the Form 1 affirmative forms listed in the table are *àjànjábà* 's/he treats' and *mùjánjábà* 'you PL treat'. In the latter case, the floating high tone is realised on the first syllable of the stem, which has a low tone in *àjànjábà*. The Form 2 versions are *àjànjàbà* and *mùjánjàbà*. Note that the first has all low tones, while the

second still retains the high tone on the first syllable of the stem. What seems to be happening here, then, is that in Form 2 contexts the H tone of the Present tense melody is lowered, but the floating high tone from the subject marker remains.

In the negative, the tonal melodies are much like what we have seen so far on shorter verbs. There is a LH* melody, and the negative prefix and subject prefixes are low, while the stem is high. The exception is the stem-initial vowel of the two vowel-initial verbs, which is low, and the same variation as discussed for shorter vowel-initial verbs also apply for longer ones. In Form 2 contexts, the negative verbs have a low tone throughout.

Table 6.10: Verbs with longer stems in the Present tense.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
Low-toned *a-* AGR1				
kwìgálá 'to close'	àìgálà	àìgàlà	tàìgálá	tàìgàlà
kwàkáná 'to argue'	àyàkánà	àyàkànà/ààkànà	tàyákáná	tàyàkànà
kùcùlúzá 'to trade'	àcùlúzà	àcùlùzà	tàcúlúzá	tàcùlùzà
kùbàlírá 'to count (for)'	àbàlírà	àbàlìrà	tàbálírá	tàbàlìrà
kùjànjábá 'to treat'	àjànjábà	àjànjàbà	tàjánjábá	tàjànjàbà
kùgàlágálá 'to nurse'	àgàlágálà	àgàlàgàlà	tàgálágálá	tàgàlàgàlà
kukalabanda 'to roast'	àkàlábándà	àkàlàbàndà	tàkálábándá	tàkàlàbàndà
kugalabaaya 'to waste'	àgàlábááyà	àgàlàbààyà	tàgálábááyá	tàgàlàbààyà
High-toned *mu-* 2PL				
kwìgálá 'to close'	mwìgálà	mwìgàlà	tìmwìgálá	tìmwìgàlà
kwàkáná 'to argue'	mwàkánà	mwàkànà	tìmwàkáná	tìmwàkànà
kùcùlúzá 'to trade'	mùcúlúzà	mùcúlùzà	tìmùcúlúzá	tìmùcùlùzà
kùbàlírá 'to count (for)'	mùbálírà	mùbálìrà	tìmùbálírá	tìmùbàlìrà
kùjànjábá 'to treat'	mùjánjábà	mùjánjàbà	tìmùjánjábá	tìmùjànjàbà
kùgàlágálá 'to nurse'	mùgálágálà	mùgálàgàlà	tìmùgálágálá	tìmùgàlàgàlà
kukalabanda 'to roast'	mùkálábándà	mùkálàbàndà	tìmùkálábándá	tìmùkàlàbàndà
kugalabaaya 'to waste'	mùgálábááyà	mùgálàbààyà	tìmùgálábááyá	tìmùgàlàbààyà

Present tense verbs with object markers As described in Chapter 5, object markers are added directly before the verbal stem. Table 6.11 shows a variety of verbs with object markers. All object markers are low-toned, and as mentioned above, the object markers block any floating high tones from spreading to the verb stem. This means that such high tones are realised on the subject prefix itself, and that is why the subject marker in *àmùmwâ* 's/he shaves him' is low, while it is high in *bámùmwâ* 'they shave him'.

In the affirmative, the stem melody, LH*L, is realised following the object marker. In monosyllabic and bisyllabic verbs, the first L tone is not realized, but it can be seen in longer verbs like *àmùjànjábà* 's/he treated him'. In the quadrisyllabic verb *àgìkàlábándà* 's/he roasts it' there is one low stem syllable followed by two high and a final low. For vowel-initial verbs, the object prefix interacts with the stem-initial vowel much in the same way as the subject prefixes do, and in Table 6.11 the form *àlwìbbâ* shows that the vowel of the object prefix *lu* has become a glide. The first L of the stem melody is realised on the stem-intial vowel. In Form 2, the stem has all low tones in all cases. In the cases where there is a floating high tone, it has already been "trapped" on the subject prefix, and so it has no influence on the tone of the stem.

In the negative, the negative marker is low, while the subject prefix is high in all cases. This is the default LH tone assigned when there is no pre-stem tonal melody. Following the object marker, we see the LH* stem melody.

Table 6.11: Verbs in the Present tense with object markers. The object markers used are *mù-* 'AGR 1' and *lu-* 'AGR 11' and *gi-* 'AGR 9'.

	FO1 AFF	FO1 NEG
Low-toned *a-* AGR 1		
kùmwá 'to shave'	àmùmwâ	támùmwá
kùgùlá 'to buy'	àmùgúlà	tálùgùlá
kwìbbá 'to steal'	àlwìbbâ	tálwìbbá
kwòzá 'to wash'	àlwòzâ	tálwòzá
kùjànjábá 'to treat'	àmùjànjábà	támùjànjábá
kùkàlábándá 'to roast'	àgìkàlábándà	tágìkàlábándá
High-toned *ba-* AGR 2		
kùmwá 'to shave'	bámùmwâ	tìbámùmwá
kùgùlá 'to buy'	bálùgúlà	tìbálùgùlá
kwìbbá 'to steal'	bálwìbbâ	tìbálwìbbá
kwòzá 'to wash'	bálwòzâ	tìbálwòzá
kùjànjábá 'to treat'	bámùjànjábà	tìbámùjànjábá
kùkàlábándá 'to roast'	bágìkàlábándà	tìbágìkàlábándá

6.4 Past tenses

The next five sections will give accounts of the five past tenses of Lugwere. All the forms discussed in this chapter uses regular past tense stems. There are quite a few verbs that

have irregular past tense stems, and most of these are cases where an extension merges with the past tense suffix in a process of imbrication. Because the irregularities can generally be explained with reference to extensions, this will be discussed in Chapter 9, which looks at the morphology of verbs with different extensions in detail. Irregular verbs that do not have extensions will also be discussed in that chapter, as there are few such cases, and they behave similarly to the verbs with extensions.

6.4.1 P1 - the Immediate Past

P1 is formed by the insertion of the prefix *a(n)ka-* between the subject marker and the root, with *-a* in final vowel position. Forms with the nasal and without it seem to be in free variation. Because the prefix is vowel-initial, the subject markers use the pre-vowel forms given in Table 5.1, where subject markers ending in /u/ and /i/ use semivowels, i.e. *mw-* instead of *mu-*. The 1st person singular is realised as *n-*, and this is the form that is always found preceding a vowel-initial affix. For any subject prefix with /a/, this vowel merges with the vowel of the tense prefix.

P1 has a stem melody LH*, and no pre-stem melody. In Form 1 affirmative the tone is low on the first vowel and high on all subsequent vowels. The tonal melody of the negative forms is the same as the affirmative, with the addition of the low-toned negative prefix. For both affirmative and negative forms, all syllables are realised low in Form 2 contexts.

Bisyllabic stems Table 6.12 gives the conjugation of *kùgùlá* 'to buy' in P1. As can be seen, there is no difference between subject prefixes with and without floating tones, as P1 uses the set of subject markers without inherent tone.

Monosyllabic stems Table 6.13 shows the conjugation of *kùlyá* 'to eat' in P1. As the tonal melody for this tense is LH*, there is no problem with applying it to a shorter stem, and so monosyllabic verbs behave regularly with respect to tone.

Table 6.12: The bisyllabic verb *kùgùlá* 'to buy' in P1. Form 2 is given with the object *nyânyá* 'tomato'.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
1st SG	nànkágúlá	nànkàgùlà nyânyá	tìnànkágúlá	tìnànkàgùlà nyânyá
1st PL	twànkágúlá	twànkàgùlà nyânyá	tìtwànkágúlá	tìtwànkàgùlà nyânyá
2nd SG	wànkágúlá	wànkàgùlà nyânyá	tìwànkágúlá	tìwànkàgùlà nyânyá
2nd PL	mwànkágúlá	mwànkàgùlà nyânyá	tìmwànkágúlá	tìmwànkàgùlà nyânyá
AGR 1	yànkágúlá	yànkàgùlà nyânyá	tìyànkágúlá	tìyànkàgùlà nyânyá
AGR 2	bànkágúlá	bànkàgùlà nyânyá	tìbànkágúlá	tìbànkàgùlà nyânyá

Table 6.13: The monosyllabic verb *kùlyá* 'to eat' in P1. Form 2 is given with the object *múyémbè* 'mango'.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
1st SG	nànkályá	nànkàlyà múyémbè	tìnànkályá	tìnànkàlyà múyémbè
1st PL	twànkályá	twànkàlyà múyémbè	tìtwànkályá	tìtwànkàlyà múyémbè
2nd SG	wànkályá	wànkàlyà múyémbè	tìwànkályá	tìwànkàlyà múyémbè
2nd PL	mwànkályá	mwànkàlyà múyémbè	tìmwànkályá	tìmwànkàlyà múyémbè
AGR 1	yànkályá	yànkàlyà múyémbè	tìyànkályá	tìyànkàlyà múyémbè
AGR 2	bànkályá	bànkàlyà múyémbè	tìbànkályá	tìbànkàlyà múyémbè

Vowel-initial stems P1 forms of a few different vowel-initial verbs are displayed in Table 6.14. Tonally, these verbs also behave regularly. Some variation exists for how the hiatus between the vowel of the tense affix and the stem is resolved. For /i/ initial verbs, we end up with a diphthong, whereas in the other cases we either see the prefix assimilating to the stem-initial vowel, leading to a long vowel, or we find a glide inserted between the two vowels.

Longer stems Table 6.15 shows some longer verbs in P1. In Form 1, the first syllable of the *a(n)ka-* prefix is low, and all subsequent syllables are high. In negative forms,

Table 6.14: vowel-initial verbs in P1, with AGR 1 subject markers.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
kwìbbá 'to steal'	yànkáíbbá	yànkàìbbà	tìyànkáíbbá	tìyànkàìbbà
kwòzá 'to wash'	yànkóózá	yànkòòzà	tìyànkóózá	tìyànkòòzà
	yànkáyózá	yànkàwòzà	tìyànkáyózá	tìyànkáyózá
kwàgá 'to scratch'	yànkáágá	yànkààgà	tìyànkáágá	tìyànkààgà
	yànkáyágá	yànkàyàgà	tìyànkáyágá	tìyànkàyàgà
kwègá 'to learn'	yànkéégá	yànkègà	tìyànkégá	tìyàkègà
	yànkáyégá	yànkàyègà	tìyànkáyégá	tìyànkàyègà

Table 6.15: Longer verbs in P1, with AGR 1 subject markers.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
kùjànjábá 'to treat'	yànkájánjábá	yànkàjànjàbà	tìyànkájánjábá	tìyànkàjànjàbà
kùgàlágálá 'to nurse'	yànkágálágálá	yànkàgàlàgàlà	tìyànkágálágálá	tìyànkàgàlàgàlà
kùgàlámbúlyá 'to rinse'	yànkágálámbúlyá	yànkàgàlàmbùlyà	tìyànkágálámbúlyá	tìyànkàgàlàmbùlyà

Table 6.16: Verbs with object markers in P1, with AGR 1 subject markers. The object markers used are *ga-* 'AGR 5', *lu-* 'AGR 11', *gu-* 'AGR 3' and *mu-* 'AGR 1'.

	FO1 AFF	FO1 NEG
kùlyá 'to eat'	yànkágàlyá	tìyànkágàlyá
kùgùlá 'to buy'	yànkálùgùlá	tìyànkálùgùlá
kùlòndá 'to select'	yànkágùlòndá	tìyànkágùlòndá
kwàgá 'to scratch'	yànkálwàgá	tìyànkálwàgá
kùjànjábá 'to treat'	yànkámùjànjábá	tìyànkámùjànjábá
kùgàlágálá 'to nurse'	yànkámùgàlágálá	tìyànkámùgàlágálá

the negative prefix is also low, but otherwise the tone is not changed. In Form 2, all syllables have a low tone.

Object markers An object marker is inserted between the *-a(n)ka-* prefix and the stem. This cuts of the the prefixes from the stem melody. The stem LH* melody is realised after the object marker, where the first low tone is left out in monosyllabic verbs. The prefixes then get a default LH tone.

6.4.2 P2 - the Hodiernal Past

P2, or the Hodiernal Past, is formed by attaching the subject prefixes directly to the past tense stem, which consists of the root (plus any extensions) plus the suffix *-ire*. The tonal melody is LH*L in the affirmative. There is no pre-stem melody, but P2 affirmative uses the set of subject makers that have tone. The subject prefix and the first syllable of the stem is low, and the suffix has a HL tone, i.e. *-írè*. For high-toned subject markers, the floating tone is realised on the first syllable of the stem, and that is why the tones of *ògùlírè* 'you SG bought' and *mùgúlírè* 'you PL bought' differ from each other. There is no difference between Form 1 and Form 2 in the affirmative, but such a distinction does exist in the negative. In the negative there is also no pre-stem melody, and the toneless

Table 6.17: The bisyllabic verb *kùgùlá* 'to buy' in P2. Form 2 is given with the object *nyânyá* 'tomato'.

	FO1/FO2 AFF	FO1 NEG	FO2 NEG
1st SG	ǹgùlírè (nyânyá)	tìngúlìré	tìngúlìrè nyânyá
1st PL	tùgúlírè (nyânyá)	tìtùgúlìré	tìtùgúlìrè nyânyá
2nd SG	ògùlírè (nyânyá)	tògúlìré	tògúlìrè nyânyá
2nd PL	mùgúlírè (nyânyá)	tìmùgúlìré	tìmùgúlìrè nyânyá
AGR 1	àgùlírè (nyânyá)	tàgúlìré	tàgúlìrè nyânyá
AGR 2	bàgúlírè (nyânyá)	tìbàgúlìré	tìbàgúlìrè nyânyá

subject makers are used. The stem melody is LHL*H, and the L spreads to the pre-stem prefixes when there is no object maker. The final H lowers in Form 2.

Bisyllabic stems Table 6.17 shows the conjugation of *kùgùlá* 'to buy' for 1st and 2nd person, as well as Agreement Classes 1 and 2, while Table 6.18 shows P2 forms of *kùmàlá* 'to finish' for agreement classes 3 – 12 and 14. In the affirmative, the tables show that there is a difference between high and low-toned subject markers in the affirmative, but no such distinction is seen in the negative. In isolation, the final high tone of the negative Form 1 is not always very distinct from the low tone that comes before it, seeing as the preceding L causes downdrift, but if the form is followed by another word which does not trigger Form 2, such as an adverbial of time in (202), it is clear that the final syllable is indeed high. For longer verbs, the final high is also more distinct, as the downdrift effect becomes smaller if there is a longer sequence of low-toned syllables. In Form 2 contexts, the final syllable gets a low tone.

(202) *Tèmùgúlìré bùlì kìséèrá.*

ti-mu-gul-ire\LHLH bùlí\FL ki-ˋséèrá
NEG-2PLS-buy-PST2\P2.NEG every\FL 7-time
'They were not buying all the time.'

Monosyllabic stems Table 6.19 shows the conjugation of *kùlyá* 'to eat' in P2. In the affirmative, the melody is HL, and the first L of the stem melody is not pronounced. In the negative, the LHLH tone is made possible by having a fall on the middle syllable, which always has either a long vowel or a diphthong (see Section 5.8.2). In Form 2

Table 6.18: The bisyllabic verb *kùmàlá* 'to finish, be enough' in P2. Form 2 is given with the object *mwàná* 'child', the meaning being 'X was enough for the/a child'.

	FO1/FO2 AFF	FO1 NEG	FO2 NEG
AGR 3	gùmálírè (mwàná)	tìgùmálìré	tìgùmálìrè (mwàná)
AGR 4	gìmálírè (mwàná)	tìgìmálìré	tìgìmálìrè mwàná
AGR 5	lìmálírè (mwàná)	tìrìmálìré	tìrìmálìrè mwàná
AGR 6	gàmálírè (mwàná)	tìgàmálìré	tìgàmálìrè mwàná
AGR 7	kìmálírè (mwàná)	tìkìmálìré	tìkìmálìrè mwàná
AGR 8	bìmálírè (mwàná)	tìbìmálìré	tìbìmálìrè mwàná
AGR 9	èmàlírè (mwàná)	tèmálìré	tèmálìrè mwàná
AGR 10	gìmálírè (mwàná)	tìgìmálìré	tìgìmálìrè mwàná
AGR 11	lùmálírè (mwàná)	tìrùmálìré	tìrùmálìrè mwàná
AGR 12	kàmálírè (mwàná)	tìkàmálìré	tìkàmálìrè mwàná
AGR 14	bùmálírè (mwàná)	tìbùmálìré	tìbùmálìrè mwàná

Table 6.19: The monosyllabic verb *kùlyá* 'to eat' in P2. Form 2 is given with the object *múyémbè* 'mango'.

	FO1/FO2 AFF	FO1 NEG	FO2 NEG
1st SG	ǹdíírè (múyémbè)	tìndíìré	tìndíírè múyémbè
1st PL	tùlíírè (múyémbè)	tìtùlíìré	tìtùlíírè múyémbè
2nd SG	òlíírè (múyémbè)	tòlíìré	tòlíírè múyémbè
2nd PL	mùlíírè (múyémbè)	tìmùlíìré	tìmùlíírè múyémbè
AGR 1	àlíírè (múyémbè)	tàlíìré	tàlíírè múyémbè
AGR 2	bàlíírè (múyémbè)	tìbàlíìré	tìbàlíírè múyémbè

contexts, the final high tone is lowered, and the pattern therefore becomes LHL, and we no longer see a falling tone on the middle syllable.

Vowel-initial stems Tables 6.20 – 6.23 show the P2 forms of the verbs *kwìbbá* 'to steal', *kwòzá* 'to wash', *kwàgá* 'to scratch' and *kwègá* 'to learn'. The observations in Section 6.3 about how the different subject prefixes combine with the stem-initial vowel also apply here, and the same alternate forms exist. For the affirmative forms, the LH*L melody can be applied without any issues. The main difference between these forms and the bisyllabic verbs is that there is no alternation based on the subject prefixes. That is, the floating high tones are not realised, potentially because the first TBU of the stem, where that tone would otherwise attach, is here influenced by the low tone of the subject markers. And, if it was to be realised, we might end up with a rising contour, which is generally avoided. That being said, in the negative forms we do actually see exactly such a rising contour, and these are some of the only contexts in Lugwere where

Table 6.20: The vowel-initial verb *kwìbbá* 'to steal' in P2. Form 2 is given with the object *míyémbè* 'mangos'.

	FO1/FO2 AFF	FO1 NEG	FO2 NEG
1st SG	ǹjìbbírè (míyémbè)	tìnjíbbìré	tìnjíbbìrè míyémbè
1st PL	twìbbírè (míyémbè)	tìtwĭbbìré	tìtwĭbbìrè míyémbè
2nd SG	òìbbírè (míyémbè)	tòíbbìré	tòíbbìrè míyémbè
2nd PL	mwìbbírè (míyémbè)	tìmwĭbbìré	tìmwĭbbìrè míyémbè
AGR 1	àìbbírè (míyémbè)	tàíbbìré	tàíbbìrè míyémbè
AGR 2	bàìbbírè (míyémbè)	tìbàíbbìré	tìbàíbbìrè míyémbè
AGR 8	bììbbírè (míyémbè)	tìbìíbbìré	tìbìíbbìrè míyémbè
AGR 9	èìbbírè(míyémbè)	tèíbbìré	tèíbbìrè míyémbè

Table 6.21: The vowel-initial verb *kwòzá* 'to wash' in P2. Form 2 is given with the object *ngwéyè* 'clothes'. Alternative versions are shown where relevant.

	FO1/FO2 AFF	FO1 NEG	FO2 NEG
1st SG	ǹjòzérè (ngwéyè)	tìnjózèré	tìnjózèrè ngwéyè
1st PL	twòzérè (ngwéyè)	tìtwŏzèré	tìtwŏzèrè ngwéyè
	tùyózérè (ngwéyè)	tìtùyózèré	tìtùyózèrè ngwéyè
2nd SG	òyòzérè (ngwéyè)	tòyózèré	tòyózèrè ngwéyè
2nd PL	mwòzérè (ngwéyè)	tìmwŏzèré	tìmwŏzèrè ngwéyè
	mùyózérè (ngwéyè)	tìmùyózèré	tìmùyózèrè ngwéyè
AGR 1	òòzérè (ngwéyè)	tòòzérè	tòòzérè ngwéyè
	àyòzérè (ngwéyè)	tàyózèré	tàyózèrè ngwéyè
AGR 2	bòòzérè (ngwéyè)	tìbòózèré	tìbòózèrè ngwéyè
	bàyózérè (ngwéyè)	tìbàyózèré	tìbàyózèrè ngwéyè
AGR 8	byòzérè (ngwéyè)	tìbyŏzèré	tìbyŏzèrè ngwéyè
AGR 9	èyòzérè (ngwéyè)	tèyózèré	tèyózèrè ngwéyè

we do actually get a rising tone. An example of this is *tìmwŏzèré* 'you PL did not wash'. There is also a variant of this without a rising tone, where the subject prefix and the stem are separated by a glide, as in *tèmùyózèré*.

In verb forms that have a glide between the subject marker and the stem-initial vowel, the verbs behave tonally just like any other bisyllabic verb, as in *mùyózérè* 'you PL washed' and *tèmùyózèré* 'you PL did not wash'. When the subject marker merges with the initial vowel, however, either by gliding, by merging into a long vowel, or by creating a diphthong, these initial vowels, which would otherwise be high following a high-toned subject marker, find themselves in the same syllable as the subject prefix, or at least in a context where the pre-stem low tone has nowhere else to go, and so the initial vowel ends up being realised low in the affirmative, as in *mwòzérè* 'you PL washed'.

Table 6.22: The vowel-initial verb *kwàgá* 'to scratch' in P2. Form 2 is given with the object *múbírì* 'body'. Alternative versions are shown where relevant

	FO1/FO2 AFF	FO1 NEG	FO2 NEG
1st SG	ǹjàgírè (múbírì)	tìnjágìré	tìnjágìrè múbírì
1st PL	twàgírè (múbírì)	tìtwǎgìré	tìtwǎgìrè múbírì
	tùyágírè (múbírì)	tìtùyágìré	tìtùyágìrè múbírì
2nd SG	òyàgírè (múbírì)	tòyágìré	tòyágìrè múbírì
2nd PL	mwàgírè (múbírì)	tìmwǎgìré	tìmwǎgìrè múbírì
	mùyágírè (múbírì)	tìmùyágìré	tìmùyágìrè múbírì
AGR 1	ààgírè (múbírì)	tàágìré	tàágìrè múbírì
	àyàgírè (múbírì)	tàyágìré	tàyágìrè múbírì
AGR 2	bààgírè (múbírì)	tìbàágìré	tìbàágìrè múbírì
	bàyágírè (múbírì)	tìbàyágìré	tìbàyágìrè múbírì
AGR 8	byàgírè (múbírì)	tìbyǎgìré	tìbyǎgìrè múbírì
AGR 9	èyàgírè (múbírì)	tèyágìré	tèyágìrè múbírì

Table 6.23: The vowel-initial verb *kwègá* 'to learn' in P2. Form 2 is given with the object *Lùgwérè* 'Lugwere'. Alternative versions are shown where relevant.

	FO1/FO2 AFF	FO1 NEG	FO2 NEG
1st SG	ǹjègérè (Lùgwérè)	tìnjégèré	tìnjégèrè Lùgwérè
1st PL	twègérè (Lùgwérè)	tìtwĕgèré	tìtwĕgèrè Lùgwérè
	tùyégérè (Lùgwérè)	tìtùyégèré	tìtùyégèrè Lùgwérè
2nd SG	òyègérè (Lùgwérè)	tòyégèré	tòyégèrè Lùgwérè
2nd PL	mwègérè (Lùgwérè)	tìmwĕgèré	tìmwĕgèrè Lùgwérè
	mùyégérè (Lùgwérè)	tìmùyégèré	tìmùyégèrè Lùgwérè
AGR 1	èègérè (Lùgwérè)	tìégèré	tìégèrè Lùgwérè
	àyègérè (Lùgwérè)	tàyégèré	tàyégèrè Lùgwérè
AGR 2	bèègérè (Lùgwérè)	tìbèégèré	tìbèégèrè Lùgwérè
	bàyégérè (Lùgwérè)	tìbàyégèré	tìbàyégèrè Lùgwérè
AGR 8	byègérè (Lùgwérè)	tìbyĕgèré	tìbyĕgèrè Lùgwérè
AGR 9	èyègérè (Lùgwérè)	tèyégèré	tèyégèrè Lùgwérè

Longer stems Table 6.24 shows some longer verbs in P2. As the difference between *àgàbánírè* 's/he shared' and *bàgábánírè* 'they shared' shows, whether or not the subject prefix has a floating high tone is relevant in all these cases. Following the initial stem syllable, which is high or low depending on the subject prefix, all subsequent syllables before the final syllable are high. In the negative, the negative and subject prefix is low, the stem-initial syllable is high, and any subsequent stem syllables are low, until the final, high syllable. In Form 2, all syllables following the first stem syllable are low.

Object markers In a manner similar to what was discussed for the Present tense in Section 6.3, when an affirmative verb in P2 has an object marker, any floating high tone

Table 6.24: Longer verbs in P2.

	FO1/FO2 AFF	FO1 NEG	FO2 NEG
Low-toned *a-* AGR 1			
kwàkáná 'to argue'	ààkánírè/àyàkánírè	tààkánìré/tàyákànìré	tààkánìrè/tàyákànìrè
kùgàbáná 'to share'	àgàbánírè	tàgábànìré	tàgábànìrè
kùjànjàbá 'to treat'	àjànjábírè	tàjánjàbìré	tàjánjàbìrè
kùkàlábándá 'to roast'	àkàlábándírè	tàkálàbàndìré	tàkálàbàndìrè
kùgàlágálá 'to nurse'	àgàlágálírè	tàgálàgàlìré	tàgálàgàlìrè
High-toned *ba-* AGR 2			
kwàkáná 'to argue'	bàákánírè/bàyákánírè	tìbàákánìré/tìbàyákànìré	tìbàákánìrè/tìbáyàkànìrè
kùgàbáná 'to share'	bàgábánírè	tìbàgábànìré	tìbàgábànìrè
kùjànjàbá 'to treat'	bàjánjábírè	tìbàjánjàbìré	tìbàjánjàbìrè
kùkàlábándá 'to roast'	bàkálábándírè	tìbàkálàbàndìré	tìbàkálàbàndìrè
kùgàlágálá 'to nurse'	bàgálágálírè	tìbàgálàgàlìré	tìbàgálàgàlìrè

associated with the subject marker is 'trapped', and is realised on the subject marker itself, which accounts for the difference in tone between *àgùgùlírè* 's/he bought it' and *bágùgùlírè* 'they bought it'. The object marker itself is realised low, and the stem has a LH*L melody, except for in the case of monosyllabic verbs, which get only a HL tone, as in *àgàlíírè* 's/he ate it'.

In the negative, the negative marker is low where it is a separate syllable, as in *tèbágùgùlírè* 'they did not buy it', while the subject maker is high. For Agreement Class 1, where the negative marker merges with the subject marker, the tone is high, as in *tágàlîìré* 's/he did not eat it'. The melody of the stem differs depending on length. Bisyllabic verbs like *kùgùlá* 'to buy' and vowel-initial verbs like *kwìbbá* 'to steal' have a LHL melody on the stem, as in *tágùgùlírè* 's/he did not buy it', while monosyllabic verbs have a HLH melody, as in *tágàlîìré* 's/he did not eat it', where a fall is realised on the long vowel. Longer verbs, like *kùjànjábá* 'to treat' have the full LHLH melody on the stem. As with the Present tense and the Infinitive, the high tone that appears on the subject prefix when there is a object marker in the negative, can be explained by a default LH tone when the stem melody is cut off by the object marker.

6.4.3 P3 - the Hesternal Past

P3 is formed by a combination of the prefix *a-* in TA and the suffix *-ire*. P3 uses the subject markers without tone. The tonal melody is H.LH*L in the affirmative, and

Table 6.25: P2 verbs with object markers. Object markers used are *gu-* 'AGR 3', *ga-* 'AGR 6', *lu-* 'AGR 11', *mu-* 'AGR1'.

	FO1 AFF	FO1 NEG
Low-toned *a-* AGR 1		
kùgùlá 'to buy'	àgùgùlírè	tágùgùlírè
kùlyá 'to eat'	àgàlíírè	tágàlííré
kwìbbá 'to steal'	àlwìbbírè	tálwìbbírè
kùjànjábá 'to treat'	àmùjànjábírè	támùjànjábìré
kùgàlágálá 'to nurse'	àmùgàlágálírè	támùgàlágàlìré
High-toned *ba-* AGR 2		
kùgùlá 'to buy'	bágùgùlírè	tìbágùgùlírè
kùlyá 'to eat'	bágàlíírè	tìbágàlííré
kwìbbá 'to steal'	bálwìbbírè	tìbálwìbbírè
kùjànjábá 'to treat'	bámùjànjábírè	tìbámùjànjábìré
kùgàlágálá 'to nurse'	bámùgàlágálírè	tìbámùgàlágàlìré

L.H*L or LH.LH*L in the negative, with the periods separating the pre-stem melody from the stem melody. There seems to be somewhat free variation between the two negative forms, so that 's/he did not buy' can be either *tìyágúlírè* or *tìyágùlírè*. In the tables in this section I will mostly use the L.H*L form, as these were more commonly used by the speakers who provided the recordings for the paradigms in this Chapter, although a speaker consulted in the earlier stages of the research more commonly used the LH.LH*L form. The LH.LH*L negative forms are identical to the affirmative, only with the addition of a low-toned negative prefix. In the L.H*L negative forms, there is also some variation as to whether the negative marker is low or high, so in some cases it appears to be just H*L.

Neither the affirmative nor the negative forms of P3 have a separate Form 2, and there is no distinction between prefixes with or without a floating high tone.

Bisyllabic stems Tables 6.26 and 6.27 show the bisyllabic verbs *kùgùlá* 'to buy' and *kùmàlá* 'to finish' in P3. The tonal melody is HLHL in the affirmative, with a high tone on the prefix *a-*, a low tone on the stem *-gul-/-mal-*, and a HL melody on the suffix *-ire*. In the negative it is LHHHL, HHHHL or LHLHL, with a low or high negative prefix, a high tone on the tense prefix, a low or a high tone on the stem, and a HL melody on the suffix.

Table 6.26: The bisyllabic verb *kùgùlá* 'to buy' in P3.

	FO1/FO2 AFF	FO1/FO2 NEG
1st SG	nágùlírè	tìnágúlírè
1st PL	twágùlírè	tìtwágúlírè
2nd SG	wágùlírè	tìwágúlírè
2nd PL	mwágùlírè	tìmwágúlírè
AGR 1	yágùlírè	tìyágúlírè
AGR 2	bágùlírè	tìbágúlírè

Table 6.27: The bisyllabic verb *kùmàlá* 'to finish' in P3.

	FO1/FO2 AFF	FO1/FO2 NEG
AGR 3	gwámàlírè	tìgwámálírè
AGR 4	gyámàlírè	tìgyámálírè
AGR 5	lyámàlírè	tìryámálírè
AGR 6	gámàlírè	tìgámálírè
AGR 7	kyámàlírè	tìkyámálírè
AGR 8	byámàlírè	tìbyámálírè
AGR 9	yámàlírè	tìyámálírè
AGR 10	gyámàlírè	tìgyámálírè
AGR 11	lwámàlírè	tìrwámálírè
AGR 12	kámàlírè	tìkámálírè
AGR 14	bwámàlírè	tìbwámálírè

Monosyllabic stems The conjugation of *kùlyá* 'to eat' in the Hesternal tense is given in Table 6.28. Monosyllabic verbs have only three syllables, and although there is a long vowel and so in theory enough moras for the whole H.LH*L melody, what we see instead is HHL. This is likely because if the full melody was to be realised, the long vowel/diphthong would have to have a rising LH melody, which is often avoided. The melody in the negative is the same, only with the addition of the negative prefix.

Vowel-initial stems Tables 6.29 – 6.32 give the paradigms for four verbs with vowel-initial stems. The /a/, /e/ and /o/ initial verbs show an alternation between two forms,

Table 6.28: The monosyllabic verb *kùlyá* 'to eat' in P3.

	FO1/FO2 AFF	FO1/FO2 NEG
1st SG	nálíírè	tìnálíírè
1st PL	twálíírè	tìtwálíírè
2nd SG	wálíírè	tìwálíírè
2nd PL	mwálíírè	tìmálíírè
AGR 1	yálíírè	tìyálíírè
AGR 2	bálíírè	tìbálíírè

Table 6.29: The vowel-initial verb *kwìbbá* 'to steal' in P3.

	FO1/FO2 AFF	FO1/FO2 NEG
1st SG	náíbbírè	tìnáíbbírè
1st PL	twáíbbírè	tìtwáíbbírè
2nd SG	wáíbbírè	tìwáíbbírè
2nd PL	mwáíbbírè	tìmwáíbbírè
AGR 1	yáíbbírè	tìyáíbbírè
AGR 2	báíbbírè	tìbáíbbírè
AGR 8	byáíbbírè	tìbyáíbbírè

Table 6.30: The vowel-initial verb *kwàgá* 'to scratch' in P3, showing two alternative versions.

	FO1/FO2 AFF	FO1/FO2 NEG
1st SG	nâàgírè	tìnâàgírè/tìnâágírè
	náyàgírè	tìnáyàgírè
1st PL	twâgírè	tìtwágírè
	twáyàgírè	tìtwáyàgírè
2nd SG	wâàgírè	tìwâágírè
	wáyàgírè	tìwáyágírè
2nd PL	mwâgírè	tìmwágírè
	mwáyàgírè	tìmwáyágírè
AGR 1	yâàgírè	tìyâágírè
	yáyàgírè	tìyáyágírè
AGR 2	bâàgírè	tìbâágírè
	báyàgírè	tìbáyágírè
AGR 8	byâgírè	tìbyágírè

one where the subject prefix and/or tense prefix have merged with the stem-initial vowel to form one, long syllable, as in *nâàgírè* 'I scratched', and one where the tense prefix has been separated from the stem by a glide, as in *náyàgírè* 'I scratched'. In the former case, the tense prefix *a-* assimilates to the quality of the stem-initial vowel, e.g. /o/ in *nóòzérè* 'I washed'.

Vowel-initial stems in /i/ has a HHL pattern in the affirmative, much like the monosyllabic verbs discussed above. This is illustrated in table 6.29 for *kwìbbá* 'to steal'. The tense prefix and the initial /i/ form a diphthong.

For verbs with /e/, /a/ or /o/ initial vowels, the full H.LHL melody is realised. If the tense prefix is separated from the stem with a glide, the word form has four syllables, and behaves regularly in respect to tone, as in *náyègérè* 'I learned'. When the stem and the tense prefix has merged into one long vowel, there is a falling contour, as in *nêègérè* 'I learned'. In the negative, these verbs have either a LHL or a LHLHL melody.

Table 6.31: The vowel-initial verb *kwègá* 'to learn' in P3, showing two alternative versions.

	FO1/FO2 AFF	FO1/FO2 NEG
1st SG	néègérè	tìnéégérè
	náyègérè	tìnáyégérè
1st PL	twêgérè	tìtwégérè
	twáyègérè	tìtwáyégérè
2nd SG	wéègérè	tìwéégérè
	wáyègérè	tíwáyégérè
2nd PL	mwêgérè	tìmwégérè
	mwáyègérè	tìmwáyégérè
AGR 1	yéègérè	tìyéégérè
	yáyègérè	tìyáyégérè
AGR 2	béègérè	tìbéégérè
	báyègérè	tìbáyégérè
AGR 8	byêgérè	tìbyégérè
	byáyègérè	tìbyáyégérè

Table 6.32: The verb *kwòzá* 'to wash' in P3, showing two alternative versions.

	FO1/FO2 AFF	FO1/FO2 NEG
1st SG	nóòzérè	tìnóózérè
	náyòzérè	tìnáyózérè
1st PL	twôzérè	tìtwózérè
	twáyòzérè	tìtwáyózérè
2nd SG	wóòzérè	tìwóózérè
	wáyòzérè	tìwáyózérè
2nd PL	mwôzérè	tìmwózérè
	mwáyòzérè	tìmwáyózérè
AGR 1	yóòzérè	tìyóózérè
	yáyòzérè	tìyáyózérè
AGR 2	bóòzérè	tìbóózérè
	báyòzérè	tìbáyózérè
AGR 8	byôzérè	tìbyózérè /tìbyôzérè
	byáyòzérè	tìbyáyózérè

Longer stems Table 6.33 shows some longer verbs in P3. In *yájànjábírè* and *yálòwóózérè* we see that the additional stem syllable is high, giving us a HLHHL sequence. The same is the case for *yáàkánírè*, with the exception that the first two tones are realised on the long vowel in the first syllable of this verb with a vowel-initial stem. In the quadrisyllabic verb *yákàlàbándírè*, there is an additional low tone, giving us a HLLHHL sequence. In the negative the same variation between LHL and LHLHL as discussed above is found.

Table 6.33: Some longer verbs in P3 with AGR 1 subject markers.

	FO1/FO2 AFF	FO1/FO2 NEG
kwàkáná 'to argue'	yáàkánírè	tìyáákánírè
kùjànjábá 'to treat'	yájànjábírè	tíyájánjábírè
kùlòwóózá 'to think'	yálòwóózérè	tìyálówóózérè
kùkàlábándá 'to roast'	yákàlàbándírè	tìyákálábándírè

Table 6.34: P3 verbs with object markers, with AGR 1 subject markers. The object markers used are *lu-* 'AGR 11', *gu-* 'AGR 3', *ga-* 'AGR 6', *mu-* 'AGR 1', and *gi-* 'AGR 9'

	FO1/FO2 AFF	FO1/FO2 NEG
kùgùlá 'to buy'	yálùgùlírè	tíyálùgùlírè
kùlòndá 'to select'	yágùlòndérè	tíyágúlóndérè
kùnywá 'to drink'	yágànywíírè	tíyágànywíírè
kùlòwóózá 'to think'	yámùlòwóózérè	tíyámúlówóózérè
kùkàlábándá 'to roast'	yágìkàlábándírè	tíyágíkálábándírè
kwègá 'to learn'	yálwègérè/yálùyègérè	tìyálùyègérè

Object markers Table 6.34 shows some verbs in P3 with object markers. In the affirmative, the *a-* prefix has a high tone, the object marker is low, and stem has a LH*L melody. In the negative, the negative prefix can be low or high, the *a-* prefix is high, and the stem can be either LH*L or H*L . With a LH*L stem melody, the object marker is low, and with a H*L melody the object marker is high.

6.4.4 P4 - the Recent Past

P4 is formed by adding the suffix *-nga* to the end of a verb in P1. This is the suffix that is also used to mark the Habitual aspect, and as will be discussed in Section 7.2.1, it does not change the tonal melody of the verb, except for adding another syllable so that the way the melody is applied to the verb might shift slightly. The tones for verbs in P4 are therefore the same as in P1, the first syllable of the *-a(n)ka-* prefix is low, and all subsequent syllables are high. In the negative the negative marker is also low. For both the affirmative and the negative the whole verb form has a low tone in Form 2 contexts. Some verbs of various types in P4 are shown in Table 6.35.

Table 6.35: Verbs in P4 with AGR 1 subject markers.

	FO1 AFF	FO2 AFF
kùgùlá 'to buy'	yànkágúlángá	yànkàgùlàngà
kùlyá 'to eat'	yànkályángá	yànkàlyàngà
kwìbbá 'to steal'	yànkáíbbángá	yànkàìbbàngà
kùjànjábá 'to treat'	yànkájánjábángá	yànkàjànjàbàngà
kùgàlámbúlyá 'to rinse'	yànkágálámbúlyángá	yànkàgàlàmbùlyàngà
	FO1 NEG	**FO2 NEG**
kùgùlá 'to buy'	tìyànkágúlángá	tìyànkàgùlàngà
kùlyá 'to eat'	tìyànkályángá	tìyànkàlyàngà
kwìbbá 'to steal'	tìyànkáíbbángá	tìyànkàìbbàngà
kùjànjábá 'to treat'	tìyànkájánjábángá	tìyànkàjànjàbàngà
kùgàlámbúlyá 'to rinse'	tìyànkágálámbúlyángá	tìyànkàgàlàmbùlyàngà

Table 6.36: The bisyllabic verb *kùgùlá* 'to buy' in P5. Form 2 is given with the object *nyânyá* 'tomatoes'.

	FO1 AFF	FO2 AFF	FO1/FO2 NEG
1st SG	nàgùlìré	nàgùlìrè nyânyá	tínàgúlírè (nyânyá)
1st PL	twàgùlìré	twàgùlìrè nyânyá	títwàgúlírè (nyânyá)
2nd SG	wàgùlìré	wàgùlìrè nyânyá	tíwàgúlírè (nyânyá)
2nd PL	mwàgùlìré	mwàgùlìrè nyânyá	tímwàgúlírè (nyânyá)
AGR 1	yàgùlìré	yàgùlìrè nyânyá	tíyàgúlírè (nyânyá)
AGR 2	bàgùlìré	bàgùlìrè nyânyá	tíbàgúlírè (nyânyá)

6.4.5 P5 - the Distant Past

P5 is segmentally identical to P3. That is, it is also formed with a combination of the prefix *a-* and the suffix *-ire*. The tonal melody for P5 is L.L*H in the affirmative, where the final syllable is high and all preceding syllables are low. In Form 2 contexts, the final high is lowered, so that the verb form has all low tones. In the negative the melody is HL.HL, and there is no Form 1/Form 2 alternation.

Bisyllabic stems Tables 6.36 and 6.37 show verb forms in P5 for the bisyllabic verbs *kùgùlá* 'to buy', and *kùmàlá* 'to finish'. In the affirmative, the verbs have a LLLH pattern, with the high on the final syllable. In the negative the melody is HLH*L, where the negative prefix is high, the subject + tense prefix is low, the stem is high, and the suffix has a HL melody, as illustrated by *tínàgúlírè* 'I did not buy'.

Table 6.37: The bisyllabic verb *kùmàlá* 'to finish, be enough' in P5. Form 2 is given with the object *mwàná* 'child', the meaning being 'X was enough for the/a child'.

	FO1 AFF	FO2 AFF	FO1/FO2 NEG
AGR 3	gwàmàlìré	gwàmàlìrè mwàná	tígwàmàlírè (mwàná)
AGR 4	gyàmàlìré	gyàmàlìrè mwàná	tígyàmàlírè (mwàná)
AGR 5	lyàmàlìré	lyàmàlìrè mwàná	tílyàmàlírè (mwàná)
AGR 6	gàmàlìré	gàmàlìrè mwàná	tígàmàlírè (mwàná)
AGR 7	kyàmàlìré	kyàmàlìrè mwàná	tíkyàmàlírè (mwàná)
AGR 8	byàmàlìré	byàmàlìrè mwàná	tíbyàmàlírè (mwàná)
AGR 9	yàmàlìré	yàmàlìrè mwàná	tíyàmàlírè (mwàná)
AGR 10	gyàmàlìré	gyàmàlìrè mwàná	tígyàmàlírè (mwàná)
AGR 11	lwàmàlìré	lwàmàlìrè mwàná	tílwàmàlírè (mwàná)
AGR 12	kàmàlìré	kàmàlìrè mwàná	tíkàmàlírè (mwàná)
AGR 14	bwàmàlìré	bwàmàlìrè mwàná	tíbwàmàlírè (mwàná)

Table 6.38: The monosyllabic verb *kùlyá* 'to eat' in P5. Form 2 is given with the object *múyémbè* 'mango'.

	FO1 AFF	FO2 AFF	FO1/FO2 NEG
1st SG	nàlìíré	nàlìírè múyémbè	tínàlíírè (múyémbè)
1st PL	twàlìíré	twàlìírè múyémbè	títwàlíírè (múyémbè)
2nd SG	wàlìíré	wàlìírè múyémbè	tíwàlíírè (múyémbè)
2nd PL	mwàlìíré	mwàlìírè múyémbè	tímwàlíírè (múyémbè)
AGR 1	yàlìíré	yàlìírè múyémbè	tíyàlíírè (múyémbè)
AGR 2	bàlìíré	bàlìírè múyémbè	tíbàlíírè (múyémbè)

Monosyllabic stems Table 6.38 shows the P5 forms of *kùlyá* 'to eat'. In the affirmative, the melody is LH, and in Form 2 contexts the final high is lowered. In the negative the melody is HLHL, and as the verb form has four syllables, one tone attaches to each.

Vowel-initial stems As P5 is segmentally identical to P3, we find the same variation in forms for this tense as what was discussed above for P3. That is, for verbs starting with /a/, /e/ and /o/ there is one version where the tense prefix and the stem merge into one syllable (*nààgìré* 'I scratched') and one where they are separated by a glide (*nàyàgìré* 'I scratched'). Table 6.39 shows 1st person singular forms for /i/, /a/, /e/ and /o/ initial verbs.

As table 6.39 shows, the negative forms all have the HLHL melody, but how those tones are distributed across the word form differs based on the number of syllables. When the prefix is separated from the stem by a glide, the word form has five syllables, and the melody is applied much like in regular bisyllabic verbs. That means that the

Table 6.39: The 1st person singular forms in P5 of verbs with /i/, /a/, /e/ and /o/ initial stems. Two variants are shown where relevant.

	FO1 AFF	FO2 AFF	FO1/FO2 NEG
kwìbbá 'to steal'	nàìbbìré	nàìbbirè	tínàìbbírè
kwàgá 'to scratch'	nààgìré	nààgìrè	tínààgírè
	nàyàgìré	nàyàgìrè	tínàyágírè
kwègá 'to learn'	nèègèré	nèègèrè	tínèègérè
	nàyègèré	nàyègèrè	tínàyégérè
kwòzá 'to wash'	nòòzèré	nòòzèrè	tínòòzérè
	nàyòzèré	nàyòzèrè	tínàyózérè

Table 6.40: Some longer verbs in P5 with AGR 1 subject markers

	FO1 AFF	FO2 AFF	FO1/FO2 NEG
kwàkáná 'to argue'	yàákànìré	yàákànìrè	tíyàákánírè
kùjànjábá 'to treat'	yàjànjàbìré	yàjànjàbìrè	tíyàjánjábírè
kùlòwóózá 'to think'	yàlòwòòzèré	yàlòwòòzèrè	tíyàlówóózérè
kùcùlúzá 'to trade'	yàcùlùzìré	yàcùlùzìrè	tíyàcúlúzírè
kùgàlágálá 'to nurse'	yàgàlàgàlìré	yàgàlàgàlìrè	tíyàgálágálírè
kùkàlábándá 'to roast'	yàkàlàbàndìré	yàkàlàbàndìrè	tíyàkálábándírè

stem-initial vowel is high, and the suffix has a HL melody. In the cases where the prefix and the stem vowel merge, however, there is a long vowel with a low tone. Likely, the reason why the stem-initial vowel is not high, is that this would lead to a rising contour on those syllables.

Longer stems Table 6.40 shows some longer verbs in P5. In the affirmative, the same LH melody is seen, where the H tone attaches to the final syllable. In the negative, all stem syllables except for the last gets a high tone.

Object markers In Table 6.41, there are some examples of verbs in P5 with object markers. In the affirmative the object markers get low tones, and so we see the same LH pattern as we generally see for P5 in the affirmative. In the negative, there is some variation in the tone of the object marker, which can be low or high. The negative marker has a high tone, the subject prefix has a low tone, and the stem has a H*L melody where the final vowel is low.

6.5 Future tenses

Table 6.41: Some verbs in P5 with AGR 1 subject markers and object markers. The object markers used are *lu-* 'AGR 11', *gu-* 'AGR 3', *mu* 'AGR 1', and *gi-* 'AGR 9'

	FO1 AFF	FO1 NEG
kùgùlá 'to buy'	yàlùgùlìré	tíyàlùgúlírè
kùlyá 'to eat'	yàgùlìré	tíyàgúlíírè
kwègá 'to learn'	yàlwègèré	tíyàlwégérè
kùjànjábá 'to treat'	yàmùjànjàbìré	tíyàmùjánjábírè
kùlòndá 'to select'	yàgùlòndèré	tíyàgúlóndérè
kùkàlábándá 'to roast'	yàgìkàlàbàndìré	tíyàgíkálábándírè

6.5.1 F1 - the Near Future

F1 is used to talk about events in the near future. This tense is formed with the prefix *a-* in the TA slot attached to the general stem in the affirmative, and the subjunctive stem in the negative, as in *nágùlá* 'I will buy' and *tìnàgùlé* 'I will not buy'. Because of the *a-* prefix, the subject markers use the pre-vocalic forms. Agreement Class 1, 9 and 2nd person singular can either form the negative in the regular way, by adding *ti/te* in front of the subject marker, as in *tìyàgùlé* 's/he will not buy', or it can be formed without the *a-* prefix in TA, as in *tàgùlé* 's/he will not buy'. This is probably because the negative forms of F1 and the Subjunctive switched at some point, see 8.1.1 for further discussion.

The melody in the affirmative is H.L*H, where the prefix has a high tone, the root (plus extensions) is low, and the final vowel is high. In the negative, there is a L.L*H melody, where the final vowel is high, just like the tone for the affirmative of P5. For both the affirmative and the negative, the final high tone lowers in Form 2 contexts.

Bisyllabic stems In bisyllabic stems, the one syllable of the root is low, and the prefix and final vowel are both high in the affirmative. In the negative, the prefix and the root are low, with the final vowel *-e* high. This is illustrated with the verb *kùgùlá* 'to buy' in Table 6.42, and *kùmàlá* in Table 6.43. Just like what was discussed in Section 6.4.2 for the P2 negative forms, the final high tone in the F1 affirmative is not always very distinct from the preceding low tone, because of downdrift, but the fact that the final vowel has a high tone becomes clearer when it is followed by a low-toned adverbial, and it is also more distinctly high in longer verbs.

Table 6.42: The bisylalbic verb *kùgùlá* 'to buy' in F1. Form 2 is given with the object *nyânyá* 'tomato'

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
1st SG	nágùlá	nágùlà nyânyá	tìnàgùlé	tìnàgùlè nyânyá
1st PL	twágùlá	twágùlà nyânyá	tìtwàgùlé	tìtwàgùlè nyânyá
2nd SG	wágùlá	wágùlà nyânyá	tìwàgùlé/tògùlé	tìwàgùlè nyânyá/tógùlè nyânyá
2nd PL	mwágùlá	mwágùlà nyânyá	tìmwàgùlé	tìmwàgùlè nyânyá
AGR 1	yágùlá	yágùlà nyânyá	tìyàgùlé/tàgùlé	tìyàgùlè/tàgùlè nyânyá
AGR 2	bágùlá	bágùlà nyânyá	tìbàgùlé	tìbàgùlè nyânyá

Table 6.43: The bisyllabic verb *kùmàlá* 'to finish, be enough' in F1. Form 2 is given with the object *mwàná* 'child', the meaning being 'X will be enough for the/a child'.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
AGR 3	gwámàlá	gwámàlà mwàná	tìgwàmàlé	tìgwàmàlè mwàná
AGR 4	gyámàlá	gyámàlà mwàná	tìgwàmàlé	tìgyàmàlè mwàná
AGR 5	lyámàlá	lyámàlà mwàná	tìryàmàlé	tìryàmàlè mwàná
AGR 6	gámàlá	gámàlà mwàná	tìgwàmàlé	tìgàmàlè mwàná
AGR 7	kyámàlá	kyámàlà mwàná	tekyàmàlé	tekyàmàlè mwàná
AGR 8	byámàlá	byámàlà mwàná	tìbyàmàlé	tìbyàmàlè mwàná
AGR 9	yámàlá	yámàlà mwàná	tìyàmàlé/tìmàlé	tìyàmàlè/tìmàlè mwàná
AGR 10	gyámàlá	gyámàlà mwàná	tìgyàmàlé	tìgyàmàlè mwàná
AGR 11	lwámàlá	lwámàlà mwàná	tìrwàmàlé	tìrwàmàlè mwàná
AGR 12	kámàlá	kámàlà mwàná	tìkàmàlé	tìkàmàlè mwàná
AGR 14	bwámàlá	bwámàlà mwàná	tìrwàmàlé	tìbwàmàlè mwàná

Monosyllabic stems In monosyllabic verbs, the *a-* prefix is pronounced long, and the H.LH melody shortens to H.L. The F1 forms of *kùlyá* 'to eat' are found in Table 6.13. Unlike other types of verbs in F1, monosyllabic verbs do not show a Form 1/Form 2 alternation in the affirmative.

For most verb types, the final vowel is high in F1, but for monosyllabic verbs, the final vowel has a low tone. Likely that is the result of the verb only having two syllables - the root has no tone-bearing units. If the prefix and the final vowel were to both have high vowels, that would give a word that had only high tones, and Lugwere seems to prefer words in isolation to have a contour. Much like how monosyllabic nouns like *ǹté* 'cow' will change their tone when there is an augment or another prefix added (see Section 3.2.7), the high tone of the final vowel is changed to low. However, when this context is changed, for instance by a low-toned object marker as in *yágàlyá* 's/he will eat it', the final vowel is high.

Table 6.44: The monosyllabic verb *kùlyá* 'to eat' in F1. Form 2 is given with the object *múyémbè* 'mango'

	FO1/FO2 AFF	FO1 NEG	FO2 NEG
1st SG	náályà (múyémbè)	tìnààlyé	tìnààlyè múyémbè
1st PL	twályà (múyémbè)	tìtwàlyé	tìtwàlyè múyémbè
2nd SG	wáályà (múyémbè)	tìwààlyé/tòòlyé	tìwààlyè/tòòlyè múyémbè
2nd PL	mwályà (múyémbè)	tìmwàlyé	tìmwàlyè múyémbè
AGR 1	yáályà (múyémbè)	tìyààlyé/tààlyé	tìyààlyè/tààlyè múyémbè
AGR 2	báályà (múyémbè)	tìbààlyé	tìbààlyè múyémbè

Table 6.45: The vowel-initial verb *kwìbbá* 'to steal' in F1. Form 2 is given with the object *míyémbè* 'mangoes'

	FO1 AFF	FO1 NEG	FO2 NEG
1st SG	náíbbà (míyémbè)	tìnàìbbé	tìnàìbbè míyémbè
1st PL	twáíbbà (míyémbè)	tìtwàìbbé	tìtwàìbbè míyémbè
2nd SG	wáíbbà (míyémbè)	tìwàìbbé/tòìbbé	tìwàìbbè/tòìbbè míyémbè
2nd PL	mwáíbbà (míyémbè)	tìmwàìbbé	tìmwàìbbè míyémbè
AGR 1	yáíbbà (míyémbè)	tìyàìbbé/tàìbbé	tìyàìbbè/tàìbbè míyémbè
AGR 2	báíbbà (míyémbè)	tìbàìbbé	tìbàìbbè míyémbè

Because the prefix is lengthened, there would have been an alternative; the lengthened prefix could have carried a falling tone, which would have allowed the full HLH melody to appear. It is unclear why this does not happen, as this is the approach taken by some vowel-initial verbs (see below).

Vowel-initial stems In /i/ initial verb stems, the tense prefix and the stem-initial vowel form a diphthong, which gets a high tone, and we therefore see the same HL melody as described for monosyllabic verbs above. /i/ initial verbs are also similar to monosyllabic verbs in that there is no Form 1/Form 2 alternation in the affirmative. In the negative, the melody is LH. This is illustrated for the verb *kwìbbá* 'to steal' in Table 6.45.

Note that the shortened HL melody is only applied to bisyllabic /i/ initial verbs. For the trisyllabic /i/ initial verb *kwìgàlá* 'to close', the form is *yáígàlá*, with a full HLH melody as expected.

For verbs starting with /o/, /a/ or /e/, there is again a variation between the prefix merging with the stem-initial vowel, as in *nóòzá* 'I will wash', or being separated from the stem with a glide, as in *náyòzá*. In both case the affirmative has a HLH melody,

Table 6.46: The vowel-initial verb *kwòzá* 'to wash' in F1. Form 2 is given with the object *ngwéyè* 'clothes'

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
1st SG	nóòzá	nóòzà ngwéyè	tìnòòzé	tìnòòzè ngwéyè
	náyòzá	náyòzà ngwéyè	tìnàyòzé	tìnàyòzè ngwéyè
1st PL	twôzá	twôzà ngwéyè	tìtwòzé	tìtwòzè ngwéyè
	twáyòzá	twáyòzà ngwéyè	tìtwàyòzé	tìtwàyòzè ngwéyè
2nd SG	wóòzá	wóòzà ngwéyè	tìwòòzé	tìwòòzè ngwéyè
	wáyòzá	wáyòzà ngwéyè	tìwàyòzé	tìwàyòzè ngwéyè
2nd PL	mwôzá	mwôzà ngwéyè	tìmwòzé	tìmwòzè ngwéyè
	mwáyòzá	mwáyòzà ngwéyè	tìmwàyòzé	tìmwàyòzè ngwéyè
AGR 1	yóòzá	yóòzà ngwéyè	tìyòòzé	tìyòòzè ngwéyè
	yáyòzá	yáyòzà ngwéyè	tìyàyòzé	tìyàyòzè ngwéyè
AGR 2	bóòzá	bóòzà ngwéyè	tìbòòzé	tìbòòzè ngwéyè
	báyòzá	báyòzà ngwéyè	tìbàyòzé	tìbàyòzè ngwéyè

Table 6.47: The vowel-initial verb *kwàgá* 'to scratch' in F1. Form 2 is given with the object *múbírì* 'body'

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
1st SG	náàgá	náàgà múbírì	tìnààgé	tìnààgè múbírì
	náyàgá	náyàgà múbírì	tìnàyàgé	tìnàyàgè múbírì
1st PL	twâgá	twàgà múbírì	tìtwàgé	tìtwàgè múbírì
	twáyàgá	twáyàgà múbírì	tìtwàyàgé	tìtwàyàgè múbírì
2nd SG	wáàgá	wáàgà múbírì	tìwààgé	tìwààgè múbírì
	wáyàgá	wáyàgà múbírì	tìwàyàgé	tìwàyàgè múbírì
2nd PL	mwâgá	mwâgà múbírì	tìmwàgé	tìmwàgè múbírì
	mwáyàgá	mwáyàgà múbírì	tìmwàyàgé	tìmwàyàgè múbírì
AGR 1	yáàgá	yáàgà múbírì	tìyààgé	tìyààgè múbírì
	yáyàgá	yáyàgà múbírì	tìyàyàgé	tìyàyàgè múbírì
AGR 2	báàgá	báàgà múbírì	tìbààgé	tìbààgè múbírì
	báyàgá	báyàgà múbírì	tìbàyàgé	tìbàyàgè múbírì

with a falling contour on the long vowel where the prefix and stem have merged. Both the affirmative and the negative have a Form 1/Form 2 alternation, where the final high tone is lowered in Form 2 contexts. Tables 6.46 and 6.47 show F1 forms of the verbs *kwòzá* 'to wash' and *kwàgá* 'to scratch'.

Longer stems Table 6.48 shows some longer verbs in F1. In the affirmative, we can see that all syllables of the root are low, with a high prefix and a high final vowel in Form 1. In the negative, the melody is much like in shorter verbs, with all low tones except for a high tone on the final vowel.

Table 6.48: Some longer verbs in F1 with AGR 1 subject markers.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
kwìgálá 'to close'	yáígàlá	yáígàlà	tìyàìgàlé	tìyàìgàlè
kùjànjábá 'to treat'	yájànjàbá	yájànjàbà	tìyàjànjàbé	tìyàjànjàbè
kùlòwóózá 'to think'	yálòwòòzá	yálòwòòzà	tìyàlòwòòzé	tìyàlòwòòzè
kùgàlágálá 'to nurse'	yágàlàgàlá	yágàlàgàlà	tìyàgàlàgàlé	tìyàgàlàgàlè
kùgàlámbúlyá 'to rinse'	yágàlàmbùlyá	yágàlàmbùlyà	tìyàgàlàmbùlyé	tìyàgàlàmbùlyè

Table 6.49: Some verbs in F1 with AGR 1 subject markers and object markers. The object markers used are *ga-* 'AGR 6', *lu-* 'AGR 11', *gu-* 'AGR 3', *mu-* 'AGR 1', and *gi-* 'AGR 9'

	FO1 AFF	FO1 NEG
kùlyá 'to eat'	yágàlyá	tìyàgàlyé
kwàgá 'to scratch'	yálwàgá	tìyàlwàgé
kùgùlá 'to buy'	yálùgùlá	tìyàlùgùlé
kùlòndá 'to select'	yágùlòndá	tìyàlùlòndé
kùjànjábá 'to treat'	yámùjànjàbá	tìyàmùjànjàbé
kùkàlábándá 'to roast'	yágìkàlàbàndá	tìyàgìkàlàbàndé
kùgàlágálá 'to nurse'	yámùgàlàgàlá	tìyàmùgàlàgàlé

Object markers Table 6.49 shows some verbs in F1 with object markers. The object prefix is always low, and as normal all root consonants are low, so that adding the object marker does not change the overall melody of the verb. Similarly, in the negative, the melody remains the same, with all low tones and a final high. For monosyllabic verbs the prefix and the final vowel are high in the affirmative, and the object marker low, so that the verb as a whole has a HLH melody.

6.5.2 F2 - the Distant Future

F2, or the Distant Future, is formed by attaching the prefix *ali-* to the general stem, as in *nàlígúlà* 'I will buy'. The subject markers use their pre-vocalic forms. In the affirmative, the tonal melody is LH.(L)HL, where the prefixes have a LH melody, and the stem will have either L, HL, or LHL depending on how many syllables it has. Only in trisyllabic, quadrisyllabic and longer verbs do we actually see the whole melody. In the negative the melody is (LH).LH, where the tones in parenthesis are only present for verbal stems with three or more syllables. There is a low tone on the negative marker *ti-* and the first syllable of the prefix. Both the affirmative and the negative show a Form 1/Form 2 alternation. In the negative, the final high lowers. In the affirmative,

Table 6.50: The bisyllabic verb *kùgùlá* 'to buy' in F2. Form 2 is given with the object *nyânyá* 'tomato'

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
1st SG	nàlígúlà	nàlígùlà nyânyá	tìnàlígúlá	tìnàlìgùlà nyânyá
1st PL	twàlígúlà	twàlígùlà nyânyá	tìtwàlígúlá	tìtwàlìgùlà nyânyá
2nd SG	wàlígúlà	wàlígùlà nyânyá	tìwàlígúlá	tìwàlìgùlà nyânyá
2nd PL	mwàlígúlà	mwàlígùlà nyânyá	tìmwàlígúlá	tìmwàlìgùlà nyânyá
AGR 1	yàlígúlà	yàlígùlà nyânyá	tìyàlígúlá	tìyàlìgùlà nyânyá
AGR 2	bàlígúlà	bàlígùlà nyânyá	tìbàlígúlá	tìbàlìgùlà nyânyá

the second of the two high tones lowers. This is the only case apart from Present tense where the tone that is lowered in Form 2 is not the final tone of the melody. In all other TAMP categories that have a distinction between Form 2 and Form 1, Form 1 has a final high tone. This is possibly because F2 very likely originated from a future copula plus a present tense form.

Bisyllabic stems Table 6.50 and 6.51 show F2 forms of the verbs *kùgùlá* 'to buy' and *kùmàlá* 'to finish, be enough'. The tonal melody is LHHL in the affirmative. The prefix has a LH melody, and the stem is HL. We have to analyse this as a sequence of two underlying high tones, even if it is not as clear here as it is in longer verbs. This is because in Form 2, only one of these two adjacent high tones is lowered. When a high tone is lowered for any reason, this lowering applies to all the TBUs to which that tone is attached. The fact that the /lí/ syllable retains its high tone when the tone of the following root syllable is lowered, is an indication that these are two underlying tones. In the negative, the melody is just LH, and here, because there is just one H tone that spreads to the end of the word, all these syllables get a low tone in Form 2 contexts.

Monosyllabic stems Table 6.52 shows F2 forms of *kùlyá* 'to eat'. For verbs of this size, the stem only has a low tone in the affirmative, meaning that the whole verb has a LHL melody. There is no Form 1/Form 2 alternation in the affirmative, likely because the second H tone that would otherwise be lowered in Form 2 contexts is not actually realised on the verb even in Form 1 contexts. In the negative the melody is LH, and here there is a Form 1/Form 2 alternation.

Table 6.51: The bisyllabic verb *kùmàlá* 'to finish, be enough' in F2. Form 2 is given with the object *mwàná* 'child', the meaning being 'X will be enough for the/a child'.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
AGR 3	gwàlímálà	gwàlímàlà mwàná	tìgwàlímálá	tìgwàlìmàlà mwàná
AGR 4	gyàlímálà	gyàlímàlà mwàná	tìgyàlímálá	tìgyàlìmàlà mwàná
AGR 5	lyàlímálà	lyàlímàlà mwàná	tìryàlímálá	tìryàlìmàlà mwàná
AGR 6	gàlímálà	gàlímàlà mwàná	tìgàlímálá	tìgàlìmàlà mwàná
AGR 7	kyàlímálà	kyàlímàlà mwàná	tìkyàlímálá	tìkyàlìmàlà mwàná
AGR 8	byàlímálà	byàlímàlà mwàná	tìbyàlímálá	tìbyàlìmàlà mwàná
AGR 9	yàlímálà	yàlímàlà mwàná	tìyàlímálá	tìyàlìmàlà mwàná
AGR 10	gyàlímálà	gyàlímàlà mwàná	tìgyàlímálá	tìgyàlìmàlà mwàná
AGR 11	lwàlímálà	lwàlímàlà mwàná	tìrwàlímálá	tìrwàlìmàlà mwàná
AGR 12	kàlímálà	kàlímàlà mwàná	tìkàlímálá	tìkàlìmàlà mwàná
AGR 14	bwàlímálà	bwàlímàlà mwàná	tìbwàlímálá	tìbwàlìmàlà mwàná

Table 6.52: The monosyllabic verb *kùlyá* 'to eat' in F2. Form 2 is given with the object *múyémbè* 'mango'

	FO1/FO2 AFF	FO1 NEG	FO2 NEG
1st SG	nàlíryà (múyémbè)	tìnàlíryá	tìnàlìryà múyémbè
1st PL	twàlíryà (múyémbè)	tìtwàlíryá	tìtwàlìryà múyémbè
2nd SG	wàlíryà (múyémbè)	tìwàlíryá	tìwàlìryà múyémbè
2nd PL	mwàlíryà (múyémbè)	tìmwàlíryá	tìmwàlìryà múyémbè
AGR 1	yàlíryà (múyémbè)	tìyàlíryá	tìyàlìryà múyémbè
AGR 2	bàlíryà (múyémbè)	tìbàlíryá	tìbàlìryà múyémbè

Vowel-initial stems Tonally, the vowel-initial verbs behave just like the monosyllabic verbs. They have a LHL melody in the affirmative, and no Form 1/Form 2 alternation. In the negative, these verbs are regular with respect to tone. With /i/ initial verbs, the /i/ of the prefix merges with the /i/ of the stem, giving one long vowel, as in *nàlííbbà* 'I will steal'. For /a/, /e/ and /o/ initial stems, the /i/ of the prefix is realised as a glide, as in *yàlyágà* 's/he will scratch'. Table 6.53 shows forms of *kwìbbá* 'to steal', while Table 6.54 shows forms of /e/, /a/ and /o/ initial verbs in F2.

Longer stems Table 6.55 shows some longer verbs in F2. Apart from *kwìgálá*, all these verbs have a LHL melody on the stem. The first syllable of the stem, immediately following the prefix, is low, then there is one or two high syllables, and the final vowel is low. In Form 2, the stem has all low tones, while the prefix still retains its high tone. In the negative, there is a LHLH melody, with a low tone on the first syllable of the root.

Table 6.53: The verb *kwìbbá* 'to steal' in F2. Form 2 is given with the object *míyémbè* 'mangoes'

	FO1/FO2 AFF	FO1 NEG	FO2 NEG
1st SG	nàlííbbà (míyémbè)	tìnàlííbbá	tìnàlìibbà míyémbè
1st PL	twàlííbbà (míyémbè)	tìtwàlííbbá	tìtwàlìibbà míyémbè
2nd SG	wàlííbbà (míyémbè)	tìwàlííbbá	tìwàlìibbà míyémbè
2nd PL	mwàlííbbà (míyémbè)	tìmwàlííbbá	tìmwàlìibbà míyémbè
AGR 1	yàlííbbà (míyémbè)	tìyàlííbbá	tìyàlìibbà míyémbè
AGR 2	bàlííbbà (míyémbè)	tìbàlííbbá	tìbàlìibbà míyémbè
AGR 8	byàlííbbà (míyémbè)	tìbyàlííbbá	tìbyàlìibbà míyémbè

Table 6.54: F2 verbs with /a/, /e/ and /o/ initial stems, shown with AGR 1 subject markers.

	FO1/FO2 AFF	FO1 NEG	FO2 NEG
kwàgá 'to scratch'	yàlyágà	tìyàlyágá	tìyàlyàgà
kwègá 'to learn'	yàlyégà/yàlíyègà (FO2)	tìyàlyégá	tìyàlyègà
kwòzá 'to wash'	yàlyózà	tìyàlyózá	tìyàlyòzà

Object markers Table 6.56 shows some verbs in F2 with object markers. The object markers are low-toned, and the stem has a HL melody for bisyllabic verbs, and a LHL melody for longer verbs. For monosyllabic stem verbs and monosyllabic vowel-initial verbs, the final vowel has a falling tone, which leads to a downstep when followed by a high-toned syllable, as illustrated in (203b). In the negative forms, monosyllabic and bisyllabic verbs have the stem melody LH following the object marker, and the pre-stem prefixes get the default LH melody.

(203) a. *Yàlílwàgá bùlì sáàwá.*

a-ali-lu-ag-a\LH.LHL bùlì sáàwá
1S-FUT-11O-scratch-FV\F2 every time
'He will scratch it (skin) all the time.'

b. *Yàlílwègá ↓mángù.*

Table 6.55: Some longer verbs in F2 with AGR 1 subject markers

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
kwìgálá 'to close'	yàlíígálà	yàlíígàlà	tìyàlíígálá	tìyàlíígàlà
kùjànjábá 'to treat'	yàlíjànjábà	yàlíjànjàbà	tìyàlíjànjábá	tìyàlíjànjàbà
kùgùgúmá 'to stutter'	yàlígùgúmà	yàlígùgùmà	tìyàlígùgúmá	tìyàlígùgùmà
kùlòwóózá 'to think'	yàlíròwóózà	yàlíròwòòzà	tìyàlíròwóózá	tìyàlíròwòòzà
kùgàlámbúlyá 'to rinse'	yàlígàlámbúlyà	yàlígàlàmbùlyà	tìyàlígàlámbúlyá	tìyàlígàlàmbùlyà

Table 6.56: Some verbs in F2 with object markers with AGR 1 subject markers. The object markers used are *lu-* 'AGR 11', *gu* 'AGR 3', *mu-* 'AGR 1', *gi-* 'AGR 9'

	FO1 AFF	FO1 NEG
kùgùlá 'to buy'	yàlírùgúlà	tìyàlírùgùlá
kùlyá 'to eat'	yàlígùlyâ	tìyàlígùlyá
kùjànjábá 'to treat'	yàlímùjànjábà	tìyàlímùjànjábá
kùkàlábándá 'to roast'	yàlígìkàlábándà	tìyàlígìkàlábándá
kwàgá 'to scratch'	yàlílwàgâ	tìyàlílwàgá

a-ali-lu-eg-a\LH.LHL
1S-FUT-11O-learn-FV\F2
'S/he learns it (Lugwere) quickly.'

6.6 Tense in subordinate clauses

So far, the verbs given have been the forms that appear in main clauses. In subordinate clauses, there are minor differences to the tone melodies, and to the way verbs are negated. The next sections will give examples of verbs with the *ówè-* subordinating prefix and verbs in relative clauses.

The key ways in which subordinate verbs differ from main clause verbs are outlined below.

Differences between verbs in main clauses and *ówè-* subordinate clauses

- In the Present tense and P2, all subject prefixes have a floating high tone, meaning Present tense bisyllabic verbs do not have a Form 1/Form 2 alternation.
- In the Present tense, monosyllabic verbs have the same LH melody in the affirmative as in the negative, and do have a Form 1/Form 2 alternation.
- In the Present tense affirmative, longer verbs have a LHL*H stem melody, where the final high lowers in Form 2 contexts
- In most tenses there is a negative form that uses *ta-* in the NEG_2 slot, most often as an alternative to a negative formed with *ti-* like in main clauses.

- P2 has a LH melody where all stem syllables are high-toned, as opposed to the LHL melody in main clauses.
- The P5 affirmative has the same tonal melody as the negative, i.e. it is HL.H*L instead of L.L*H.
- In F2, monosyllabic verbs have a LH melody, and bisyllabic and longer verbs alternate between a LH* melody and LHLH* melody.

Differences between verbs in main clauses and in relative clauses

- In the Present tense, bisyllabic verbs do not have a Form 1/Form 2 alternation.
- In relative clauses Present tense and P2, Agreement Class 1 has the same tones as main clause verbs, while Agreement Class 2 has the same tones as in *ówè-* subordinate clauses, i.e. a LHLH melody on longer verbs in the Present tense, and a LH* melody on P2 verbs.
- In most tenses there is a negative form that uses *ta-* in the NEG_2 slot, most often as an alternative to a negative formed with *ti-* like in main clauses.
- P3 is mostly regular, but with the *ta-* negation the tonal melody changes, and the *-a* prefix has a low tone instead of high, the negative marker has a high tone, and the stem has a HL melody where the final vowel is low.
- P5 affirmative mostly use the regular L.L*H tonal melody, but there seems to be some variation between this and the HL.H*L melody which is found in negatives and *ówè-* clauses.
- In F2, monosyllabic verbs have a LH melody, and bisyllabic and longer verbs alternate between a LH* melody and LH.LH* melody.

Table 6.57 below shows some subordinate verb forms next to main clause verbs, to better illustrate the differences outlined above.

Table 6.57: Comparison of *ówè-* subordinate verbs and main clause verbs

	Main clause	**ówè-**
Pres aff	àgùlà nyânyá (Form 2)	ów-àgúlà nyânyá (no Form 2)
	ààlyâ	ów-ààlyá
	àjànjábà	ów-àjánjàbá
P2 aff	àgùlírè	ów-àgúlíré
P5 aff	yàgùlìré	òwé-yàgúlírè
F2 aff	yàlígúlà	ówè-yàlígúlá

6.6.1 Verbs with the subordinator *ówè-* and its variants

The prefix *ówè-*, which can also at times be pronounced *éwè-*, *we-*, *éè-*, *íì-*, *óò-* or *áà-*, is used in temporal subordinate clauses, serving a similar function to English subordinate clauses with 'when', or 'if' in realis conditional constructions.

Table 6.58 shows forms of the verbs *kùgùlá* 'to buy', *kùlyá* 'to eat' and *kùjànjábá* 'to treat' with *ówè-* in all the different tenses where it can be used. According to the speaker that was consulted, it is not possible to use P1 with *ówè-*, but to convey the same meaning it can be used with *ngà*, or with a relative-absolute tense construction, where a P1 form follows a copula with *ówè-*.

In most cases the *ówè-* prefix has a HL tone, i.e. *ówè-*, except for in P5 where it is LH. When followed by a subject marker that consists of only a vowel, the subject marker replaces the final vowel of the prefix, so that it becomes *ówàzényéré* 'when he played (P2)' and *ówòzényéré* 'when you SG played (P2)'.

In the Present tense, bisyllabic verbs do not have a Form 1/Form 2 alternation, although this is found for monosyllabic verbs like *kùlyá* 'to eat', and some vowel-initial verbs, which have a high tone on the final syllable, instead of a fall, as in main clauses. The final high lowers in Form 2 contexts. For verbs whose stem has three or more syllables, the Present tense affirmative verbs get a LHL*H melody, where the first and last syllable of the stem are high, and the syllable(s) in between are low. The final high syllable lowers in Form 2 contexts. This is quite different from what is seen in main clauses, where these verbs have a LH*L melody. This can be understood as all *ówè-* Present tense affirmative verbs having a LHL*H stem melody, but in monosyllabic verbs only the initial LH is realised, and in bisyllabic verbs only the LHL.

In the negative, there are two possible forms for most subject markers in most tenses. One version is the same form we find in main clauses, and uses the negation marker *ti-* in the Pre-SM slot. The other version uses the negation maker *ta-* in the NEG2 slot. This gives us the two forms *ówètìbàgúlá* and *ówèbàtágúlá* 'when they don't buy'. In the first version, the tone of the negative marker is low, while in the second case it is high.

When there is an object marker, all subject markers have a high tone, as illustrated in (206). This is because in subordinate contexts all subject makers have a floating high tone. For the trisyllabic verb *kùjànjábá* 'to treat', the stem has a LHL melody when there is an object marker (206b). The quadrisyllabic verb *kúkàlábándá* 'to roast', however, had a LHLH melody on the stem when there was an object marker, as in (206d). Compare this to (206c), where there is no object marker, and the stem has a HLH melody.

In P2, the tonal melody in the affirmative is LH*, as opposed to the LH*L melody found in main clauses. Also unlike in main clauses, the P2 affirmative has a Form 1/Form 2 alternation, where the H lowers in Form 2 contexts, giving forms such as *ówàgùlìrè* 'when s/he bought (s.t.)'. There is also no longer a distinction between subject markers with and without a floating high tone, and like in Present tense *ówè-* verbs, the subject marker gets a high tone when there is an object marker in all cases, as in *ówálùgúlíré* 'when s/he bought it (P2)' (compare this to *àgùgùlírè* 's/he bought it (P2)').

In the negative, there is again two possible forms for most persons, *ówèbàtágúlíré* and *ówètìbàgúlìré* 'when they did not buy'. In the first case the tonal melody is also different from that found in main clauses. The tone can be LH*, as in *ówèbàtágúlíré*, or it can be LH*L as in *ówèbàtágúlírè*. For the *ti-* negative, the negative has the same tonal melody as in main clauses.

P3 forms do not change tonally with *ówé-*, but there is an alternation between two possible negative forms for all subjects.

For affirmative verbs in P5, the tonal melody found resembles the one used in negative main clause verbs, but with an initial L, i.e. LHL.H*L melody. The P5 *ówè-* forms differ from other tenses in that the prefix has a LH melody, i.e. *òwé-*. The unexpected tone here can perhaps be seen in connection with how P5 is the only tense with a high-toned negative prefix in main clauses, and the tonal melody overrides the underlying

tone of the *ówè* prefix. Again there are two alternative negative forms for all subjects, *òwétíyàgúlírè* and *òwéyàtágúlírè* 'when s/he did not buy'.

In F1, the tones are the same as in main clauses, but as in other tenses there are two alternative negative forms.

In F2 there is likewise two negative forms, and the tone of the affirmative can be either LH* or LH.LH*, as in *ówèyàlíbíná* and *ówèyàlíbìná* 'when s/he will dance'. In the former case, Form 2 has all low tones after the *ówè-* prefix, as in *ówèyàlìbìnà*, indicating that there is only one underlying high tone that has spread, rather than two as in main clauses. In the negative, there are again two possible forms. In the *ti-* negatives, the bisyllabic verb *kùgùlá* 'to buy' had a LHLH melody, as in *ówètìyàlígùlá*. Compare this to the main clause form *tìyàlígúlá*. When the *ta-* negative prefix is used, it is inserted in the middle of the *ali-* prefix, as in *áyàtálígúlá*.

(204) shows an example of the type of structure used to elicit Form 1 (204a) and Form 2 (204b) versions of verbs with *ówè-*, while (207) gives an example sentence from the corpus. (205) and (206) shows some examples of Present tense verbs with *ówè-* and an object marker. In this construction, all subject markers have a high tone in the Present tense, as shown by the high tone on the Class 1 subject marker. The stem tone is LHLH, and normally this starts at the subject marker, but with an object marker the melody starts at the beginning of the stem instead, which is clear from (205b) and (206b).

(204) a. *Bànyígíre ówàgónéré.*

bà´-nyig-ire\LHL *ówè-a-gon-ire\LH*
2S-get_angry-PST2\P2 SBR-1S-sleep-PST2\P2.SBR
'They got angry when s/he slept.'

b. *Ówàgònèrè bànyígírè.*

ówè-a-gon-ire\LH\FO2 *bà´-nyig-ire\LHL*
SBR-1S-sleep-PST2\P2.SBR\FO2 2S-get_angry-PST2\P2
'When s/he slept, they got angry.'

(205) a. *Ǹsànyúka ówálùbónà.*

ǹ-sany.uk-a\LHL *ówè-à´-lu-bon-a\LHL(H)*
1SGS-become_happy.SEP2-FV\PRES SBR-1S-11O-see-FV\PRES.SBR
'I become happy when s/he sees it.'

b. *Ǹsànyúka ówámùjànjábà.*

ǹ-sany.uk-a\LHL(H) ówè-à´-mu-janjab-a\LHL(H)
1SGS-become_happy.SEP2-FV\PRES SBR-1S-1O-treat-FV\PRES.SBR
'I become happy when s/he treats him/her.'

(206) a. *ówàkálàbàndá*

ówè-à´-kalaband-a\LHLH
SBR-1S-roast-FV\PRES.SBR
'when s/he roasts'

b. *ówágìkálábàndá*

ówè-à´-gi-kalaband-a\LHLH
SBR-1S-9O-roast-FV\PRES.SBR
'when s/he roasts it'

(207) *Èra òwénàábírè nè bámbúúlyà: "Ìwe òtùtègéíre òtyâ?"* (C)

èrâ ówè-n-a-ab-ire\LH.LHL ni bà´-m-buul.y-a\LHL(H) ì´-we
CONJ SBR-1SGS-TNS-go-PST2\P5.SBR NAR 2S-1SGO-ask.CAUS1-FV\PRES.SBR PRO-2SG
o-tu-teeg.ir-ire\LHL o-tyâ
2SGS-1PLO-understand.APPL-PST2\P2 AGR2SG-how
'And when I went there they asked me: "How did you know about us?"'

Table 6.58: The verbs *kùgùlá* 'to buy', *kùlyá* 'to eat' and *kùjànjábá* 'to treat' with the *ówè-* prefix in various tenses. The verbs have AGR 1 and AGR 2 subject markers. <...> indicates that there is no separate Form 2

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
Present				
kùgùlá 'to buy'	ówàgúlà ówèbàgúlà	ówàgúlà ówèbàgúlà	ówàtágúlá ówèbàtágúlá/ ówètìbàgúlá	ówàtàgùlà ówèbàtàgùlà/ ówètèbàgùlà
kùlyá 'to eat'	ówààlyá ówèbàlyá	ówààlyà ówèbàlyà	ówàtályá ówèbàtályá/ ówètìbàlyá	ówàtàlyà ówèbàtàlyà/ ówètèbàlyà
kùjànjábá 'to treat'	ówàjánjàbá	ówàjánjàbà	ówàtájánjábá	ówàtàjànjàbà
P2				
kùgùlá 'to buy'	ówàgúlíré ówàbàgúlíré	ówàgùlìrè ówèbàgùlìrè	ówàtágúlíré/ ówètàgùlírè ówèbàtágúlíré /ówèbàtágúlírè ówètèbàgúlìré	ówàtàgùlìrè ówèbàtàgùlìrè ówètèbàgúlìrè
kùlyá 'to eat'	ówàlííré ówèbàlííré	ówàlìirè ówèbàlìirè	ówàtálíìré ówèbàtàlíìré/ ówètìbàlíìré	ówàtálíírè ówèbàtálíírè/ ówètèbàlíírè
P3				

kùgùlá 'to buy'	ówèyágùlírè	...	ówèyátàgúlírè/ ówètìyágùlírè	... ...
kùlyá 'to eat'	ówèyálíírè	...	ówèyátálíírè ówètíyálíírè	... ...
P5				
kùgùlá 'to buy'	òwéyàgúlírè	...	òwéyàtágúlírè/ òwétíyàgúlírè	... ...
kùlyá 'to eat'	ówéyàlíírè	...	ówéyàtálíírè/ ówétéyàlíírè	... ...
F1				
kùgùlá 'to buy'	ówèyágùlá	ówèyágùlà	ówèyàtàgùlé/ówàtàgùlé ówètìyàgùlé	ówèyàtàgùlè/ ówètèyàgùlè
kùlyá 'to eat'	ówèyályà	...	ówèyàtàlyé/ ówètèyàlyé	ówèyàtàlyè/ ówètèyàlyè
F2				
kùgùlá 'to buy'	ówèyàlígúlá	ówèyàlìgùlà	ówèyàtàlígúlá ówètìyàlígùlá	ówèyàtàlígùlà/ ówètìyàlígùlà
kùlyá 'to eat'	ówèyàlíryá	ówèyàlìryà	ówèyàtàlíryá/ ówètèyàlíryá	ówèyàtàlìryà/ ówètìyàlìryà
kùjànjábá 'to treat'	ówèyàlíjànjábá	ówèyàlíjànjàbà	ówètìyàlíjànjábá ówèyàtàlíjànjábá	ówètìyàlíjànjàbà ówèyàtàlíjànjàbà

6.6.2 Verbs in relative clauses

Subject relative clauses are formed by adding an augment to the verb. Much like for nouns, the form of the augment can be either *é-*, *á-* or *ó-*. Which one is used is often determined by harmony with the following vowel. Before /a/ we mostly get *á-*, before /i/, /e/ and sometimes /j/, we typically get *é-*, before /u/ and /o/ we find *ó-*, although this is not always the case. The augment always has a high tone. For Agreement Class 1 and 9, the augment replaces the subject marker. Table 6.59 shows forms of a few different subject relative clause verbs in different tenses.

In the Present tense, bisyllabic verbs do not have a Form 1/Form 2 alternation because all subject prefixes have a floating high tone. In monosyllabic verbs, Agreement Class 1 has a different tone than in main clauses: the stem has a low tone, as in *áályà* 'who ate (SG)'. This is likely because the relative marker/subject marker has a high tone, and so the stem shifts to a low tone to maintain a contour over the word. For

Agreement Class 2, the stem is high, as in *ábàlyá* 'who ate (PL)', and lowers in Form 2 contexts. For longer verbs, there is also a difference between Agreement Class 1 and 2. Agreement Class 1 has the same LHL melody as in main clauses, but with no Form 1/Form 2 alternation. Agreement Class 2 has a LHL*H melody, as in *ábàjánjàbá* 'who treated (PL)', just like in the *áwè-* subordinate clauses. This can be understood as a LHL*H stem melody, that starts after the relative marker/subject marker in Class 1, but includes the subject marker in Class 2.

In P2 Agreement Class 2 has the same pattern as that found with *áwè-*, as in *ábàbíníré* 'who danced (PL)' where all the stem syllables have a high tone. Agreement Class 1, on the other hand, has the same melody as in main clauses, that is, a low tone on the root vowel, and HL on the *-ire* suffix, i.e. *ágùlírè* 'who bought (SG)'.

Note also that in the affirmative P5 generally has the L.L*H melody found in main classes, rather than the LHL.H*L seen in the *áwè-* forms, although I have come across at least one instance where it had a HL.H*L melody, so some variation seems to exist. F1 has the same tones as in main clauses. Similarly to in the *áwè-* forms, bisyllabic F2 has a LH* or LHLH* melody in the affirmative, where the final H lowers in Form 2 contexts. The negative also has either LH* or LHLH*. Again it is worth noting that the subordinate affirmative tonal melody is the same as in main clause negatives.

(208) gives an example of the types of construction that were used to elicit Form 1 (208a) and Form 2 (208b) subject relative forms. (209) is an example from the corpus with two relative verbs.

(208) a. *Ǹbóna ómúntu ábínà.*

ǹ-bon-a\LHL *ó-mu-ˊntù* *á-a-bin-a\LHL*
1SGS-see-FV\PRES AUG-1-person REL-1S-dance-FV\PRES
'I see the person who dances.'

b. *Ómúntu ábìnírè yáízà.*

ó-mu-ˊntù *á-à-bin-ire\LHL* *a-a-iz-a\HL(H)*
AUG-1-person REL-1S-dance-PST2\P2 1S-TNS-come-FV\F1
'The person who danced (earlier today) will come.'

(209) a. *Kwòlwo ólùnákù, wàáli óyàli ábàtùmìre ékitábò.* (C)

ku=olu-ˋó ó-lu-ˋnákù wa-a-li\L.LH ó-a-a-li\L.LH
17=AGR11-DEM_MED AUG-11-day 16S-TNS-COP2\P5 REL-1S-TNS-COP2\P5
á-a-ba-tum-ire\LH\FO2 é-ki-ˊtábò
REL-1S-2O-send-PST2\P2.SBR\FO2 AUG-7-book
'That day there was a person who had sent them to get a book.'

b. *Òmáyè w'ómwàla óònu ásòmésya ómùzúngù.*

ó-má=y-e o-á ó-mu-àlá o-ˋnú
AUG-mother=AGR9-1POSS AGR1-ASS AUG-1-girl AGR1-DEM_PROX
á-a-som.esy-a\LHL ó-mu-ˋzúngù
REL-1S-teach.CAUS2-FV\PRES AUG-1-white_person
'It was the mother of this girl who teaches the white girl.'

Much like in the *ówè-* forms, there are two negative forms, one using *ta-* and one using *ti-*. For forms that have a bisyllabic prefix, such as the P1 *anka-* and the F2 *-ali*, the *ta-* negative prefix is inserted between the two syllables of the prefix, as in *áyàtálígúlá* 'who will not buy (SG)'.

Table 6.59: The verbs *kùgùlá* 'to buy', *kùlyá* 'to eat' and *kùjànjábá* 'to treat' with the relative prefix in various tenses. The verbs have AGR 1 and AGR 2 subject markers. <...> indicates that there is no separate Form 2

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
Present				
kùgùlá 'to buy'	ágúlà ábàgúlà	ágúlà ábàgúlà	átàgúlá ábàtágúlá / étìbàgúlá	átàgùlà ábàtàgùlà étìbàgùlà
kùlyá 'to eat'	áályà ábàlyá	áályà ábàlyà	átàlyá ábàtàlyá/ étìbàlyá	átàlyà ábàtàlyà / étìbàlyà
kùjànjábá 'to treat'	ájànjábà ábàjánjàbá	ájànjábà ábàjánjàbà	átàjánjábá ábàtájánjábá / étìbàjánjábá	átàjànjàbà ábàtàjànjàbà/ étìbàjànjàbà
P1 *kùgùlá* 'to buy'	éyànkágúlá	éyànkàgùlà	étìyànkágúlá	étìyànkàgùlà
P2 *kùgùlá* 'to buy'	ágùlírè ábàgúlíré	ágùlírè ábàgùlìrè	átàgúlìré ábàtàgúlìré/ étìbàgúlìré	átàgúlìrè ábàtágúlìrè / étìbàgúlìrè
kùlyá 'to eat'	álíírè ábàlííré	álíírè ábàlìirè	átàlíìré ábàtálíìré étìbàlíìré	átàlíìrè ábàtálíìrè étìbàlíírè

kùjànjábá 'to treat'	ájànjábírè ábàjánjábíré	... ábàjànjàbìrè	átàjánjàbìré ábàtájánjàbìré étìbàjánjàbìré	átàjánjàbìrè ábàtájánjàbìrè étìbàjánjàbìrè
P3 *kùgùlá* 'to buy'	áyágùlírè	...	étìyágùlírè	... ...
P5 *kùgùlá* 'to buy'	áyàgùlìré ábàgùlìré	áyàgùlìrè ábàgùlìrè	éyàtàgúlírè étíyàgúlírè / ábàtágúlírè/ étíbàgúlírè	... ...
F1 *kùgùlá* 'to buy'	áyágùlá	áyágùlà	áyàtàgùlé étìyàgùlé	áyàtàgùlè átìyàgùlè
F2 *kùgùlá* 'to buy'	áyàlígúlá	áyàlìgùlà	áyàtálígúlá étìyàlígúlá	áyàtàlìgùlà étìyàlìgùlà
kùjànjábá 'to treat'	áyàlíjànjábá	áyàlíjànjàbà	áyàtàlíjànjábá étìyàlíjànjábá /étìyàlíjánjábá	áyàtàlíjànjàbà étìyàlíjànjàbà/étìyàlìjànjàbà

6.6.3 Verbs with relative object markers

Object relative clauses are formed by using an augment plus a relative object marker. The relative object marker precedes the subject, and can either appear as a prefix, or as a relative pronoun where the object marker is followed by *e-* , as in *ógùwágùlírè* and *ógwè wágùlírè*, which both mean 'which (AGR 3) you bought (yesterday)'. The negative is formed with *ta-*. P2 and P5 both have the same tonal melodies as in *ówè-* forms, with all high tones on the stem in P2, and the LHL.H*L pattern on both affirmative and negative P5 verbs, where the tonal melody override the tone of the augment, which is pronounced low. Elsewhere it is high as normal. F2 affirmative also has the LH* melody seen in other types of subordinate clause verbs. Table 6.60 shows forms of the verb *kùgùlá* 'to buy' with an Agreement Class 3 relative object marker. The table shows the variant with and without /e/ where relevant. While the table does not show Form 2, separate Form 2 versions do exist where they exist for subject relative forms (see table 6.59). (210) shows the verb *kùjànjábá* 'to treat' in the Present tense with a relative object marker, compare this to the main clause form *òjànjábà* 'you SG treat'.

(210) *Ǹbóna ómùlwàire ógwòjánjàbá.*

ǹ-bon-a\LHL ó-mu-ˋlwàiré ó-gu-o-janjab-a\LHLH
1SGS-see-FV\PRES AUG-1-patient REL-1O.REL-2SGS-treat-FV\PRES.SBR
'I see the patient which you are treating.'

(211) *Òònu ógùwálètá, yábyàla ámàká gábbè màgàzí.* (C)

o-ˋnú ó-gu-o-a-let-a\H.LH a-a-by.al-a\H.LH á-ma-ˋká
AGR1-DEM-PROX REL-1O.REL-2SGS-TNS-bring-FV\F1 1S-TNS-give_birth.EXT-FV\F1 REL-6-home
ga-bb-e\HL(H) ma-ˋgàzí
6S--COP1-SUB\SUB AGR6-expanded
'This one which you are going to bring, she will give birth and expand the home.'

Table 6.60: The verb *kùgùlá* 'to buy' in different tenses with the AGR 3 relative object marker *gu-*. The subject markers are 2nd person singular and plural

	FO1 AFF	FO1 AFF with *e-*	FO1 NEG	FO1 NEG ALT with *e-*
Present	ógwògúlà	–	ógwòtágúlá	–
	ógùmùgúlà	ógwè mùgúlà	ógùmùtágúlá	ógwè mùtágúlá
P1	ógùwànkágúlá	ógwè wànkágúlá	ógùwàntákágúlá	–
P2	ógwògúlíré	–	ógwòtágúlìré	–
	ógùmùgúlíré	ógwè mùgúlíré	ógùmùtágúlírè	ógwè mùtágúlìré
P3	ógùwágùlírè	ógwè wágùlírè	ógùwàtágùlírè	ógwè wàtágùlírè
P5	ògúwàgúlírè	ògwé wàgúlírè	ògúwàtágúlírè	ògwé wàtagúlírè
F1	ógùwágùlá	ógwè wágùlá	ógùwàtàgùlé	ógwè wàtàgùlé
F2	ógùwàlígúlá	ógwè wàlígúlá	ógùwàtàlígúlá	ógwè wàtàlígúlá

In many Bantu languages an object relative is described as a relativising pronoun, rather than an affix (Cheng 2025), including languages closely related to Lugwere, such as Ruruuli (Zellers 2021). In Lugwere a relativized object can be expressed in two ways: firstly with a realitivizing pronoun which consists of an augment, the relative object class markers, and a final *-e*. As will be discussed below, there is some evidence that this does not belong to the same phonological or grammatical word as the verb. Secondly there there are agreement markers that can be added to the verb, and for these most indications point to them being part of the same phonological word as the verb.

Firstly, the orthography writes the relative object markers and the verbs together as one word. This is the case both for the pronouns ending in *-e*, and the prefixes. This is of course not concrete proof either way, but does indicate that the native speakers that developed the orthography did see these as a unit that it made sense to write together as

one orthographic word. The language consultant who transcribed the recordings in my corpus, also did this in the vast majority of cases.[2] A search through the corpus failed to find any cases where another word or element intervenes between the relative object marker/pronoun and the rest of the verb. In elicitation, when trying to test if a word could be inserted, a speaker gave the form in (212a). This is puzzling for various reasons. The speaker did allow the word *nyèré* 'the very/itself' to follow the object relative pronoun with *-e*, and further questions about the meaning seemed to indicate that this was still a relative object marker, but the verb then requires a new relative object marker, which surprisingly does not agree with the object (but this seems required in other contexts as well when following *nyèré*, see (212b)), but this construction is not fully understood. It seems to include some kind of cleft or dislocation, but what is clear is that it provides some evidence that *ógwè* can stand as an independent word. Note that when asked to pause wherever feels natural, as in the recordings in (212), the speaker pronounced *ógwè bànyèré* together as a unit.

(212) a. *Ómwísúka ógwè bànyère égìbàbóna àsékà.*

ó-mu-ísúkà ó-gu-è ba-`nyèré é-gi-bà´-bon-a\LHL à-sek-a\LHL
AUG-1-boy REL-1O.REL-O.REL AGR2-self REL-9O.REL-2S-see-FV\PRES 1S-laugh-FV\PRES
'The boy they themselves see smiles.'

b. *Ómwàna ábànyère égyè bàtákà mùsànyúkí.*

ó-mu-àná á-ba-`nyèré é-gi-è bà´-tak-a\LHL mu-`sànyúkí
AUG-1-child AUG-AGR2-self REL-9O.REL-O.REL 2S-want-FV\PRES AGR1-happy
'The child which they themselves like is happy.'

When looking at the phonological criteria, there are multiple indications that the prefixes are indeed prefixes. Firstly, when there is a vowel-only subject marker, we end up with a long vowel, as would be expected following a word internal CG sequence, as in (213b). For the pronouns, the *-e* is short, which would be expected at a word boundary, as in (213a). See also (213c) for comparison. Here there is a demonstrative, which would be considered a separate word, and the final vowel of the demonstrative is short.

[2]There are a few examples where he wrote a space between a relative object with *-e* and the verb, but this is much rarer, and not the only inconsistency in where spaces are found

(213) a. *ómùtyêre ógwè tùgúlà [ógwè tùgúlà]*

ó-mu-ˋtyêré ó-gu-è tù´-gul-a\LHL
AUG-3-rice REL-3O.REL-O.REL 1PLS-buy-FV\PRES
'the rice which we buy'

b. *ómùtyêre ógwòtákà [ogwo:taka]*

ó-mu-ˋtyêré ó-gu-ò-tak-a\LHL
AUG-3-rice REL-3O.REL-2SGS-want-FV\PRES
'the rice which you want'

c. *Ógúsómi ògwò gùtákà mùtyêré. [ògwò gùtákà]*

ó-gu-´sómì ògw-ó\FL gù´-tak-a\LHL mu-ˋtyêré
AUG-20-student AGR20-DEM_MED 20S-want-FV\PRES 3-rice
'That big student wants rice.'

Another relevant issue, is that of the glide in (213b). I have analysed this as being underlyingly *o-gu-o-tak-a* 'which you want'. If the *ogu* sequence was a separate word, we would expect something like **og-otaka*, where the /u/ is lost due to liaison. This does not seem to exist, however, and multiple attempts at eliciting such a form or providing one for judgment has shown that there is only one possible version when there is a vowel-only subject marker. A glide would also be expected if this form was underlyingly *ógwe òtákà*, however, where the final /e/ is lost through liaison, but then the vowel would be expected to be short.

A third issue is that one the tones. In most cases it seems we can best understand the augment to have its own lexical tone, and perhaps the relative object prefixes can also be understood to have their own tone. That explanation works well both for the prefix and the pronouns, as we would expect pronouns to have their own tones separate from the verbs, and some affixes have a lexical tone. The problem is P5, where the tones of the augment and the class marker change, both for the affixes and the pronouns. This is not a problem for the affixes, as we can understand this as the tonal melody of the whole word affecting the affixes. But it is surprising if the pronouns are indeed separate words. The only other cases where the tones of a verbal melody manifest on a preceding words are in 1st person singular Subjunctive verbs, and there it is easily explained by the nasal subject prefix being a poor TBU (see Section 8.1.1).

A possible explanation is that the P5 relative verb takes on the same tonal melody as in P5 negative main clause verbs, which have a high tone on the negative marker. In the verbs with relative objects, however, there is no negative marker preceding the subject, and it is possible that the high tone gets passed onto the preceding word. Now, normally this relative object would have a HL melody, but if the H from the P5 form spreads to the final syllable, the first syllable might change its tone to avoid having a word that is all high tones, similar to what is described in Section 3.2.7. Is the fact that this happens in the prefixes as well as the pronouns an argument against treating the prefixes as affixes? Not necessarily. It probably suggests that they originated as separate words, most likely from the relative object pronouns, but it does not mean that they are separate words currently, as the tones they used when independent would likely remain after grammaticalising. The fact that there is a long vowel currently would seem to indicate that the prefixes currently belong to the same phonological word as the rest of the verb.

6.6.4 Other contexts and further discussion

In addition to the context described above, verbs also use the subordinate clause tonal melodies following the Narrative particle *ni* (see Section 6.7.1). There are one example each of a subordinate tone melody being used following *òlwó* 'then' (e.g. 521) and *sìngá* (e.g. 449), and a larger sample would be needed to determine how widespread this is. There are also cases where a subordinate form is used, without any overt immediately preceding element that could have conditioned it, see for instance (186a), (572) and (602), and more research is needed to fully understand this.

There is some evidence that Present tense bisyllabic verbs might sometimes have a LH melody in subordinate contexts, but this is not very clear. No examples of this came up in elicitation, but some examples from the corpus indicates this, see for instance (448) and (418). There are also a few cases like (260), where a high tone on the quotative in *N'ámùkòba áàtì* 'and she told him that…', would appear to come from the verb, as the quotative is expected to be *ààtî*. If so, that would mean the verb stem has a LH tone. An interesting case is what is seen in (254c), with the verb *ékyóntàkákù* 'which you want from me', which could be explained either as the bisyllabic verb *kùtàká*

having a LH subordinate Present tense tonal melody, but could also be an irregular subordinate melody based on the irregular main clause negative tonal melody of this verb, see Section 9.10.3.

Other potential alternative subordinate melodies that did not come up in elicitation, is what is found in (272) and (308a). In the former case, the verb *éyànjèràngá* 'who will be sweeping for me' is segmentally F1 affirmative, but has the F1 negative tonal melody. In (308a), the two verbs in *n'óìzá n'ónkwàtákù* 'come and touch me', have what appears to be the Subjunctive HLH tonal melody, but they end in *-a* rather than the expected Subjunctive final vowel *-e*. Since the subordinate forms tend to resemble the negative forms tonally, perhaps this is a case of a subordinate form taking on segmental properties of the negative as well. Further research into this is needed, and hopefully the complete distribution of the subordinate tone melodies will become clearer once more materials are tone marked.

6.7 Relative tense

In addition to the absolute tenses described above - that is, tenses that are defined with reference to the moment of speech, Lugwere has a couple of constructions that use relative tense. The next two sections will look at the Narrative tense and the *ngà* construction. Then, Section 6.7.3 will look at absolute-relative tenses, that is, where one part of the predicative phrase makes reference to a time in relation to another part of the predicative phrase, which has absolute tense.

6.7.1 The Narrative tense

Lugwere has a narrative tense that is frequently used when relating stories or past events that happened in sequence. This is formed by use of the particle *ne* ∼ *ni* followed by the verb in the Present tense subordinate form. As a general rule, the Narrative tense requires one to look to sentences earlier in the discourse to understand the time reference. Tonally, the verbs behave as in *ówè-* clauses (see Section 6.6.1), meaning that all subject markers have floating high tones (so there is no distinction between Form 2 and Form 1 in bisyllabic verbs), monosyllabic verbs get a LH rather than a LHL

melody, as in *àìzírè n'àlyá* 's/he came and ate', and do have a separate Form 2, as in *àìzírè n'àlyà mùtyêré* 's/he came and ate rice'. Longer forms have a LHL*H melody, as in *àìzírè n'àkálàbàndá* 's/he came and roasted', where the final high tone lowers in Form 2 contexts. The negative form of the Narrative can use either the secondary negative *ta-*, or the primary negative *ti-*. The former seems more common in the Bible translation.

When the verb starts with a vowel, the vowel of the Narrative particle is not pronounced, due to the process of liaison (see Section 3.1.3.8). Below is a short story, elicited based on the Dahl (1985) survey. There are two renditions, given by two different speakers. The first use a P5 form in the first sentence, introducing the man, and the following sentence, which introduces the story. Next, the first verb of the story proper similarly uses a P5 form, but then all subsequent forms use the Narrative. In the second rendition, there is more usage of P5, and the speaker changes between the Narrative and P5. From this it would seem that pragmatic factors and individual idiolects and styles play a role in deciding when to use the Narrative tense. Hopefully a larger study of the use of the Narrative in the corpus could shed more light on its conditions of use.

(214) a. *Lwàlì lúmò wàbbèìréyo ómùsàìzá.*

lu-a-li\L.LH\FO2 lu-´mò wa-a-bb-ire\LH=yo ó-mu-`sàìzá
11S-TNS-COP2\P5\FO2 AGR11-one 16S-TNS-COP1-PST2\P5=23 AUG-1-man
'Once there was a man.'

b. *Kìnù nîiye ékyàmùtùùkìrékù, ólùnákù lúmò.*

ki-`nú\FL ní-ì´-ye é-ki-a-mu-tuuk-ire\LH=ku ó-lu-`nákù
AGR7-DEM_PROX\FL COP3-PRO-AGR1 REL-7S-TNS-1O-reach-PST2\P5=17 AUG-11-day
lu-´mò
AGR11-one
'This is what happened to him one day.'

c. *Yààli àtàmbúlíra ómú kíbírà n'àyéma ókú mùsòtá.*

a-a-li\L.LH à-tamb.ul-ir-a\LHL ó-mu=ki-´bírà ni à´-em-a\LHL(H)
1S-TNS-COP2\P5 1S-walk.SEP1-APPL-FV\PRES AUG-18=7-forest NAR 1S-step-FV\PRES.SBR
ó-ku=mu-`sòtá
AUG-17=3-snake
'He was walking in the forest, and stepped on a snake.'

d. *Nè gúmùlúma éígèré,*

ni gù´-mu-lum-a\LHL(H) é-ì-´gèré
NAR 3S-1O-bite-FV\PRES.SBR AUG-5-leg
'It bit him in the leg.'

e. *N'àfúna éíbbàálé,*

ni à´-fun-a\LHL(H) é-ì-`bbàálé
NAR 1S-get-FV\PRES.SBR AUG-5-stone
'He got a stone,'

f. *n'ágùkúbbà nè gùfá.*

ni à´-gu-kubb-a\LHL(H) ni gù´-f-a\LH(LH)
NAR 1S-3O-hit-FV\PRES.SBR NAR 3S-die-FV\PRES.SBR
'and hit it, and it died.'

(215) a. *Ànyúma àáwó, ólùnákù lúmò,*

a-ny.`úmà awa-`ó ó-lu-`nákù lu-´mò
16-9.BACK AGR16-DEM_MED AUG-11-day AGR11-one
'One day, a while back,'

b. *òlwò ómùsàízá,*

olu-`ó ó-mu-`sàízá
AGR11-DEM_MED AUG-1-man
'then, a man,'

c. *kìnù níìkyo ékyàmùtùùkìrékù.*

ki-`nú\FL ní-ì´-kyo é-ki-a-mu-tuuk-ire\LH=ku
AGR7-DEM_PROX\FL COP3-PRO-AGR7 AUG-7S-TNS-1O-reach-PST2\P5=17
'this is what happened to him.'

d. *Yàáli àtàmbúla ómú kíbírà,*

a-a-li\L.LH à-tamb.ul-a\LHL ó-mu=ki-´bírà
1S-TNS-COP2\P5 1S-walk.SEP1-FV\PRES AUG-18=7-forest
'He was walking in the forest,'

e. *n'àyéma ókú mùsòtá ngà tàgéndèrèìré.*

ni à´-em-a\LHL(H) ó-ku=mu-`sòtá ngà ti-a-gend.erer-ire\LHLH
NAR 1S-step-FV\PRES.SBR AUG-17=3-snake SIM NEG-1S-intend.DUR1-PST2\P2.neg
'and accidentally stepped on a snake.'

f. *Gwàmùlùmìre ókwígèré.*

gu-a-mu-lum-ire\L.LH ó-ku=ì-´gèré
3S-TNS-1O-bite-PST2\P5 AUG-17=5-leg
'It bit him in the leg.'

g. *Yàtwèire éíbbàálé n'áìwúma ókú mùsòtá.*

a-a-tw.al-ire\L.LH é-ì-ˋbbàálé ni à´-li-wum-a\LHL(H) ó-ku=mu-ˋsòtá
1S-TNS-take.EXT-PST2\P5 AUG-5-stone NAR 1S-5O-throw-FV\PRES.SBR AUG-17=3-snake
'He took a stone and threw it at the snake.'

h. *Nè gùfá.*

ni gù´-f-a\LH(LH)
NAR 3S-die-FV\PRES.SBR
'It died.'

6.7.2 The *ngà* construction

The particle *ngà* has a range of functions. Most commonly, it is used in a relative tense construction, where the tense of the verb following it indicates a temporal relation to a reference point.

When *ngà* is used with a Present tense verb, this means that the verb following *ngà* occurs simultaneously to some reference point. This reference point is, like with *ni*, the time that is indicated by the context and any verbs marked for absolute tense. Often, it can be translated as either *when* or *while*. An example is given in (216), where the elephant walked around, and whenever he saw anyone, informed them of the trap. The walking and the telling overlap. Note that while the Narrative tense indicates a sequence of events, *ngà* is better seen as indicating simultaneity. *ngà* can also be followed by a P2 verb, as in (217), where it indicates that simultaneous with the reference point, the action was in the past or completed. The *ngà* particle is glossed as SIM, for 'simultaneous'.

(216) *Ǹzógì n'àtámbùlà kíbírà kyònàkyónà ng'àkòbéra ébísólò, ókwèkúmírá kímò tìbyágwa ó(mú) mùtègó gwá mùyìigí.* (W)

n.´zógì ni à´-tamb.ul-a\LHLH\FO2 ki-´bírà ki∼ona∼ki-ónà ngà
9.elephant NAR 1S-walk.SEP1-FV\PRES.SBR\FO2 7-forrest AGR7∼REDUP∼AGR7-all SIM
à-kob-ir-a\LHL é-bi-´sólò ó-ku-e´-kum-ir-a\LH ki-´mò
1S-say-APPL-FV\PRES AUG-8-animals AUG-INF-REFL-guard-APPL-FV\INF AGR7-one
ti-bi-a-gw-a\LH ó-mu=mu-ˋtègó gu-á mu-ˋyìigí
NEG-8S-TNS-fall-FV\SUB.NEG AUG-18=3-trap AGR3-ASS 1-hunter
'The elephant walked around the whole forest informing the animals to be careful not to fall into the hunter's trap.'

(217) *Lwàlì lúmò, òkwá súsúúkùlù óKàmíízà n'àkásuka éígùmbá énzà ng'àmàlíre ókàlyáku ényámà.* (W)

lu-a-li\L.LH\FO2 lu-´mò ó-ku-á súsúúkùlù ó-Kàmíízà ni
11S-TNS-COP2\P5\FO2 AGR11-one AUG-AGR17-ASS Christmas AUG-PN.A NAR
à´-kas.uk-a\LHLH é-ì-`gùmbá é-n.zà ngà à-mal-ire\LHL
1S-throw.SEP2-FV\PRES.SBR AUG-5-bone AUG-9.outside SIM 1S-finish-PST2\P2
ó-ku-ka-ly-a\LH=ku é-n.yámà
AUG-INF12O-eat-FV\INF=17 AUG-9.meat
'One day on Christmas, Kamiza threw a bone outside when he was done with eating meat from it.'

While the Persistive can only be attached to a Present tense *-li* copula (see Sections 6.8.1 and 7.4), a construction with *ngà* can be used to express the same concept in the past or future, as illustrated in (218).

(218) *Éízo éígúlò, náàbírè ng'ómùgàndá wànge àkáàli ókwìra éíkà.*

é-ìzó é-ì-gúlò n-a-ab-ire\H.LHL ngà ó-mu-`gàndá o-àngé
AUG-yesterday AUG-5-evening 1S-TNS-go-PST2\P3 SIM AUG-1-same_sex_sibling AGR1-1SG.POSS
a-kaa-li\LHLH ó-ku-ir-a\LH é-ì-`ká
1S-PRS-COP2\PRS AUG-INF-return-FV\INF AUG-5-home
'Yesterday evening, I left before my brother got home. (lit. when my brother has not yet returned home)'

ngà does not have an effect on the tone of the verbs. The Present tense, for instance, behaves tonally as in main clauses, as illustrated by the form *ng'àgùlà bíntù* 'when s/he buys things', where the verb uses Form 2 with all low tones.

The *ngà* particle has several other functions, and can for instance be used in constructions where English use 'as, like', in phrases such as 'He did as he was told'. There is not space here to fully discuss all the usages of *ngà*.

6.7.3 Absolute-relative tenses

It is possible to combine a copula auxiliary and a main verb that are conjugated for two different tenses to indicate more complex relations between different points in time. For instance, a copula in a past tense, combined with a lexical verb in the future tense, can be used to indicate that an event will take place in the future relative to a point in time

that is in the past of the moment of speech. Below the different possible combinations are laid out, alongside examples.

Past in the past To indicate the past in the past, a sequence of a past copula plus a verb in P1, P2 or P4 can be used. (219) shows P2 with P1, (220) and (221) show P5 with P2, while (222) shows P5 with P4.

(219) *Àbbéírè yànkáábá ngà tùtúúkà.*

à-bb-ire\LHL a-anka-ab-a\LH ngà tù´-tuuk-a\LHL
1S-COP1-PST2\P2 1S-PST1-go-FV\P1 SIM 1PLS-arrive-FV\PRES
'He had just left when we came.'

(220) *Kùbbángà nàálì njàbírè mú múzényò.* (C)

kùbbángà n-a-li\L.LH\FO2 ǹ-ab-ire\LHL mu=mu-´zényò
because 1SGS-TNS-COP2\P5\FO2 1SGS-go-PST2\P2 18=3-game
'Because I had gone to play.'

(221) *Yàbbàire àbyéire ábàánábè bálóngò.* (C)

a-a-bb-ire\L.LH à-by.al-ire\LHL á-ba-ànà=b-e ba-´lóngò
1S-TNS-COP1-PST2\P5 1S-give_birth.EXT-PST2\P2 AUG-2-child=AGR2-1POSS 2-twin
'She had given birth to her twins.'

(222) *Érâ, n'ágùtééka ómú mágómbè g'émpùkú, ègíyàbbáíré yànkátémánga ómwíbbàálé.* (W)

érâ ni à´-gu-teek-a\LHL(H) ó-mu=ma-´gómbè ga-á é-m.`pùkú
CONJ NAR 1S-3O-put-FV\PRES.SBR AUG-18=6-tomb AGR6-ASS AUG-9.CAVE
é-gi-a-a-bb-ire\LH.LHL a-anka-tem-a-nga\LH ó-mu=ì-`bbàálé
REL-9O.REL-1S-TNS-COP1-PST2\P5.SBR.UC 1S-PST1-cut-FV-HAB\P4 AUG-18=5-stone
'And placed it in his own new tomb, that he had cut in the rock.'

With certain verbs, this construction can get a stative in the past reading, as in (223).

(223) *Ǹbéírè ntàkírè twa- túnyìnyìtìré kwàwó kéísì.* (C)

ǹ-bb-ire\LHL ǹ-tak-ire\LHL FS tu-nyinyit-ir-e\H.LH
1SGS-COP1-PST2\P2 1SGS-want-PST2\P2 FS 1PLS-emphasise-APPL-SBJ\SBJ
ku-a-`ó kéísì
17=AGR16-DEM_MED then
'I wanted us to first make some emphasis there.'

Future in the past To indicate future in the past, a past tense copula can be followed by a verb in F1, as in (224). While this was accepted in elicitation, I couldn't find an example of this from the corpus, so it does not appear to be a very common construction.

(224) *Ójɟônì yábbéírè yásùmba écápàtí.*

ó-ɟônì a-a-bb-ire\H(L)HL a-a-sumb-a\H.LH é-cápàtí
AUG-PN.M 1S-TNS-COP1-PST2\P3 1S-TNS-cook-FV\F1 AUG-chapati
'John was going to cook chapati.'

In Example (225) there is even a sequence of three verbs: a copula in P3, followed by a copula in F1 and the verb *kùsùmbá* 'to cook' in P2 - 'he was going to have cooked'.

(225) Context: Yesterday, John told me to come back at 8 pm, because at that time the chapati would be ready.

Ómú sáàwá íbìrì, ɟônì yábbáírè yábba àsùmbíre écápàtí.

ó-mu=sáàwá ìbírí\FL ɟônì a-a-bb-ire\H(L)HL a-a-bb-a\HL(H)
AUG-18=hour two\FL PN.M 1S-TNS-COP1-PST2\P3 1S-TNS-COP1-FV\F1
à-sumb-ire\LHL é-cápàtí
1S-cook-PST2\P2 AUG-chapati
'John was going to have cooked the chapati at 8pm.'

Past in the future To indicate the past in the future, a future copula can be used with a P2 verb, as in (226b).

(226) a. *Námàlá njàbá nsòme ógwa óbùdókítá.* (C)

n-a-mal-a\H.LH ǹ-ab-a\LHL n-som-e\H.LH ó-gu-á ó-bu-ˋdókítá
1SGS-TNS-finish-FV\F1 1SGS-go-FV\PRES 1SGS-study-SUB\SUB AUG-AGR3-ASS AUG-14-medicine
'After I finish, I will go to study medicine.'

b. *Nábbà mmàlíre ókùkòlá óBCM.*

n-a-bb-a\HL(H) ǹ-mal-ire\LHL ó-ku-kol-a\LH ó-BCM
1SGS-TNS-COP1-FV\F1 1SGS-finish-PST2\P2 AUG-INF-do-FV\INF AUG-BCM
'I will be done doing BCM (Biology, Chemistry and Mathematics).'

Future in the future An attempt to search the corpus for constructions with various combinations of F1 and F2 did not yield any examples. When asking a speaker for judgements, sentences such as (227) were rejected. It would appear then, that future

in future constructions with a future copula and a future main verb are not possible, or at least very rare.

(227) * *Yàlíbbà yábyàlá.*

a-ali-bb-a\LH(LH)L a-a-by.al-a\H.LH
1S-FUT-COP1-FV\F2 1S-TNS-give_birth.EXT-FV\F1
Intended: 'She will be going to give birth.'

The speaker did, however, accept sentences such as (228), which use a future copula followed by the auxiliary *kùtìrá* in F1, and an Infinitive, where the meaning is 'will be about to'.

(228) *Yábbà yátìra ókùbyàlá.*

a-a-bb-a\HL(H) a-a-tir-a\H.LH ó-ku-by.al-a\LH
1S-TNS-COP1-FV\F1 1S-TNS-be_about_to-FV\F1 AUG-INF-give_birth.EXT-FV\INF
'She will be about to give birth.'

6.8 The copulas

6.8.1 The inflection of the copulas

There are three different copulas that are commonly found in Bantu: *-lɪ* 'be (locative), *-ba* 'be, become', and *-nɪ* 'equational be' (Nurse 2008:145). Cognates of all three of these are found in Lugwere.

The reflex of the *-nɪ* 'equational be' in Lugwere does not functions as an independent verb. Rather, it can be prefixed to pronouns, as illustrated in Table 6.61. These are used to equate the subject with a predicate, pointing to an identity. If used with an adjective or a verb, it is interpreted nominally, i.e. "the one who is X/the one who Xed". The element following the *ní-* copula generally has an augment, or a relative marker. The pronouns have a LH melody, and when the *ní-* is added, this introduces a high tone that leads to a fall on the first syllable. We can assume that *ní* is a prefix, because of the long vowel that occurs, which is not what would be expected across a word boundary, where liaison resulting in a short vowel is expected.

(229) gives an example of the *ní-* copula from the corpus. While the *ní-* copula is generally used with a pronoun that agrees with the person, number and class of the

Table 6.61: The *ní-* copula

	Pronoun	*ni-* form
1st SG	ǹzé	níìnzé
1st PL	ìiswé	níìswé
2nd SG	ìiwé	níìwé
2nd PL	ìinywé	níìnywé
AGR 1	ìiyé	níìyé
AGR 2	ìibó	níìbó

subject, the Class 1 form *níìyé* is at times used as a general form that does not agree in noun class, as illustrated in (230), where the subject, *bàdí* 'those' is Agreement Class 2, so the expected copula would have been *níìbó*. This does appear to be something speakers consider incorrect, as it has been corrected by my consultants on multiple occasions when I presented them with such data from other speakers, but it is something I have come across both in the corpus and in elicitation, and there are even examples from the Bible, such as (231). This means it is unlikely to simply be a mistake, but might be a newer development that some speakers still consider incorrect.

(229) Context: siblings competing to climb a tree

Áàmála ókùniìna ékisáále èkyó, níìye áyàwàngwìré. (C)

áà-à´-mal-a\LHL(H) *ó-ku-niin-a\LH* *é-ki-`sáálè eki-`ó*
SBR-1S-finish-FV\PRES.SBR AUG-INF-climb-FV\INF AUG-7-tree AGR7-DEM_MED
ní-ì´-ye *á-a-a-wang.ul-ire\LH*
COP3-PRO-AGR1 REL-1S-TNS-win.SEP1-PST2\P5
'After climbing that tree, he is the one that won.'

(230) *Bàdì níìye ábàfa, ábàìbbí.* (C)

ba-`dí\FL *níìyé* *á-bà´-f-a\LHL* *á-ba-ìbbí*
AGR2-DEM_DIST\FL COP3.PRO REL-2S-die-FV\PRES.SBR AUG-2-thief
'The other ones are the ones who die, the thieves.'

(231) *Èrâ, kítyò níìye ówèkyàlíbbá, ókú nkómèrèr(o) y'ékyálò.* (W)

èrâ *kì´-tyô* *níìyé* *ówè-ki-ali-bb-a\LH*
CONJ AGR7-like_this COP3.PRO SBR-7S-FUT-COP1-FV\F2.SBR
ó-ku=n.kómèrèró e-á *é-ki-álò*
AUG-17=9.end AGR9-ASS AUG-7-world
'So shall it be at the end of the world.'

The other two copulas, *-li* and *-bba*, behave morphologically and syntactically more like other verbs, but they do not constitute two fully separate verbs. Instead there is a system that is suppletive to some extent. Certain forms are only found for the *-bba* copula. This, for instance, is the case with the Infinitive, *kùbbá*. The *-bba* copula can be conjugated with all affixes and in all forms that other verbs have. The *-li* copula, on the other hand, is 'defective' in that most suffixes cannot be attached to it, the exception being locative enclitics. The *-li* copula can be used in some past tenses, occurring without the *-ire* suffix. In the past, where the two copulas both exist, they seem to largely overlap in function. The *-li* copula cannot be used in the future tense.[3] In the Present tense, however, the two copulas have different distributions and functions, and this is addressed in Section 6.8.2.

Table 6.62 shows the conjugations of the *-li* and *-bba* copulas in Agreement Class 1. Note that, like for regular verbs, there is a difference between subject markers with and without floating high tones in the Present and Hodiernal tenses, where the Agreement Class 2 form has also been given. The *li* copula is very irregular, both segmentally, as it cannot carry a final vowel or the *-ire* past tense suffix, and tonally. In the Present tense, the tonal melody is shortened to LH, as in *ààlí*. For verbs with a high-toned subject marker, the high tone is realised on the subject marker itself. Now, if the verb kept the original LH tone, it would lead to a word that is HH, which is generally avoided, and so the second syllable is instead realised low, as in *bálì*. In the negative, when the negative marker is a separate syllable, it has a low tone, and the following tones are high, as in *tèbálí*. When the negative and subject markers constitute one syllable, however, that syllable is high, and the final syllable has a fall, as in *táálî*. In Form 2 contexts, this fall is reduced to a high, but unlike elsewhere where a final fall is reduced to a high, it does not have a downstep effect, as illustrated in (232). Interestingly, the Present tense negative *-li* copulas do not lower their high tones in Form 2 contexts.

[3] Although considering that a common source for new morphology in TA amongst Bantu languages is auxiliary verbs, it seems plausible that the -li copula with the future tense prefix *a-* (as in F1) is the source for the F2 morpheme *ali-*.

(232) *Tóólí músómì.*

ti-o-li\(L)H *mu-´sómì*
NEG-2SGS-COP2\PRES.NEG.IRR 1-student
'You are not a student.'

In the other tenses where there is a *-li* copula, the tone is often similarly cut off. That is the case in P3, where instead of the HLHL melody, the verb only has HL, as in *yáálì*. In the affirmative of P5, the tones are the regular LH, but in the negative the verb is too short, so instead of HLHL, there is only HLH.

The *-li* copula has a Persistive form, *-káàlí*. While other verbs cannot take the persisitve prefix *ka-* directly, the *-li* copula functions as a persistive auxiliary (see Section 7.4).

The lower part of Table 6.62 shows the conjugation of the *-bba* copula, which tonally and segmentally behaves like other monosyllabic verbs.

6.8.2 The usage of the copulas

There are a range of different factors that influences which of the three copular forms are used in a given context. In some contexts there is overlap between the three forms, especially *-li* and *-bba*. Sections 6.8.2.1 –6.8.2.6 will look at how factors such as person, tense, aspect and syntax interact with choice of copula.

6.8.2.1 Person

When the copula is used with an adjectival or nominal predicate and the subject is third person, no overt copula is used. The exception are locations, where an overt copula is required even with third person subjects. When the relevant third person subject is pronominal, mostly there is no overt realisation of the pronoun at all, and the predicate stands by itself, as in (233) below. For first and second person subjects there is always an overt copula, as shown in (234).

(233) a. *Ómwàná wàngè mwàlá.*

ó-mu-àná *o-àngé\FL* *mu-àlá*
AUG-1-child AGR1-1SG.POSS\FL 1-girl
'My child is a girl.'

Table 6.62: The two copulas *-li* and *-bba* in all the tenses. Forms are given with Agreement Class 1 subject markers, and Agreement Class 2 subject markers where it differs tonally. <–> indicates a nonexistent form, and <...> indicates that there is no Form 1/Form 2 alternation for that form.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
	-li			
Infinitive	–			
Present	ààlí	ààlì	táálî	táálí
	bálì	bálì	tìbálí	tìbálí
P1	–	–	–	–
P2	–	–	–	–
P3	yáálì	...	tìyáálì	...
P5	yàálí	yàálì	tíyàálí	...
F1	–	–	–	–
F2	–	–	–	–
Persistive	àkáálí	àkáálì	tàkáálí	tàkáálí
	-bba			
Infinitive	kùbbá	kùbbà	kùtábbá	kùtàbbà
Present	àabbâ	àabbà	tàbbá	tàbbà
	bàbbâ	bàbbá	tìbàbbá	tìbàbbá
P1	yànkábbá	yànkàbbà	tìyànkábbá	tìyànkàbbà
P2	àbbáirè	...	tàbbáiré	tàbbéirè
	bàbbáirè		tìbàbbáiré	tìbàbbáirè
P3	yábbáirè	...	tìyábbáirè	...
P5	yàbbàiré	yàbbèirè	tíyàbbáirè	...
F1	yáábbà	..	tìyàabbé	tìyàabbè
F2	yàlíbbà	..	tìyàlíbbá	tìyàlìbbà
Persistive	–	–	–	–

b. *Mùsànyúkí.*

mu-ˋsànyúkí
AGR1-happy
'S/he is happy.'

c. *Músómì.*

mu-ˊsómì
3-student
'S/he is a student.'

Compare this, with the sentences in (234), which have a first person subject, and where a zero copula is not possible.

(234) a. *Ǹdì mwàlá.*

ǹ-li\LH(L)\FO2 *mu-àlá*
1SGS-COP2\PRES\FO2 1-girl

'I am a girl.'

b. *#Mwàlá.*

mu-àlá
1-girl
Infelicitous with the intended meaning: 'I am a girl.'

To some extent, a third person *-bba* copula, where appropriate on aspectual grounds, is more acceptable than an overt *-li* copula. (235) is a general statement about elephants, and the *-bba* copula is permitted, while the *-li* copula is not. In (236), however, we have the specific case of the elephant Karl, and no overt copula was considered felicitous.

(235) a. *Énzógì nnèné.*

é-n.ʹzógì n-ˋnèné
AUG-10.elephant AGR10-big
'Elephants are big.'

b. * *Énzógì gílì nnèné.*

é-n.ʹzógì gìʹ-li\LH(L) n-ˋnèné
AUG-10.elephant 10S-COP2\PRES AGR10-big
Intended: 'Elephants are big.'

c. *Énzógì gìbbá nnèné.*

é-n.ʹzógì gìʹ-bb-a\LHL n-ˋnèné
AUG-10.elephant 10S-COP1-FV\PRES AGR10-big
'Elephants are big.'

(236) Context: Peter has a pet elephant. His name is Karl. Karl is big.

a. * *ÓKâlò ààlì mùnèné.*

ó-Kâlò à-li\LH(L)\FO2 mu-ˋnèné
AUG-PN.A 1S-COP2\PRES\FO2 AGR1-big
Intended:'Karl is big.'

b. *ÓKâlò mùnèné.*

ó-Kâlò mu-ˋnèné
AUG-PN.A AGR1-big
'Karl is big.'

c. * *ÓKâlò àbbà mùnèné.*

ó-Kâlò à-bb-a\LHL\FO2 mu-ˋnèné
AUG-PN.A 1S-COP1-A\PRES\FO2 AGR1-big
Intended:'Karl is big.'

6.8.2.2 Tense

All three copulas are found in the Present tense, and have different usages. The *ní-* copular forms cannot carry any tense, and are only used with a present meaning.

The two other copulas are used in a variety of tenses, as detailed in Section 6.8. It is primarily in the Present tense that the two differ, however. In other tenses, they appear to be largely interchangeable, as illustrated by (237) and (238) where all the sentences were considered to be correct.

(237) Context: I was in a café, waiting for my boyfriend.

a. *Nábbáírè mù kàfê.*

n-a-bb-ire\H(L)HL mu=kàfê
1SGS-TNS-COP1-PST2\P3 18=café
'I was in a café yesterday.'

b. *Náálì mù kàfê.*

n-a-li\HL(HL) mu=kàfê
1SGS-TNS-COP2\P3 18=café
'I was in a café yesterday.'

(238) a. *ÓMáíkè yàbbàirè mùkáágwà wàngé ínò.*

ó-Máíkè a-a-bb-ire\L.LH\FO2 mu-ˋkáágwà o-àngé ìnó
AUG-PN.M 1S-TNS-COP1-PST2\P5\FO2 1-friend AGR1-1SG.POSS very
'Mike was my best friend.'

b. *ÓMáíkè yàálì mùkáágwà wàngé ínò.*

ó-Máíkè a-a-li\L.LH\FO2 mu-ˋkáágwà o-àngé ìnó
AUG-PN.M 1S-TNS-COP2\P5\FO2 1-friend AGR1-1SG.POSS very
'Mike was my best friend.'

6.8.2.3 Equative, identificational and predicational clauses

The different copulas can be used for different types clause types. The *ní-* copular form is generally identificational or equative predication (follwing the usage of Mikkelsen (2005)), and it is commonly found in introductions, as in (239).

(239) *Nîìnze óMèrí.*

ní-ì´-nze ó-Mèrí
COP3-PRO-1SG AUG-PN.F
'I am Mary.'

The function of this copula is to point to an identity. That can be by giving a name, as in (239), but it can also be used to point to one amongst several possibilities. A sentence like (240a) can be used if one is identifying one man amongst other possibilities. If, for instance, one wishes to point out an individual that was previously mentioned. It translates to 'He is the man', and cannot be used to simply state 'He is a man', which would be predicational and requires a different copula. In the Present tense the most common way to express this would be with a zero copula, as in (240b). For a SAP subject, a *-li* copula can be used in these cases, as in (240c). The *ní-* copula does therefore seem to rely on the existence of the subject (as in (239)) or predicate (as in (240a)) being already established, and the new information is the identity, i.e. the linking of the subject and the predicate.

(240) a. *Nîiye ómùsàìzá.*

ní-ì´-ye *ó-mu-`sàìzá*
COP3-PRO-AGR1 AUG-1-man
'He is the man.'

b. *Mùsàìzá.*

mu-`sàìzá
1-man
'He is a man.'

c. *Ǹdì mwàlà mùtómùtó.*

ǹ-li\LH(L)\FO2 *mu-àlá* *mu∼`tó∼mu-`tó*
1SGS-COP2\PRES\FO2 1-girl AGR1∼REDUP∼AGR1-small
'I am a young woman.'

When the *ní-* copula is used with other word classes, such as verbs or adjectives, it takes on a meaning of "be the one who X". In (241), for instance, the meaning is 'he is the one who gave it to me'. The fact that the money was given as a gift is an established fact in the context, but the identity of the giver is new information. In (242) it is old information or presupposed that someone cooked, but the identity of the chef is the focus of the sentence. With an adjective, as in (243), there is a similar interpretation, i.e. 'I am the one who is happy'.

(241) Context: Who gave you that money?

Ɉáàjá wànge ómùsàìzá, níìyé yàmpàire ésênte éègyó. (C)

jáàjá o-àngé ó-mu-ˋsàìzá ní-ì´-ye a-a-n-w-ire\L.LH
grandparent AGR1-1SG.POSS AUG-1-man COP3-PRO-AGR1 1S-TNS-1O-give-PST2\P5
é-sênté egi-ˋó
AUG-money AGR10-DEM_MED
'My grandfather is the one who gave me that money.'

(242) *Ǹg'àkòba ààti: "M-hm, òméítè níìnze nsúmbà."* (C)

ngà à-kob-a\LHL\FO2 à-ˋtí EXCL ò-many.IRR\LHL ní-ì´-nze
SIM 1S-say-FV\PRES\FO2 AGR1-QUOT EXCL 2SGS-know.IRR\PRES COP3-PRO-1SG
ǹ-sumb-a\LHL
1SGS-cook-FV\PRES
'She said: "M-hm, you know I am the one who cooks."'

(243) *Níìnze ómùsànyúkí.*

ní-ì´-nze ó-mu-ˋsànyúkí
COP3-PRO-1SG AUG-AGR1-happy
'I am the one who is happy.'

The *ni* copular forms cannot be used with locations. When attempted, the speaker interpreted it as the subject 'being' the location, or the location being the name of the subject, and the sentences were rejected as infelicitous, instead a *-li* or *-bba* copula is needed.

6.8.2.4 Aspect

In the Present tense, *-bba* and *-li* primarily differ along aspectual lines. The main difference is that *-bba* typically refers to more durative or habitual properties. The *-li* copula is generally used for less permanent properties. A good illustration of this difference is seen when the two copulas are used with a location predicate. The *-li* form can be used to express a temporary location, whereas the *-bba* form is generally used to express long term habitation.

Examples (244) – (245) illustrate this difference. In (244) it is infelicitous to use the *-li* copula, because Maria is not in Kampala at the moment, but it is still possible to use *-bba*, since Kampala is her home. In (245) the judgments were the opposite, and *-li* is accepted while *-bba* is considered a bit weird, albeit not rejected outright.

(244) Context: Maria lives in Kampala, but this weekend she is not in Kampala.

a. *Àbbà Kámpálà.*

à-bb-a\LHL\FO2 Kámpálà
1S-COP1-FV\PRES\FO2 PN.P
'She lives in Kampala.'

b. *#Ààlì Kámpálà.*

à-li\LH(L)\FO2 Kámpálà
1S-COP2\PRES\FO2 PN.P
'Infelicitous: She is in Kampala.'

(245) Context: Right now, she is in Jinja.

a. ? *Àbbà Ɉínjà.*

à-bb-a\LHL\FO2 Ɉínjà
1S-COP1-FV\PRES\FO2 PN.P
Infelicitous: 'She is (lives) in Jinja.'

b. *Ààlì Ɉínjà.*

à-li\LH(L)\FO2 Ɉínjà
1S-COP2\PRES\FO2 PN.P
'She is in Jinja.'

-bba can also be used for habitual locations, as in (246). *-li* was not accepted by the speaker for this context. It is also possible here to add the Habitual marker to the *-bba* copula.

(246) Context: Maria works as a teacher. Every Monday, she is at the school.

a. *Àbbà/àbbàngà kwísómérò.*

à-bb-a-(nga)\LHL\FO2 ku=ì-ˊsómérò
1S-COP1-FV-(HAB)\PRES\FO2 17=5-school
'She is at school (habitually).'

b. *#Ààlì kwísómérò.*

à-li\LH(L)\FO2 ku=ì-ˊsómérò
1S-COP2\PRES\FO2 17=5-school
'Infelicitous: She is at school (now).'

As shown in (247), either copula can be used for objects that are permanently or habitually located in a specific location. But, as (248) shows, it is not possible if the object is only temporarily in the location.

(247) a. *Ámàdòlé gàn(ge) gálìmù kíséngè.*

á-ma-ˋdòlé ga-àngé gàˊ-li\LH(L)=mu ki-ˊséngè
AUG-6-toy AGR6-1SG.POSS 6S-COP2\PRES=18 7-room
'My toys are in the room.'

b. *Ámàdòlé gàn(ge) gàbbámù kíséngè.*

á-ma-ˋdòlé ga-àngé gàˊ-bb-a\LHL=mu ki-ˊséngè
AUG-6-toy AGR6-1SG.POSS 6S-COP1-FV\PRES=18 7-room
'My toys are in the room.'

(248) Context: Where is my book? I was reading it just a second ago, and now I cannot find it!

a. *Kíri ókú ménzà.*

kìˊ-li\LH(L) ó-ku=ˋménzà
7S-COP2\PRES AUG-17=table
'It is on the table.'

b. *# Kìbba ókú ménzà.*

ki-bb-a\LHL ó-ku=ˋménzà
7S-COP1-FV\PRES AUG-17=table
Infelicitous: 'It is on the table (habitually, always).'

When the predicate is an adjective, the two copulas behave differently depending on whether the adjective describes a permanent quality or a more transient quality. A more permanent quality, such as that denoted by *-ˋtónò* 'small, young', can be expressed with the *-bba* copula, but is infelicitous with the *-li* copula.

(249) a. *Ómwàná wànge àbbà mùtónò.*

ó-mu-àná o-àngé à-bb-a\LHL\FO2 mu-ˋtónò
AUG-1-child AGR1-1SG.POSS 1S-COP1-FV\PRES\FO2 AGR1-small
'My child is young.'

b. ** Ómwàná wànge ààlì mùtónò.*

ó-mu-àná o-àngé à-li\LH(L)\FO2 mu-ˋtónò
AUG-1-child AGR1-1SG.POSS 1S-COP2\PRES\FO2 AGR1-small
Intended: 'My child is young.'

With more temporary qualities, it is possible to use the *-li* copula. When a quality that can be temporary is used with the *-bba* copula, this implies that it is true generally, and not just at a given time. This is illustrated by (250) and (251).

(250) Context: Right now, she is happy.

a. *Ààlì mùsànyúkí.*

*à-li\LH(L)*FO2 *mu-ˋsànyúkí*
1S-COP2\PRES\FO2 AGR1-happy
'She is happy.'

b. *Mùsànyúkí.*

mu-ˋsànyúkí
AGR1-happy
'She is happy.'

c. ? *Àbbà mùsànyúkí.*

*à-bb-a\LHL*FO2 *mu-ˋsànyúkí*
1S-COP1-FV\PRES\FO2 AGR1-happy
Somewhat infelicitous: 'She is happy (always).'

(251) Context: In fact, she is happy most of the time.

a. ? *Ààlì mùsànyúkí.*

*à-li\LH(L)*FO2 *mu-ˋsànyúkí*
1S-COP2\PRES\FO2 AGR1-happy
Somewhat infelicitous: 'She is happy (right now).'

b. *Mùsànyúkí.*

mu-ˋsànyúkí
AGR1-happy
'She is happy.'

c. *Àbbà mùsànyúkí.*

*à-bb-a\LHL*FO2 *mu-ˋsànyúkí*
1S-COP1-FV\PRES\FO2 AGR1-happy
'She is happy.'

d. *Àbbàngà mùsànyúkí.*

*à-bb-a-nga\LHL*FO2 *mu-ˋsànyúkí*
1S-COP1-FV-HAB\PRES\FO2 AGR1-happy
'She is happy.'

The *-bba* copula is primarily used when there is a habitual aspect to the quality/state being described. This is illustrated for the adjective *mùdèmbí* 'tired' in (252). With the *-li* copula, as in (250a), the interpretation is that it is the current state, rather than a habitual state.

(252) *Àbbà mùdèmbi áàbbánga àtùùkíre éíkà.*

à-bb-a\LHL\FO2 mu-ˋdèmbí áà-à´-bb-a-nga\LHL(H) à-tuuk-ire\LHL
1S-COP1-FV\PRES\FO2 AGR1-tired SBR-1S-COP1-FV-HAB\PRES.SBR 1S-reach-PST2\P2
é-ì-ˋká
AUG-5-home
'S/he is tired when s/he gets home (habitually).'

This is also the case when the copula is used as an auxiliary, as in (253), where the *-bba* copula can be used for a habitual action or state.

(253) a. *Ómwàna àkúnga áàbba ádèmbérè/áàbbánga àdèmbérè.*

ó-mu-ànà à-kung-a\LHL áà-à´-bb-a\LH(LH) à-demb-ire\LHL /
AUG-1-child 1S-cry-FV\PRES SBR-1S-COP1-FV\PRES.SBR 1S-get_tired-PST2\P2 /
áà-à´-bb-a-nga\LHL(H) à-demb-ire\LHL
SBR-1S-COP1-FV-HAB\PRES.SBR 1S-get_tired-PST2\P2
'The child cries when it is tired.'

b. *Ómùtyêrè gùkála étùbbángà túgùlèkére ómú kàsànà.*

ó-mu-ˋtyêré\FL gù´-kal-a\LHL é-tù´-bb-a-nga\LHL(H) tù´-gu-lek-ire\LHL
AUG-3-rice\FL 3S-dry-FV\PRES SBR-1PLS-COP1-FV-HAB\PRES.SBR 1PLS-3O-leave-PST2\P2
ó-mu=ka-ˋsànà
AUG-18=12-sun
'The rice dries when we leave it in the sun.'

Another example is given in (254), where a speaker only accepted the *-bba* copula when there was a further context establishing that 'being a friend' is a habitual identity.

(254) a. *Túlì bàkáágwà.*

tù´-li\LH(L) ba-ˋkáágwà
1PLS-COP2\PRES 2S-friend
'We are friends.'

b. *# Tùbbá bàkáágwà.*

tù´-bb-a\LHL ba-ˋkáágwà
1PLS-COP1-FV\PRES 2S-friend
Infelicitous: 'We are friends.'

c. *Tùbbá bàkáágwà óòbbángà wálìwo ékyóntàkákù.*

tù´-bb-a\LHL ba-ˋkáágwà óò-o´-bb-a-nga\LHL(H) wà´-li\LH(L)=wo
1PLS-COP1-FV\PRES 2-friend SBR-2SGS-COP1-FV-HAB\PRES.SBR 16S-COP2\PRES=16
é-ki-ò´-n-tak-a\LH=ku
REL-7O.REL-2SGS-1SGO-want-FV\PRES.SBR.IRR=17
'We are friends when you want something from me.'

6.8.2.5 Syntax

In the Present tense, only the *-bba* copula can be used in subordinate clauses headed by *ówè*, or relative clauses. In the past, either *-li* or *-bba* can be used. *ówè* subordinate clauses (here realised *áà-*) in the Present tense can be used to express 'when' or 'if', as in (255).

(255) Context: A woman has agreed to watch her friend's pet while he is away, but has forgotten to ask what type of animal it is. At the store she contemplates what kind of food she should buy for it.

Nàye áàbbánga ààlì nà mbwà, mbá ngùlè ìgùmbá. (C)

nàyê áà-à´-bb-a-nga\LHL(H) à-li\LH(L)\FO2 na m.ʼbwá ǹ-bb-a\LHL
but SBR-1S-COP1-FV-HAB\PRES.SBR 1S-COP2\PRES\FO2 CONJ 9.dog 1SGS-COP1-FV\PRES
n-gul-e\H.LH\FO2 ì-ʼgùmbá
1SGS-buy-SUB\SUB\FO2 5-bone
'But if he has a dog, I will have to buy a bone.'

The *-bba* copula in the Present tense cannot follow *ngà*, the marker of simultaneity, even when the *ngà* clause represents an habitual state/action, as shown in (256). This is likely because the aspectual qualities of *-bba* clash with the meaning of *ngà*, and because *ngà* on its own is able to express the habitual meaning intended. It is possible for a past tense *-bba* verb to follow *ngà*, however.

(256) a. *Ǹgónà ngà ndì mùdèmbí.*

ǹ-gon-a\LHL ngà ǹ-li\LH(L)\FO2 mu-ʼdèmbí
1SGS-SLEEP-FV\PRES SIM 1SGS-COP2\PRES\FO2 AGR1-tired
'I sleep when I am tired.'

b. * *Ǹgónà ngà mbà mùdèmbí.*

ǹ-gon-a\LHL ngà ǹ-bb-a\LHL\FO2 mu-ʼdèmbí
1SGS-SLEEP-FV\PRES SIM 1SGS-COP1-FV\PRES\FO2 AGR1-tired
Intended: 'I sleep when I am tired.'

6.8.2.6 Other functions

This section will look at a few additional functions of the copulas in Lugwere.

Possession The construction used for possession consists of a copula plus the conjunction *nè*, as in (257). In the Present tense the *-li* copula is the one used.

(257) *Ǹdì n'ábànà bàsátú.*

ǹ-li\LH(L)\FO2 nè á-ba-ànà\FL ba-ˋsátú
1SGS-COP2\PRES\FO2 CONJ AUG-2-child\FL AGR2-three
'I have three children.'

To express the negative version of a possessive construction like (257), the verb *kùbùlá* 'to lack' is used, as in (258).

(258) *Ǹbúla ómwànà yénáyénà.*

ǹ-bul-a\LHL ó-mu-ànà o-énà∼o-énà
1SGS-lack-FV\PRES AUG-1-child AGR1∼REDUP∼AGR1-all
'I don't have any children.'

Existence The copulas, generally *-li* in the Present tense, are also used in expressions of existence, generally in combination with a locative enclitic. See Section 10.4 for examples.

Small - Few Additionally, the copulas sometimes give different interpretations of a word, as in (259), where *ǹtónò* means either 'small' or 'few' depending on which copula is used.

(259) a. *Épúúsì gírì ntónò.*

é-púúsì gì´-li\LH(L) n-ˋtónò
AUG-cat 10S-COP2\PRES AGR10-small
'The cats are few.'

b. *Épúúsì gìbbâ ntónò.*

é-púúsì gì´-bb-a\LHL n-ˋtónò
AUG-cat 10S-COP1-FV\PRES AGR10-small
'The cats are small.'

Cleft constructions A common usage of the *ní* copula, is to form a subject cleft construction, as in (260), where a cleft is used to focus the subject.

(260) a. *Nâàni ékùgùlíire ésáàti èèyó, òòyo ómwísúkà ng'àbúúlyà.* (C)

nâàní é-a-ku-gul-ir-ire\LHL *é-sáátì* *e-ˋó* *o-ˋó*
who REL-1S-1O-buy-APPL-PST2\P2 AUG-shirt AGR9-DEM_MED AGR1-DEM_MED
ó-mu-ísúkà ngà à-buul.y-a\LHL
AUG-1-boy SIM 1S-ask.CAUS1-FV\PRES
"'Who bought you that shirt?", the man asked.'

b. *N'ámùkòba áàtì: "Bábà wàngè nîiye ágìngùlíirè."*

ni *à´-mu-kob-a\LH* *à-tî\FL* *bábà o-àngé\FL* *ní-ì´-ye*
NAR 1S-1O-say-FV\PRES.SBR.UC AGR1-QUOT\FL dad AGR1-1SG.POSS\FL COP3-PRO-AGR1
á-a-gi-n-gul-ir-ire\LHL
REL-1S-9O-1SGO-buy-APPL-PST2\P2
'She told him: "It was my dad who bought it for me."'

6.8.2.7 Discussion

As mentioned in 6.8, these three copular roots are commonly found in Bantu languages. Nurse (2008) summarises their core usages as follows: *-lɪ* 'be (locative), *-ba* 'be, become', and *-nɪ* 'equational be'.

The *ní-* copula is used for identity, and has a function quite separate from the other two. The *-li* and *-bba* copulas overlap to a greater extent. In the Present tense, their usage appears to rely to a large extent on aspectual factors, while in the past tenses, the two are mostly interchangeable.

It is also the *-li* form that is used to form the Progressive aspect, and this makes sense, given that it is the one most associated with temporary states/locations, and the one that has historically been used for locations. This can be seen in connection with how the progressive aspect is commonly derived from locative expressions or copulas crosslinguisitically (Kouteva et al. 2019).

The preceding sections have explained some of the factors involved in choice of copula, but there are likely more semantic and pragmatic variables at play, and it is a topic that could benefit from further study.

6.9 Using auxiliaries to mark tense

There are a handful of verbs in Lugwere that are commonly used as auxiliaries to indicate future time reference. When used, they are finite, while the main verb is in the Infinitive. Below is a list, and some example sentences with each of them. It is perhaps not possible to completely divorce these from aspectual or modality related 'flavours', but they seem to primarily relate to time.

***kùtìrá* 'to frequently do, to be about to do'** Indicates that an event is imminent, about to happen

***kùtàká* 'to want'** Indicates futurality

***kwàbá* 'to go'** Indicates futurality

kùtìrá can mean 'to frequently do', but when used in F1, it refers to something that is imminent, that is about to happen, as in (261). It seems to convey a sense of certainty or inevitability.

(261) *Yátìra ókúbàsèbúlá.* (C)

a-a-tir-a\H.LH *ó-ku-ba-seb.ul-a\LH*
1S-TNS-be_about_to-FV\F1 AUG-INF-2PLO-say_goodbye.SEP1-FV\INF
'She is about to say goodbye to you.'

As is common in languages cross-linguistically, the verbs *kùtàká* 'to want' and *kwàbá* 'to go' can be used to indicate futurality.[4] Example (262) shows that *kùtàká* can also be used with inanimate objects, and so can be completely divorced from any sense of intentionality or desire.

(262) *Égìlási ètàkà kùgwá.*

é-gìlási *è-tak-a\LHL\FO2* *ku-gw-a\LH*
AUG-glass 9S-want-FV\PRES\FO2 INF-fall-FV\INF
'The glass is going to fall/is about to fall.'

[4]Cognates of *kùtàká* have been known to be the source of syntetic future forms in several Bantu languages, such as the future marker *ta-* in Kiswahili (Heine 2019)

(263) *Ónyèrè njàbà kwìrámù.* (C)

ó-nyèré\FL ǹ-ab-a\LHL\FO2 ku-ir-a\LH=mu
AUG-self\FL 1SGS-go-FV\PRES\FO2 INF-reply-FV\INF18
'Myself, I am going to answer.'

6.10 Tense summary

Table 6.63 gives a summary of all the tenses in main and subordinate clauses. An underlined H tone indicates that it is lowered in Form 2 contexts. Parentheses are used to indicate tones that are not realised on shorter verbs. The lower part of the table shows the subordinate forms. Only tense categories that have an unpredictable tonal melody in some subordinate forms are shown. A tense that has a separate subordinate tonal melody might not use it in all subordinate contexts, see Section 6.6 for details on when the subordinate melodies are used. Interestingly, in multiple cases where there is a subordinate tone melody, this is identical to the melody in main clause negative verbs.

Table 6.63: A summary of the segmental and suprasegmental morphology of the different tenses. The root is indicated by Σ, and * indicate that a tone spreads, while an underlined tone lowers in Form 2.

	Affirmative	**Negative**
Main clauses		
Present	SM\L(H)-Σ-a\LH*L	ti-SM-Σ-a\LH*
P1	SM-a(n)ka -Σ-a\LH*	ti-SM-a(n)ka-Σ-a\LH*
P2	SM\L(H)-Σ-ire\LH*L	ti-SM-Σ-ire\LHL*H
P3	SM-a-Σ-ire\H.LH*L	ti-SM-a-Σ-ire\LH.LH*L/LH.H*L
P4	SM-a(n)ka -Σ-a-nga\LH*	ti-SM-a(n)ka-Σ-a-nga\LH*
P5	SM-a-Σ-ire\L.L*H	ti-SM-a-Σ-ire\HL.H*L
F1	SM-a-Σ-a\H.L*H	ti-SM-a-Σ-e\L.L*H
F2	SM-ali-Σ-a\LH.(L)H*L	ti-SM-ali-Σ-a\LH(LH*)
Subordinate clauses		
Present	SBR-SM\LH-Σ-a\LHL*(H)	SBR-SM-ta-Σ-a\LH*
P2	SBR-SM\LH-Σ-ire\L.LH*	SBR-SM-ta-Σ-ire\LH*/LHL*H
P5	SBR-SM-a-Σ-ire\(LH)L.H*L	SBR-SM-a-ta-Σ-ire\HL.H*L
F2	SBR-SM-ali-Σ-a\(LH.)LH/LH.(L)H*L	SBR-SM-a-ta-li-Σ-a\LH/LH.LH*

This chapter has dealt only with verbs that have regular past stems - that is, where the past suffix *-ire* attaches to the stem without causing any changes to either the stem or the suffix. Verbs with imbricated past stems are discussed in Chapter 9, which looks at the verbal extensions.

6.10.1 A discussion of the analysis of tonal melodies

When analysing the grammatical tone of Lugwere verbs, a choice needs to be made between an analysis that considers tones to be lexically attached to an affix or a root, and one where tones are considered separate autosegmental morphemes.

In theory, we could assign every tone to a segment, and just assume that when segmentally identical affixes introduce different tones, those are actually two separate affixes which happen to be segmentally identical, but which have separate tones. We could assume, for example, that there is one suffix *-írè* found in P2 affirmative, P3 affirmative and negative, P5 negative and C1 and C2, as well as a suffix *-ìré* found in P2 negative and P5 affirmative, as well as *-íré* found in P2 subordinate affirmative. We could go further, and assume that the suffixes assign tones to the stem as well, which would mean we need 6 suffixes: *-ˇ́írè* (P2 aff), *-ˋíré* (P2 aff sbr),*-́írè* (P3 neg, P5 neg), *-ˇˋìré* (P2 neg), *-ˇ́írè* (P3, C1, C2), *-ˋìré* (P5 aff). This seems to miss the fact that the affixes are both segmentally identical, and in most cases have the same function (except for C1 and C2, see Section 8.1.3). Why would P2 affirmative and P5 negative use the same suffix, but not P2 affirmative and P2 negative? Potentially, we could also posit multiple stems with different tones, used in different TAMP categories, but again, this would seem to miss the point that the stems are segmentally identical in all TAMP categories.

Here an analysis in terms of one stem and one segmental suffix with different tonal melodies seems to be the approach with most explanatory power, as well as the simplest explanation. That is, the stem and the suffix is the same in all the relevant TAMP categories, but there is an additional tonal affix that attaches and provides the tonal melody. A further argument for this is that P5 Habitual has the same tones as P5, even though the forms use different suffixes, which would indicate that the tonal melody of P5 is somewhat separate from the segmental form. Similarly, the final vowel *-a* is low in the Present tense affirmative, and F2 affirmative, but high in the Present tense negative, the Present tense subordinate (longer verbs), F2 negative, P1 and F1 affirmative. Therefore, I will treat the tones of the stems and the suffixes (FV, post-FV) as autosegmental tonal affixes.

On the other extreme, we could analyse everything as being tonal melodies and autosegmental affixes, but that can similarly miss some generalisations. The floating high tones (see Section 5.2) seem best explained as being attached to certain subject markers, and if we treat them as independent of any segmental content, it will be harder to explain when they are present and when they are not.

-e is high in the Subjunctive affirmative and F1 negative, and in fact in both cases the stem before has a low tone, so one could analyse the L*H melody found on stems in the Subjunctive affirmative and F1 negative as being introduced by the subjunctive final vowel *-e*. However, since the F1 negative likely originated as a Subjunctive negative, we cannot say whether the suffix introduced the tone, or whether it is a tonal affix associated with the Subjunctive. For consistency with other stems, I will treat it as a tonal morpheme here as well.

What about the prefixes? Here the picture is a bit less clear, and it is worth walking through each case in turn. Firstly, there is the negative prefix *ti-*, which is low-toned in most cases, except for P5 where it is high, and some instances of P3, where it can be either high or low. Should we consider there to be two negative prefixes, *tí-* and *tì-*? Evidence from P5 subordinate affirmative clauses would suggest that this is not the best approach. The affirmative P5 uses the same tonal melody as the negative in some subordinate contexts. Looking at the form *òwéyàgúlírè* 'when s/he bought (P5)', it would appear that the same high tone seen on the negative marker in main clauses is found on the subordinator here, which elsewhere is *ówè*. The high tone therefore seems best explained as an autosegmental morpheme, not linked to specific segmental content.

Next, some subject prefixes have floating tones attached in some tenses. To explain why only the Present affirmative and P2 affirmative have the floating high tones, it seems most economical to assume two sets of subject makers - one with the floating tones, and one toneless set, as we need to explain both which tenses it occurs in, and what subject markers have the floating tone. The most economical is to assume that these subject makers also have a lexical L tone, the tone normally realised on the marker itself, so that we don't need to posit a separate L tonal affix in these cases, seeing as it coincides with the TAMP categories that have the floating high tone. We also need to

add that in subordinate clauses and following the narrative prefix, all subject prefixes have a floating high tone (in the Present affirmative and P2 affirmative forms).

There is also a surprising high tone introduced in the negative Present, negative Infinitive, and negative P2 when there is an object marker. The high tone is realised on the subject marker. This resembles what happens to high toned subject markers in Present affirmative and P2 affirmative verbs when there is an object marker, although it is crucially different in that there is no evidence of a floating high tone when there is no object marker. The below discussion will show that a default (L)H melody applied to the pre-stem affixes when cut off from the stem melody can explain this.

Next, many of the TAM categories have a prefix *a-* in the TA slot. This can have either a high tone or a low tone, so the question is whether it is best analysed as one segmental affix with autosegmental tonal morphemes attached, or as two different prefixes *á-* and *à-*, where the tone is lexical and underlyingly belongs to the affix. This is a slightly more difficult question than was the case of the *-ire* suffix, for instance, as there is often more consistency between the affirmative and the negative of one tense. Forms with a high-toned *á-* include P3 affirmative, P3 negative, F1 affirmative and the Subjunctive negative, while low-toned *à-* is found in P5 affirmative, P5 negative, and F1 negative.

There is a mismatch between the F1 affirmative and the F1 negative, but that can be explained diachronically by the negative form originally belonging to the Subjunctive. The Subjunctive negative, which was likely originally the F1 negative, has a high toned *á-* when it uses a prefix in TA (which is optional). It seems likely that diachronically, after F1 started using the Subjunctive negative, a prefix was added by analogy. However, the fact that this is low-toned, does indicate that it took on the tone of the melody at large, rather than the tone belonging to the prefix inherently. Synchronically, the mismatch does therefore lead to the same questions as those raised about *-ire* above. There is also no semantic reason why P3 and F1 should share one affix, while P5 uses a different one. The fact that P3 has the same tone in the affirmative and the negative is also easily explained by the tonal melody remaining the same (although there is an optional minimally different negative tonal melody).

An argument for the tone being separate from the prefix can be seen in (264). Compare the form in (264a), where the *a-* prefix is high, to the relativised verb in (264b). In main clauses, the negative prefix comes before the subject marker, and is often low, so that the pre-stem suffixes have a LH melody. In subordinate clauses, however, the verb can use the secondary negative, which comes after the subject marker. With a relativised object, like in (264b), the pre-stem suffixes retain the LH melody, which means that the *a-* prefix is pronounced low. Note that this needs to be looked into further, and more data on P3 negative subordinate verbs is needed. So, when it comes to the status of the tone on the *a-* prefixes, I believe arguments can be made both ways, but there are multiple things that point to an autosegmental melody being a possible analysis here, and for now that is the analysis I will go with.

(264) a. *tìmwágùlírè*

ti-mu-a-gul-ire\LH.LHL
NEG-2PLS-TNS-buy-PST2\P3.NEG
'you PL bought yesterday'

b. *ógùwàtágùlírè*

ó-gu-o-a-ta-gul-ire\LH.LHL
REL-3O.REL-2SGS-TNS-NEG2-buy-PST2\P3.NEG
'which you did not buy yesterday'

There is also the *ówè-* prefix. This has the same HL melody in almost all cases, with one exception: with P5, affirmative and negative, it is realised *òwé-* or *ówé-*. Here, however, I believe the tone is best explained as belonging to the prefix. The exception can be explained by pre-stem melody of P5 overriding the lexical tones. In most cases, the pre-stem melodies, where they exist, can be attached to the subject marker and the negative marker, and are therefore already docked so that the subordinator can have its own tone. The P5 subordinate melody resembles the P5 negative melody, but it does not have a negative marker. The high tone that goes on the negative marker in main clauses is therefore part of the melody, but does not have anywhere to go, except to attach leftwards towards the subordinating prefix. If this was originally a separate word, which I argue the relative object pronouns are still, it would make sense for the preceding syllable to then be realised low, in order to not have a platau, similar to what

is described for short nouns in Section 3.2.7. This does not explain fully why the same thing happens in the negative, which can have a primary negative prefix preceding the subject marker, and still get a LH melody on the subordinator. This might be the result of analogy with the affirmative form. Perhaps the forms all originally used the secondary negative, where the same issue might be relevant for the negative form.

Finally, there are three further affixes in TA (and T2), namely *ali-*, *anka-* and *andi-* These all have a LH melody in Form 1, and so it initially seems like they could be represented as *àlí-*, *ànká-* and *àndí-*. The discussion below on the object markers show that there are some potential problems with this, however, particularly with *anka-*.

The tonal effects of the object are quite interesting, and so it is worth taking the time to examine how that might shed some light on the tonal status of other affixes. The object markers are low in most cases, but high in the Subjunctive negative, sometimes high in P5 negative, and with the H*L stem melody in P3 negative verbs. The tone can be explained as coming from the first tone of the tonal melody of the stem. With shorter stems, this does not always correspond to the first syllable of the stem, see for example *bálùgúlà* 'they bought it (Class 11)', where the first stem vowel has a high tone, but in a longer verb it becomes clear that the full stem melody is LHL, see for example *bámùjànjábà* 'they treat him/her'. For P5 negative verbs, we expect a high toned object marker, as the stem always has a H*L melody, but there is in fact some variation. Table 6.64 makes this clearer. The cases where we see (optional) high-toned object markers are those where the stem melody starts with a high tone. The Subjunctive negative is an exception which will be discussed shortly.

When it comes to the object prefixes' effect on the tone of the verb overall, the TAMP categories can be divided into two main groups. In the first group, the addition of the object marker does not seem to affect the melody, and the tones before and after the object marker are the same as when there is no object marker. This is the case for P3, P5, F1, F2 affirmative, F2 negative for longer verbs, Subjunctive affirmative and C1.

Secondly, there is a group of TAMP categories where the whole melody seems to restart after the object marker. This is the case, for instance, for P2 negative verbs. Compare *tàgúlìré* 's/he didn't buy' and *tágùgùlírè* 's/he didn't buy it', where the LHLH

Table 6.64: Pre-stem and stem tonal melodies, illustrated by verbs with and without object markers. The pre-stems, object markers and stems are separated by hyphens. Default (L*)H melodies are underlined, and high-toned object markers are in bold.

TAMP	**Pre-stem melody**	**Stem melody**	**Verb**	**Verb with object marker**
Inf aff	–	LH*	kù-gàlágálá	kú-mù-gàlágálá
Inf neg	–	LH*	kùtá-gálágálá	kùtá-mù-gàlágálá
Pres aff	– à-	(L)H*L	à-kàlábándà	à-gì-kàlábándà
	– bà´-	(L)H*L	bà-kálábándà	bá-gì-kàlábándà
Pres neg	–	LH*	tà-kálábándá	tá-gì-kàlábándá
			tìbà-kálábándá	tìbá-gì-kàlábándá
Pres aff sbr	– áwè-à´-	(L)H(L*H)	áwà-kálàbàndá	áwá-gì-kàlábàndá
P1 aff	–	LH*	yànká-gálágálá	yànká-mù-gàlágálá
P1 neg	–	LH*	tìyànká-gálágálá	tìyànká-mù-gàlágálá
P2 aff	– à-	LH*L	à-gàlágálírè	à-mù-gàlágálírè
	– bà´-	LH*L	bà-gálágálírè	bá-mù-gàlágálírè
P2 neg	–	(L)HL*H	tà-gálàgàlìré	tá-mù-gàlágàlìré
			tìbà-gálàgàlìré	tìbá-mù-gàlágàlìré
P2 aff sbr	– áwè-	LH*	áwàbà-gúlíré	áwèbá-lù-gùlíré
P3 aff	H	LH*L	yá-lòwóózérè	yá-mù-lòwóózérè
P3 neg	LH	LH*L	tìyá-gùlírè	tíyá-lù-gùlírè
P3 neg 2	LH /H	H*L	tìyá-lówóózérè	tíyá-**mú**-lówóózérè
P5 aff	L	L*H	yà-kàlàbàndìré	yà-gì-kàlàbàndìré
P5 neg	HL	H*L	tíyà-kálábándírè	tíyà-**gí**-kálábándírè
P5 sbr	LHL áwè-	H*L	òwéyà-gúlírè	áwètwà-**lú**-gúlírè
F1 aff	H	L*H	yá-gàlàgàlá	yá-mù-gàlàgàlá
F1 neg	L	L*H	tìyà-gàlàgàlé	tìyà-mù-gàlàgàlé
F2 aff	LH	(L)H*L	yàlí-jànjábà	yàlí-mù-jànjábà
F2 neg (short)	–	LH*	tìyàlí-gúlá	tìyàlí-rù-gùlá
F2 neg (long/sbr)	L*H	LH*	tìyàlí-jànjábá	tìyàlí-mù-jànjábá
Subjunctive aff	H	L*H	ó-jànjàbé	ó-mù-jànjàbé
Subjunctive neg	(L)H* ?		tó-jánjábá/tìwá-jánjábá	tó-**mú**-jánjábá
C1 aff	LH	LH*L	yàká-jànjábírè	yànká-mù-jànjábírè
C1 neg	L*H	LH*L	tìyànká-jànjábírè	tìyànká-mù-jànjábírè

melody seems to start after the object marker, and the final H is not realised as there are not enough moras. There is also a high tone on the subject marker which wasn't there before. See also *tìbàjánjàbìré* 'they didn't cure' and *tìbámùjànjábìré* 'they didn't cure him/her', where the full LHLH melody can be realised after the object marker. In these cases, we have an additional argument for treating the tone of the whole verb form as being a tonal melody, seeing as the melody can start either at the beginning of the verb form, or following the object marker. Other TAMP categories that behave this way include the Present negative, the Present subordinate and Infinitive negative. Additionally, P1 falls into this category. The fact that the LH melody restarts after

the object marker seems to indicate that the melody can be separated from the *anka-* prefix, which is an argument in favour of it being an autosegmental affix. What needs explaining, however, is the fact that when there is an object, like in *yànkálùgùlá* 's/he just bought it (Class 11)', the LH melody is seen both before and after the object marker. This cannot be because there is both a lexical tone on *anka-* and a LH melody, as we would then expect the form without the object to be **yànkágùlá*, but it is in fact *yànkágúlá*, and no evidence of a second high tone is seen in Form 2, which is *yànkàgùlà*. These fact can be explained by a default LH tone, as detailed below.

These two types of tonal behaviour with respect to the object markers can be understood as follows: tonal morphemes can be attached to the stem, or to the elements preceding the stem. Present Negative, P2 negative, Infinitive and P1 have melodies attached to the stem. Normally these can stretch to the pre-stem affixes, but not when there is an object marker. The object marker cuts off the melody, and leaves the pre-stem suffixes without a tone. In these cases, a default LH is applied, where the syllable immediately before the object marker is high, and anything before that is low.

The Present affirmative and P2 affirmative use the subject makers with tone. These categories do not have a separate pre-stem melody, but because the subject makers have their own tone, we do not see the default (L)H tone in these cases.

This default explains a couple of things: Firstly, it explains the high tone seen in the Infinitive, P2 negative and Present tense negative forms when there is an object marker. Secondly, it explains why the *anka-* prefix is LH in P1 when the melody is cut off, i.e. it explains why there is a LH tone both before and after the object marker. Because the *anka-* prefix is toneless in P1 (and probably also P4, although P4 was not elicited with object markers), it seems preferable to consider the pre-stem LH in C1 (and C2) as also being a tonal morpheme. Even though *andi-* only occurs in one context and has a LH melody there, I am choosing to treat those tones also as a tonal affix, rather than lexical. My reasoning is that this would be consistent with the analysis of prefixes that do occur in more contexts and that we have more information about, as well as the fact that C1 and C2 have the exact same tonal melody, something that might be understood

as a melody indicating the conditional mood, in the same way as the L.L*H melody of P5 is used in the habitual even though the suffix in FV differs.

The F2 prefix *ali-* also always occurs with a LH melody, but it is only found in the one tense. In longer verbs, the negative P2 melody is LHLH, *tìyàlíjànjábá* 's/he will not cure'. In monosyllabic and bisyllabic verbs, however, the melody is only LH, as in *tìyàlígúlá* 's/he will not buy'. With an object marker, this becomes *tìyàlírùgùlá* 's/he will not buy it', and here the same thing as in P1 occurs, there is an additional LH introduced with an object. This can be taken as an argument for treating the tone of *ali-* as an autosegmental tonal morpheme, in a similar vein to the analysis of *anka-*. Note, however, that the fact that longer verbs have a LHLH melody might also be an explanation here, although the object markers do not generally cause the verb to be treated as a longer verb. For consistency with *anka-* I will treat this prefix as well as being toneless, but different analysis are possible.

Table 6.64 illustrates this analysis. It shows which tones come before an object maker (the pre-stem melody), and which tones are attached to the stem, and come after a potential object marker (the stem melody). The TAMP categories that do not have any pre-stem tones normally use the stem melody to assign tones to the subject marker and the negative marker, but the object marker cuts these prefixes off from the stem melody. Instead, a default (L*)H tone is introduced. This works as an explanation for almost all the facts in Table 6.64, the one exception being the Subjunctive negative.

The Subjunctive negative is problematic in two ways: Firstly, as discussed in Section 3.2.7 above, with a vowel-only subject marker, the whole word has a high tone, which is unusual. Secondly, there seems to be one high tone that spreads across the whole word, even when there is an object marker. Look, for instance, at (265), which shows the negative Subjunctive verb both in Form 1 (265a) and Form 2 (265b), and the whole high tone melody is lowered in Form 2. It is at present very unclear how this can be explained, as in all other cases the object markers seem to stop tones from spreading. Perhaps we can assume that there is no separate stem melody, only the pre-stem (L)H, which, due to lack of a stem melody, spreads to the object marker and beyond. In other cases the object marker gets its tone from the stem melody, but getting it from the pre-stem melody

might be what allows that tone to keep spreading rightwards. There are no other similar cases, so it is difficult to say whether this explanation is the right one. However, it should be noted that more data is needed on this phenomenon, as I currently do not have many examples of negative Subjunctive verbs with object markers in Form 2.

(265) a. *Tómwíjánjábá n'ámáléézì*

ti-o-mu-ijanjab-a\(L)H ne á-ma-´léézì
NEG-2SGS-1O-treat-FV\SUB.NEG CONJ AUG-6-medicine
'Don't treat him/her with medicine!'

b. *Tòmwìjànjàbà n'ámáléézì*

ti-o-mu-ijanjab-a\(L)H\FO2 ne á-ma-´léézì
NEG-2SGS-1O-treat-FV\SUB.NEG\FO2 CONJ AUG-6-medicine
'Don't treat him/her with medicine!'

This section has tried to argue for why a tonal melody analysis works best for Lugwere, both for stem tones and for pre-stem tones. The main focus of this present thesis is, however, an accurate description of the forms and the variation in tone that exists. While I do believe that the analysis presented here does a good job at explaining the facts, there is room to continue thinking about how best to analyse and theorise about Lugwere tone, and more research can be done, particularly regarding the tones in subordinate forms, where more variation seems to exist than in main clauses.

7 Aspect and Aktionsart

Contents

7.1 Perfective vs. imperfective: obligatoriness and underspecification 330
7.1.1 *-ire*: Past or perfective? . . . 332
7.2 Imperfective forms . . . 333
7.2.1 Habitual . . . 333
7.2.2 Reduplication of the whole stem - the Iterative . . . 341
7.2.3 Progressive . . . 346
7.2.4 Imperfective . . . 349
7.2.5 The durative/repetitive . . . 351
7.2.6 Progressive, Imperfective and Habitual . . . 353
7.3 Perfect and other non-imperfective forms . . . 356
7.3.1 Reduplication with final vowel *-i* - the Trifling . . . 356
7.3.2 The verb *kùmàlá* . . . 360
7.3.3 Perfect forms . . . 362
7.4 The Persistive . . . 368
7.5 Aspect summary . . . 372
7.6 Aktionsart . . . 374
7.6.1 Tests for aktionsart . . . 375
7.6.2 Achievements . . . 377
7.6.3 States . . . 382
7.6.4 Gradable change of state . . . 388
7.6.5 Activity . . . 394
7.6.6 Semelfactive . . . 399
7.6.7 Accomplishment . . . 403
7.6.8 Summary of aktionsart . . . 407

In Chapter 6 it became clear that Lugwere has a rich inventory of tense distinctions,

and that these are largely expressed through morphology alone. Lugwere verbs can also express a range of aspectual contrasts, but these are to a larger degree expressed through auxiliaries, which is not uncommon cross-lingusitcally. There are also aspectual contrasts that are expressed synthetically, such as the Habitual.

Section 7.2.4 will look at the various imperfective forms in Lugwere, while Section 7.3.3 looks at perfect and a couple of other non-imperfective aspectual categories. 7.4 then discusses the various usages of the Persistive. This is a category that lays somewhere between tense and aspect. Comrie (1985) writes about it in his book on tense, but it is also sometimes considered an aspect (e.g. in Nurse 2008 it is discussed in the chapter on Aspect), and while keeping that in mind, I have chosen to discuss it in this chapter.

Different types of predicates will interact with aspectual morphology in different ways. To get a more complete understanding of the semantics and pragmatics of a given aspectual grammatical category, it is therefore important to examine how it is interpreted when applied to predicates of different aktionsarten. Section 7.6 looks at this, and examines how some of the main TA categories interacts with achievements, activities, states, semelfactives and accomplishments. In addition to these commonly recognised categories, I have also added a section for what I have termed 'gradual change of state' predicates.

To separate the forms discussed in Chapter 6, which it will be argued here are primarily marked for tense, from the forms discussed in this chapter, where additional morphology or auxiliaries are added to explicitly mark aspect, the terms 'simple present', 'simple future' and 'simple past' will be adopted. The meaning intended here is purely that there is no overt aspectual morphology. 'simple Present' will be used to refer to forms like *àsómà* 's/he reads', as opposed to aspectually marked forms like a Present Progressive *ààlì kùsòmá* 's/he is reading', or a Present Habitual *àsómángà* 's/he habitually reads'. The term 'simple past' will be used as a cover term for P1, P2, P3, P4 and P5, as these typically behave similarly in regards to aspect (although P2, P3 and P5 were the forms generally used to test various hypotheses about aspect, seeing as P1 and P4 are rarer). Where P2 behaves differently, because in addition to a past tense it can also be used as a perfect, this will be mentioned. Nurse (2008) calls these types

of forms perfective, but the discussion in Section 7.1 shows, it is not clear that these forms always have a perfective semantic, so the term 'simple' is preferable, as it only refers to the morphology, and properly illustrates that the forms in question are not explicitly marked for aspect.

7.1 Perfective vs. imperfective: obligatoriness and underspecification

Devoid of any context, a simple Present tense form has an imperfective interpretation, being understood either as describing an ongoing event, or a habitual event. The simple past tenses, on the other hand, will generally be interpreted as perfective when there is no further context, and typically carry a completion and/or termination implicature or entailment.

There are a variety of ways in which a verb can be explicitly marked as imperfective, the most common being a Habitual, Progressive or Imperfective construction. Additionally, there are a couple of extensions that can be used to indicate that an action is 'overdone': i.e. done a lot, done to excess. There is also a reduplicative form that can be used to similar effect.

In the Present tense, a predicate can be explicitly marked as either Habitual or Progressive. This is not obligatory, however, and a simple Present form can be understood as either habitual or progressive, as illustrated by (266), where the context given is progressive in nature, and the two speakers consulted gave both a simple Present and a Present Progressive as possible options. Similarly, in a habitual context either a simple Present or a Present Habitual can be used.

(266) Context: What is your brother doing right now?

a. *Âàlì kùwàndìkà màbbàlúwà.* (Present Progressive)

à-li\LH(L)\FO2 ku-wand.ik-a\LH\FO2 ma-ˋbbàlúwà
1S-COP2\PRES\FO2 INF-write.IMP-FV\INF\FO2 6-letter
'He is writing letters.'

b. *Àwàndìkà màbbàlúwà.* (Simple Present)

à-wand.ik-a\LHL\FO2 ma-ˋbbàlúwà
1S-write.IMP-FV\PRES\FO2 6-letter
'He writes/is writing letters.'

In the past, the difference between overt imperfective and simple forms can have different entailments, and thus different truth conditions, for predicates of certain aktionsarten (i.e. for achievements, see section 7.6.2). For aktionsarten where this is not the case, such as activities, the choice of aspectual form seems to be more about how to present a given situation. For activities, even contexts where the reference point is within the event time, such as (267), the speaker asked allowed either a simple past as in (267a), or an Imperfective as in (267b) (a Progressive was also possible). With some stative predicates, a simple past can be understood as an ongoing state, which does not seem to be perfective in nature. This suggests that at least with some types of predicates, the perfective meaning is not necessarily part of the inherent meaning of the simple past.

(267) Context: I saw a strange bird, and started following it. I was following it, when suddenly it started singing.

a. *Nàsèngèrèire ónyónyì ngà àtàndíka ókwèmbá.* (P5)

n-a-seng.erery-ire\L.LH ó-ny.ˋónyì ngà à-tand.ik-a\LHL
1SGS-TNS-follow.DUR1-PST2\P5 AUG-9.bird SIM 1S-begin.IMP-FV\PRES
ó-ku-emb-a\LH
AUG-INF-sing-FV\INF
'I was following the bird, when it started singing.'

b. *Nàbbàirè nsèngérérya ónyónyì ngˈàtàndíka ókwèmbá.* (P5 Imperfective)

n-a-bb-ire\L.LH\FO2 ǹ-seng.erery-a\LHL ó-ny.ˋónyì ngà
1SGS-TNS-COP1-PST2\P5\FO2 1SGS-follow.DUR1-FV\PRES AUG-9.bird SIM
à-tand.ik-a\LHL ó-ku-emb-a\LH
1S-begin.IMP-FV\PRES AUG-INF-sing-FV\INF
'I was following the bird when it started to sing.'

c. *Nàbbàirè nsèngérérya ónyónyì ngà àtàndíka ókwèmbá* (P5 Progressive)

n-a-bb-ire\L.LH\FO2 ǹ-seng.erery-a\LHL ó-ˋnyónyì nga
1SGS-TNS-COP.BB-PST2\P5\FO2 1SGS-follow.DUR1-FV\PRES AUG-bird SIM

à-tand.ik-a\LHL *ó-kwemba\LH*
1S-begin.IMP-FV\PRES AUG-INF-sing-FV\INF
'I was following it, when it started singing'

d. *# Nàsèngèrèryànga ónyónyì ng'àtàndíka ókwèmbá.* (P5 Habitual)

n-a-seng.erery-a-nga\L.LH *ó-ny.ˋónyì ngà à-tand.ik-a\LHL*
1SGS-TNS-follow.DUR1-FV-HAB\P5 AUG-9.bird SIM 1S-begin.IMP-FV\PRES
ó-kwemba\LH
AUG-INF-sing-FV\INF
Infelicitous: 'I used to follow the bird when it started to sing.'

In other cases, aspectual marking seems more obligatory. For past habitual contexts, for instance, the speakers consulted generally marked simple past forms as unacceptable or at least questionable, see for instance (268), where a simple past form is not felicitous. So, it appears that in past habitual contexts, some kind of overt imperfective marking is needed, either an Habitual or an Imperfective.

(268) Context: Back then, I was really interested in music. I used to listen to the radio every day, so I knew all kinds of music.

a. *Nàwùlìsìsyànga érédìò bùlì lùnákù.* (P5 Habitual)

n-a-wul.isisy-a-nga\L.LH *é-rédìò* *bùlí\FL* *lu-ˋnákù*
1SGS-TNS-listen.CAUS3-FV-HAB\P5 AUG-radio every\FL 11-day
'I used to listen to the radio every day.'

b. *# Nàwùlìsìsìrye érédìò bùlì lùnákù.* (P5)

n-a-wul.isisy-ire\L.LH *é-rédìò* *bùlí\FL* *lu-ˋnákù*
1SGS-TNS-listen.CAUS3-PST2\P5 AUG-radio every\FL 11-day
Infelicitous: 'I listened to the radio every day.'

7.1.1 *-ire*: Past or perfective?

Cognates of the *-ire* suffix in closely related languages are often described as perfective markers. This is the case, for instance, in Luruuli, where a past imperfective form with an *-a* final vowel alternates with a past perfective with *-ire* (Zellers 2021). For Lugwere, however, I have described *-ire* as primarily relating to tense. Since, as just stated above, simple past forms are generally interpreted as perfective when presented without a context, this choice might need some justification.

Firstly, for those forms which use the *-ire* past suffix (P2, P3 and P5), there is typically no variation between a form with and one without the *-ire* suffix. There is no P3 form without *-ire* that is imperfective. The only way to form a P3 verb, is with *-ire*, and even the *-bba* copula auxiliaries used to form a P3 Imperfective or Progressive form use the *-ire* suffix. The only exception to this is the P5 Habitual forms, which actually do have an *-a* final vowel instead of *-ire*. In this case, however, the verb also has the Habitual suffix *-nga*, and it seems more likely that the lack of the *-ire* in the P5 Habitual is a leftover from a time when *-ire* did actually have a primarily aspectual function. I would argue that currently, it is the *-nga* rather than the lack of *-ire* which mark these forms as imperfective. It is also worth noting that P1 and P4 also use *-a* rather than *-ire*, without that being related to a difference in aspect.

Keeping all this in mind, in Lugwere, it seems most appropriate to analyse *-ire* as primarily being a marker of tense.[1]

7.2 Imperfective forms

7.2.1 Habitual

The Habitual is formed by the addition of the suffix *-nga* in the post-FV slot, whose final vowel harmonises with the vowel in FV. That is, if following *-ire* or the Subjunctive *-e* it becomes *-nge*.

Table 7.1 shows the Habitual forms of the verbs *kùgùlá* 'to buy', *kùlyá* 'to eat' and *kùjànjábá* 'to treat' in various TAM categories. When combining with most tenses and moods, the suffix is simply added to the basic wordform. However, with P5, the past tense *-ire* suffix is dropped, giving forms such as *nàsòmàngá* 'I used to read (P5)'. The tonal melody stays the same as in the simple past form, however, with all low tones except for the final tone (on the Habitual suffix) in the affirmative, and a HLHL melody in the negative.

When *-nga* is added to a verb form, it takes on the tone of the final syllable, which is now penultimate. The tone of the (now) antepenultimate syllable then spreads to the penultimate syllable. The fact that this is what happens, rather than the whole melody

[1]Note that this morpheme can also be used to form a Conditional, see Chapter 8

applying normally to the new word that is now one syllable longer, can be seen from forms like *àgúlángà* 's/he habitually buys', which have a high tone on the first syllable of the root, although it would be expected to be low following a low toned subject marker in a trisyllabic verb, compare *àgùlísyà* 's/he makes s.b. buy'.

For monosyllabic verbs, the addition of the Habitual suffix in the Present tense means that the HL tones can realised across two syllables, and so these forms behave regularly (there is no longer a downstep effect, as the final low tone sits comfortably on the Habitual suffix). The same is the case for other TAM categories where these verbs are normally irregular tonally because they are too short to carry all the tones of the underlying melody. An example is the Subjunctive (see Chapter 8), which has a H.LH melody, but this is shortened to HL on monosyllabic verbs. With the Habitual suffix, however, these verbs have the full H.LH melody, as in *ólyèngé* 'Eat!'.

In F2 there is some variation in the tonal melody, and I have recorded both *yàlíjàn-jábángà* and *yàlíjánjábángà* for 's/he will treat (habitually)'. In the negative, I have recordings of bisyllabic stem verbs both with and without the extra LH tones normally only found on trisyllabic stems and longer, as in *tìyàlíróndángá* and *tìyàlíròndángá* 's/he will select (habitually)'.

An issue that is worth dwelling on for a bit is the question of which slot this suffix belongs to. At first glance, it seems possible to analyse it as *-ang*, in the extension slot, rather than *-nga* in the post-FV slot. Similar affixes with similar functions do occur in the extension slot in some languages (e.g. the Proto-Bantu **-ag-* ∼*-ang* repetitive extension), while in others the cognate of this form is best considered to occupy the final vowel slot (Nurse 2008:37).

However, there are a few reasons why this morpheme seems to be best analysed in Post-FV, rather than either the extension slot or the FV slot. Firstly, there is a different affix in Lugwere that is a good candidate for a cognate with Proto-Bantu **-ag* ∼ *-ang*, the *-yag* suffix, discussed in Section 7.2.5 below. This affix behaves as other extensions, and does not share the peculiar features of the Habitual which will be listed below.

Secondly, when the *-ire* suffix is present, we get forms such as *tàgúlìrèngé* 's/he was not buying (P2)'. This can be explained either as *-nge* following the *-ire* suffix

Table 7.1: Some verbs with *-nga* in various tenses, with AGR 1 and AGR 2 subjects. <...> indicates that there is no separate Form 2

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
Present				
kùgùlá 'to buy'	àgúlángà bàgúlángà	àgùlàngà bàgúlàngà	tàgúlángá tìbàgúlángá	tàgùlàngà tìbàgùlàngà
kùlyá 'to eat'	ààlyángà bàlyángà	ààlyàngà bàlyángà	tàlyángá tìbàlyángá	tàlyàngà tìbàlyàngà
kùjànjábá 'to treat'	àjànjábángà bàjánjábángà	àjànjàbàngà bàjánjàbàngà	tàjánjábángá	tàjànjàbàngà
P2				
kùgùlá 'to buy'	àgùlíréngè	...	tàgúlìrèngé	tàgúlìrèngè
kùlyá 'to eat'	àlíréngè	...	tàlíìrèngé	tàlíìrèngé
P3				
kùgùlá 'to buy'	yágùlíréngè	...	tìyágùlíréngè	...
kùlyá 'to eat'	yálíréngè	...	tìyálíréngè	...
P5				
kùgùlá 'to buy'	yàgùlàngá	yàgùlàngà	tíyàgúlángà	...
kùlyá 'to eat'	yàlyàngá	yàlyàngà	tíyàlyángà	...
kùjànjábá 'to treat'	yàjànjàbàngá	yàjànjàbàngà	tíyàjánjábángà	...
Subjunctive				
kùgùlá 'to buy'	ágùlèngé	ágùlèngè	tágúlángá	tàgùlàngà
kùlyá 'to eat'	ályèngé	ályèngè	tályángá	tàlyàngà
kùjànjábá 'to treat'	ájànjàbèngé	ájànjàbèngè	tájánjábángá	tàjànjàbàngà
F2				
kùgùlá 'to buy'	yàlígúlángà	yàlígùlàngà	tìyàlígúlángá	tìyàlìgùlàngà
kùlyá 'to eat'	yàlíryángà	yàlíryàngà	tìyàlíryángá	tìyàlìryàngà
kùjànjábá 'to treat'	yàlíjànjábángà/ yàlíjánjábángà	yàlíjànjàbàngà	tìyàlíjànjábángá	tìyàlíjànjàbàngà
Infinitive				
kùgùlá 'to buy'	kùgùlángá	kùgùlàngà	kùtágúlángá	kùtàgùlàngà
kùlyá 'to eat'	kùlyángá	kùlyàngà	kùtályángá	kùtàlyàngà

(the analysis I am arguing for here), or as an extension *-eng* occurring in between the /ir/ and the /e/ of *-ire*. While most extensions do not behave this way, some do, such as the Causative and the Passive, and the past suffix merges with the extension in unpredictable ways in several other cases, and so this is not by itself evidence that the Habitual is not an extension. What would be odd, however, is that the Habitual displays vowel harmony with the following final vowel. In all other cases, extensions only display vowel harmony with the final root vowel. This would then be a case of regressive rather than progressive assimilation, the latter type being what is found with other extensions. If we assume that the Habitual is in post-FV, this would be a case of progressive assimilation. While there are no other affixes in post-FV that undergo this kind of vowel harmony, it is at least a process that is more similar to what is seen elsewhere.

Thirdly, and perhaps most convincingly, the Habitual behaves differently from other extensions during reduplication (see Section 7.2.2). There are two different reduplicative processes in Lugwere, one of which reduplicates the entire stem, including extensions and FV, see (269a). The Habitual, however, is not reduplicated during this process, as in *àgúlágúlángà*, shown in Example (269b). This is also the case for other elements that belong to slots to the right of FV, such as the locative suffixes, as in (269c). This would be an argument for the Habitual occurring outside of the stem, in a slot after FV.

(269) a. *yágònéséryégónéséryè*

a-a∼gon.es.er.ye∼gon-isy-ire\H.LHL
1S-TNS∼REDUP∼sleep-CAUS2-PST2\P3
's/he made (somebody) sleep (repeatedly)'

b. *àgúlágúlángà*

à∼gul.a∼gul-a-nga\LHL
1S∼REDUP∼buy-FV-HAB\PRES
's/he bought (a lot, habitually)'

c. *kwìgúlágúláwò*

ku∼ig.ul.a∼ig.ul-a\LH=wo
INF∼REDUP∼open.SEP1-FV\INF=16
'to open (repeatedly)'

And finally, in languages where reflexes of **-ag ∼ -ang* are in the FV slot, they tend to imbricate in a way similar to the *-ile* suffix. That is, it splits in two when combined with for instance the Passive extension (Nurse 2008:37). In Lugwere, the Causative and the Passive cause the past tense suffix *-ire* to imbricate, but this does not happen with the Habitual marker, as illustrated by the P4 forms *yànkátúndíwángá* 'it was recently sold' and *yànkágónésyángá* 'he recently made (s.b.) sleep', where *-nga* is not split by the Causative or the Passive.

7.2.1.1 Usage of the Habitual suffix

Most commonly, the Habitual is used for habitual events, as in (270) – (272). In the past, these are most commonly translated with the English 'used to'.

(270) *Nàlàmùkànga ésáàwá ìkùmì nàmòìzá.* (C)

n-a-lam.uk-a-nga\L.LH *é-sáàwá* *ìkùmì* *na* *mò-ìzá*
1SGS-TNS-wake_up.SEP2-FV-HAB\P5 AUG-hour ten CONJ one-AGR9
'I used to wake up at 5 o'clock.'

(271) *Èbye ómùtwálànga ómú kànísà, bùlì múkánàní, bùlì wíìkì mùtwálà bìrábò.* (C)

è-bi-è *ó-mù´-tw.al-a-nga\LHLH* *ó-mu=kànísà* *bùlí\FL* *mu-´kánàní*
REL-8O.REL-O.REL AUG-2PLS-take.EXT-FV-HAB\PRES.SBR AUG-18=church every\FL 3-blessed_place
bùlí\FL *wíìkí\FL* *mù´-tw.al-a\LHL* *bi-`rábò*
every\FL week\FL 2PLS-take.EXT-FV\PRES 8-gift
'Those which you always take to church, every blessed place, that you take as offertories every week .'

(272) *Ómwàna ógùndí níìye éyànjèràngá.* (C)

ó-mu-àná *ó-gu-`ndí* *ní-ì´-ye*
AUG-1-child AUG-AGR1-other COP3-PRO-AGR1
é-a-a-n-ey-ir-a-nga\LH
AUG-1S-TNS-1SGO-sweep-APPL-FV-HAB\F1.SBR.UC
'The other child will be the one sweeping for me.'

In some cases, often with stative predicates, the Habitual suffix is used in non-habitual contexts. This is most commonly continous contexts, such as (272) and (274). Presumably the state of having stories and being a hunter prevailed all the time, and so was not iterative in the way habitual events are.

(273) *Twàbbàngá n'éngéro ègíbàtùgérérànga ábàbyèré bèisú.* (C)

tu-a-bb-a-nga\L.LH nè é-n.´gérò é-gì-ba-tu-ger-ir-a-nga\LHL.HL
1PLS-TNS-COP1-FV-HAB\P5 CONJ AUG-10.story REL-10O.REL-2S-1PLO-narrate-APPL-FV-HAB\P5.SBR
á-ba-`byèré ba-èisú
AUG-2-parent AGR2-1PL.POSS
'We used to have stories that our parents used to narrate for us.'

(274) *Yàbbàngà mùyìigì ngà ààlì n'éntúúlà.* (C)

a-a-bb-a-nga\L.LH\FO2 mu-`yìigí\FL ngà à-li\LH(L)\FO2 nè é-n.túúlà
1S-TNS-COP1-FV-HAB\P5\FO2 1-hunter\FL SIM 1S-COP2\PRES\FO2 CONJ AUG-10.trap
'He was a hunter, he had traps.'

The Habitual marker is most commonly, perhaps, combined with P5. Additionally, it can combine easily with the Present or F2, seeing as these represent time intervals where habits can exist - i.e. the Distant Past, the Present and the Distant Future. Since the limit between F1 and F2 is somewhat blurred, a habit could also exist in F1, as in (272) above. It is harder, however, to imagine a habit in the true sense, taking place in P2 (earlier on the same day) or P3 (yesterday). Similarly, a habit cannot really exist in P1, and in fact the addition of the *-nga* suffix changes P1 into P4, and so for this tense, the affix seems to have no habitual or aspectual sense at all. For P2 and P3, however, there are a couple of instances in the corpus where they are found with the Habitual suffix. In these cases, the suffix does not seem to be habitual in meaning, but often either durative, progressive or continous. Examples are given in (275) – (277).

(275) *Téte òizâ, òòtí tùbbáire èèdì bàkóbéréngè bátì: "Jáàjá!"* (C) (P2)

tétè ò-iz-a\LHL ò-tî tù´-bb-ire\LHL e-`dí\FL
again 2SGS-come-FV\PRES AGR2SG-QUOT 1PLS-COP1-PST2\P2 AGR23-DEM_DIST\FL
bà´-kob-ire-nga\LHL bà´-tî jáàjá
2S-say-PST2-HAB\P2 AGR2-QUOT grandparent
'Again you come, saying that when we were there, they were saying:
"Grandma!"'

(276) *Ólwìsi ómúsúújà gúkùkwàta àwò mùtónòtónò gútì, gwàbángà mpòlá bátì kéísì gwábbáíréngè mpòlámpòla àwó.* (C) (P3)

ó-lu-ìsí ó-mu-´súújà gù´-ku-kw.at-a\LHL\FO2 awa-`ó\FL
AUG-11-sometimes AUG-3-malaria 3S-2SGO-take.TENT-FV\PRES\FO2 AGR16-DEM_MED\FL

mu∼tónò∼ ̀tónò gù´-tî gù´-ab-a-nga\LHL mpòlá bà´-tî kéísì
AGR3∼REDUP∼small AGR3-like_that 3S-go-FV-HAB\PRES slowly AGR2-QUOT then
gu-a-bb-ire-nga\H(L)HL mpòlá∼mpòlá awa-̀ó
3S-TNS-COP1-PST2-HAB\P3 slowly∼REDUP AGR16-DEM_MED
'Sometimes malaria starts slowly like that, it continues slowly then (after delaying to treat) they say it started slowly.'

(277) *Yétùmúlíírèngè kúsánì kèisi ólúmbè lúmùlúmà.* (C) (P3)

a-e-tum.ul-ir-ire-nga\H.LHL ku-̀sání kéísì ó-lu-´mbè
1S-REFL-speak.SEP1-APPL-PST2-HAB\P3 AGR15-good then AUG-11-death
lù´-mu-lum-a\LHL
11S-1O-bite-FV\PRES
'She was talking very well but was very sick. (lit. death bites her)'

The suffix can also combine with the Subjunctive. While some of these are habitual in nature, such as (278), many are not. Look for instance at (279), where we know that Jesus only died once - there is no way to interpret this habitually (although note that this is from a song, and so might be slightly different from current colloquial speech). In many cases where the Subjunctive is used with *-nga*, it is in commands with the intention of telling someone to often or always do a certain thing (i.e. be careful), as in (280). In other cases, it is used in commands where it cannot have such an iterative interpretation, such as (281) where the context indicates that the sentence refers to cooking lunch on that particular day, not habitually.

(278) *Ómú kùsìkísyà, óMáìsò yàgàine ókùtwàla ómùká mùgàndáwè, wázìrá n'àìkírìryá ámùwènge óbúyámbì bwónkánì.* (W)

ó-mu=ku-̀sìkísyà ó-Máìsò a-a-ga.an-ire\L.LH
AUG-18=15-inheritance_ceremony AUG-PN.M 1S-TNS-refuse.ASO-PST2\P5
ó-ku-tw.al-a\LH ó-mu-̀ká mu-̀gàndá=o-e wázìrá ni
AUG-INF-take.EXT-FV\INF AUG-1-wife 1-same_sex_sibling=AGR1-1POSS CONJ NAR
à´-ik.iriry-a\LHLH a-mu-w-e-nga\H.LH ó-bu-´yámbì bu-ónkánì
1S-accept.DUR1-FV\PRES.SBR 1S-1O-give-SUB-HAB\SUB AUG-14-help AGR14-only
'During the inheritance ceremony, Maiso refused to take on his brother's widow and only agreed to provide her with support.'

(279) Song lyrics

Kìbbúmbà kìsánírè túmùwèrèryèngé, kùbbángà yàwèìréyò mwànáyè Yésù àtùfirìrèngé. (C)

ki-ˋbbumba kìˊ-san-ire\LHL tu-mu-w.erery-e-nga\H.LH kùbbángà
7-God 7S-should-PST2\P2 1PLS-1O-serve.DUR1-SUB-HAB\F1 because
a-a-w-ire\LH=yo mu-ànáe-e Yésù a-tu-f-ir-ire-nga\LH
1S-TNS-give-PST2\P5=23 1-child=AGR9-1POSS PN.M 1S-1PLO-die-APPL-PST2-HAB\P5
'God should be served by us, because he gave us his son Jesus to die for us.'

(280) *Ósàbènge óKìbbúmbà bùlì lùnákù ng'òmùkòbérà ébígósìbyô byónàbyónà, èrâ ómwèsìgé yákùkòbèranga ékìtúùfú.* (W)

o-sab-e-nga\H.LH ó-ki-ˋbbúmbà bùlí\FL lu-ˋnákù ngà
2SGS-pray-SUB-HAB\SUB AUG-7-god every\FL 11-day SIM
ò-mu-kob-ir-a\LHL é-bi-ˊgósì=bi-o bi-ónà-bi-ónà
2SGS-1O-say-APPL-FV\PRES AUG-8-problem=AGR8-2SG.POSS AGR8∼REDUP∼AGR8-all
èrâ o-mu-eˊ.sig-e\H.LH a-a-ku-kob-ir-a-nga\H.LH
CONJ 2SGS-1O-REFL.trust-SUB\SUB 1S-TNS-2SGO-say-APPL-FV-HAB\F1
é-ki-ˋtúùfú
AUG-AGR7-correct
'Pray to God everyday while telling him your problems and trust him to tell you the right thing to do.'

(281) *Ǹdì kwàbà Mbálè, Líilya ósùmbènge ékyémùsáná.*

ǹ-li\LH(L)\FO2 ku-ab-a\LH\FO2 Mbálè Líilya o-sumb-e-nga\H.LH
1SGS-COP2\PRES\FO2 INF-go-FV\INF\FO2 PN.P PN.F 2SGS-cook-SUB-HAB\SUB
é-ki-émùsáná
AUG-7-lunch
'I am going to Mbale, Lilja you cook lunch.'

Unlike what Bertinetto & Lenci (2012) describes to be the case in many languages, the Lugwere Habitual can be used in cases where the events are strictly numbered, as in (282).

(282) *Éwíìki éyò nàsùmbànga émìrúndì mìsátú.*

é-wíìkí e-ˋó n-a-sumb-a-nga\L.LH é-mi-ˋrúndì mi-ˋsátú
AUG-week AGR9-DEM_MED 1SGS-TNS-cook-FV-HAB\P5 AUG-4-time AGR4-three
'Last week I cooked three times.'

While not every usage of the *-nga* suffix is habitual, this does seem to be its most prominent function, and the clearest way in which it differs from the Progressive and the Imperfective. I will therefore use the name Habitual for any form with *-nga* (except for P4).

7.2.1.2 *Kùtìrá* as an habitual auxiliary

The verb *kùtìrá* 'to usually do' can be used as an auxiliary to mark the habitual aspect. This is primarily used in the Present tense, as in (283), although I did find one example of it used in the past, in a Past Imperfective construction, given in (284). In F1 this verb has another auxiliary function, that of marking an imminent event, see Section 6.9.

(283) *Nè tùtírà kùfìira ómùtyéèré.* (C)

nè tù´-tir-a\LHL ku-fiir-a\LH ó-mu-`tyéèré
CONJ 2PLS-usually_do-FV\PRES INF-spray-FV\INF AUG-3-rice
'But we normally spray the rice.'

(284) *Mwàlì mùtíra ìno ókùkòzésá níkì?* (C)

mu-a-li\L.LH\FO2 mù´-tir-a\LHL ìnó ó-ku-kozes-a\LH níkì
2PLS-TNS-COP2\P5\FO2 2PLS-usually_do-FV\PRES very AUG-INF-use-FV\INF what
'What did you use to use?'

7.2.2 Reduplication of the whole stem - the Iterative

There are two productive processes of reduplication for Lugwere verbs. This section deals with a process which reduplicates the entire stem, up to and including the final vowel, while another process is discussed in Section 7.3.1. The process under discussion in this section produces an imperfective form, with implications of an action being done a lot, repeatedly, or for a long time.

This process of reduplication doubles the entire stem, starting from the verb root, including any extensions, the past tense suffix *-ire* or the final vowel. Verbs in any TAM category can undergo this process. An example is *kùlòndálóndá* 'to select (repeatedly), a reduplicated Infinitive. Anything before the verb root - subject markers, tense markers, object markers, etc. - is not reduplicated. Elements following the final vowel, such as the Habitual marker and the locative markers, are likewise not reduplicated. Table 7.6 shows reduplicated verbs in different TAM categories.

Looking at the tones, we find that the reduplicated words as a whole have the same tonal melody as the non-reduplicated counterpart. However, in the reduplicated verbs, the melody is of course stretched across a larger number of syllables. Do they behave

like verbs with longer stems? Not entirely. Look, for instance at the verb *kùlyá* 'to eat'. Since the Infinitive form now has three syllables, we would expect the first two to be low and the last to be high. However, what we do get is *kùlyályá*, which reflects the fact that the non-reduplicated form has a high tone on the only stem syllable. For other verbs, however, the expected pattern is found in the Infinitive, with low tones on the first two moras, and all following syllables high. In other cases, the reduplicated form of *kùlyá* does behave as a bisyllabic stem verb, for instance in the Present tense, where the form is *ààlyályà* 's/he eats (repeatedly)'. This has the regular LHL melody, rather than the fall seen in non-reduplicated forms. Segmentally, however, it is still not identical to a bisyllabic stem verb, as the subject prefix is long.

Other verbs in the Present tense also behave tonally just like verbs with longer stems. That is, with a non-high subject prefix, the subject prefix and the first stem vowel are low, then all other syllables are high, except for the final vowel. Also in the negative the tonal pattern is what we would expect, with the negative prefix and subject marker low, and all stem syllables high. High and low subject markers differ in the affirmative, as expected. This is also the case for P2, where again the tones found are what would be expected for a longer verb, both in the affirmative and negative. *kùlyá*, however, is a bit irregular again in the negative. The form is *tàlíìrèlììré* 's/he didn't eat (repeatedly)', and it has the same fall as seen in the non-reduplicated form, despite the fact that there are now enough syllables for each tone to be assigned to one syllable.

Otherwise, reduplicated verbs in P3, P5, F1 and F2 also behave largely like verbs with longer stems when it comes to tone. In F2, for instance, the full LH.(L)HL melody can be realised on bisyllabic verbs, as for instance in *yàlílòndálóndà* 's/he will select (repeatedly)'. In the negative, it is also possible for this verb to have the full (LH).LH melody, as in *tìyàlílòndálóndá* 's/he will not select (repeatedly)'. There is some variation, however, as I have also recorded instances without the medial low tone in the affirmative, as in *yàlígúlágúlà* 's/he will buy (repeatedly)'. Note also the unexpected high tone on the negative marker in F1 verbs, e.g. *tíyàlòndèlòndé* 's/he will not select (repeatedly)'.

Generally, then, we can conclude that the reduplicated verbs have the same overall tonal melodies as the non-reduplicated verbs, but they fluctuate somewhat between

assigning tones to syllables as though the reduplicated verb was simply a long verb, and between incorporating some of the tonal characteristics and irregularities of the non-reduplicated form. A larger study into this might be needed to fully map the variation that exists.

Table 7.2: Some reduplicated verbs in various tenses with AGR 1 and AGR 2 subjects. <...> indicates that there is no separate Form 2

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
Infinitive				
kùlòndá 'to select'	kùlòndálóndá	kùlòndàlòndà	kùtálóndálóndá	kùtàlòndàlòndà
kùlyá 'to eat'	kùlyálya	kùlyàlyà	kùtályálya	kùtàlyàlyà
kùjànjábá 'to treat'	kùjànjábájánjábá	kùjànjàbàjànjàbà	kùtájánjábájánjábá	kùtàjànjàbàjànjàbà
Present				
kùlòndá 'to select'	àlòndálóndà bàlóndálóndà	àlòndàlòndà bàlóndàlòndà	tàlóndálóndá tìbàlóndálóndá	tàlòndàlòndà tìbàlòndàlòndà
kùlyá 'to eat'	ààlyálya bàlyálya	ààlyàlyà bàlyálya	tàlyálya tìbàlyálya	tàlyàlyà tìbàlyàlyà
kùjànjábá 'to treat'	àjànjábájánjábà bàjánjábájánjábà	àjànjàbàjànjàbà bàjánjàbàjànjàbà	tàjánjábájánjábá tìbàjánjábájánjábá	tàjànjàbàjànjàbà tìbàjànjàbàjànjàbà
P1				
kùgùlá 'to buy'	yànkágúlágúlá	yànkàgùlàgùlà	tìyànkágúlágúlá	tìyànkàgùlàgùlà
P2				
kùlòndá 'to select'	àlòndérélóndérè bàlóndérélóndérè	... ...	tàlóndèrèlòndèré tìbàlóndèrèlòndèré	tàlóndèrèlòndèrè tìbàlóndèrèlòndèrè
kùlyá 'to eat'	àlíírélíírè bàlíírélíírè	... ...	tàlíìrèlììré tìbàlíìrèlììré	tàlíírèlììrè tìbàlíírèìírè
kùjànjábá 'to treat'	àjànjábíréjánjábírè bàjánjábíréjánjábírè	... ...	tàjánjàbìrèjànjàbìré tìbàjánjàbìrèjànjàbìré	tàjánjàbìrèjànjàbìrè tìbàjánjàbìrèjànjàbìrè
P3				
kùlòndá 'to select'	yálònderélóndérè	...	tíyálòndérélóndérè	...
kùlyá 'to eat'	yálìírélíírè	...	tíyálíírélíírè	...
kùjànjábá 'to treat'	yájànjábíréjánjábírè	...	tìyájànjábíréjánjábírè	...
P5				
kùlòndá 'to select'	yàlòndèrèlòndèré	yàlòndèrèlòndèrè	tíyàlóndérélóndérè	...
kùlyá 'to eat'	yàlìírèlìíré	yàlìírèlìírè	tíyàlíírélíírè	...
kùjànjábá 'to treat'	yàjànjàbìrèjànjàbìré	yàjànjàbìrèjànjàbìrè	tíyàjánjábíréjánjábírè	...

F1				
kùlòndá 'to select'	yálòndàlòndá	yálòndàlòndà	tíyàlòndèlòndé	tíyàlòndèlòndè
kùlyá 'to eat'	yályàlyá	yályàlyà	tíyàlyèlyé	tíyàlyèlyè
kùjànjábá 'to treat'	yájànjàbàjànjàbá	yájànjàbàjànjàbà	tíyàjànjàbèjànjabé	tíyàjànjàbèjànjabè
F2				
kùlòndá 'to select'	yàlílòndálóndà	yàlílòndàlòndà	tìyàlílòndálóndá	tìyàlílòndàlòndà
kùlyá 'to eat'	yàlíryálya	yàlíryàlyà	tìyàlíryályá	tìyàlìryàlyà
kùjànjábá 'to treat'	yàlíjànjábájánjábà	yàlíjànjàbàjànjàbà	tìyàlíjànjábájánjábá	tìyàlíjànjàbàjànjàbà

7.2.2.1 Usage of verbs with a reduplicated stem

In the corpus, most of the examples found were in the Present tense, but one example in the Subjunctive (see (289a) below) and a couple in a past tense were also found, as in (285).

(285) *Ǹgà bàméíte èrâ ngà ómùtáánè wàbe àkóla éníkì? Âbàbítíírébítírèmúkù.* (C)

*ngà ba-many.*IRR*LHL èrâ ngà ó-mu-ˋtáánè o-àbé à-kol-a*LHL é-níkì*
SIM 2S-know.IRR\PRES CONJ SIM AUG-1-son AGR1-2POSS 1S-do-FV\PRES AUG-what
à-ba∼bit.ir.ire∼bit-ir-ire\LHL=mu=ku
1S-2O∼REDUP∼pass-APPL-PST2\P2=18=17
'When they know and their son had done what? He had passed through for them.'

Stem reduplication can indicate iterativity, and it is therefore unsurprising that some of the examples involve actions that are semelfactive in nature, such as chopping and pounding, as in (286) and (289). (287) and (288) are other examples of stem reduplication used in iterative contexts. In the story (288) is taken from, Kande's mom has HIV, and Kande is caring for her, so would be frequently touching her. Another function of reduplication is to indicate that an action is done quickly, as in (289), where the action of pounding is done quickly to avoid the rain. It is also an iterative action, but the reading comprehension question in (289b) indicates that the main focus is on the mom having to pound the millet quickly in order to avoid the rain.

(286) a. *Ímmála ókúbìwòlyá ngà nsàlásála ényânyá.* (C)

í-n´-mal-a\LHL(H) *o-ku-bi-wol-y-a* *ngà*
SBR-1SGS-finish-FV\PRES.SBR AUG-INF-8O-cool_down-CAUS1-FV SIM

ǹ∼sal.a∼sal-a\LHL *é-ny.ânyá*
1SGS∼REDUP∼cut-FV\PRES AUG-10.TOMATO
'After cooling them, I would chop tomatoes.'

b. *Ǹsàlásála óbùtúngùlú, ǹsálásála ógrìnípépà ngà nsálá…*

ǹ∼sal.a∼sal-a\LHL *ó-bu-`túngùlú ǹ∼sal.a∼sal-a\LHL*
1SGS∼REDUP∼cut-FV\PRES AUG-14-onion 1SGS∼REDUP∼cut-FV\PRES
ó-grìnípépà *ngà ǹ-sal-a\LH*
AUG-green_pepper SIM 1SGS-cut-FV\PRES.UC
'I chop onions, green peppers, I would chop…'

(287) *Èrâ, nì yèyóngèra ókùtùùmátúúmá, tíyàlwírè n'àtúúka ómú kìbúgà.* (W)

èrâ ni à´-e´.ong.ir-a\LHLH *ó-ku∼tuum.a∼tuum-a\LH*
CONJ NAR 1S-REFL.continue.APPL-FV\PRES.SBR AUG-INF-∼REDUP∼jump-FV\INF
ti-a-a-lw-ire\H.LHL *ni à´-tuuk-a\LHL(H)* *ó-mu=ki-`búgà*
NEG-1S-TNS-be_late-PST2\P5.NEG NAR 1S-reach-FV\PRES.SBR AUG-18=7-city
'So the frog went on jumping and it didn't even take long to reach town.'

(288) Context: Kande's mother has AIDS. She asked her mother's friends from church:

Éngéri égìnkwátàkwàta ókú mámà, zèna óSìríímù tìyànkwàté? (W)

é-n.´gérì *é-gi-n´∼kw.at.a∼kw.at-a\LHLH* *ó-ku=mámà*
AUG-10.way REL-10O.REL-1SGS∼REDUP∼touch.TENT-FV\PRES.SBR AUG-17=mom
z-énà *ó-Sìrîmú\FL* *ti-a-a-n-kw.at-e\LH*
AGR1SG-also AUG-HIV/AIDS\FL NEG-1S-TNS-1SGO-take.TENT-SUB\F1.NEG
'The way I touch my mother, won't I also get infected by HIV/AIDS?'

It is worth pointing out here that these are different from verbs that are derivationally reduplicated (see Section 9.8.7.1). There might, however, be overlap and similarities between the usages of these two types of reduplication, as they both can relate to iterativity. As an example, the verb *kùkòná* 'to pound, hit with blunt object' is shown with a stem reduplication in (289). This is from a reading primer, where (289a) is part of a short story about pounding millet, and (289b) is a reading comprehension question. With a derivational reduplication, as in *kùkònkóná*, it means 'to knock, tap', illustrated by the example in (290).

(289) Context: Mom was pounding millet when she saw that it was about to rain

a. *Òwéyàbbáírè nti ákònèkòne ónkéndì tìyàmwàjá, énkónò n'èvúniká.*

ówè-a-a-bb-ire\LHL.HL nìtî a∼kon.e∼kon-e\H.LH ó-n.kéndì
SBR-1S-TNS-COP1-PST2\P5.SBR like 1S-∼REDUP∼pound-SUB\SUB AUG-9.rain
ti-a-a-mu-aj-a\LH é-n.kónò ni è´-vun-ik-a\LHLH
NEG-1S-TNS-1O-encounter-FV\SUB.NEG AUG-9.rod NAR 9S-break-NUT-FV\PRES.SBR
'When she was pounding quickly in order to avoid the rain the rod broke.'

b. *Níki ékyàgìrìre ómámà n'àkónàkòna óbùló?*

níkì é-ki-a-gir-ire\L.LH ó-mámà ni a´∼kon.a∼kon-a\LHLH
what REL-7S-TNS-cause-PST2\P5 AUG-mom NAR 1S∼REDUP∼pound-FV\PRES.SBR
ó-bu-`ló
AUG-14-millet
'What made mom pound the millet so quickly?'

(290) *Éyàtùùkìre ókúnyùmbá n'àkónkòná ngà èbúlà múntu ámwìgùlìràwo.* (C)

éà-a-a-tuuk-ire\L.LH ó-ku-ny.`ùmbá ni à´-konkon-a\LHLH ngà
SBR-1S-TNS-arrive-PST2\P5 AUG-17=9-house NAR 1S-knock-FV\PRES.SBR SIM
è-bul-a\LHL mu-´ntù á-a-mu-ig.ul-ir-a\LHL\FO2=wo
9S-lack-FV\PRES 1-person REL-1S-1O-open.SEP1-APPL-FV\PRES\FO2=16
'When she reached the house and knocked there was no one to open for her.'

7.2.3 Progressive

The Progressive aspect is formed by using a Present tense form of the *li* copula and the Infinitive of the main verb without an augment, as illustrated in (291) and (292) below. The auxiliary copula is in Form 2 where relevant.

(291) a. *Ààlì kùbìná.*

à-li\LH(L)\FO2 ku-bin-a\LH
1S-COP2\PRES\FO2 INF-dance-FV\INF
'S/he is dancing.'

b. *Bálì kùbìná.*

bà´-li\LH(L) ku-bin-a\LH
2S-COP2\PRES INF-dance-FV\INF
'They are dancing.'

(292) *Ábántù bálì kùbìná, bàkwéíte ámábúgà, bànywa ómwéngè.* (C)

á-ba-´ntù bà´-li\LH(L) ku-bin-a\LH bà´-kw.at-ire\LHL á-ma-´búgà
AUG-2-person 2S-COP2\PRES INF-dance-FV\INF 2S-take.TENT-PST2\P2 AUG-6-gourd

bà´-nyw-a\LHL ó-mu-éngè
2S-drink-FV\PRES AUG-3-alcohol
'People are dancing, holding gourds and drinking alcohol.'

The Progressive seems to be more common in the Present tense than in other tenses, however it is possible to use it in the past and the future. There are two possible ways to form a past Progressive. Firstly, it is possible to just put a past tense copula in front of the Present tense Progressive construction, as illustrated in (293) with a past tense *-bba* copula and in (294) with a past tenses form of the *-li* copula. Secondly, a past Progressive can be formed with only a past *-li* copula plus and Infinitive, as in (295). However, this example was the only one I found in the corpus. Speakers accept such constructions when asked for grammaticality judgements, and can come up with example sentences, but it does not seem to be frequent. It is not possible to form a Progressive with only the *-bba* copula.

(293) *Ónkìmà yàbbàire ààlì kùlyá émìkàmúlyá, nîìwo ókùlèngérá n'àmánya ààtî áálìwóku óbúgósì óbùtúúkírè ómú kíbírà kyàbé.* (W)

ó-n.`kìmá a-a-bb-ire\L.LH à-li\LH(L)\FO2 ku-ly-a\LH
AUG-9.monkey 1S-TNS-COP1-PST2\P5 1S-COP2\PRES\FO2 INF-eat-FV\INF
é-mi-`kàmúlyá ní-ì´-wo ó-ku-leng.ir-a\LH ni
AUG-4-type_of_tree_leaf COP3-PRO-AGR16 AUG-INF-see.APPL-FV\INF NAR
à´-many-a\LHL(H) à-tî à´-li\LH(L)=wo=ku ó-bu-´gósì
1S-know-FV\PRES.SBR AGR1-SBR 1S-COP2\PRES.UC=16=17 AUG-14-problem
ó-bu`-tuuk-ire\LHL ó-mu=ki-´bírà ki-àbé
REL-14S-arrive-PST2\P2 AUG-18=7-forest AGR7-2POSS
'The monkey was eating some leaves when it saw that there could be a problem in their forest.'

(294) *Yààli ààlì kùbùlìrà kú rádìò.* (C)

a-a-li\LH\FO2 à-li\LH(L)\FO2 ku-wul.ir-a\LH\FO2 ku=rádìò
1S-TNS-COP2\P5\FO2 1S-COP2\PRES\FO2 INF-preach.APPL-FV\INF\FO2 17=radio
'She was preaching on a radio.'

(295) *Yààlì kúnkòba áàtì ààlì kúntwàlà Tòróró gyè mbá nsòmèré.* (C)

a-a-li\L.LH\FO2 ku-n-kob-a\LH à-tî\FL à-li\LH(L)
1S-TNS-COP2\P5\FO2 INF-1SGO-say-FV\INF AGR1-QUOT\FL 1S-COP2\PRES
ku-n-tw.al-a\LH\FO2 Tòróró gi-è ǹ-bb-a\LH(LH)
INF-1SGO-take.EXT-FV\INF\FO2 PN.P 23O.REL-O.REL 1SGS-COP1-FV\PRES.SBR

n-som-ir-e\H.LH
1SGS-study-appl-sub\sub
'He was telling me that he is taking to Tororo where I should study.'

There appears to be an ongoing grammaticalisation process introducing a Progressive prefix *lu-*. See, for instance (296), where the (a) example shows this new form, while (b) shows the source construction. However, currently this seems restricted to certain verbs and usages.

(296) a. *Àlùkòlà mírímò.*

à-lu-kol-a\LH\FO2 mi-ˊlímò
1S-PROG-do-FV\PROG\FO2 4-work
'He is working.'

b. *Ààlì kùkòlà mírímò.*

à-li\LH(L)\FO2 ku-kol-a\LH\FO2 mi-ˊlímò
1S-COP2\PRES\FO2 INF-do-FV\INF\FO2 4-work
'He is working.'

c. *Àlùgònà bùlì kìséèrá.*

à-lu-gon-a\LH bùlí\FL ki-ˋséèrá
1S-PROG-sleep-FV\PROG every\FL 7-time
'He is sleeping all the time.'

The prefix appears to be the result of a contraction of the *li* copula and the Infinitive marker. In some contexts, the Infinitive marker is can be reduced from /ku-/ to /ßu-/ or even just /u/, and this is likely what happens here. As is common when vowels meet across word boundaries, the first is deleted, and that is how we end up with *lu-*. So, we end up with the subject marker from the copula, this *lu-* element, and the verb stem. This looks remarkably like a single verb with a prefix in the TA slot. In fact, Nurse (2008) writes that languages commonly innovate new prefixes in this slot, and this example from Lugwere neatly exemplifies how this happens. It is of course impossible to predict whether this will develop further, but if it does, Lugwere might have a fully productive, synthetic progressive at some point in the future.

As (297b) shows, the Present Progressive can be used with a future interpretation.

(297) a. *Ánì yáàbà ìzó.* (F1)

Án a-a-ab-a\H.LH\FO2 ìzó
PN.F 1S-TNS-go-FV\F1\FO2 tomorrow
'Ann will go tomorrow.'

b. *Án ààlì kwàba ìzó.* (Present Progressive)

Án à-li\LH(L)\FO2 ku-ab-a\LH ìzó
PN.F 1S-COP2\PRES\FO2 INF-go-FV\INF tomorrow
'Ann is going tomorrow.'

7.2.4 Imperfective

The Imperfective is formed by using a tensed copula and a Present tense verb form, as illustrated in (298) – (300). (298) and (300) use the *-bba* copula, and (299) use the *-li* copula.

The Imperfective can be found in most tenses, although it is uncommon in the Present tense. It is not possible to use a Present tense *li* copula to form an Imperfective (**ààli àbínà* is ungrammatical). The *bba* copula can be used, but the usage is restricted. It takes on a habitual/generic reading, as in (300), or can have certain modal interpretations.

Many of the functions of the Imperfective in other tenses are expressed much more commonly by the Progressive in the Present, while in tenses other than the Present the Progressive is much less common. While the functions of the two aspects overlap to a large extent, there are also differences between them, as outlined in Section 7.2.6 below.

(298) *Àbbáíre àbínà.* (P2 Imperfective)

à-bb-ire\LHL à-bin-a\LHL
1S-COP1-PST2\P2 1S-dance-FV\PRES
'S/he was dancing.'

(299) *Òwénàirírè nè twàlì tùtúmùlà nàye ókú whatsapu.* (C) (P5 Imperfective)

ówè-n´-a-ir-ire\LHL.HL nè tu-a-li\L.LH\FO2
SBR-1SGS-TNS-return-PST2\P5.SBR CONJ 1PLS-TNS-COP2\P5\FO2
tù´-tum.ul-a\LHL\FO2 nà´-ye ó-ku=Whatsapp
1PLS-speak.SEP1-FV\PRES\FO2 CONJ-AGR1 AUG-17=Whatsapp
'When I came back, we were talking on Whatsapp.'

(300) About hedgehogs:

Òlwo àbba àbísà ébìtûndúbyè ébìgòndígòndí, ng'ómùtwé n'ébígèré, ówàbóna

Table 7.3: Imperfective forms of the verb *kùbìná* 'to dance' in different tenses, with 2PL subject markers

	AFF	Translation
Present	mùbbá mùbínà	you PL are dancing
P1	mwànkàbbà mùbínà	you PL were just dancing
P2	mùbbéírè mùbínà	you PL were dancing (earlier today)
P3	mwábbéírè mùbínà	you PL were dancing (yesterday)
	mwálì mùbínà	you PL were dancing (yesterday)
P5	mwàbbèírè mùbínà	you PL were dancing (before yesterday)
	mwààlì mùbínà	you PL were dancing (before yesterday)
F1	mwábbà mùbínà	you PL will dance (soon)
F2	mwàlíbbà mùbínà	you PL will dance (in the more distant future)

ékímùtìisírìryá. (W)

òlwó à-bb-a\LHL à-bis-a\LHL é-bi-ˋtûndú=bi-e
CONJ 1S-COP1-FV\PRES 1S-hide-FV\PRES AUG-8-part=AGR8-1POSS
é-bi∼gòndí∼ˋgòndí ngà ó-mu-ˋtwé nè é-bi-ˊgèré ówè-àˊ-bon-a\LHL(H)
AUG-AGR8∼REDUP∼soft like AUG-3-head CONJ AUG-8-leg SBR-1S-see-FV\PRES.SBR
é-kìˊ-mu-ty-isy-irir-a\LHLH
SBR-7S-1O-fear-CAUS2-DUR1-FV\PRES.SBR
'It hides its soft parts, like the head and legs, when it sees something scary.'

Where relevant, the auxiliary verb is in Form 2 (as for instance in (299), and if the element following the construction is one that causes Form 2, the main verb can also be in Form 2, as in (301).

(301) *Àbbáíre àgùlà mùtyêré.*

à-bb-ire\LHL à-gul-a\LHL\FO2 mu-ˋtyêré
1S-COP1-PST2\P2 1S-buy-FV\PRES\FO2 3-rice
'S/he was buying rice.'

As discussed in Section 6.7.3 when a copula is combined with a verb of a tense other than the Present, the result is a relative-aboslutive tense, where the lexical verb indicates a time relative to the reference point indicated by the copula. Only when the subordinate verb is in the Present tense is the interpretation imperfective.

The Imperfective can be used in a range of imperfective contexts, and its usage, as well as the differences between the Imperfective and other imperfective aspects, will be made clearer in Section 7.2.6 and 7.6.

Table 7.4: The verb *kùgùlyágá* 'to buy (to excess)' in various tenses, with AGR 1 subject markers.

	FO1 AFF	FO1 NEG
Infinitive	kùgùlyágá	kùtágúlyágá
Present	àgùlyágà	tàgúlyágá
P2	àgùlyágírè	tàgúlyàgìré
P3	yágùlyágírè	tíyágúlyágírè
P5	yàgùlyàgìré	tíyàgúlyágírè
F1	yágùlyàgá	tìyàgùlyàgé
F2	yàlígùlyágà	tìyàlígùlyágá

7.2.5 The durative/repetitive

There are two extensions that are used with an aspectual function, *-yag* and *-irir(y)*. Likely the first is a reflex of the Proto-Bantu repetitive extension, while the second looks like a reduplicated version of the Applicative plus the short Causative. They both are used to indicate that an action is done to excess; that it is done very frequently or for a long duration. It is not uncommon for reflexes of the repetitive to be part of the aspectual/inflectional system of a language, rather than the derivational system. Schadeberg & Bostoen (2019:174) write that (reflexes of) Proto-Bantu **-ag ∼ -ang* "behaves tonally as an extension, but it often enters into the inflectional paradigm (with various imperfective meanings such as durative or habitual)".

The *-yag* extension goes in the EXT slot, and it has a regular past tense stem, and so adding this to a verb simply increases the number of syllables that the tonal melodies apply over. Table 7.4 shows Agreement Class 1 forms of the verb *kùgùlá* 'to buy' with the *-yag* extension.

The *-iriry* extension is subject to vowel harmony with the stem, becoming *-erery* after a mid vowel. It has an imbricated past stem, where the extension merges with the past tense suffix *-ire*. One /r/ is lost, and the /i/ lengthens, and the *-y* is realised inside of the *-ire* suffix, giving *iriirye*. This process, and imbricated past stems in general, will be discussed in much more detail in Chapter 9.

Below are some examples of these forms. The speaker was given verb forms with no context, and asked to use them in sentences. The examples relate to doing an action a lot, either excessively at one time as in (302a) and (302e) or very often, as in (302b-c).

Table 7.5: The verb *kùgùlíríryá* 'to buy (to excess)' in various tenses, with AGR 1 subject markers

	FO1 AFF	FO1 NEG
Infinitive	kùgùlíríryá	kùtágúlíríryá
Present	àgùlíríryà	tàgúlíríryá
P2	àgùlírííryè	tàgúlìriiryé
P3	yágùlìrííryè	tíyágùlíríiryè
P5	yàgùlìriiryé	tíyàgúlíríryè
F1	yágùlìrìryá	tìyàgùlìrìryé
F2	yàlígùlíríryà	tìyàlígùlíríryá

(302) a. *Òòyò lwáki áigúlyágà bùlì wámò?*

*o-ˋó*FL *lwákí à-ig.ul-yag-a\LHL *bùlí*FL *wa-´mò*
AGR1-DEM_MED\FL why 1S-open.SEP2-DUR2-FV\PRES every\FL AGR16-one
'Why is he opening everything? (e.g. all the doors, windows) (lit. Why is that one opening everywhere)'

b. *Tímmáitè lwáki óBríàní ásùmbírírya ámátóókè.*

*ti-n-many.IRR\LHL *lwákí ó-Bríàní *à-sumb-iriry-a\LHL *á-ma-´tóókè*
NEG-1SGS-know.IRR\PRES why AUG-PN.M 1S-cook-DUR1-FV\PRES AUG-6-matooke
'I don't know why Brian always cooks matooke.'

c. *ÓPítà, tímméitè lwákí áyòzyága éngwéyè.*

*ó-Pítà *ti-n-many.IRR\H.LH\FO2 *lwákí à-oz-yag-a\LHL*
AUG-PN.M NEG-1SGS-know.IRR\PRES.NEG.IRR\FO2 why 1S-wash-DUR2-FV\PRES
é-n-gwéyè
AUG-10-clothes
'Peter, I don't know why he is washing clothes all the time.'

d. *ÓBríàní ngà àtákíre ékíntù, àkòbérérya ómáyè mpákà ngà àkìfùnírè.*

*ó-Bríàní *ngà à-tak-ire\LHL *é-ki-´ntù *à-kob-iriry-a\LHL*
AUG-PN.M SIM 1S-want-PST2\P2 AUG-7-thing 1S-say-DUR1-FV\PRES
*ó-má=y-e *mpákà ngà à-ki-fun-ire\LHL*
AUG-mom=AGR9-1POSS until SIM 1S-7O-get-PST2\P2
'When Brian wants something, he always tells his mother until he gets it.'

e. *Òyó ngà ànywírèkú àkòbyágà bùlì kyámà.*

*o-ˋó *ngà à-nyw-ire\LHL=ku *à-kob-yag-a\LHL *bùlí*FL *ki-ámà*
AGR1-DEM_MED SIM 1S-drink-PST2\P2=17 1S-say-DUR2-FV\PRES every\FL 7-secret
'When that one is drunk, he tells every secret.'

7.2.6 Progressive, Imperfective and Habitual

So far, this section has looked at the various different imperfective forms of Lugwere, and given examples of how each of them can be used. At this point, it is worth taking a moment to also compare some of them, particularly the Progressive, the Imperfective and the Habitual, as there is a significant amount of overlap between these categories, but also some differences.

In general, a Progressive form is mainly used when describing one event as ongoing at a given reference point. In cannot typically have an habitual interpretation. The Progressive is most commonly seen in the Present tense, but can also be used in the past and the future. The Imperfective, on the other hand, can be used both for an ongoing event, and for habitual events. The Imperfective is very rare in the Present tense, where the simple Present has a similar function, i.e. it can be either ongoing or habitual. It is common in the past or future tenses, however.

For habitual contexts, a form with the Habitual *-nga* is also possible, and at times seem to be preferred to an Imperfective form. In habitual contexts, a simple past is mostly rejected.

(303) shows an example of a habitual past context, where the Progressive and simple past were rejected, while P5 with the Habitual suffix and a P5 Imperfective form were accepted. While the Imperfective was often accepted in these kinds of contexts, it was not always accepted, so the Habitual marker seems preferable in habitual contexts.

(303) Context: This is a story about something that happened when I was a child. When I was around 10 years old, I used to climb trees every day.

a. # *Nàbbàirè ndì kùnìina émìsáálè bùlì lùnákù.* (P5 Progressive)

*n-a-bb-ire\L.LH*FO2 *ǹ-li\LH(L)*FO2 *ku-niin-a\LH* *é-mi-`sáálè bùlí*FL
1SGS-TNS-COP1-PST2\P5\FO2 1SGS-COP2\PRES\FO2 INF-climb-FV\INF AUG-4-tree every\FL
lu-`nákù
11-day
Infelicitous: 'I was climbing trees every day.'

b. *Nàniìnànga émìsáálè bùlì lùnákù.* (P5 Habitual)

n-a-niin-a-nga\L.LH *é-mi-ˋsáálè bùlí\FL* *lu-ˋnákù*
1SGS-TNS-climb-FV-HAB\P5 AUG-4-tree every\FL 11-day
'I used to climb trees every day.'

c. *Nàbbàirè nníína émìsáálè bùlì lùnákù.* (P5 Imperfective)

n-a-bb-ire\L.LH\FO2 *ǹ-niin-a\LHL* *é-mi-ˋsáálè bùlí\FL* *lu-ˋnákù*
1SGS-TNS-COP1-PST2\P5\FO2 1SGS-climb-FV\PRES AUG-4-tree every\FL 11-day
'I was climbing trees every day.'

d. *# Nàniìnìre émìsáálè bùlì lùnákù.* (P5)

n-a-niin-ire\L.LH *é-mi-ˋsáálè bùlí\FL* *lu-ˋnákù*
1SGS-TNS-climb-PST2\P5 AUG-4-tree every\FL 11-day
Infelicitous: 'I climbed trees every day.'

Note that if a Progressive is combined with the Habitual suffix, it is more acceptable in a habitual context, as in (304).

(304) *Âàlì kùdèmbángá bùlì lùnákù.* (Present Progressive Habitual)

à-li\LH(L)\FO2 *ku-demb-a-nga\LH* *bùlí\FL* *lu-ˋnákù*
1S-COP2\PRES\FO2 INF-get_tired-FV-HAB\INF every\FL 11-day
'He gets tired every day.'

(267) above presented a context which was intended to evoke the idea of a single past incident, where the reference time was within the event time. In these types of context, the speaker accepted either a simple past (267a), an Imperfective (267b) or an Progressive (267c), but a past Habitual was rejected.

When the context is past continuous, but not progressive, as with the stative verb *kùtyá* 'to fear' in (305), the speaker did not allow a Progressive form (305d). In the Present tense, however, the Progressive can be used with some stative verbs (see Section 7.6.3 for examples), although it is not always possible. Based on the fact that this form does not always allow combination with stative predicates, and might have a marked reading when it does allow it, it seems justified to name this aspect Progressive, rather than Continuous, although it should of course be kept in mind that it can sometimes be used in non-progressive continuous contexts.

(305) Context: When I was young, I used to be very scared of the dark.

a. # *Nàtìire éndìkííryá.* (P5)

n-a-ty-ire\L.LH *é-n.dìkííryá*
1SGS-TNS-fear-PST2\P5 AUG-9.dark
Infelicitous: 'I feared the dark.'

b. *Nàbbàirè ntya éndìkííryá.* (P5 Imperfective)

n-a-bb-ire\L.LH\FO2 *ǹ-ty-a\LHL* *é-n.dìkííryá*
1SGS-TNS-COP1-PST2\P5\FO2 1SGS-fear-FV\PRES AUG-9.dark
'I was afraid of the dark.'

c. *Nàtyànga éndìkííryá.* (P5 Habitual)

n-a-ty-a-nga\L.LH *é-n.dìkííryá*
1SGS-TNS-fear-FV-HAB\P5 AUG-9.dark
'I was afraid of the dark.'

d. # *Nàbbàirè ndì kùtya éndìkííryá.*

(P5 Progressive)

n-a-bb-ire\L.LH\FO2 *ǹ-li\LH(L)\FO2* *ku-ty-a\LH* *é-n.dìkííryá*
1SGS-TNS-COP1-PST2\P5\FO2 1SGS-COP2\PRES\FO2 INF-fear-FV\INF AUG-9.dark
Infelicitous: 'I was afraid of the dark.'

In present generic contexts, such as (306), the Present Progressive is not possible, but a Present Habitual can be used, although the Simple Present was judged to be the best here. In a past general context, such as that presented in (307), a simple past form was not accepted, nor was a past Progressive, but a past Habitual or past Imperfective were accepted.

(306) Context: Karl read in a book about elephants that all elephants eat fruit.

a. *Énzógì gìlya ébíbàlá.* (Simple Present)[2]

é-n.ˊzógì *gìˊ-ly-a\LHL* *é-bi-ˊbàlá*
AUG-10.elephant 10S-eat-FV\PRES AUG-8-fruit
'Elephants eat fruit.'

b. ? *Énzógì gírì kùlya ébíbàlá.* (Present Progressive)

é-n.ˊzógì *gìˊ-li\LH(L)* *ku-ly-a\LH* *é-bi-ˊbàlá*
AUG-10.elephant 10S-COP2\PRES INF-eat-FV\INF AUG-8-fruit
Questionable: 'Elephants are eating fruit.'

[2]The object here has an augment. Removing the augment makes the sentence less felicitous in the general context established here. If we are talking about a specific group of elephants, however, a version without the augment is better.

c. *Énzógì gìlyánga ébíbàlá.* (Present Habitual)

é-n.´zógì gì´-ly-a-nga\LHL é-bi-´bàlá
AUG-10.elephant 10S-eat-FV-HAB\PRES AUG-8-fruit
'Elephants eat fruit (habitually).'

(307) Context: These days, people only eat rice, every day. When I was young, people ate bwita (a staple food of the Bagwere, made from cassava and millet flour).

a. # *Ábántù bàlìire óbwítà.* (P5)

á-ba-´ntù ba-a-ly-ire\L.LH ó-bu-ítà
AUG-2-person 2S-TNS-eat-PST2\P5 AUG-14-bwita
Infelicitous: 'People ate bwita.'

b. *Ábántù bàbbàirè bàlya óbwítà.* (P5 Imperfective)

á-ba-´ntù ba-a-bb-ire\L.LH\FO2 bà´-ly-a\LHL ó-bu-ítà
AUG-2-person 2S-TNS-COP1-PST2\P5\FO2 2S-eat-FV\PRES AUG-14-bwita
'People ate bwita.'

c. *Ábántù bàlyànga óbwítà.* (P5 Habitual)

á-ba-´ntù ba-a-ly-a-nga\L.LH ó-bu-ítà
AUG-2-person 2S-TNS-eat-FV-HAB\P5 AUG-14-bwita
'People used to eat bwita.'

d. # *Ábántù bàbbàirè bálì kùlya óbwítà.* (P5 Progressive)

á-ba-´ntù ba-a-bb-ire\L.LH\FO2 bà´-li\LH(L) ku-ly-a\LHL ó-bu-ítà
AUG-2-person 2S-TNS-COP1-PST2\P5\FO2 2S-COP2\PRES INF-eat-FV\INF AUG-14-bwita
Infelicitous 'People were eating bwita.'

7.3 Perfect and other non-imperfective forms

7.3.1 Reduplication with final vowel *-i* - the Trifling

Lugwere has a second process of reduplication which reduplicates the root and the extension, but not the final vowel or the past tense suffix. The reduplicated element is then preceded by *bu-* and has the final vowel *-i*, as in *kùlòndà búlóndì* 'to just select'. The reduplicated element appears to be a nominalized form with the Class 14 *bu-* prefix, and the nominalising suffix *-i* (see Section 5.9.1). When translating this verb form, speakers often use the word 'just', as in 'just stay here'. It indicates that an action is done without

Table 7.6: The verb *kùlòndá* 'to select' in the Trifling aspect in various tenses

	AFF	NEG
Infinitive	kùlòndà búlóndì	kùtàlòndà búlóndì
Present	àlòndà búlóndì	tàlòndà búlóndì/ tálóndá búlóndì
P1	yànkàlòndà búlóndì	tìyànkàlòndà búlóndì
P2	àlòndérè búlóndì	tàlòndèrè búlóndì
P3	yálòndérè búlóndì	tíyálòndérè búlóndì
P5	yàlòndèrè búlóndì	tíyàlóndérè búlóndì
F1	yálòndà búlóndì	tìyàlòndè búlóndì
F2	yàlílòndà búlóndì	tìyàlìlòndà búlóndì
Subjunctive	ólòndè búlóndì	tòlòndà búlóndì

too much deliberation or complication, or that it was the only thing done. This type of reduplication exists for all tenses. The first element carries the person maker and STAMP information, while the reduplicated element is always the same, regardless of TAM, polarity or person. Extensions, however, as they are part of the stem and come before the final vowel, are reduplicated, as illustrated by *yàlígònèsyà búgónésì* 's/he will just make s.b. sleep (F2)'.

There was no obvious term which fit this category. I eventually settled on calling this the *Trifling* aspect, as it seems to highlight that an action is diminutive or insignificant. In the glosses 14 is used for the prefix *bu-* and NMLZ for the final vowel *-i*.

The reduplicated element always has the same tone, regardless of TAM category: a HL melody where all syllables are high, except for the final vowel. The first element is in Form 2, which indicates that this is probably a sequence of two words, rather than one word form.

Below are a few sentences extracted from a fictional conversation between a patient and a medical professional.[3] The conversation contains many examples the Trifling aspect, and can be quite illustrative of the functions of this construction. In (308a) the patient indicates that if the doctor just touches their forehead, they will feel the fever, so here the reduplication seems to indicate that the action required is simple or diminutive. In (308b) the doctor is contrasting the act of just going to buy a medicine

[3]The patient and symptoms are made up, and the dialogue was the result of two medical professionals illustrating the kind of interaction they commonly have with patients, to avoid any problems with sensitive/personal information.

with going the hospital and get checked first. The first case would be simpler or more direct than the second, or perhaps indicates skipping a step. In (308c), the idea is that multiple doses are needed, so the patient shouldn't think they can just let the doctor inject them with the first dose.

In (308d) the patient thinks the price is too high, and wants to ask about the possibility of having only one injection instead of 10. The reduplication is combined with the locative enclitic *=ku*, which can function as a partitive, and is often a marker of politeness (see Section 10.3.1).

In (308e) the doctor explains that taking only one dose will just ease the illness a bit, but not cure it. In (308f) the patient got the first dose, and came back, saying that the pain has increased, rather than getting better. In (308g) the patient seems to indicate that the stopping of the diarrhea happened 'just like that', and in (308h) the doctor wants to check the patient, here the reduplication seems again to indicate a quick, simple and diminutive action. (308i) shows an example of this construction in the negative, and has the negative *kàdí* inserted between the verb and the reduplicated form, presumably for negative emphasis.

(308) Extracts from a fictional conversation between a doctor and a patient

a. *Mùsàwó, n'óizá n'ónkwàtákù búkwátì òòtí.* (C)

mu-`sàwó ni ò´-iz-a\H.LH ni ò´-n-kw.at-a\H.LH=ku
1-doctor NAR 2SGS-come-FV\SUB.UC NAR 2SGS-1SGO-touch.TENT-FV\SUB.UC=17
bu´∼kw.at∼ì ò-tî
14∼REDUP∼NMLZ AGR2SG-like_this
'Doctor, even if you just come and touch at me like this.'

b. *Wàábirè n'ògúlà búgúlì, òbá wàbìréku ómwídwálìrò bákùtòòlàku ómúsááyè?*

o-a-ab-ire\LH\FO2 ni ò´-gul-a\LHL(H) bú´∼gul∼ì òbâ o-a-ab-ire\LH=ku
2SGS-TNS-go-PST2\P5\FO2 NAR 2SGS-buy-FV\PRES.SBR 14∼REDUP∼NMLZ or 2SGS-TNS-go-PST2\P5=17
ó-mu=ì-`dwálìró bà´-ku-to.ol-a\LHL\FO2=ku ó-mu-´sááyè
AUG-18=5-hospital 2S-2SGO-take.SEP1-FV\PRES\FO2=17 AUG-3-blood
'Did you just go and buy it, or did you go to the hospital and they took a blood sample?'

c. *Kùbba éngéri òòlì n'ómúsúújà gùnú, mùnânge óbúlézì bùnù tòkùtáká n'òlówòzà búlówózì nti átyânu ólèké nkùbbéku édóózi èètî.*

kùbbâ é-n.ˊgérì ò-li\LH(L)\FO2 nè ó-mu-ˊsúújà gu-ˋnú
because AUG-9-way 2SGS-COP2\PRES\FO2 CONJ AUG-3-Malaria AGR3-DEM_PROX
mu-ˋnângé ó-bu-ˊlézì bu-ˋnú\FO2
1-dear.1SG.POSS AUG-14-medicine AGR14-DEM_PROX\FO2
ti-o-ku-tak-a\LH ni ò-ˊlowoz-a\LHLH\FO2 búˊ∼lowoz∼ì
NEG-2SGS-15O-want-FV\PRES.NEG NAR 2SGS-think-FV\PRES.SBR\FO2 14∼REDUP∼NMLZ
ǹtî á-tyânú o-lek-e\H.LH n-kubb-e\H.LH=ku é-dóòzí.9 e-tî
SBR AUG-now 2SGS-let-SUB\SUB 1SGS-inject-SUB\SUB=17 AUG-dose AGR9-like_this
'Because of the way you have this malaria, my dear, medicine, it is not recommended to just think that now, let me just inject you with this dose.'

d. *Músáwò mbùùlyàkù búbúúlì (...)*

mu-ˋsàwó ǹ-buul.y-a\LHL\FO2=ku\FO2 búˊ∼buuly∼ì
1-doctor 1SGS-ask.CAUS1-FV\PRES\FO2=17\FO2 14∼REDUP∼NMLZ
'Doctor, I am just asking (...)'

e. *Éènákùbba émpíso èènu yábèmbèrèzákù búbémbérézì.*

éè-n-a-kubb-a\H.LH é-m.písò e-ˋnú
SBR-1SGS-TNS-inject-FV\F1 AUG-9.injection AGR9-DEM_PROX
a-a-bemberez-a\H.LH=ku búˊ∼bemberez∼ì
1S-TNS-relieve_symptoms-FV\F1=17 14∼REDUP∼NMLZ
'If I inject you with this, it will only relieve the symptoms.'

f. *Mùsàwó téte òmànya òòti òyòngéírè bwóngérì.*

mu-ˋsàwó tétè ò-many-a\LHL\FO2 ò-tî ò-ong.ir-ire\LHL
1-doctor again 2SGS-know-FV\PRES\FO2 AGR2SG-like_this 2SGS-increase.APPL-PST2\P2
búˊ∼ong.ir∼ì
14∼REDUP∼NMLZ
'Doctor, it is like you have just increased it.'

g. *Èrá n'ókw- n'ókwìdúkáná, áámò nzwà kùkòmyà búkómì ngà nzwa ókùzwa éíkà.*

èrâ FS nè ó-ku-id.uk.an-a\LH a-ˊmò
CONJ FS CONJ AUG-INF-have_diarrhea.SEP2.ASO-FV\INF AGR16-one
ǹ-zw-a\LHL\FO2 ku-kom.y-a\LH\FO2 búˊ∼komy∼ì ngà
1SGS-leave-FV\PRES\FO2 INF-stop.CAUS1-FV\INF\FO2 14∼REDUP∼NMLZ SIM
ǹ-zw-a\LHL ó-ku-zw-a\LH é-ì-ˋká
1SGS-leave-FV\PRES AUG-INF-leave-FV\INF AUG-5-house
'And having diarrhoea, I have just stoped, when I had just left home.'

h. *Òbá njàbe ókucèkìnga búcékíngí mbòné ngà òòlì kù kwìdúkáná.*

òbá n-ab-e\H.LH ó-ku-ceking-a\LH\FO2 búˊ∼ceking∼ì n-bon-e\H.LH
or 1SGS-go-SUB\SUB AUG-INF-check-FV\INF\FO2 14∼REDUP∼NMLZ 1SGS-see-SUB\SUB

ngà ò-li\LH(L)\FO2 ku=ku-id.uk.an-a\LH
SIM 2SGS-COP2\PRES\FO2 17=INF-have_diarrhea.SEP2.ASO-FV\INF
'No, let me just check you and see if you have diarrhoea.'

i. *Òmùjànjábyà, n'àira áàti: "Tìnátèréírè kàdí bútérérì."*

ò-mu-janjab-y-a\LHL ni à´-ir-a\LH(LH) à-tî
2SGS-1O-treat-CAUS1-FV\PRES NAR 1S-return-FV\PRES.SBR AGR1-QUOT
ti-n-a-ter.er-ire\LH.LHL kàdí bú´∼ter.er∼ì
NEG-1SGS-TNS-recover.APPL-PST2\P3.NEG not 14∼REDUP∼NMLZ
'You treat him and he comes back and says: "I didn't get well."'

7.3.2 The verb *kùmàlá*

The most common Lugwere verbs for starting, continuing and finishing an action are *kùtàndíká* 'to start', *kwèyóngérá* 'to continue' and *kùmàlá* or *kùmàlíríryá* 'to finish'.

While *kùmàlá* can be used as in (309), to indicate the intentional completion of a durative event, there are also cases where it is used to modify a punctual verb. In (310), for instance, it is modifying the achievement verb *kùfá* 'to die', and this is something that occurs multiple times in the corpus. Since achievement verbs are punctual, and so are finished as soon as they are done, some languages would not use their equivalent of 'to finish' in such contexts, i.e. the English 'he finished dying' or 'I finished finding it' sound odd. Since any punctual verb in a simple past tense is finished by its inherent meaning, it is worth speculating as to whether the usage of *kùmàlá* in these types of contexts have a different function, perhaps to emphasise completion, perfectivity, or a perfect sense.

(309) *ÓBàlúkà ng'àmàlíre ókusòmà nì yèèbúúlya àátí (...)* (W)

ó-Bàlúkà ngà à-mal-ire\LHL ó-ku-som-a\LH\FO2 ni
AUG-PN.F SIM 1S-finish-PST2\P2 AUG-INF-read-FV\INF\FO2 NAR
à´-e´-buul.y-a\LHL(H) à-tî
1S-REFL-ask.CAUS1-FV\PRES.SBR AGR1-QUOT
'When Baluka was done with reading she asked herself (...)'

(310) *Kùbbángà nzè mbà mmàlíre ókùfá.* (C)

kùbbángà ì´-nze ǹ-bb-a\LHL\FO2 ǹ-mal-ire\LHL ó-ku-f-a\LH
because PRO-1SG 1SGS-COP1-FV\PRES\FO2 1SGS-finish-PST2\P2 AUG-INF-die-FV\INF
'Because as for me, I would be dead already.'

(311) – (312) show a couple of additional examples of *kùmàlá* used with more or less instantaneous/punctual events, such as discovering or crashing.

(311) *Ábàbbá bàmálíre ókùvùmbúlá (...)* (C)

áà-bà´-bb-a\LH(LH) bà´-mal-ire\LHL ó-ku-vumb.ul-a\LH
SBR-2S-COP1-FV\PRES.SBR 2S-finish-PST2\P2 AUG-INF-discover.SEP1-FV\INF
'When they discover (it) (...)'

(312) a. *Áàbba ókwèbúkíryá ng'ékízíbù kìmálírè ìrá.* (C)

áà-à´-bb-a\LH(LH) ó-ku-e.buk.ir.y-a\LH ngà
SBR-1S-COP1-FV\PRES.SBR AUG-INF-REFL.remember.APPL.CAUS1-FV\INF SIM
é-ki-´zíbù kì´-mal-ire\LHL ìrâ
AUG-7-problem 7S-finish-PST2\P2 already
'By the time he/she remembers, the problem has already occurred. (lit. the problem finished already)'

b. *Kìmálíre óku- ókùtòmérá.*

kì´-mal-ire\LHL FS ó-ku-tom.er-a\LH
7S-finish-PST2\P2 FS AUG-INF-crash.APPL-FV\INF
'It has already crashed. (lit. finished crashing)'

In many of the translations in the corpus, which were done by a native speaker of Lugwere, the English does not have a verb like 'to finish', further showing that in some of these contexts there is less of an emphasis on the 'finish' aspect of this verb. See for instance (313) and (314) below. In these contexts, *kùmàlá* seems better understood as a marker of perfectivity, in (314) perhaps emphasising the exhaustiveness of the action (they will steal everything).

(313) *Àlé mùsàwo ómàlè gámùkùbbe ényúmà.* (C)

àlé mu-`sàwó o-mal-e\H.LH ga-mu-kubb-e\H.LH é-ny.úmà
INTJ 1-doctor 2SGS-finish-SUB\SUB 6S-1O-hit-SUB\SUB AUG-9.back
'Okay, Doctor, inject it at the back.'

(314) *N'ésáàwa éènu, émérè tòtééka énzà, bàbbá bàmálíre ókwìbbá.* (C)

nè é-sáàwá e-`nú é-mérè ti-o-teek-a\LH é-n.zà
CONJ AUG-time AGR9-DEM_PROX AUG-food NEG-2SGS-put-FV\PRES.NEG AUG-9.outside
bà´-bb-a\LHL bà´-mal-ire\LHL ó-ku-ibb-a\LH
2S-COP1-FV\PRES 2S-finish-PST2\P2 AUG-INF-steal-FV\INF
'But now, as to food, you don't keep it outside, because they can steal all of it.'

Additionally, *kùmàlá* is a common way to indicate temporal posterity, along the lines of the English 'after', as in (315). Here again we see an achievement verb, *kùfùná* 'to get', and *kùmàlá* is in this context used to indicate the temporal sequence.

(315) *Ómàle ókùfùna ósíràpú, wéna óyàbe ónòònye ébìsùùbbí.* (C)

o-mal-e\H.LH *ó-ku-fun-a\LH* *ó-síràpú* *o-énà* *o-ab-e\H.LH*
2SGS-finish-SUB\SUB AUG-INF-get-FV\INF AUG-sirup AGR2SG-also 2SGS-go-SUB\SUB
o-noony-e\H.LH *é-bi-ˋsùùbbí*
2SGS-look_for-SUB\SUB AUG-8-grass
'After getting syrup you also go and look for grass.'

Another sentence where the verb clearly does not indicate that the action has ended, is (316), where the context makes it clear that they still love each other, in fact the speaker goes on to detail the struggles they went through before being able to get married. Here, *kùmàlá* seems to mark that they had fully come to love each other/that the act of falling in love was completed, rather than indicating that the activity or state of loving had come to an end.

(316) *Átyànu áàwó mùnângé, éètùmála ókùtàkángáná (...)* (C)

á-tyànú *awa-ˋó* *mu-ˋnângé* *éè-tùˊ-mal-a\LHL(H)*
AUG-NOW AGR16-DEM_MED 1-dear.1SG.POSS SBR-1PLS-finish-FV\PRES.SBR
ó-ku-tak-angan-a\LH
AUG-INF-love-RECIP-FV\INF
'Now, there, my dear, after falling in love with each other (...) (lit. When finishing loving each other)'

These usages look like they could be early stages of the verb grammaticalizing into something like a marker of completion, perfect or perfective, although it is of course impossible to say whether this will develop further. I thought it worth noting, however, as this kind of grammaticalisation is common in Bantu: Cognates of this verb have grammaticalised into perfect, perfective or completive affixes in multiple languages, and this is for instance the origin of the Kiswahili Perfect *me-* (Nurse 2008:59–60, 67).

7.3.3 Perfect forms

Section 6.1.3 discussed how P2 can have some perfect usages, and this section looks at another couple of forms/constructions with perfect usages.

Table 7.7: The verb *kùlòndá* 'to pick' in the Experiential aspect with AGR 1 and AGR 2 subjects

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
Experiential 1	àlòndàngàkú bàlóndàngàkú	àlòndàngàkù bàlóndàngàkù	tàlóndángákù tìbàlóndángákù	... ...
Experiential 2	yàlòndèrékù	...	tíyàlóndérékù	...

7.3.3.1 Experiential aspect

The Experiential aspect is used to indicate that an event has taken place at some point in the past. That is, there exists at least one past instance of the event. There are a few different forms that are used. It can be expressed by a Present tense verb with the Habitual suffix and the *-ku* locative enclitic (henceforth termed Experiential 1), or by adding *-ku* to a P5 verb, either a simple P5 form (as illustrated in Table (7.7) and in (318)), or a P5 Habitual verb, as in (320) (what will be called Experiential 2).

As will be outlined in Chapter 10, Present tense verbs that have a locative suffix use Form 2, and that is why in a verb with a low-toned subject prefix, all syllables but the final locative suffix are low, as in *àlòndàngàkú* 's/he has selected before'.

(317) – (320) show examples of the two Experiential constructions. The Experiential can be used either in questions or statements, and was typically translated with 'ever'.[4]

(317) *Âméítè, yègére ókùtùngá, àwèrèryàngàku éènu éngwéyè.* (C) (Experiential 1)

à-many.IRR\LHL à-eg-ire\LHL ó-ku-tung-a\LH
1S-know.IRR\PRES 1S-learn-PST2\P2 AUG-INF-SEW-FV\INF
a-w.erery-a-nga\LHL\FO2=ku e-`nú é-n-`gwéyè
1S-give.DUR1-FV-HAB\PRES\FO2=17 AGR23-DEM_PROX AUG-10-clothing
'She knows, she has learnt to sew, she has sent clothes here before.'

(318) a. *A: Òméíte ómàgérà?* (C)

ò-many.IRR\LHL ó-màgérà
2SGS-know.IRR\PRES AUG-cowpea_stew
'Do you know cowpea stew?'

[4]'Ever' was used by the speakers in translations of statements as well as questions, something which seems to be grammatical in Ugandan English.

b. *B: Hmm… nàmùlìrékù.* (Experiential 2)

n-a-mu-ly-ire\LH=ku
1SGS-TNS-1O-eat-PST2\P5=17
'Hmm… I have eaten it before.'

(319) *Ìnywè mùbónàngàku ónyónyi álìmu ámáínò?* (C) (Experiential 1)

ì-ˊnywe\FL mùˊ-bon-a-nga\LHL\FO2=ku ó-ny.ˋónyí á-a-li\LH=mu
PRO-2PL\FL 2PLS-see-FV-HAB\PRES\FO2=17 AUG-9.bird REL-1S-COP2\PRES.SBR=18
á-ma-ˋìnó
AUG-6-tooth
'As for you, have you ever seen a bird with teeth?'

(320) *Tínàmùbóínékù, nè nàmùwùlìràngákù ngà bámùtùmùlàkú.* (C) (Experiential 2)

ti-n-a-mu-bon-ire-ku\H.LHL nè n-a-mu-wul.ir-a-nga\LH=ku
NEG-1SGS-TNS-1O-see-PST2=17\P5.NEG CONJ 1SGS-TNS-1O-hear.APPL-FV-HAB\P5=17
ngà bàˊ-mu-tum.ul-a\LHL\FO2=ku
SIM 2S-1O-speak.SEP1-FV\PRES\FO2=17
'I've never seen him but I have heard people talking about him.'

In the negative, these constructions are used to indicate the idea of 'have never', as in (321), and it can also be used to express ideas like 'the most Adj I have ever V-ed', as in (322).

(321) *Tìnnímbángákù ng'énàfúmbírwè.* (C) (Experiential 1)

ti-n-limb-a-nga\LH=ku ngà
NEG-1SGS-lie-FV-HAB\PRES.NEG=17 SIM
éè-n-a-fumb.ir.w-ire\HL.HL
SBR-1SGS-TNS-get_married.APPL.PASS1-PST2\P5.SBR
'I have never lied, ever since I got married.'

(322) *Níìlwó ólwèmbo ólwàli ólúsá ínò ngà tìmpúlísísyángákù.* (Experiential 1)

ní-ìˊ-lwo ó-lu-èmbó ó-lu-a-li\L.LH ó-lu-ˊsà ìnó ngà
COP3-PRO-AGR11 AUG-11-song REL-11S-TNS-COP2\P5 AUG-AGR11-good very SIM
ti-n-wul.isisy-a-nga\LH=ku
NEG-1SGS-listen.CAUS3-FV-HAB\PRES.NEG=17
'It was the most beautiful song I had ever heard.'

Note that the combination of the Habitual marker and *-ku* does not always constitute the Experiential aspect. Sometimes it is just the combination of the Habitual

marker and the locative suffix, both having the functions that they have in other contexts, independent of each other. An example from the corpus is given in (323), where the translation and context suggest that the eating is habitual, and the locative marker is likely indicating the same as the following locative noun phrase, *ókú nzírà* 'on the road'.

(323) *Ónte òyò n'àlyângàku ókú nzírà.* (C)

*ó-n.ˊtè o-ˋó*FL* *ni à*ˊ*-ly-a-nga\LHLH*FO2*=*ku* *ó-ku*=*n.*ˊ*zírà*
AUG-9.cattle AGR1-DEM_MED\FL NAR 1S-eat-FV-HAB\PRES.SBR.UC\FO2=17 AUG-17=9.road
'That cattle would feed along the way.'

7.3.3.2 Kùzwá: perfect/recent past

As a lexical verb *kùzwá* means 'to quit, exit, leave; come from or out of.' It can be used to refer to leaving a building or a place, as in (324), or in a more general sense of 'coming from', as in (325). As a coverb, *kùzwá* is often used with a similar meaning to English 'from'. As an extension of the idea of coming from a location or another nominal object, *kùzwá* can also be used with a verb, as in (326), where the verb might be associated with a location, e.g. studying at school, or taking animals to graze at a location away from the home.

(324) *Élwàgwíre ómú nzírà, óMéèrè yààli àzwa ómú nyùmba ààba ómú tóòyí.* (C)

éè-lu-a-gw-ire\HL.HL *ó-mu*=*n.*ˊ*zírà* *ó-Méèré\FL* *a-a-li\L.LH*
SBR-11S-TNS-fall-PST2\P5.SBR AUG-18=9.road AUG-PN.F\FL 1S-TNS-COP2\P5
à-zw-a\LHL *ó-mu*=*ny.*ˋ*ùmbá à-ab-a\LHL* *ó-mu*=*tóòyí*
1S-leave-FV\PRES AUG-18=9.house 1S-go-FV\PRES AUG-18=toilet
'When it fell down, Mary was coming out of the house, going to the toilet.'

(325) *Kéísi tùzwa ókú kànísà, kéísi twìra éíkà.* (C)

*kéísì tù*ˊ*-zw-a\LHL* *ó-ku*=*kànísà* *kéísì tu-ir-a\LHL* *é-ì-*ˋ*ká*
then 1PLS-leave-fv\pres AUG-17=church then 1PLS-return-FV\LHL AUG-5-home
'Then from church we came back home.'

(326) *Lúmò nààlì nzwa ókùlìsyá, ónkéndì yàtòònyèré.* (C)

*lu-*ˊ*mò* *n-a-li\L.LH\FO2* *ǹ-zw-a\LHL* *ó-ku-ly.isy-a\LH*
AGR11-one 1SGS-TNS-COP2\P5\FO2 1SGS-leave-FV\PRES AUG-INF-graze.CAUS2-FV\INF
ó-n.kéndì a-a-toony-ire\LH
AUG-9.rain 1S-TNS-rain-PST2\P5
'One day I returned from grazing, it had rained.'

There is a further usage, however, where *kùzwá* seems to have become grammaticalised into something more like an aspectual/tense auxiliary verb. See for instance (327), which does not refer to physical movement from a location. In this case, the movement seems to be interpreted as temporal, the speaker is referring to something that was recently said by the child. In this usage, the important factor appears to be the recent nature of the action. (328) is another example where only a temporal interpretation is possible.

(327) *Aah! Nátàndìkìrà, kùmwàna óònu, ékígámbò ékyàzwa ókùtùmúlá.* (C)

*n-a-tand.ik-ir-a\H.LH*FO2 *ku-mu-àná o-`nú* *é-ki-´gámbò*
1SGS-TNS-start.IMP-APPL-FV\F1\FO2 17=1-child AGR1-DEM_PROX AUG-7-word
é-ki-a-zw-a\LHL *ó-ku-tum.ul-a\LH*
REL-7O.REL-1S-leave-FV\PRES AUG-INF-speak.SEP1-FV\INF
'Ah! I will start from this child, the word that she has spoken.'

(328) *Àzwà kùfá.*

*à-zw-a\LHL*FO2 *ku-f-a\LH*
1S-leave-FV\PRES\FO2 INF-die-FV\INF
'He has just died now.'

Example (329) below is from a retelling of Goldilocks and the three bears, and *kùzwá* is repeatedly used to indicate that 'someone has eaten my porridge/sat on my chair/slept in my bed'. In this case the idea of a recent past action is still present, along with present consequences.

(329) *Wálìwo ómúntù ázwà kùnywángá óbúùjí bwàngé.* (C)

wà´-li\LH(L)=wo *ó-mu-´ntù* *á-a-zw-a\LHL*FO2 *ku-nyw-a-nga\LH*
16S-COP2\PRES=16 AUG-1-person REL-1S-leave-FV\PRES\FO2 INF-drink-FV-HAB\INF
ó-bu-´`jí *bu-àngé*
AUG-14-porridge AGR14-1SG.POSS
'There is someone who has eaten my porridge.'

Perhaps the best illustration for how *kùzwá* is not a lexical verb in these types of cases, was shown in (308g) above, where grammaticalised *kùzwá* functions as an auxiliary for lexical *kùzwá*.

The *kùzwá* construction appears to have a completion implicature, so that without a context, a sentence like (330) is understood as the TV being fully fixed.

(330) *Ǹzwà kùtèrééza étîìví.*

ǹ-zw-a\LHL\FO2 ku-tereez-a\LH é-tîìví
1SGS-leave-FV\PRES\FO2 INF-fix-FV\INF AUG-TV
'I have just fixed the TV.'

This is just an implication, however, and not an entailment, when dealing with an accomplishement predicate, as show by the acceptability of the sentence in (331). For an achievement predicate like *kùfá* 'to die', however, there is a completion entailment, and (332) is impossible.

(331) a. *Àzwà kùtèrééza étîìví, nàyé tàmálìre ógìtéréézá.*

à-zw-a\LHL\FO2 ku-tereez-a\LH é-tîìví nàyê ti-a-mal-ire\H.LHL
1S-leave-FV\PRES\FO2 INF-fix-FV\INF AUG-TV but NEG-1S-finish-PST2\P2.NEG
ó-ku-gi-tereez-a\LH
AUG-INF-9O-fix-FV\INF
'He was just fixing the TV, but he did not fix it.'

b. *Àzwà kùsòmà kítábò, nàyé tàmálìre ókùkìsòmá.*

à-zw-a\LHL\FO2 ku-som-a\LH\FO2 ki-ˊtábò nàyê ti-a-mal-ire\LHLH
1S-leave-FV\PRES\FO2 INF-read-FV\INF\FO2 7-book but NEG-1S-finish-PST2\P2.NEG
ó-ku-ki-som-a\LH
AUG-INF-7O-read-FV\INF
'He was just reading a book, but he did not finish reading it.'

(332) * *Àzwà kùfá, nàyé tàfíìré.*

à-zw-a\LHL\FO2 ku-f-a\LH nàyê ti-a-f-ire\LHLH
1S-leave-FV\PRES\FO2 INF-die-FV\INF but NEG-1S-die-PST2\P2.NEG
Illogical: 'He has just died, but didn't die.'

On the other hand, there appears to be a termination entailment, as a speaker found sentences like (333) questionable. A termination entailment would make sense when considering the origin of this construction, i.e. the lexical verb *kùzwá* 'to exit', a meaning which seems to go with the idea of having left an activity/no longer being in the space of the activity.

(333) a. ? *Àzwà kùlyá, èra á↓káàli àlyâ.*

à-zw-a\LHL\FO2 ku-ly-a\LH èrâ a-kaa-li\LHLH à-ly-a\LHL
1S-leave-FV\PRES\FO2 INF-eat-FV\INF CONJ 1S-PRS-COP2\PRS 1S-eat-FV\PRES
Questionable: 'S/he was just eating, and s/he is still eating.'

Table 7.8: The Persistive copula

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
1st SG	ǹkáàlí	ǹkáàlì	tìnkáàlí	tìnkáàlí
1st PL	tùkáàlí	tùkáàlì	tìtùkáàlí	tìtùkáàlí
2nd SG	òkáàlí	òkáàlì	tókáàlí	tòkáàlí
2nd PL	mùkáàlí	mùkáàlì	tìmùkáàlí	tìmùkáàlí
AGR 1	àkáàlí	àkáàlì	tàkáàlí	tàkáàlí
AGR 2	bàkáàlí	bàkáàlì	tìbàkáàlí	tìbàkáàlí

b. ? *Àzwà kùsòmá, èra á↓káàli àsómà.*

à-zw-a\LHL\FO2 ku-som-a\LH èrâ a-kaa-li\LHLH à-som-a\LHL
1S-leave-FV\PRES\FO2 INF-read-FV\INF CONJ 1S-PRS-COP2\PRS 1S-read-FV\PRES
Questionable: 'S/he was just reading, and s/he is still reading.'

7.4 The Persistive

The Persistive can be used to express the concepts of 'still', 'no longer', and 'not yet'. This is done by using an auxiliary consisting of the *-li* copula and the Persistive prefix *kaa-* in TA. Only the *-li* copula can be conjugated in the Persistive, and only in the Present tense. All other verbs and tenses require an auxiliary.

The Persistive copula has a LHLH melody both in the affirmative and the negative, with a fall on the long vowel of the Persistive morpheme. The final high is lowered in Form 2 contexts for the affirmative, but not the negative. Table 7.8 shows the Persistive forms of the copula for 1st and 2nd person and Agreement Classes 1 and 2.

Still To express the idea of an action that took place in the past and has continued until the present, the Persistive copula is combined with a Present tense verb, as in (334) – (338).

(334) a. *Ǹkáàlì nsúmbà.*

n-kaa-li\LHLH\FO2 ǹ-sumb-a\LHL
1SGS-PRS-COP2\PRS\FO2 1SGS-cook-FV\PRES
'I am still cooking.'

b. *Ǹkáàlì ndì kùsùmbá.*

n-kaa-li\LHLH\FO2 ǹ-li\LH(L)\FO2 ku-sumb-a\LH
1SGS-PRS-COP2\PRS\FO2 1SGS-COP2\PRES\FO2 INF-cook-FV\INF

'I am still cooking.'

(335) Idiom

Ákáàli ákúlà tàbála ágèètííkà. (W)

á-a-kaa-li\LHLH á-a-kul-a\LHL FS *ti-a-bal-a\LH*
REL-1S-PRS-COP2\PRS rel-1S-grow-FV\PRES FS NEG-1S-count-FV\PRES.NEG
á-gi-à´-e´.tíik-a\LHL
REL-10O.REL-1S-REFL.carry-FV\PRES
'The one who is still growing, what he carries doesn't count.'

(336) shows that with an adjective, the Persisitive also has the 'still' reading.

(336) *Ókùfùna ékídà, tìkíntù kìsá ngà òkáàlì mùtómùtó.* (C)

ó-ku-fun-a\LH é-ki-´dà ti-ki-´ntù ki-`sá ngà o-kaa-li\LHLH\FO2
AUG-INF-get-FV\INF AUG-7-stomach NEG-7-thing AGR7-good SIM 2SGS-PRS-COP2\PRS\FO2
mu∼`tó∼mu-`tó
AGR1∼REDUP∼AGR1-small
'Getting pregnant isn't a good thing when you are still young.'

With some verbs, like *kùgòná* 'to sleep', this sense can also be expressed by combining the Persistive auxiliary with a P2 verb, as illustrated by (337) and (338).

(337) *Àkáàli àgònérè.*

a-kaa-li\LHLH à-gon-ire\LHL
1S-PRS-COP2\PRS 1S-sleep-PST2\P2
'S/he is still sleeping.'

(338) a. *Néngà, ébbàlúwà yàngé, ngà ǹkáàlì nkòlérè níkì?* (C)

nè ngà é-`bbàlúwà e-àngé ngà n-kaa-li\LHLH\FO2 ǹ-kol-ire\LHL
CONJ SIM AUG-letter AGR9-1SG.POSS SIM 1SGS-PRS-COP2\PRS\FO2 1SGS-do-PST2\P2
níkì
what
'But, my certificate, I was still doing what?'

b. *Ǹkáàlì mbìsírè.* (C)

n-kaa-li\LHLH\FO2 ǹ-bis-ire\LHL
1SGS-PRS-COP2\PRS\FO2 1SGS-hide-PST2\P2
'I was still hiding.'

No longer To express the idea that an action took place in the past, but is not taking place in the present, a negative Persistive copula is combined with a Present tense verb. Some examples are given in (339) – (341).

(339) *Tìnkáàlí ndya ékyénynzá.*

ti-n-kaa-li\LHLH *ǹ-ly-a\LHL* *é-ki-énynzá*
NEG-1SGS-PRS-COP2\PRS 1SGS-eat-FV\PRES AUG-7-fish
'I no longer eat fish.'

(340) *Tìnkáàlí mbà nàyé, ákòle ébìndí.* (C)

ti-n-kaa-li\LHLH *ǹ-bb-a\LHL\FO2* *nà´-ye* *a-kol-e\H.LH* *é-bi-`ndí*
NEG-1SGS-PRS-COP2\PRS 1SGS-COP1-FV\PRES\FO2 CONJ-AGR1 1S-do-SUB\SUB AUG-8-other
'I am no longer with him, let him do other things.'

(341) *Ókùzwa átyànù tìnkáàlí nkìkólà.* (C)

ó-ku-zw-a\LH *á-tyànú\FL* *ti-n-kaa-li\LHLH* *ǹ-ki-kol-a\LHL*
AUG-INF-leave-FV\INF AUG-NOW\FL NEG-1SGS-PRS-COP2\PRS 1SGS-7O-do-FV\PRES
'From now, I will never do it.'

Not yet To express the idea that an action did not take place in the past, and is not taking place at the present, the Persistive copula is combined with a verb in the Infinitive, as in (342) – (344). If the Persistive copula is used by itself, for instance as a response to a question, it will generally be interpreted with this sense as well, as in (343).

(342) *Ǹkáàli ókùsùmbá.*

n-kaa-li\LHLH *ó-ku-sumb-a\LH*
1SGS-PRS-COP2\PRS AUG-INF-cook-FV\INF
'I have not yet cooked.'

(343) a. *A: Àsùmbíre ékyáígúlò?*

à-sumb-ire\LHL *é-ki-áígúlò*
1S-cook-PST2\P2 AUG-7-dinner
'A: Did s/he cook dinner?'

b. *B: Àkáàlí.*

a-kaa-li\LHLH
1S-PRS-COP2\PRS
'B: Not yet.'

(344) *Òkáàli ókutwàláyo éntè.* (C)

o-kaa-li\LHLH ó-ku-tw.al-a\LH=yo é-n.´tè
2SGS-PRS-COP2\PRS AUG-INF-take.EXT-FV\INF=23 AUG-10.COW
'You haven't yet taken the cows there.'

Before When used in a subordinate clause, the construction with a Persistive copula and an Infinitive is also the most common way to express the idea of 'before' (in the temporal sense), as in (345) and (346).

(345) *Ǹgà tùkáàli ókumàláku ómwàkà nààlì mméíte ó'mobile money èèyó twákìkòlá.* (C)

ngà tu-kaa-li\LHLH ó-ku-mal-a\LH=ku ó-mu-àká n-a-li\L.LH\FO2
SIM 1PLS-PRS-COP2\PRS AUG-INF-finish-FV\INF=17 AUG-3-year 1SGS-TNS-COP2\P5\FO2
ǹ-many.IRR\LHL ó-mobile_money e-`ó tu-a-ki-kol-a\H.LH
1SGS-know.IRR\PRES AUG-mobile_money AGR9-DEM_MED 1PLS-TNS-7O-do-FV\F1
'Before the end of last year I knew that we will do the mobile money. (lit. when we had not yet finished the year)'

(346) *ÓLààkí, àyínza ókùbbà yàsùnìre óSíríímù kùzwà kú mááyè ngà bàkáàli kùbyàlá.* (W)

ó-Lààkí à-inz-a\LHL ó-ku-bb-a\LH\FO2 a-a-sun-ire\L.LH
AUG-PN.M 1S-might-FV\PRES AUG-INF-COP1-FV\INF\FO2 1S-TNS-get-PST2\P5
ó-Síríímù ku-zw-a\LH\FO2 ku=máá=y-e ngà ba-kaa-li\LHLH
AUG-HIV/AIDS INF-leave-FV\INF\FO2 17=mother=AGR9-1POSS SIM 2S-PRS-COP2\PRS
ku-by.al-a\LH
INF-give_birth.EXT-FV\INF
'Laaki could have been infected with AIDS from his mother before he was born. (lit. when they had not yet given birth (to him))'

Other tenses The *-li* copula can only carry the Persistive prefix in the Present tense, but it is possible to use the Persistive in other tenses, by using auxiliaries, as illustrated in (347) for the future and (348) for the past, where a past copula, a Persistive copula, a Present tense copula and an Infinitive form a past Persistive Progressive. This illustrates the great flexibility that exists when it comes to using a variety of auxiliaries to create combinations of tense and aspect.

(347) *Éèwáíza ókú sáàwá ìbìrì nábbà nkáàlì nsúmbà, wáízákù lùwányúmà, kálè.*

éè-o-iz-a\HL(H) *ó-ku=sáàwá* *ì-bírí\FL* *n-a-bb-a\HL(H)*
SBR-2SGS-TNS-come-FV\F1 AUG-17=hour AGR9-two\FL 1SGS-TNS-COP1-FV\F1
n-kaa-li\LHLH\FO2 *ǹ-sumb-a\LHL* *o-a-iz-a\H(L)H=ku* *lù-wányúmà*
1SGS-PRS-COP2\PRS\FO2 1SGS-cook-FV\PRES 2SGS-TNS-come-FV\F1=17 11-later
kálè
INTJ
'If you come at 8 o'clock, I will still be cooking, come a little later, please.'

(348) *Éízò kú sáàwà ìbírí, Ójéèn éyáírírè, Ánì yábbáíre àkáàli ààlì kùkòlá.*

é-ìzó *ku=sáàwá* *ì-bírí* *ó-ǰéèní* *é-a-a-ir-ire\H(L)HL* *Ánì*
AUG-yesterday 17=hour AGR9-two AUG-PN.F SBR-1S-TNS-return-PST2\P3 PN.F
a-a-bb-ire\H(L)HL *a-kaa-li\LHLH* *à-li\LH(L)\FO2* *ku-kol-a\LH*
1S-TNS-COP1-PST2\P3 1S-PRS-COP2\PRS 1S-COP2\PRES\FO2 INF-do-FV\INF
'Yesterday at 8 o'clock, when Jenny came back, Ann was still working.'

7.5 Aspect summary

Table 7.9 gives an overview of the different aspectual verb forms and constructions discussed in this chapter.

Table 7.9: An overview of the different aspectual forms discussed in this chapter

	Label	Segmental	Tonal
Imperfective	Habitual	verb + *-nga*	*-nga* takes on tone of final syllable tone of now antepenultimate spreads to now penultimate
	Reduplication 1: Iterative	Pre-SM + SM + TA + OM + stem + stem + post-FV	The melody stretches to include the extra syllables (with exceptions)
	Progressive	*li* copula + Infintive	
		bba copula + Present tense *li* copula + infintive	Auxiliaries are in Form 2
	Imperfective	*li* or *bba* coplua + Present tense verb	Auxiliaries are in Form 2
	Extensive	*-yag* in EXT, regular past stem	Regular
		-iriry in EXT, imbricated past stem	Regular
Perfect			
	Experiential 1	present tense verb + *-nga* + *=ku*	Present tense verb + Habitual marker are in Form 2, *-ku* is high
	Experiental 2	P5 + *=ku*	*=ku* is low
	Perfect?	*kùzwá* (inflected) + infintive	
Other			
	Reduplication 2: Trifling	verb + *bu-* + root + EXT + *-i*	The first verb uses Form 2. The reduplicated part has a HL melody.
	?	*kùmàlá*	
Persistive			
	'Still'	SM + *-ˈkáàlí* + Present tense verb	*-ˈkáàlí* uses Form 2
		SM + *-ˈkáàlí* + some stative verbs in P2	
	'No longer'	*ti-* + SM + *-ˈkáàlí* + Present tense verb	negative *-ˈkáàlí* does not use Form 2
	'Not yet'	SM + *-ˈkáàlí* (+ Infinitive)	*-ˈkáàlí* uses Form 2 if followed by Infinitve

7.6 Aktionsart

This section will examine how the tenses discussed in Chapter 6 and the aspectual categories discussed in this chapter interact with verbs and predicates belonging to different aktionsarten to form different meanings. The focus will be to see how different verbs are interpreted in the simple Present tense, the Progressive, the Imperfective and in the simple past (P2, P3 and P5 were primarily used to investigate this). For some verbs, the adjectival form and the Habitual will also be discussed. These forms go a long way in highlighting the main differences in interpretation between verbs of different aktionsarten, but it might in the future be desirable to expand upon this to look at also future forms, and to investigate further the differences between the different past tenses (specifically to what extent P2 differs from the other simple past tense forms)

The methodology used was the one laid out in Section 1.4, where a speaker was presented with a story in English, and at certain points in the story they were given sentences in Lugwere, and asked if these were good/correct at that point in the story. Most of the stories were investigated with two speakers, and there were at times discrepancies in their answers, which will be noted at some points below. The examples will include the immediate context to the sentences in question, but if more context is desired, the stories used can be found here. Some of the examples are also from Dahl's (1985) survey. Other examples come from asking for judgement on sentences out of context.

While this can hopefully be a good overview of some of the more basic facts of Lugwere aktionsarten, this is in no way a complete and exhaustive study of the topic. It should be noted that this investigation is somewhat preliminary, and that some assumptions of aktionsart based on translation was the starting point for which verbs were tested. Where the verbs behaved in the same way, like what was the case for achievements, for instance, it is probably justified to treat all these verbs as belonging to one class, and it is in fact possible to say some interesting things about this class as a whole. In other cases, such as with stative verbs where there were more differences, it might be beneficial to go back and conduct further research based on what was found here, to perhaps see if the verbs investigated here could be divided into different subclasses, and the test used here could be refined and expanded upon.

7.6.1 Tests for aktionsart

Many of the tests commonly listed in the literature have not worked for Lugwere. One test that is often proposed for achievements is to see whether or not the verbs can be used in a progressive construction. As achievements are considered punctual and non-durative, they should logically be incompatible with a durative aspect like the progressive (Vendler 1967). However, in Lugwere, and many other languages (see Bar-el 2015), at least some achievement verbs can be used in the progressive. In this case they are understood as referring to the process immediately leading up to the achievement itself. This test can therefore be modified somewhat, to looking at how the verb is interpreted in the progressive, and section 7.6.2 below shows some examples of this.

In some languages (notably English) the progressive construction is often incompatible with stative verbs, and so can function as a test to distinguish between two different kinds of durative predicates; activities and states. Some Lugwere state verbs resist being used in the progressive (for instance *kùmànyá* 'to know'), while others were accepted as possible in the progressive (for instance *kùtàká* 'to want'), meaning that this is also not a good test to distinguish dynamic from static durative predicates.

A test that is commonly proposed to distinguish telic and atelic predicates, is that of whether a predicate is compatible with 'in an hour' or 'for an hour'. Unfortunately this does not really translate into Lugwere. There are two different ways to express a time interval, i.e. *ómúsáàwà námbà* '(in) an hour' or *sáàwà námbà* 'an hour', and the first seems more likely to be translated as 'in an hour'. There is overlap in the usage of these, however, and they do not correspond exclusively with telic or atelic predicates. (349) shows how both can be used with a telic predicate, and (350) shows both forms with an atelic predicate.

(349) Context: Peter reads very quickly. This morning, he read a whole book in one hour.

a. *Àsòmére ékítábo ésáàwà námbà.*

à-som-ire\LHL é-ki-ˊtábò é-sáàwá\FL námbà
1S-read-PST2\P2 AUG-7-book AUG-hour\FL one
'He read the book in one hour/for an hour.'

b. *Àsòmére ékitáàbo ómú sáàwà námbà.*

à-som-ire\LHL é-ki-´tábò ó-mu=sáàwá\FL námbà
1S-read-PST2\P2 AUG-7-book AUG-18=hour\FL one
'He read the book in one hour/for an hour.'

(350) a. *Àtàmbwírèmú ómú sáàwà námbà.*

à-tamb.ul-ire\LHL=mu ó-mu=sáàwá\FL námbà
1S-walk.SEP1-PST2\P2=18 AUG-18=hour\FL one
'He has walked/walked for one hour.'

b. *Àtàmbwírèmu ésáàwà námbà.*

à-tamb.ul-ire\LHL=mu é-sáàwá\FL námbà
1S-walk.SEP1-PST2\P2=18 AUG-hour\FL one
'He has walked/walked for one hour.'

Similarly, the stop/finish test, which is also meant to distinguish telic from atelic predicates, has not yielded very clear results for Lugwere. (351), for instance, shows that 'finish' can be used with atelic predicates like 'eat'. What has turned out to be more useful, is to test the entailments of past forms. For a telic verb, a past Imperfective does not entail a simple past form, just as 'he was dying' does not entail 'he died'. For an atelic verb, however, a past Imperfective form entails the simple past, meaning that a sentence corresponding to English 'he was singing but he did not sing' is considered wrong (see the following sections for concrete examples).

(351) *Àmàlíre ókùlyá.*

à-mal-ire\LHL ó-ku-ly-a\LH
1S-finish-PST2\P2 AUG-INF-eat-FV\INF
'She finished eating.'

An issue that complicates the differentiation of activities from accomplishment, is that the function of the augment, and how it interacts with definiteness, is not fully understood. The usage of the augment is a topic that this thesis has not had the time to fully investigate, as it is a complicated matter that seems to depend on various factors, both syntactic and pragmatic. As the choice of object is often important in turning a verb from an activity predicate into an accomplishment verb, and as definiteness is something that plays an important role here in many languages, once the augment

is better understood, it should hopefully be possible to also get a better picture of the difference between activities and accomplishments, and how a predicate can be changed from one to the other.

7.6.2 Achievements

Lugwere achievement verbs appear to be of the transitional type (Botne 2003, see also Section 2.4.1.4), meaning that in addition to referring to the nucleus, i.e. the punctual moment of the achievement itself, they can also be used to refer to the process leading up to or immediately preceding the achievement, which he terms *the onset*, as well as the resultative state of the achievement, called *the coda*.

In a simple past tense form, the achievement verbs refer to the punctual achievement itself, as in (352) and (353), where the context indicates that the achievement was indeed completed, so a simple past is needed. An Imperfective is infelicitous in these contexts, and out of context these seem to have a non-completion implicature.

(352) Context: However, a few years later, she got sick again, and she died.

a. *Yàfìiré.* (P5)

a-a-f-ire\LH
1S-TNS-die-PST2\P5
'She died.'

b. # *Yàbbàire àfâ.* (P5 Imperfective)

a-a-bb-ire\L.LH *à-f-a\LHL*
1S-TNS-COP1-PST2\P5 1S-die-FV\PRES
Infelicitous: 'She was dying.'

(353) Context: "You found it in the garden?" John asked. "Yes, I found it in the garden", his grandfather replied.

a. *Nákìzwíire ómú ndímírò.* (P3)

n-a-ki-zul-ire\H.LHL *ó-mu=n.dímírò*
1SGS-TNS-7O-find-PST2\P2 AUG-18=9.garden
'I found it in the garden.'

b. # *Nábbáirè nkìzúla ómú dímírò.* (P3 Imperfective)

n-a-bb-ire\H(L)HL ǹ-ki-zul-a\LHL ó-mu=n.dímírò
1SGS-TNS-COP1-PST2\P3 1SGS-7O-find-FV\PRES AUG-18=9.garden
Infelicitous: 'I was about to find it in the garden. (lit. I was finding it)'

An achievement verb in a simple past tense entails that the achievement was completed. (354) shows that this is indeed an entailment, rather than a cancellable implicature, as once someone has died, it is not possible to still be dying. Similarly, in the context of a game of hide and seek as in (355), if someone has been found, the seeker cannot still be about to find them.

(354) Context: Yesterday, I went to visit my sick grandfather. He was dying. Today I went back to see him, and he is still dying.

a. ** Éízò yáfíírè, èra á↓káàli àfâ.* (P3)

é-ìzó a-a-f-ire\H(L)HL èrâ a-kaa-li\LHLH à-f-a\LHL
yesterday 1S-TNS-die-PST2\P3 CONJ 1S-PRS-COP2\PRS 1S-die-FV\PRES
Illogical: 'Yesterday he died, and he is still dying.'

b. *Éízò yábbáíre àfâ, èra á↓káàli àfâ.* (P3 Imperfective)

é-ìzó a-a-bb-ire\H(L)HL à-f-a\LHL èrâ a-kaa-li\LHLH
AUG-yesterday 1S-TNS-COP1-PST2\P3 S1-die-FV\PRES CONJ 1S-PRS-COP2\PRS
à-f-a\LHL
1S-die-FV\PRES
'Yesterday he was dying, and he is still dying'

(355) Context: My children are playing hide and seek. I have been watching as they have been playing, so I know where they are hidden. Paul, who is the one searching for the others, has counted. Jenny is hidden under the sofa. I saw Paul looking around that area, and was sure that he was about to find Jenny. Then I went to the kitchen to prepare tea. When I got back five minutes later, Paul was still looking around the sofa, and I was sure he would find Jenny any second.

a. ** Édákíkà ìtáánu égìbítíré, Páúl àzwíre óǰéèní, èra á↓káàli àmùzúlà.* (P2)

é-dákíkà ì-táánú é-gi-bit-ire\LH Páúl à-zul-ire\LHL ó-ǰéèní,
AUG-minute AGR10-five AUG-10S-pass-PST2\P2.SBR PN.M 1S-find-PST2\P2 AUG-PN.F
èrâ a-kaa-li\LHLH à-mu-zul-a\LHL
CONJ 1S-PRS-COP2\PRS 1S-1O-find-FV\PRES
Illogical: 'Five minutes ago, Paul found Jenny, and he is still about to find

her. (lit. he still finds her)'

b. *Édákíkà ìtàànu égìbítíré, Páúl àbbáíre àzúla ójéèní, èra á↓káàli àmùzúlà.* (P2 Imperfective)

é-dákíkà ì-táánú é-gi-bit-ire\LH Páúl à-bb-ire\LHL
AUG-minute AGR10-five AUG-10S-pass-PST2\P2.SBR PN.M 1S-COP1-PST2\P2
à-zul-a\LHL ó-J̌éèní, èrâ a-kaa-li\LHLH à-mu-zul-a\LHL
1S-find-FV\PRES AUG-PN.F CONJ 1S-PRS-COP2\PRS 1S-1O-find-FV\PRES
'Five minutes ago, Paul was about to find Jenny and he is still about to find her. (lit. Paul was finding Jenny and he still finds her)'

An achievement predicate in the simple Present or the Present Progressive, can be interpreted as describing the process leading up to the achievement, or the moments immediately preceding it. Like in English, *kùfá* 'to die' in the Progressive can mean 'is dying'. In English, this interpretation is limited to only some achievement verbs (i.e. 'he is finding the key' cannot be used to describe the moments immediately before he finds the key), while in Lugwere speakers have accepted such an interpretation of all the achievement verbs tested, including *kùfá* 'to die', *kùtùùká* 'to arrive', *kùgwá* 'to fall',[5] *kwìvùmbúlá* 'to discover', *kùzùlá* 'to find', *kwàjá* 'to find', *kùwàngúlá* 'to win', *kùwàngúlwá* 'to lose', and *kùlàmyá* 'to cure'. (356) shows an example of how *kùfá* can be used in the Present Progressive or the simple Present tense in a context where someone is very sick, and (357) shows how *kùtùùká* 'to arrive' can be used in the Present Progressive or simple Present tense in a context where someone is about to arrive. In these contexts a simple past tense form is infelicitous.

(356) Context: John's grandfather is very sick, and is likely to die soon.

a. *Ààlì kùfá.* (Present Progressive)

à-li\LH(L)\FO2 ku-f-a\LH
1S-COP2\PRES\FO2 INF-die-FV\INF
'He is dying.'

[5]Interestingly, *kùgwá* 'to fall' behaves like an achievement verb and the P2 form *kìgwírè* 'it fell' is only accepted once it (a cup in the relevant test story) has hit the ground. If it falls off the counter and someone catches it before it hits the ground, *kìgwírè* was rejected (although a past Imperfective was accepted). *kùgwá* therefore appears to refer to the punctual moment of hitting the floor.

b. *Àfâ.* (Present)

à-f-a\LHL
1S-die-FV\PRES
'He is dying.'

c. # *Àfíírè.* (P2)

à-f-ire\LHL
1S-die-PST2\P2
Infelicitous: 'He died.'

(357) Context: John often goes to visit his grandfather. Right before he arrives, he turns off his phone, so that he can spend time with his grandfather without getting interrupted.

a. *Áàbbá ng'ààlì kùtùùká, àtòòlàku éísímù lyê.* (Present Progressive)

áà-à´-bb-a\LH(LH) *ngà à-li\LH(L)\FO2 ku-tuuk-a\LH*
SBR-1S-COP1-FV\PRES.SBR SIM 1S-COP2\PRES INF-arrive-FV\INF
à-tool-a\LHL\FO2=ku *é-ì-´símù=ly-e*
1S-turn_off-FV\PRES\FO2=17 AUG-5-phone=AGR5-1POSS
'When he is about to arrive, he turns off his phone.'

b. *Áàbbá ngà àtúúkà, àtòòlàku éísímù lyê.* (Present)

áà-à´-bb-a\LH(LH) *ngà à-tuuk-a\LHL* *à-tool-a\LHL\FO2=ku*
SBR-1S-COP1-FV\PRES.SBR SIM 1S-arrive-FV\PRES 1S-turn_off-FV\PRES\FO2=17
é-ì-´símù=ly-e
AUG-5-phone=AGR5-1POSS
'When he is about to arrive, he turns off his phone.'

c. # *Áàbbá ngà àtùùkírè, àtòòlàku éísímù lyê.* (P2)

áà-à´-bb-a\LH(LH) *ngà à-tuuk-ire\LHL* *à-tool-a\LHL\FO2=ku*
SBR-1S-COP1-FV\PRES.SBR SIM 1S-arrive-PST2\P2 1S-turn_off-FV\PRES\FO2=17
é-ì-´símù=ly-e
AUG-5-phone=AGR5-1POSS
Infelicitous: 'When he has arrived, he turns off his phone.'

To express the same idea in the past tense, a past Imperfective can be used, as in (358).

(358) Context: Years earlier, his grandmother was also very sick, and everyone was sure that she would die, but she got better.

a. *Yàbbàire àfâ.* (P5 Imperfective)

a-a-bb-ire\L.LH *à-f-a\LHL*
1S-TNS-COP1-PST2\P5 1S-die-FV\PRES
'She was dying.'

b. # *Yàfìiré.* (P5)

a-a-f-ire\LH
1S-TNS-die-PST2\P5
Infelicitous: 'She died.'

The simple Present tense form can also have a habitual reading, as in (359).

(359) a. *Ábántù bàfá bùlì lùnákù.* (Present)

á-ba-ˊntù *bàˊ-f-a\LHL* *bùlí\FL* *lu-ˋnákù*
AUG-2-person 2S-die-FV\PRES every\FL 11-day
'People die every day.'

b. *Ɉón àwàngúlà.* (Present)

Ɉón *à-wang.ul-a\LHL*
PN.M 1S-win.SEP1-FV\PRES
'John wins (always).'

It also appears that achievement verbs in P2 can be used to refer to the resultative state of an achievement. When asked, out of context, to translate the English 'he is dead' and 'he is cured' into Lugwere, a speaker gave the forms in (360), which are in P2. As the English forms were focused on the resultative state (dead, cured), rather than the point of the event (died, got cured), this is an indication that the Lugwere verb forms in P2 can refer to the resultative state of an achievement. This makes sense based on how P2 functions in general, seeing as it has a perfect function (a focus on the present relevance i.e. result of a past event). It can also have stative resultant state interpretations with gradable change of state verbs (see Section7.6.4 below), which have a lot in common with achievement verbs.

(360) a. *Âfíírè.* (P2)

à-f-ire\LHL
1S-die-PST2\P2
'He is dead.'

b. *Àlàmírè.* (P2)

à-lam-ire\LHL
1S-get_cured-PST2\P2
'He is cured.'

However, this usage might be limited to predicates that naturally have a resultative state for the subject. For predicates where there is a salient resultative state, there might also be adjectives/nominal forms based on the verb root that also refer to the resultative state, such as *mùfú* 'dead'.

7.6.3 States

Lugwere predicates related to states fall into two groups. Firstly, there are the true stative predicates, which denote a static, durative, atelic state. These are typically verbs that relate to mental states, like *kùmànyá* 'to know', *kùtàká* 'to want, like, love', *kwèbúkíryá* 'to remember' (but many emotions fall into the second group), verbs relating to temperature like *kùbùgúmá* 'to be warm', *kwòcá* 'to be hot', some verbs describing relations between entities like *kùfànáná* 'to resemble', *kùlìráná* 'to be next to', *kùsìngá* 'to be first, to be best' and *kùsòòká* 'to be first', some verbs with the neutral extension (see Section 9.4) like *kùgònéká* 'to be suitable to sleep on (be sleep-able)', and *kùbònéká* 'to look (good, tired etc.)'. The copulas also fall into this category, as well as *kùbùlá* 'to lack'. Adjectival predicates, like *kùbbà mùdèmbí* 'to be tired', and other copular arguments, like locations (*kùbbà ìká* 'be at home') and identities (*kùbbà músómì* 'be a student') would also fall into this group of stative predicates.

Secondly, most of the verbs which correspond to gradable adjectives (e.g. *kùdòdá* 'to get wet', *kùgòndá* 'to get soft', *kùsànyúká* 'to become happy') are inchoative in nature, and relate to the dynamic change of state, rather than the static state itself. This section will examine the stative verbs, while the dynamic gradable change of state verbs will be the topic of Section 7.6.4 below.

In the Present tense, the stative verbs are interpreted as being stative. For some verbs, such as *kùmànyá* 'to know', the Progressive form is consistently rejected by

speakers, while for other verbs it has been accepted, and appear to also have a stative interpretation.[6] (362) shows an example of *kùmànyá*, where the Progressive was rejected, while (361) shows that *kùtàká* is possible in both the Present and the Present Progressive.

(361) Context: Klaus knows that I love him.

a. *Âméítè ntì mmùtàkà ìnó.* (Present)

à-many.IRR\LHL ǹtî\FL ǹ-mu-tak-a\LHL\FO2 ìnó
1S-know.IRR\PRES SBR\FL 1SGS-1O-love-FV\PRES\FO2 very
'He knows that I love him.'

b. * *Ààlì kùmànyà ntì mmùtàkà ìnó.* (Present Progressive)

à-li\LH(L)\FO2 ku-many-a\LH\FO2 ǹtî\FL ǹ-mu-tak-a\LHL\FO2 ìnó
1S-COP2\PRES\FO2 INF-know-FV\INF\FO2 SBR\FL 1SGS-1O-love-FV\PRES\FO2 very
Intended: 'He knows that I love him.'

(362) Context: My cat came back into the room where I was working, and started meowing. He has a special way of meowing that he does when he is hungry, it is like he is saying:

a. *Ǹtáka ókùlyá.* (Present)

ǹ-tak-a\LHL ó-ku-ly-a\LH
1SGS-want-FV\PRES AUG-INF-eat-FV\INF
'I want to eat.'

b. *Ǹdì kùtàkà kùlyá.* (Present Progressive)

ǹ-li\LH(L)\FO2 ku-tak-a\LHL\FO2 ku-ly-a\LH
1SGS-COP2\PRES\FO2 INF-want-FV\INF\FO2 INF-eat-FV\INF
'I want to eat. (lit. I am wanting to eat)'

A past Imperfective of a stative verb is interpreted as a static state in the past, as illustrated in (363). In this example, a simple past was also accepted, and can therefore presumably have a stative interpretation.

(363) Context: Klaus didn't know where the food was kept, so he couldn't go and get the food by himself. I always keep the food in the closet.

[6] More research is needed to see if there are any differences in nuance between the simple Present and the Present Progressive

a. *Yábbáirè táméìte émére èèrì yáínà.* (P3 Imperfective)

a-a-bb-ire\H(L)HL ti-a-many.IRR\H.LH é-mèré è-li\LH(L)\FO2
1S-TNS-COP1-PST2\P3 NEG-1S-know.IRR\PRES.NEG.IRR AUG-food 9S-COP2\PRES\FO2
yáínà
where
'He didn't know where the food was.'

b. *Tìyámànyíre émère èèlì yáínà.* (P3)

ti-a-a-many-ire\LH.LHL é-mèré è-li\LH(L)\FO2 yáínà
NEG-1S-TNS-know-PST2\P3.NEG AUG-food 9S-COP2\PRES\FO2 where
'He didn't know where the food was.'

A past Habitual or Imperfective form, like in (364a-b) has a similar past stative interpretation. In this case a simple past was accepted by one speaker, but rejected by another. There was some variation as to how acceptable simple past forms were in habitual/long term contexts, and in (365a) it was rejected. Overall, it seems clear that a past Habitual is preferable in these contexts for all verbs, not just states.

(364) Context: When my daughter was little, she looked a lot like me.

a. *Yàmfànànàngá.* (P5 Habitual)

a-a-n-fan.an-a-nga\LH
1S-TNS-1SGO-look_like.ASO-FV-HAB\P5
'She looked like me.'

b. *Yàbbàire àmfànánà.* (P5 Imperfective)

a-a-bb-ire\L.LH à-n-fan.an-a\LHL
1S-TNS-COP1-PST2\P5 1S-1SGO-look_like.ASO-FV\PRES
'She looked like me.'

c. ? *Yàmfànànìré.* (P5)

a-a-n-fan.an-ire\LH
1S-TNS-1SGO-look_like.ASO-PST2\P5
Questionable: 'She looked like me.' (One speaker accepted this, one speaker did not)

(365) Context: He was a very happy kitten.

a. # *Yàbbàirè mùsànyúkí.* (P5 with adjective)

a-a-bb-ire\L.LH\FO2 mu-`sànyúkí
1S-TNS-COP1-PST2\P5\FO2 AGR1-happy
Infelicitous: 'He was happy (once).'

b. *Yàbbàngà mùsànyúkí.* (P5 Habitual with adjective)

a-a-bb-a-nga\L.LH\FO2 mu-ˋsànyúkí
1S-TNS-COP1-FV-HAB\P5\FO2 AGR1-happy
'He was happy (habitually).'

There is more variation in how these verbs are interpreted and used in a simple past tense. The above examples show that at least for some verbs and some speakers, a simple past can have a past stative interpretation. There are also examples where a P2 form appears to have a present stative interpretations, as in (366) below. This is said by a husband coming home and smelling the dinner that is cooking, so must have a present, rather than past, stative interpretation.

(366) Context: My husband came home at 10 pm. He apologised for being late, and gave me a hug. I said that I hope he is hungry, because there is lots of food left. He said "The food smells nice."

a. *Émère èfùnyà kúsà.* (Present)

é-mèré è-funy-a\LHL\FO2 ku-ˊsà
AUG-food 9S-smell-FV\PRES\FO2 AGR15-good
'The food smells nice.'

b. *Émère èèlì kùfùnyá kúsà.* (Present Progressive)

é-mèré è-li\LH(L)\FO2 ku-funy-a\LH ku-ˊsà
AUG-food 9S-COP2\PRES\FO2 INF-smell-FV\INF AGR15-good
'The food smells nice.'

c. *Émère èfùnírè kúsà.* (P2)

é-mèré è-funy-ire\LHL ku-ˊsà
AUG-food 9S-smell-PST2\P2 AGR15-good
'The food smells nice.'

With other verbs, however, such a present stative interpretation is not possible. In (367), for instance, the P2 form cannot be used to mean that one is currently hoping, but would have to mean that the person was hoping before the husband returned home, which is odd in the context.

(367) Context: My husband came home at 10 pm. He apologised for being late, and gave me a hug. I said that I hope he is hungry, because there is lots of food left.

a. *Ǹsùùbìrà nti òòlì n'énzálà.* (Present)

ǹ-suub.ir-a\LHL\FO2 ǹ-tî ò-li\LH(L)\FO2 nè é-n.zálà
1SGS-hope.APPL-FV\PRES\FO2 AGR1SG-SBR 2SGS-COP2\PRES\FO2 CONJ AUG-9.hunger
'I hope you are hungry.'

b. *Ǹdì kùsùùbírá nti òòlì n'énzálà.* (Present Progressive)

ǹ-li\LH(L)\FO2 ǹ-suub.ir-a\LHL\FO2 ǹ-tî ò-li\LH(L)\FO2 nè é-n.zálà
1SGS-COP2\PRES\FO2 1SGS-hope.APPL-FV\PRES\FO2 AGR1SG-SBR 2SGS-COP2\PRES\FO2 CONJ AUG-9.hunger
'I am hoping you are hungry.'

c. *# Ǹsùùbíírè nti òòlì n'énzálà.* (P2)

ǹ-suub.ir-ire\LHL ǹ-tî ò-li\LH(L)\FO2 nè é-n.zálà
1SGS-hope.APPL-PST2\P2 AGR1SG-SBR 2SGS-COP2\PRES\FO2 CONJ AUG-9.hunger
Infelicitous: 'I hoped you are hungry.'

In some cases, a simple past form can also be used to indicate entering the state described by the verb. This is the case in (368), for instance, where the P3 form of *kùmànyá* is used to indicate 'finding out' or 'getting to know' something. In this context the past Imperfective was rejected, as this would have a static interpretation, instead of the dynamic one suggested by the context.

(368) Context: I figured that I would let him know where the food was, that way he wouldn't need to bother me in the future. I showed him the bag of catfood in the closet.

a. *Kláùs yámànyíre émére égyèbbá.* (P3)

Kláùs a-a-many-ire\H.LHL é-mèré é-gi-è´-bb-a\LH
PN.A 1S-TNS-know-PST2\P3 AUG-food REL-23O.REL-9S-COP1-FV\PRES.SBR
'Klaus found out where the food was.'

b. *# Kláàs yábbáíre àmáíte émére égyèbbá.* (P3 Imperfective)

Kláùs a-a-bb-ire\H(L)HL à-many.IRR\LHL é-mèré
PN.A 1S-TNS-COP1-PST2\P3 1S-know.IRR\PRES AUG-food
é-gi-è´-bb-a\LH
REL-23O.REL-9S-COP1-FV\PRES.SBR
Infelicitous: 'Klaus knew where the food was.'

Being atelic in nature, a past Imperfective stative verb entails a simple past, which is why (369) was rejected.

(369) ** Émère èbbáire èwómà, nàyé tèwómèré.*

é-mèré è-bb-ire\LHL è-wom-a\LHL nàyê ti-e-wom-ire\LHLH
AUG-food 9S-COP1-PST2\P2 9S-be_tasty-FV\PRES but NEG-9S-be_tasty-PST2\P2.NEG
Illogical: 'The food was tasty, but it was not tasty.'

While there is some variation as to whether or not a simple past can be interpreted as a present state, in general a past form does not entail termination, i.e. a past form does not mean that the state does not still hold at the present moment, as illustrated by the acceptability of (370). Although, as the unacceptability of (367c) shows, for some verbs there might be a termination implicature; however, this can be cancelled, as shown by the acceptability of (371a).

(370) Context: Last week, Milika tested Lilja on the Lugwere numbers. She knew them well. Now, she tested her again, and she still knows them.

a. *Éwíìki éè(yo) yàmànyìre énámbà gyá Lùgwérè, èra á↓káàli àméítè.* (P5)

é-wíìkí e-ˋó a-a-many-ire\L.LH é-námbà gi-á
AUG-week AGR9-DEM_MED 1S-TNS-know-PST2\P5 AUG-number AGR10-ASS
Lu-ˋgwérè èrâ a-kaa-li\LHLH à-many.IRR\LHL
11-Lugwere CONJ 1S-PRS-COP2\PRS 1S-know.IRR\PRES
'Last week she knew the Lugwere numbers, and she still knows them.'

b. *Éwíìki éè(yo) yàbbàire àméíte énámbà gyá Lùgwérè, èra á↓káàli àméítè.* (P5 Imperfective)

é-wíìkí e-ˋó a-a-bb-ire\L.LH à-many.IRR\LHL é-námbà
AUG-week AGR9-DEM_MED 1S-TNS-COP1-PST2\P5 1S-know.IRR\PRES AUG-number
gi-á Lu-ˋgwérè èrâ a-kaa-li\LHLH à-many.IRR\LHL
AGR10-ASS 11-Lugwere CONJ 1S-PRS-COP2\PRS 1S-know.IRR\PRES
'Last week she knew the Lugwere numbers, and she still knows them.'

(371) Context: Mary lives far away from her boyfriend. The boyfriend said he might be able to go visit her during Christmas. Unfortunately, closer to the time, he tells her that he might have to work. Mary says:

a. *Ǹsùùbíírè ntì wáízà, èrâ nkáàlì nsùùbìrà ntì wáízà.* (P2)

ǹ-suub.ir-ire\LHL ǹ-tî\FL o-a-iz-a\HL(H) èrâ
1SGS-hope.APPL-PST2\P2 AGR1SG-SBR\FL 2SGS-TNS-come-FV\F1 CONJ
n-kaa-li\LHLH\FO2 ǹ-suub.ir-a\LHL\FO2 ǹ-tî\FL
1SGS-PRS-COP2\PRS\FO2 1SGS-hope.APPL-FV\PRES\FO2 AGR1SG-SBR\FL

o-a-iz-a\HL(H)
2SGS-TNS-come-FV\F1
'I hoped you would come, and I am still hoping you will come.'

b. *Ǹbáírè nsùùbìrà ntì wáízà, èrâ nkáàlì nsùùbírà ntì wáízà.* (P2 Imperfective)

ǹ-bb-ire\LHL *ǹ-suub.ir-a\LHL\FO2* *ǹ-tî\FL* *o-a-iz-a\HL(H)*
1SGS-COP1-PST2\P2 1SGS-hope.APPL-FV\PRES\FO2 AGR1SG-SBR\FL 2SGS-TNS-come-FV\F1
èrâ *n-kaa-li\LHLH\FO2* *ǹ-suub.ir-a\LHL\FO2* *ǹ-tî\FL*
CONJ 1SGS-PRS-COP2\PRS\FO2 1SGS-hope.APPL-FV\PRES\FO2 AGR1SG-SBR\FL
o-a-iz-a\HL(H)
2SGS-TNS-come-FV\F1
'I was hoping you would come, and I am still hoping you will come.'

Note the difference between P2 and P5 in (372). P2 can have a perfect interpretation, i.e. 'I have been in Uganda a month', and is acceptable in a context where the speaker is still in Uganda. (372c), on the other hand, was considered infelicitous, as it implied the speaker had already left.

(372) Context: I came to Uganda a month ago. I am still here.

a. *Ǹba éYùgánda ómwèzì gúmò.* (Present)

ǹ-bb-a\LHL *é-Yùgándà* *ó-mu-èzí\FL* *gu-ˊmò*
1SGS-COP1-FV\PRES AUG-Uganda AUG-3-month\FL AGR3-one
'I have been in Uganda one month.'

b. *Ǹbáíre éYùgánda ómwèzì gúmò.* (P2)

ǹ-bb-ire\LHL *é-Yùgándà* *ó-mu-èzí\FL* *gu-ˊmò*
1SGS-COP1-PST2\P2 AUG-Uganda AUG-3-month\FL AGR3-one
'I have been in Uganda one month.'

c. # *Nàbbàire éYùgánda ómwèzì gúmò.* (P5)

n-a-bb-ire\L.LH *é-Yùgándà* *ó-mu-èzí\FL* *gu-ˊmò*
1SGS-TNS-COP1-PST2\P5 AUG-Uganda AUG-3-month\FL AGR3-one
Infelicitous: 'I was in Uganda for one month.'

7.6.4 Gradable change of state

Most of the verbs relating to physical states and emotions have an inchoative reading, where in most cases the verb denotes entering a state, rather than being in a state. These are therefore dynamic, rather than stative, and share some features with both achievements and activities.

Some change of state verbs fall into the achievement class, such as *kùfá.* These are generally verbs where the change of state happens quickly, typically conceptualised as a single point in time, and where the states/results related to the verb is binary in nature (dead/alive, winner/not winner, found/not found). The verbs that will be discussed in this section are what might be described as 'gradual change of state verbs', in that the qualities they relate to, such as wetness, dryness or happiness, fall on a scale, and even when dry or happy, it is still possible to get (more) dry or (more) happy.

Like achievement verbs, a past Imperfect, simple Present, or Present Progressive form does not necessarily entail a past form, so that 'he was getting wet' does not entail 'he got wet', i.e. (373) was considered possible.

(373) *Àbbáire àdódà, nàyé tàdódèré.*

à-bb-ire\LHL *à-dod-a\LHL* *nàyê ti-a-dod-ire\LHLH*
1S-COP1-PST2\P2 1S-get_wet-FV\PRES but NEG-1S-get_wet-PST2\P2.NEG
'He was getting wet, but didn't get wet.'

Conversely, like an activity, a past form does not exclude the continuation of the action, so that 'it got wet and it is still getting wet', as in (374) is possible, much like 'he read and he is still reading' (390), but unlike the infelicitous 'he died and he is still dying' (354a).

(374) Context: This morning, it started raining. The sofa out in the garden got wet. Now, it is still raining, and the sofa is still getting wetter and wetter.

a. *Ámàkéézi ámàntèbè gàdódérè, èrá gàkáàlì gàdódá.* (P2)

á-ma-ˋkéézì *á-ma-n.ˋtèbé gà´-dod-ire\LHL* *èrâ* *ga-kaa-li\LHLH\FO2*
AUG-6-morning AUG-6-9.sofa 6S-get_wet-PST2\P2 CONJ 6S-PRS-COP2\PRS\FO2
gà´-dod-a\LHL
6S-get_wet-FV\PRES
'This morning the sofa got wet, and it is still getting wet.'

b. *Ámàkéézi ámàntèbè gàbbáirè gàdódà, èrá gàkáàlì gàdódá.* (P2 Imperfective)

á-ma-ˋkéézì *á-ma-n.ˋtèbé gà´-bb-ire\LHL* *gà´-dod-a\LHL* *èrâ*
AUG-6-morning AUG-6-9.sofa 6S-COP1-PST2\P2 6S-get_wet-FV\PRES CONJ
ga-kaa-li\LHLH\FO2 gà´-dod-a\LHL
6S-PRS-COP2\PRS\FO2 6S-get_wet-FV\PRES
'This morning the sofa was getting wet, and it is still getting wet.'

These verbs seem to be somewhat indeterminate when it comes to telicity. As (373) shows, it is possible to be in the process of getting wet (presumably a few drops of water might have already fallen on you), without the past tense of *kùdòdá* 'to get wet' to be true. Presumably, then, the verb can be conceptualised as having a certain threshold of how much water needs to be involved for the past tense form *àdòdérè* or the adjective *mùdòdí* to be applicable. Conversely, however, the acceptability of (374) shows that even when this threshold has been crossed, it is still possible to continue getting wet, which is less compatible with being telic.

Most of these verbs correspond to nouns describing the state that the verb relates to. The nominalised forms have the same root as the verbs, but an *-i* in place of the final vowel, e.g. *kùnyìgá* 'get angry' and *mùnyìgí* 'angry', *kùdòdá* 'get wet' and *mùdòdí* 'wet', *kùdèmbá* 'get tired' and *mùdèmbí* 'tired'. There are also adjectival forms where the *-i* is replaces with another morpheme, as in *kùkàlá* 'to dry' and *mùkàlú* 'dry'.

In the simple Present, the Progressive or the past Imperfective, the gradable change of state verbs are interpreted as describing an ongoing change, as shown in (375). As the subjects are still entering the state, a simple past is infelicitous, and an adjectival or nominalised form, while slightly better, is also not very natural in this context. Compare this to (376), where the state is entered, and the subjects are no longer in a context where they are getting wetter. Here either a simple past form or an adjective is felicitous.

(375) Context: Ann and Mary are walking. Suddenly it starts raining. While it is raining, Mary says:

a. # *Tùdódérè.* (P2)

tù´-dod-ire\LHL
1PLS-get_wet-PST2\P2
Infelicitous: 'We got wet.'

b. *Tùdódà.* (Simple Present)

tù´-dod-a\LHL
1PLS-get_wet-FV\PRES
'We are getting wet.'

c. *Túlì kùdòdá.* (Present Progressive)

tù´-li\LH(L) *ku-dod-a\LH*
1PLS-COP2\PRES INF-get_wet-FV\INF
'We are getting wet.'

d. ? *Túlì bàdòdí.* (Noun)

tù´-li\LH(L) *ba-`dòdí*
1PLS-COP2\PRES AGR2-wet
Questionable: 'We are wet.'

(376) Context: Then, they hurried back home. Once inside, Mary said:

a. *Tùdódérè.* (P2)

tù´-dod-ire\LHL
1PLS-get_wet-PST2\P2
'We got wet.'

b. # *Tùdódà.* (Simple Present)

tù´-dod-a\LHL
1PLS-get_wet-FV\PRES
Infelicitous: 'We are getting wet.'

c. # *Túlì kùdòdá.* (Present Progressive)

tù´-li\LH(L) *ku-dod-a\LH*
1PLS-COP2\PRES INF-get_wet-FV\INF
Infelicitous: 'We are getting wet.'

d. *Túlì bàdòdí* (Noun)

tù´-li\LH(L) *ba-`dòdí*
1PLS-COP2\PRES AGR2-wet
'We are wet'

The Present tense form can also have a habitual interpretation, as in (377).

(377) *Éntè gìdódà bùli ǹkéndi àtóónyà.*

é-n.´tè *gì´-dod-a\LHL* *bùlí\FL* *n.kéndì à-toony-a\LHL*
AUG-10.cow 10S-get_wet-FV\PRES every\FL 9.rain 1S-rain-FV\PRES
'The cows get wet every time it rains.'

Similarly, a past Habitual form, as in (378b), is interpreted as habitually entering the state in the past. An Imperfective construction with a past Habitual copula can be used with the same meaning (378d). In this context, a simple past form like P5 was not accepted (378a), and neither was the P5 Imperfective in (378c).

(378) Context: (Talking about childhood) He would get tired from running around all the time.

a. # *Yàdèmbèré.* (P5)

a-a-demb-ire\LH
1S-TNS-get_tired-PST2\P5
Infelicitous: 'He got tired.'

b. *Yàdèmbàngá.* (P5 Habitual)

a-a-demb-a-nga\LH
1S-TNS-get_tired-FV-HAB\P5
'He would get tired.'

c. # *Yàbbàire àdémbà.* (P5 Imperfective)

a-a-bb-ire\L.LH *à-demb-a\LHL*
1S-TNS-COP1-PST2\P5 1S-get_tired-FV\PRES
Infelicitous:'He was getting tired.'

d. *Yàbbànga àdémbà.* (P5 Habitual Imperfective)

a-a-bb-a-nga\L.LH *à-demb-a\LHL*
1S-TNS-COP1-FV-HAB\P5 1S-get_tired-FV\PRES
'He was getting tired (habitually).'

In a context where the state has already been achieved (i.e. someone is happy, and their level of happiness is not in the process of increasing), then a Present tense form of a gradable change of state verb would be infelicitous, as in (379c). A form with an noun is acceptable, which is perhaps the most common way to express the stative version of a dynamic change of state verb. Another option is to use a P2 form, as in (379b), as this can also be used to refer to the resultant state of the change of state verb.

(379) Context: I can see that my cat is very happy while he is sleeping.

a. *Ààlì mùsànyúkí.* (Noun)

à-li\LH(L)\FO2 *mu-`sànyúkí*
1S-COP2\PRES\FO2 AGR1-happy
'He is happy.'

b. *Àsànyúkírè.* (P2)

à-sany.uk-ire\LHL
1S-get_happy.SEP2-PST2\P2
'He is happy.'

c. # *Àsànyúkà.* (Present)

à-sany.uk-a\LHL
1S-get_happy.SEP2-FV\PRES
Infelicitous: 'He is getting happy.'

A further example of the stative interpretation of a P2 form is given in (380a), where a speaker was asked to translate the English 'I sleep when I am tired'. (380b), with a noun, was also considered acceptable. Thus, with a gradable change of state verb, P2 can either indicate the (past) moment of the change of state (dynamic), or it can refer to the static resultant state of such a change.

Notably, this is different from a noun or adjective, in that it does not simply refer to a state, but also presupposes the change of state. In (381) a speaker said that (381c) was not good, because the context establishes that Klaus was never wet, he therefore cannot have dried. An adjective, *mùkàlú* 'dry' is felicitous, however, as it does not presuppose a change of state.

(380) a. *Ǹgóna áàmbángà ndèmbérè.(P2)*

ǹ-gon-a\LHL *áà-n-bb-a-nga\LHL(H)* *ǹ-demb-ire\LHL*
1SGS-sleep-FV\PRES SBR-1SGS-COP1-FV-HAB\PRES.SBR 1SGS-get_tired-PST2\P2
'I sleep when I am tired.'

b. *Ǹgónà ngà ndì mùdèmbí.(Noun)*

ǹ-gon-a\LHL *ngà ǹ-li\LH(L)\FO2* *mu-`dèmbí*
1SGS-sleep-FV\PRES SIM 1SGS-COP2\PRES\FO2 AGR1-tired
'I sleep when I am tired.'

(381) Context: Earlier today it rained. However, my cat Klaus has been inside all day, so he is dry.

a. *Ókláàs mùkàlú.* (Adjective)

ó-Kláàs *mu-`kàlú*
AUG-PN.A AGR1-dry
'Klaus is dry.'

b. # *Ókláàs àkálà.* (Present)

ó-Kláàs *à-kal-a\LHL*
AUG-PN.A 1S-get_dry-FV\PRES
Infelicitous: 'Klaus is drying.'

c. ? *Óklάàs àkàlírè.* (P2)

ó-Klάàs à-kal-ire\LHL
AUG-PN.A 1S-get_dry-PST2\PRES
Questionable: 'Klaus has dried.' (implies that he was wet at some point)

7.6.5 Activity

In the Present tense, an activity predicate can be interpreted either as ongoing, or as habitual. (266), reproduced below as (382) shows an ongoing activity. A Progressive form, as in (266a) is also possible here. For ongoing past events, a past Imperfective, as in (383) or a past Progressive can be used.

(382) Context: A: What is your brother doing right now?

a. B: *Ààlì kùwàndìkà màbbàlúwà.* (Present Progressive)

à-li\LH(L)\FO2 ku-wand.ik-a\LH\FO2 ma-ˋbbàlúwà
1S-COP2\PRES\FO2 INF-write.IMP-FV\INF\FO2 6-letter
'He is writing letters.'

b. B: *Àwàndìkà màbbàlúwà.* (Present)

à-wand.ik-a\LHL\FO2 ma-ˋbbàlúwà
1S-write.IMP-FV\PRES\FO2 6-letter
'He is writing letters. (lit. He writes letters)'

(383) Context: A: I went to see my brother yesterday. B: What was he doing?

A: *Yálì àwàndìkà màbbàlúwà.*

a-a-li\HL(HL) à-wand.ik-a\LHL\FO2 ma-ˋbbàlúwà
1S-TNS-COP2\P3 1S-write.IMP-FV\PRES\FO2 6-letter
'He was writing letters.'

The simple Present tense can also be used for habits, as in (384a), and a Present Habitual form, as in (384b) has a similar interpretation. In a past habitual context, a past Habitual or Imperfective can be used, as in (385).

(384) Context: A: What does Ann do every Saturday morning?

a. B: *Àsìmùlà nyùmbá.* (Present)

à-sim.ul-a\LHL\FO2 ny.ˋùmbá
1S-clean.SEP1-FV\PRES\FO2 9.house
'She cleans the house.'

b. B: *Àsómángà.* (Present Habitual)

à-som-a-nga\LHL
1S-read-FV-HAB\PRES
'She reads.'

(385) Context: This is a story about something that happened when I was a child. When I was around 10 years old, I used to climb trees every day.

a. *Nànììnànga émìsáálè bùlì lùnákù.* (P5 Habitual)

n-a-niin-a-nga\L.LH *é-mi-ˋsáálè bùlí\FL* *lu-ˋnákù*
1SGS-TNS-climb-FV-HAB\P5 AUG-4-tree every\FL 11-day
'I would climb trees every day.'

b. *Nàbbàirè nníína émìsáálè bùlì lùnákù.* (P5 Imperfective)

n-a-bb-ire\L.LH\FO2 *ǹ-niin-a\LHL* *é-mi-ˋsáálè bùlí\FL* *lu-ˋnákù*
1SGS-TNS-COP1-PST2\P5\FO2 1SGS-climb-FV\PRES AUG-4-tree every\FL 11-day
'I was climbing trees every day.'

With activity predicates, the main difference between a past perfective or past Imperfective form is whether or not the activity is presented as durative, or as a completed whole. A simple past can be used to talk about a past activity that is conceptualised as a complete unit, i.e. in the perfective aspect, as in (386). In contexts where an imperfective aspect is more natural, for instance describing an action being ongoing at a particular point in time, like while talking on the phone as in (387), an Imperfective form is more natural, here one speaker gave a past Imperfective (387a) and a *ngà* phrase (387b), another speaker also gave a P3 form with a Habitual marker (387c).

(386) Context: A: When you visited your brother yesterday, what did he do after you had dinner?

B: *Yáwàndíkírè màbbàlúwà.*

a-a-wand.ik-ire\H.LHL *ma-ˋbbàlúwà*
1S-TNS-write.IMP-PST2\P3 6-lettter
'He wrote letters.'

(387) A: I talked to my brother on the phone yesterday. B: What was he doing?

a. A: *Mbù, yábbáíre àwàndìkà màbbàlúwà.* (P3 Imperfective)

mbù a-a-bb-ire\H(L)HL à-wand.ik-a\LHL\FO2 ma-ˋbbàlúwà
HRS 1S-TNS-COP1-PST2\P3 1S-write.IMP-FV\PRES\FO2 6-letter
'He was writing letters.'

b. A: *Ǹga àwàndìkà màbbàlúwà.* (Present)

ngà à-wand.ik-a\LHL\FO2 ma-ˋbbàlúwà
SIM 1S-write.IMP-FV\PRES\FO2 6-letter
'He was writing letters.'

c. A: *Mbù yáwàndíkírèngè màbbàlúwà.* (P3 Habitual)

mbù a-a-wand.ik-ire-nga\H.LHL ma-ˋbbàlúwà
HRS 1S-TNS-write.IMP-PST2-HAB\P3 6-letter
'He was writing letters.'

When the context implies a natural stopping point, as in (388) below, where the natural point to stop would be after reading the whole book, but that stopping point is not reached, a predicate like *kùsòmá* 'to read' was rejected in a simple past tense by one speaker, and marked as questionable by another, even when used without an object, which should presumably represent an activity and not an accomplishment. This is likely because a simple past activity verb has a completion implication, and so a simple past is not very felicitous in a context where it is stressed that an action was only partially completed. Imperfective forms as in (388a–b), and a form with a partitive marker (387e) were accepted.

(388) Context: My daughter went to the living room, and brought back a book, that she wanted me to read. I started reading it for her, but after getting halfway, she ran away, and I put the book down.

a. *Mbáírè nsómà.* (P2 Imperfective)

ǹ-bb-ire\LHL ǹ-som-a\LHL
1SGS-COP1-PST2\P2 1SGS-read-FV\PRES
'I was reading.'

b. *Mbáírè nsóma ékítábò.* (P2 Imperfective)

ǹ-bb-ire\LHL ǹ-som-a\LHL é-ki-ˊtábò
1SGS-COP1-PST2\P2 1SGS-read-FV\PRES AUG-7-book
'I was reading a book.'

c. # *Ǹsòmérè.* (P2)

ǹ-som-ire\LHL
1SGS-read-PST2\P2
Infelicitous: 'I read.'

d. # *Ǹsòmére ékítábò.* (P2)

ǹ-som-ire\LHL *é-ki-ˊtábò*
1SGS-read-PST2\P2 AUG-7-book
Infelicitous: 'I read a book.'

e. *Ǹsòmérèkú.* (P2 with partitive enclitic)

ǹ-som-ire\LHL=ku
1SGS-read-PST2\P2=17
'I read for a bit.'

When given a simple past activity verb, and a question like in (389a), the speaker consulted consistently said no. If the activity verb was in the past imperfect, as in (389b), however, the speaker said either 'yes' or 'hard to say'. This is an indication that the simple past has a termination implicature, while the past Imperfective does not.

(389) a. *Àtùngírè.* (P2)

à-tung-ire\LHL
1S-sew-PST2\P2
'He sewed.'

Question: Is he still sewing?

Answer: No.

b. *Àbbáíre àwàndíkà.* (P2 Imperfective)

à-bb-ire\LHL *à-wand.ik-a\LHL*
1S-COP1-PST2\P2 1S-write.IMP-FV\PRES
'He was writing.'

Question: Is he still writing?

Answer: Yes / hard to say.

This termination implication is cancellable, however, as shown by the acceptability of (390a).

(390) Context: One of her sons, Timmy, was reading this morning. And, she said, he is still reading.

a. *Ámàkéézi àsòmérè, èra á↓káàli àsómà.* (P2)

á-ma-ˋkéézì à-som-ire\LHL èrâ a-kaa-li\LHLH à-som-a\LHL
AUG-6-morning 1S-read-PST2\P2 CONJ 1S-PRS-COP2\PRS 1S-read-FV\PRES
'This morning he read and he is still reading.'

b. *Ámàkéézi àbbáíre àsómà, èra á↓káàli àsómà.* (P2 Imperfective)

á-ma-ˋkéézì à-bb-ire\LHL à-som-a\LHL èrâ a-kaa-li\LHLH
AUG-6-morning 1S-COP1-PST2\P2 1S-read-FV\PRES CONJ 1S-PRS-COP2\PRS
à-som-a\LHL
1S-read-FV\PRES
'This morning he was reading, and he is still reading.'

When an activity is portrayed as completed, a simple past can be used, as in (391a), while the Imperfective form in (391b) was considered infelicitous, probably because the context puts a lot of emphasis on the completion of the activity.

(391) Context: We finished reading the book that we had started.

a. *Tùsómérè.* (P2)

tù´-som-ire\LHL
1PLS-read-PST2\P2
'We read.'

b. # *Tùbbáírè tùsómà.* (P2 Imperfective)

tù´-bb-ire\LHL tù´-som-a\LHL
1PLS-COP1-PST2\P2 1PLS-read-FV\PRES
Infelicitous: 'We were reading.'

In a context like (392), which involves an activity starting at a given point, both speakers consulted preferred a simple past. Similarly, in (393), various activities are listed in order, and the speaker chose to use a simple past tense plus a Narrative.

(392) Context: Seeing the elephant crying, Peter felt really bad for him, and also started crying.

a. ? *ÓPítà yàbbàire àkúngà.* (P5 Imperfective)

ó-Pítà a-a-bb-ire\L.LH à-kung-a\LHL
AUG-PN.M 1S-TNS-COP1-PST2\P5 1S-cry-FV\PRES
Infelicitous: 'Peter was crying.'

b. *ÓPítà yàkùngìré.* (P5)

ó-Pítà a-a-kung-ire\LH
AUG-PN.M 1S-TNS-cry-PST2\P5
'Peter cried/started crying.'

(393) Context: A: What did Martin do yesterday evening?

B: *Yásòmérè lúpápúlà, yálíírè, kéísì n'àábá kú búlírì.*

a-a-som-ire\H.LHL lu-´pápúlà, a-a-ly-ire\H(L)HL kéísì ni à´-ab-a\LH(LH)
1S-TNS-read-PST2\P3 11-paper 1S-TNS-eat-PST2\P3 then NAR 1S-go-FV\PRES.SBR
ku=bu-´lírì
17=14-bed
'He read the paper, he ate, and then he went to bed.'

Because activities are atelic, a past Imperfective form, like *àbbáíre àyémbà* 's/he was singing' also entails the simple past form, in this case *àyèmbérè* 's/he sang'. The unacceptability of (394) show that this is not a cancellable implication.

(394) * *Àbbáíre àyémbà, nàyé tàyémbèré.*

à-bb-ire\LHL à-emb-a\LHL nàyê ti-a-emb-ire\LHLH
1S-COP1-PST2\P2 1S-sing-FV\PRES CONJ NEG-1S-sing-PST2\P2.NEG
Illogical: 'She was singing but she did not sing.'

7.6.6 Semelfactive

In the Present tense or the Present Progressive, a semelfactive predicate is generally interpreted as an ongoing series of repeated semelfactive actions, as in (395), where Karl is sick and so is repeatedly coughing. Note that P2 is not good here, so it cannot be used to refer to a state of having a cough, in a way similar to how gradual change of state verbs in P2 can have a stative reading.

(395) Context: Karl has a cough, he has repeatedly been coughing for some time

a. *ÓKâl àkòbólà.* (Present)

ó-Kâl à-kob.ul-a\LHL
AUG-PN.A 1S-cough.SEP1-FV\PRES
'Karl coughs.'

b. *ÓKâl ààlì kùkòbólá.* (Present Progressive)

ó-Kâl *à-li\LH(L)\FO2* *ku-kob.ul-a\LH*
AUG-PN.A 1S-COP2\PRES\FO2 INF-cough.SEP1-FV\INF
'Karl is coughing.'

c. *# ÓKâl àkòbéírè.* (P2)

ó-Kâl *à-kob.ul-ire\LHL*
AUG-PN.A 1S-cough.SEP1-PST2\P2
Infelicitous: 'Karl coughed.'

Similarly, a past Imperfective form is understood as a series of events. When specified that a semelfactive action only took place once, an Imperfective form is generally not accepted, as shown in (396), and even when it occurs multiple times an Imperfective form is questionable when the occurrences are numbered, as in (397).

(396) Context: Late at night, Karl, his pet elephant, who was sick, got out of his house, and went over to Peter's bedroom window. He used his trunk to knock at the window once.

a. *Yàkònkònère ókú dìnísà.* (P5)

a-a-konkon-ire\L.LH ó-ku=dìnísà
1S-TNS-knock-PST2\P5 AUG-17=window
'He knocked on the window.'

b. *# Yàbbàire àkònkóna ókú dìnísà.* (P5 Imperfective)

a-a-bb-ire\L.LH *à-konkon-a\LHL ó-ku=dìnísà*
1S-TNS-COP1-PST2\P5 1S-knock-FV\PRES AUG-17=window
Infelicitous: 'He was knocking on the window.'

c. *# Yàbbàire ààlì kùkònkóna ókú dìnísà.* (P5 Progressive)

a-a-bb-ire\L.LH *à-li\LH(L)\FO2* *ku-konkon-a\LH ó-ku=dìnísà*
1S-TNS-COP1-PST2\P5 1S-COP2\PRES\FO2 INF-knock-FV\INF AUG-17=window
Infelicitous: 'He was knocking on the window.'

(397) Context: Then, when Peter didn't wake, he knocked five more times.

a. *Yàkònkònère ókú dìnísà.* (P5)

a-a-konkon-ire\L.LH ó-ku=dìnísà
1S-TNS-knock-PST2\P5 AUG-17=window
'He knocked on the window.'

b. # *Yàbbàire àkònkóna ókú dìnísà.* (P5 Imperfective)

a-a-bb-ire\L.LH *à-konkon-a\LHL ó-ku=dìnísà*
1S-TNS-COP1-PST2\P5 1S-knock-FV\PRES AUG-17=window
Infelicitous: 'He was knocking on the window.'

When there is a series of (non-counted) actions, however, either a simple past or an Imperfective past form is okay, as shown in (398).

(398) Context: Then, when there was still no answer, he kept knocking.

a. *Yàkònkònère ókú dìnísà.* (P5)

a-a-konkon-ire\L.LH ó-ku=dìnísà
1S-TNS-knock-PST2\P5 AUG-17=window
'He knocked on the window.'

b. *Yàbbàire àkònkóna ókú dìnísà.* (P5 Imperfective)

a-a-bb-ire\L.LH *à-konkon-a\LHL ó-ku=dìnísà*
1S-TNS-COP1-PST2\P5 1S-knock-FV\PRES AUG-17=window
'He was knocking on the window.'

c. *Yàbbàire ààlì kùkònkóna ókú dìnísà.* (P5 Progressive)

a-a-bb-ire\L.LH *à-li\LH(L)\FO2* *ku-konkon-a\LH ó-ku=dìnísà*
1S-TNS-COP1-PST2\P5 1S-COP2\PRES\FO2 INF-knock-FV\INF AUG-17=window
'He was knocking on the window.'

For a single occurrence, a form with a locative (partitive) enclitic was sometimes preferred, as in (399c).

(399) Context: One day, on one of their walks, Peter notice that Karl was not looking so well. He heard him cough once.

a. ? *ÓKáàlò yàkòbwèìré.* (P5)

Ó-Káàlò *a-a-kob.ul-ire\HL*
AUG-PN.A 1S-TNS-cough.SEP1-PST2\P5
'Karl coughed.' (Marked as questionable by one of the two speakers)

b. ? *ÓKáàlò yàbbàire àkòbólà.* (P5 Imperfective)

Ó-Káàlò *a-a-bb-ire\L.LH* *à-kob.ul-a\LHL*
AUG-PN.A 1S-TNS-COP1-PST2\P5 1S-cough.SEP1-FV\PRES
'Karl was coughing.' (Marked as questionable by one of the two speakers)

c. *ÓKáàlò yákòbwéírèmú.* (P3 with locative enclitic)

Ó-Káàlò a-a-kob.ul-ire\H.LHL=mu
AUG-PN.A 1S-TNS-cough.SEP1-PST2\P3=18
'Karl coughed.'

For habitual series of semelfactive actions, a Habitual marker can be added, as in (400).

(400) Context: Actually, while Justine and the baby were visiting, the baby started sneezing multiple days. But she quickly got better.

Ómwànà yàbbàire àsyámúlyángà. (P5 Imperfective Habitual)

ó-mu-ànà\FL a-a-bb-ire\L.LH à-syam.ul-a-nga\LHL
AUG-1-child\FL 1S-TNS-COP1-PST2\P5 1S-sneeze.SEP1-FV-HAB\PRES
'The child used to sneeze.'

While one instance of a semelfactive verb is close to punctual, just like an achievement verb, the above examples show that an Imperfective form is generally interpreted differently for a semelfactive verb than an achievement verb. While an Imperfective semelfactive verb tends to indicate a series of repeated actions, an Imperfective achievement verb is interpreted as referring to the processes/moments leading up to the achievement. When given a context conducive to this kind of reading of a semelfactive verb, where someone can see that someone is about to sneeze, cough or hiccup, as in (401), it does appear that this 'in the stages imminently before' reading is somewhat available at least in some cases for some people, and (401a) was accepted by one speaker, but not the other. In general, a construction with the auxiliary *kùtìrá* 'to be about to', as in (401c) seems to be better, and even in contexts where the one speaker did accept an 'imminently before' reading of a Progressive/Imperfective semelfactive verb, she did express that a version with *kùtìrá* sounded better.

(401) Context: Context: Justine has a new baby. One day, she saw that the baby was crunching up it nose, like it does when it is about to sneeze. Justine thought:

a. ? *Ómwàna ààlì kwàsyámúlyá.* (Present Progressive) (One speaker accepted, one did not)

ó-mu-ànáFL à-liLH(L)FO2 ku-asyam.ul.y-aLH
AUG-1-childFL 1S-COP2PRESC INF-sneeze.SEP1.CAUS1-FVINF
Questionable: 'The child is about to sneeze.'

b. # *Ómwàna àsyámúlyà.* (Present)

ó-mu-ànáFL à-asyam.ul.y-aLHL
AUG-1-childFL 1S-sneeze.SEP1.CAUS1-FVPRES
Infelicitous: 'The child is sneezing.'

c. *Ómwànà yátìra ókwàsyámúlyá.* (F1 *kùtìrá*)

ó-mu-ànáFL a-a-tir-aH.LH ó-ku-asyam.ul.y-aLH
AUG-1-childFL 1S-TNS-be_about_to-FVF1 AUG-INF-sneeze.SEP1.CAUS1-FVINF
'The child is about to sneeze.'

In general, a past Imperfective does seem to entail a simple past, shown by the unacceptability of (402), which further evidences that the 'imminently before' reading is not generally readily available, as it would presumably save (402) from being illogical, and it is likely only possible in highly marked contexts, such as that established for (401), where the narrative slows down and shows the sneeze almost in slow motion, in which case it can become more like an achievement.

(402) * *Àbbáíre àkòlólà, nàyé tàkólwàìré.*

à-bb-ireLHL à-kol.ul-aLHL nàyê ti-a-kol.ul-ireLHLH
1S-COP1-PST2P2 1S-cough.SEP1-FVPRES but NEG-1S-cough.SEP1-PST2P2.NEG
Illogical: 'S/he was coughing but s/he did not cough.'

7.6.7 Accomplishment

In the simple Present tense or a Present Progressive, an accomplishment is understood as being in progress, as illustrated by (403).

(403) Context: A: What is your brother doing right now?

a. B: *Ààlì kùwàndìkà bbàlúwà.* (Present Progressive)

à-liLH(L)FO2 ku-wand.ik-aLHFO2 bbàlúwà
1S-COP2PRESFO2 INF-write.IMP-FVINFFO2 letter
'He is writing a letter.'

b. B: *Àwàndìkà bbàlúwà.* (Present)

à-wand.ik-a\LHL\FO2 bbàlúwà
1S-write.IMP-FV\PRES\FO2 letter
'He is writing (lit. writes) a letter.'

A simple Present can also have a habitual interpretation, as in (404).

(404) Context: A: What does your brother usually do after breakfast?

B: *Àwàndìkà bbàlúwà.* (Present)

à-wand.ik-a\LHL\FO2 bbàlúwà
1S-write.IMP-FV\PRES\FO2 letter
'He writes a letter.'

For habitual accomplishments, a Habitual can be used, as in (405), where the context establishes a past habitual context.

(405) Context: A: What would your brother usually do after breakfast last summer?

B: *Yàwàndìkàngà bbàlúwà.* (P5 Habitual)

a-a-wand.ik-a-nga\L.LH\FO2 bbàlúwà
1S-TNS-write.IMP-FV-HAB\P5\FO2 letter
'He would write a letter.'

Accomplishments in the simple past appear to have a termination and completion implicature. When presented with a simple past accomplishment predicate as in (406), without further context, speakers answered 'yes' to questions along the lines of 'Did he complete the dress?', while they answered 'no' or 'hard to say' to similar questions where the prompt was a past Imperfective predicate. This suggests that the simple past has a termination implication, unlike the past Imperfective.

(406) *Àtùngíre ólùgwéyè.* (P2)

à-tung-ire\LHL ó-lu-ˋgwéyè
1S-sew-PST2\P2 AUG-11-dress
'S/he sewed the dress.'

This is further shown by examples such as (407), which come from a story where a child started a lot of different accomplishments, but it was at first emphasised that she

did not complete them. In this case both speakers asked found simple past forms to be infelicitous. A past Imperfective or a simple past with a locative marker, which in this context has a partitive reading, were accepted. When the child returned to complete the accomplishment, however, as in (408), a simple past was accepted, while a past Imperfective was considered infelicitous.

(407) Context: She went to play with her lego. She said "I want to build a house!", and started building. However, she had only built two walls when she got tired, and went to do something else.

a. *Àbbáire àzímba ényùmbá.* (P2 Imperfective)

à-bb-ire\LHL à-zimb-a\LHL é-ny.`ùmbá
1S-COP1-PST2\P2 1S-build-FV\PRES AUG-9.house
'She was building a house.'

b. ? *Àzìmbíre ényùmbá.* (P2)

à-zimb-ire\LHL é-ny.`ùmbá
1S-build-PST2\P2 AUG-9.house
Infelicitous: 'She built a house.'

c. *Àzìmbírèku ényùmbá.* (P2 Partitive)

à-zimb-ire\LHL=ku é-ny.`ùmbá
1S-build-PST2\P2=17 AUG-9.house
'She built a house for a bit.'

(408) Context: We finished building the house.

a. *Tùzímbíre ényùmbá.* (P2)

tù´-zimb-ire\LHL é-ny.`ùmbá
1PLS-build-PST2\P2 AUG-9.house
'We built a house.'

b. * *Tùbbáírè tùzímba ényùmbá.*

(P2 Imperfective)

tù´-bb-ire\LHL tù´-zimb-a\LHL é-ny.`ùmbá
1PLS-COP1-PST2\P2 2PLS-build-FV\PRES AUG-9.house
Infelicitous: 'We were building a house.'

c. * *Tùzímbírèku ényùmbá.* (P2 Partitive)

tù´-zimb-ire\LHL=ku é-ny.`ùmbá
2PLS-build-PST2\P2=17 AUG-9.house
Infelicitous: 'We built a house for a bit.'

Much like with activities, however, this completion implicature is cancellable. See for instance (409), where 'she fixed the tv' by itself would carry the implication that the tv is fixed, but the second part 'and she is still fixing it' seems to indicate that it was not actually fixed completely. Similarly, sentences like those in (410) were accepted, where a simple past form is followed by a phrase specifying that the accomplishment was not carried out to completion.

(409) Context: Her daughter Ann, was fixing the TV this morning, and in fact, she is still working on fixing it.

a. *Ámàkéézi àtèréézére étîìví, èra á↓káàli àtèrééza (étîìví).* (P2)

á-ma-`kéézì à-tereez-ire\LHL é-tîìví èrâ a-kaa-li\LHLH à-tereez-a\LHL
AUG-6-morning 1S-fix-PST2\P2 AUG-TV CONJ 1S-PRS-COP2\PRS 1S-fix-FV\PRES
(é-tîìví)
AUG-TV
'This morning she fixed the TV and she is still fixing it.'

b. *Ámàkéézi àbbáire àtèrééza étîìví, èra á↓káàli àtèrèèzà (étîìví).* (P2 Imperfective)

á-ma-`kéézì à-bb-ire\LHL à-tereez-a\LHL é-tîìví èrâ a-kaa-li\LHLH
AUG-6-morning 1S-COP1-PST2\P2 1S-fix-FV\PRES AUG-TV CONJ 1S-PRS-COP2\PRS
à-tereez-a\LHL (é-tîìví)
1S-fix-FV\PRES AUG-TV
'This morning she was fixing the TV and she is still fixing it.'

(410) a. *Àlíire ómúyémbè nàyé tàmálìre ómúyémbè gwónágwónà.* (P2)

à-ly-ire\LHL ó-mu-´yémbè nàyê ti-a-mal-ire\LHLH ó-mu-´yémbè
1S-eat-PST2\P2 AUG-3-mango but NEG-1S-finish-PST2\P2.NEG AUG-3-mango
gu-ónà-gu-ónà
AGR3∼REDUP-AGR3-all
'S/he ate a mango, but s/he didn't eat the whole mango.'

b. *Àyèmbére ólwèmbó, nàyé tàyémbère ólwèmbò lwónálwónà.* (P2)

à-emb-ire\LHL ó-lu-èmbó nàyê ti-a-emb-ire\LHLH ó-lu-èmbó
1S-sing-PST2\P2 AUG-11-song but NEG-1S-sing-PST2\P2.NEG AUG-11-song

lu-ónà-lu-ónà
AGR11∼redup∼AGR11-all
'S/he sung a song, but s/he didn't sing the whole song.'

Overall, there are many similarities between activities and accomplishments, in terms of how they are interpreted, as well as in terms of implicatures. One difference, however, is that a past Imperfective or Progressive does not entail a simple past form. Sentences such as (411), then, are possible (Compare this to (394) above).

(411) a. *Àbbáíre àtèrééza étîìví, nàyè tágìtèréézèré.*

à-bb-ire\LHL à-tereez-a\LHL é-tîìví nàyê\FL ti-à´-gi-tereez-ire\LHLH
1S-COP1-PST2\P2 1S-fix-FV\PRES AUG-TV but\FL NEG-1S-9O-fix-PST2\P2.NEG
'S/he was fixing the TV, but didn't fix it.'

b. *Àbbáíre àsóma ékítábò, nàyé ↓tákìsòmérè.*

à-bb-ire\LHL à-som-a\LHL é-ki-´tábò nàyê ti-à´-ki-som-ire\LHL(H)
1S-COP1-PST2\P2 1S-read-FV\PRES AUG-7-book but NEG-1S-7O-read-PST2\P2.NEG
'S/he was reading a book, but didn't finish it. (lit. but didn't read it)'

7.6.8 Summary of aktionsart

The preceding sections have attempted to give an overview of how different types of verbs are interpreted in different inflectional TAM categories. The focus has been on the more stereotypical verbs of each class. The picture is of course more complicated, and not all verbs fall neatly into these categories. *Kùgòná* 'to sleep', for instance, behaves somewhat like an achievement when used in the sense of 'falling asleep', as in (412) where the past Imperfective is used to indicate the stages before falling asleep. This behaviour indicates telicity, and the 'stages before' reading differs from both states, activites and accomplishements, which in the past Imperfective are interpreted as either an ongoing state, or an ongoing dynamic process.

When used to refer to the idea of being asleep, it behaves more like an activity, see for instance (413), which would be odd for a typical achievement verb like *kùfá* 'to die' (i.e. she died this morning and is still dying), but is the typical behaviour of an activity or a gradual change of state verb. Unlike gradual change of state verbs and achievements, however, a Present Progressive indicates an ongoing activity (being asleep), rather than an ongoing change of state (414b).

(412) Context: My cat went outside, and laid down. I could see that he was about to fall asleep.

a. *Àbbáire àgónà.* (P2 Imperfective)

à-bb-ire\LHL *à-gon-a\LHL*
1S-COP1-PST2\P2 1S-sleep-FV\PRES
'He was falling asleep.'

b. # *Àgònérè.* (P2)

à-gon-ire\LHL
1S-sleep-PST2\P2
Infelicitous: 'He was asleep/he fell asleep.'

(413) Context: Her baby, Paul, fell asleep this morning, and she says he is still asleep.

a. *Ámàkéézi àgònérè, èra á↓káàli àgónà.* (P2)

á-ma-ˋkéézì *à-gon-ire\LHL* *èrâ* *a-kaa-li\LHLH* *à-gon-a\LHL*
AUG-6-morning 1S-sleep-PST2\P2 CONJ 1S-PRS-COP2\PRS 1S-sleep-FV\PRES
'This morning he fell asleep, and he is still sleeping.'

b. *Ámàkéézi àbbáire àgónà, èra á↓káàli àgónà.* (P2 Imperfective)

á-ma-ˋkéézì *à-bb-ire\LHL* *à-gon-a\LHL* *èrâ* *a-kaa-li\LHLH*
AUG-6-morning 1S-COP1-PST2\P2 1S-sleep-FV\PRES CONJ 1S-PRS-COP2\PRS
à-gon-a\LHL
1S-sleep-FV\PRES
'This morning he was sleeping, and he is still sleeping.'

(414) Context: For instance, right now while I am writing this, he is asleep.

a. *Àgónà.* (Present)

à-gon-a\LHL
1S-sleep-FV\PRES
'S/he sleeps.'

b. *Ààlì kùgòná.* (Present Progressive)

à-li\LH(L)\FO2 *ku-gon-a\LH*
1S-COP2\PRES\FO2 INF-sleep-FV\INF
'S/he is sleeping.'

c. *Àgònérè.* (P2)

à-gon-ire\LHL
1S-sleep-PST2\P2
'S/he is asleep.'

These discrepancies can be explained by the fact that *kùgòná* has two different meanings, the activity sense of 'sleeping' and the achievement sense of 'falling asleep'. While there will likely be many such mixed verbs, by examining how some of the more typical verbs in each aspectual category behaves, we have a framework with which to examine and describe how verbs like *kùgòná* differ from other predicates in terms of its inherent aspectual qualities. Table 7.10 summarises some of the main differences between the different aktionsarten.

Table 7.10: Summary of Aktionsart

	Achievement	**Stative verbs**	**Activity**
Present	preamble	stative	ongoing/habitual
Progressive	preamble	not possible/stative	ongoing
Imperfective	preamble	stative	ongoing(/habitual)
P2, (P3, P5)	completion/resultative state	inchoative/present stative/past stative	termination/inchoative
Habitual	habit	state/habitual state	habit
Past Imperfective entails simple past	no	yes	yes
Simple past entails completion/termination	yes	no	no
Noun/Adjective	stative (resultant state)	–	–
	Accomplishment	**Gradual change of state verb**	**Semelfactive**
Present	in progress/habitual	ongoing change/habitual change	ongoing series
Progressive	in progress	ongoing change	ongoing series
Imperfective	in progress(/habitual)	ongoing change/habitual	ongoing series
P2, (P3, P5)	completion	change of state/resultant state	once, or series
Habitual	habit	habitual change	habitual series
Past Imperfective entails simple past	no	no	yes
Simple past entails completion/termination	no	no	?
Noun/Adjective	–	stative	–

8 Mood and Modality

Contents

8.1 Moods 411
8.1.1 Subjunctive 411
8.1.2 Jussive 418
8.1.3 Conditional 420
8.1.4 Optative 425
8.2 Modality 426
8.2.1 Necessity/Obligation 427
8.2.2 Possibility/Permission/Ability 429
8.2.3 Summary of modality 432
8.3 Evidentiality - the hearsay marker *mbu* 433

This chapter will look at the different mood categories in Lugwere, as well as the different modal verbs/expressions that it uses. Section 8.1 looks at the Subjunctive, the Jussive and the Conditional moods, while Section 8.2 discusses modality.

8.1 Moods

8.1.1 Subjunctive

The Subjunctive mood is used in a range of functions, encompassing those of the imperative. Table 8.1 shows the Subjunctive forms of *kùlòndá* 'to select' for 1st and 2nd person, plus Agreement Classes 1 and 2.

The affirmative Subjunctive is formed by using the final vowel *-e*, and adding the subject markers directly to the verb stem. The tonal melody is H.L*H, and the final high tone lowers in Form 2 contexts. This is the same melody as in F1, and the Subjunctive forms behave the same with regard to tone.

The negative forms are unexpected for multiple reasons. Firstly, the negative uses the general stem, rather than the subjunctive stem. Secondly, optionally for 2nd person singular and Agreement Class 1, and obligatorily for most other subjects, there is a prefix *a-* in TA. So unlike in most other TAM categories, the negative is not straightforwardly built on the affirmative.[1] In fact, there is only one other form that shows a similar discrepancy, and that is F1 (see Section 6.5.1), which uses the general stem in the affirmative, and the subjunctive stem in the negative. Crucially, F1 also has an *a-* prefix in TA, although this can be dropped for Agreement Class 1 and 2nd person singular in the negative. The negative forms displayed in 8.1 are suspiciously similar to what one would expect the negative forms of F1 to be, just on the basis of the affirmative. Likewise, the negative of F1 is quite like what one would expect the negative of the Subjunctive to be. The Subjunctive affirmative uses the final vowel *-e*, and the negative uses *-a*, while F1 uses final *-a* in the affirmative, and *-e* in the negative. In both cases, there is the variable presence of the *a-* prefix; absent in the Subjunctive affirmative forms, but present in most negative forms, present in F1 affirmative but can be dropped for Agreement Class 1 and 2nd person singular negative forms. What appears to have happened, then, is that what was originally the negative Subjunctive at one point swapped its paradigmatic position with what was once the negative form of F1.

The fact that the usage of the Subjunctive and F1 seems to have overlapped at one point, is not all that surprising if we consider the semantics of these two categories. The future tense is different from the past and the present in that we are not describing events that are or have taken place, but rather something that might happen or is likely to happen. This level of uncertainty is similar to the semantics of the Subjunctive.

The negative Subjunctive is also curious from a tonal perspective. The negative marker is low, while all following syllables are high. For 2nd person singular and

[1]It should be noted that the negative is only straightforwardly built on the affirmative for most TAM categories if we look at the segmental level, tonally there are many discrepancies

Table 8.1: The bisyllabic verb *kùlòndá* 'to pick' in the Subjunctive. Alternative negative forms are given where relevant

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
1st SG	ńnòndé	ńnòndè	tìnálóndá	tìnàlòndà
1st PL	túlòndé	túlòndè	tìtwálóndá	tìtwàlòndà
2nd SG	ólòndé	ólòndè	tólóndá /tìwálóndá	tòlòndà/tìwàlòndà
2nd PL	múlòndé	múlòndè	tìmwálóndá	tìmwàlòndà
AGR 1	álòndé	álòndè	tálóndá/tìyálóndá	tàlòndà/tìyàlòndà
AGR 2	bálòndé	bálòndè	tìbálóndá	tìbàlòndà

Agreement Class 1, however, the negative marker merges with the subject marker, as is normal, but this leads to a word that has only high tones, which is very uncommon in Lugwere. See Section 6.10.1 for further discussion of the tone of the negative Subjunctive.

For 1st person singular Subjunctive forms, the first high tone is realised either on the nasal subject prefix or on an epenthetic vowel, when the verb is in isolation or initial. When it is preceded by another element, however, the high tone is realised on the preceding vowel. Take for instance the sentences in (415). *Kítábò* 'book' ends in a low tone, and in (415b) that lexical low tone is realised on the final syllable. In (415a), on the other hand, the final vowel of the word has a high tone, coming from the tonal melody of the 1st person singular Subjunctive verb that follows (see also (417), where the same phenomenon occurs.)

(415) a. *Àmpéire ékítábó nsòmé.*

à-n-w-ire\LHL é-ki-ˊtábò n-som-e\H.LH
1S-1SGO-give-PST2\P2 AUG-7-book 1SGS-read-SUB\SUB
'S/he gave me a book so that I might read.'

b. *Àbàwéire ékítábò músòmé.*

à-ba-w-ire\LHL é-ki-ˊtábò mu-som-e\H.LH
1S-2PLO-give-PST2\P2 AUG-7-book 2PLS-read-SUB\SUB
'S/he gave you PL a book so that you might read.'

Table 8.2 shows some verbs of different lengths in the Subjunctive. It also shows some Habitual Subjunctive forms. As normal, the Habitual marker does not have its own tone, but rather takes on the final tone of the tonal melody, in this case the final

Table 8.2: Verbs of different types in the Subjunctive with 2nd person singular subject markers. Subjunctive Habitual forms are given for some verbs. The two negative variants are shown for the non-Habitual forms

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
kùgùlá 'to buy'	ógùlé	ógùlè	tógúlá/tìwágúlá	tògùlà/tìwàgùlà
	ógùlèngé	ógùlèngè	tógúlángá	tògùlàngà
kùlyá 'to eat'	óólyè	...	tólyá/tìwályá	tòlyà/tìwàlyà
	óólyèngé	óólyèngè	tólyángá	tòlyàngà
kwìbbá 'to steal'	óíbbè	...	tóíbbá/tìwáíbbá	tòìbbà/tìwàìbbà
kùjànjábá 'to treat'	ójànjàbé	ójànjàbè	tójánjábá/tìwájánjábá	tòjànjàbà/tìwàjànjàbà
kùkàlábándá 'to treat'	ókàlàbàndé	ókàlàbàndè	tókálábándá/tìwákálábándá	tòkàlàbàndà/tìwàkàlàbàndà

Table 8.3: Some verb in the Subjunctive with 2nd person singular subject markers and object markers. The object markers are *lu-* 'AGR 11', *ga-* 'AGR 6', *gu-* 'AGR 3' and *mu-* 'AGR 1'

	FO1 AFF	FO1 NEG
kùgùlá 'to buy'	ólùgùlé	tólúgúlá
kùlyá 'to eat'	ógàlyé	tógályá
kwàgá 'to scratch'	ógwàgé	tógwágá
kùjànjábá 'to treat'	ómùjànjàbé	tómújánjábá

high tone (see 7.2.1). The table shows both the two possible negative forms of the 2nd person singular, with and without *a-*.

Object markers Table 8.3 shows some verbs in the Subjunctive mood with object markers. The object markers get a low tone in the affirmative, and a high tone in the negative, thus maintaining the overall melody of the verb.

8.1.1.1 Usage of the Subjunctive

The Lugwere Subjunctive has multiple functions. One of the more common ones is in commands, as there is no dedicated imperative form, but a Subjunctive with a 2nd person subject can serve that function. A few examples of this are given in (416) – (418).

(416) a. *Óbòné!*

o-bon-e\H.LH
2SGS-look-SUB\SUB
'Look!'

b. *Múbòné!*

mu-bon-e\H.LH
2PLS-look-SUB\SUB
'Look! (PL)'

c. *Óízè!*

o-iz-e\HL(H)
2SGS-come-SUB\SUB
'Come!'

d. *Mwízè!*

mu-iz-e\HL(H)
2PLS-come-SUB\SUB
'Come! (PL)'

(417) *Ómpe ébíjánjáló njàbbé nkòmé.* (C)

o-n-w-e\HL(H) *é-bi-́jánjálò* *n-ab-e\H.LH* *n-kom-e\H.LH*
2SGS-1SGO-give-SUB\SUB AUG-8-bean 1SGS-go-SUB\SUB 1SGS-plant-SUB\SUB
'Give me beans and I'll go plant them.'

(418) *Múndàgéku éméngo égìmùsyérákù.* (C)

mu-n-lag-e\H.LH=ku *é-méngò*
2PLS-1SGO-show-SUB\SUB=17 AUG-grinding_stone
é-gi-mu-sy-ir-a\LH=ku
REL-9O.REL-2PLS-grind-APPL-FV\PRES.SBR=17
'Show me the grinding stone which you use for grinding.'

Similarly, when used with a first or third person subject, the Subjunctive can have either hortative (see (419) and (420)) or jussive functions ((421) and (422)). There is additionally a dedicated form to express hortative and jussive meanings, discussed in Section 8.1.2 below.

(419) *Ńjàbé nkèsèré múnù.* (C)

n-ab-e\H.LH *n-kes-ir-e\H.LH* *mu-`nú*
1SGS-go-SUB\SUB 1SGS-harvest-APPL-SUB\SUB AGR18-DEM_PROX
'Let me go and harvest in this one.'

(420) a. *Ààle óízè twábè túbùùlye ómámà.* (W)

Ààlé o-iz-e\HL(H) *tu-ab-e\HL(H)* *tu-buul.y-e\H.LH* *ó-mámà*
INTJ 2SGS-come-SUB\SUB 1PLS-go-SUB\SUB 1PLS-ask.CAUS1-SUB\SUB AUG-mom
'Then come, let's go and ask mom.'

b. *Twábè ngà twìrúkà túbòne éyásòòkáyò."*

tu-ab-e\HL(H) ngà tù´-ir.uk-a\LHL tu-bon-e\H.LH
1PLS-go-SUB\SUB SIM 1PLS-run.SEP2-FV\PRES 1PLS-see-SUB\SUB
é-a-a-sook-a\H.LH=yo
REL-1S-TNS-be_first-FV\F1=23
'Lets run and see who gets there first.'

(421) *Ómùlèke ágòné!* (W)

o-mu-lek-e\H.LH a-gon-e\H.LH
2SGS-1O-let-SUB\SUB 1S-sleep-SUB\SUB
'Let him sleep!'

(422) *Bályè!* (C)

ba-ly-e\HL(H)
2S-eat-SUB\SUB
'Let them eat!'

A Subjunctive can also be used to express a purpose, in a way similar to the Infinitive (see Section 6.1.9). Examples of this usage are given in (423) and (424).

(423) *Nîìwo ókwètégá, ábònè níki ékìizâ.* (W)

ní-ì´-wo ó-ku-e.teg-a\LH a-bon-e\H.LH\FO2 níkì
COP3-PRO-AGR16 AUG-INF-REFL.listen_attentively-FV\INF 1S-see-SUB\SUB\FO2 what
é-ki-iz-a\LHL
REL-7S-come-FV\PRES
'Immediately it paused to listen attentively in order to view what was coming.'

(424) *Téte ómámà wê, ómùrûndì gw'ókùsàtú, n'ámùwa élístì áàbe ágùle ébíntù.* (C)

téte ó-mámà=o-e ó-mu-`rûndí\FL gu-á ó-kùsàtú ni
again AUG-mom=AGR1-1POSS AUG-3-time\FL AGR3-ASS AUG-third NAR
à´-mu-w-a\LH(LH) é-lístì a-ab-e\H.LH a-gul-e\H.LH é-bi-´ntù
1S-1O-give-FV\PRES.SBR AUG-list 1S-go-SUB\SUB 1S-buy-SUB\SUB AUG-8-thing
'Again her mother, for the third time, gave her a list to go buy things.'

The Subjunctive is also used in the complement clause of *kùtàká* 'to want', illustrated in (425), when the verb takes a finite clause as its argument (rather than a noun or an Infinitive). Other verbs that also relate to non-real events, such as *kùsùbíírá* 'to hope', generally don't have a Subjunctive complement, however, as the example in (426) shows, where the verb in the complement clause is in F1.

(425) *Ǹtáká nkòle ákàsênté, kábbè kàngí.* (C)

ǹ-tak-a\LHL n-kol-e\H.LH á-ka-ˋsênté ka-bb-e\HL(H) ka-ˋngí
1SGS-want-FV\PRES 1SGS-make-SUB\SUB AUG-12-money 12S-COP1-SUB\SUB AGR12-much
'I want to make money and have it be a lot.'

(426) *Ólèké nsùùbìré ntì wábbà kúsà.* (C)

o-lek-e n-suub.ir-e\H.LH ǹ-tî\FL o-a-bb-a\HL(H) ku-ˊsà
2SGS-let-SUB\SUB 1SGS-hope.APPL-SUB\SUB AGR1SG-SBR\FL 2SGS-TNS-COP1-FV\F1 AGR17-good
'Let me hope that you will be good.'

Additionally, the Subjunctive can be used with modal flavour, for instance it can be used with deontic modality, as in (427), and (428).

(427) *Ékíbírà kyàìsú kínù, kírìmu émìtègó, kálè bùlì kísólò kyónákyónà kítàmbùlèngé n'ókwègéndérézá, kísòòkèngè nì kyèkálìsìsya ékífò ékìkyèmámù.* (W)

é-ki-ˊbírà ki-àìsú ki-ˋnú kìˊ-li\LH(L)=mu é-mi-ˋtègó kálè
AUG-7-forest AGR7-1PL.POSS AGR7-DEM_PROX 7S-COP2\PRES=18 AUG-4-trap INTJ
bùlí\FL ki-ˊsólò ki∼ónà∼ki-ónà ki-tamb.ul-e-nga\H.LH nè
every\FL 7-animal AGR7∼REDUP-AGR7-all 7S-walk.SEP1-SUB-HAB\SUB CONJ
ó-ku-e.genderez-a\LH ki-sook-e-nga\H.LH\FO2 ni
AUG-INF-REFL.be_careful-FV\INF 7S-be_first-SUB-HAB\SUB\FO2 NAR
kìˊ-eˊ.kal.isisy-a\LHLH é-ki-ˊfò
7S-REFL.look_carefully.CAUS3-FV\PRES.SBR AUG-7-place
é-ki-ki-em-a\LH=mu
REL-7O.REL-7S-step-FV\PRES.SBR=18
'Our forest has got a lot of traps, so every animal should be careful while walking in the bush, and should look before it steps.'

(428) *ÓLángha àkóba ààtì "Mázíma óSámù yáfùmbìrwà mwàla óòyó, ómwàna óòyó ngà mwàná wá mwàná wàngè dála ábbéwò néngà bbé..."* (C)

ó-Langha à-kob-a\LHL à-tî\FL ma-ˋzímá ó-Samu
AUG-PN.M 1S-say-FV\PRES AGR1-QUOT\FL 6-truth AUG-PN.M
a-a-fumb.ir.w-a\H.LH\FO2 mu-àlá o-ˋó ó-mu-àná
1S-TNS-marry.APPL.PASS1-FV\F1\FO2 1-girl AGR1-DEM_MED AUG-1-child
o-ˋó ngà mu-àná o-á mu-àná o-àngé dálá
AGR1-DEM_MED SIM 1-child AGR1-ASS 1-child AGR1-1SG.POSS really
a-bb-e\H(L)H=wo néngà bbé
1S-COP1-SUB\SUB=16 CONJ NEG
'Langha was saying "For real Sam will marry that girl if it's true that the baby really is my son's, then he should stay here but if not..."'

While this is by no means a complete overview of all the contexts in which the Subjunctive can be used, it hopefully covers the main ones, and illustrates some of the range of functions that this form has.

8.1.2 Jussive

8.1.2.1 The ka- prefix

A Jussive mood can be formed by attaching *ká-* to a Subjunctive verb. With Agreement Class 1 and 2nd person singular, the prefix merges with the subject marker, much like the negative marker, and the vowel of the prefix is deleted. There is no negative version of the Jussive, although a negative Subjunctive can be used for that function. The tone of the prefix is high, and otherwise the verb has the same tone as in the Subjunctive, the HLH melody, where the final high lowers in Form 2 contexts, as in *kágùlè mùtyêré* 'let him/her buy rice'. Table 8.4 shows the jussive forms for the speech act participants and Agreement Classes 1 and 2.

The status of this morpheme is a bit unclear. It might be a prefix, in which case *ká-* goes in the Pre-SM slot, before the subject marker. The vowel that results from the combination of *ka* and *o-* '2nd SG' or *a-* 'AGR 1' is short, but this is often the case when a prefix ending in /a/ combines with a mid vowel prefix, for example with the reflexive prefix, see Section 9.7.1. A short vowel is also what we would expect if liaison between two words had taken place. The high tone could come from the high tone of the pre-stem melody of the Subjunctive, which might be an argument in favour of this being a prefix, however the associative particle also has a high tone, and this could be a similar case. A proclitic would also be expected to have a high tone when attaching to a word that starts with a high tone. It is therefore difficult to say with any certainty whether this is best seen as a prefix, a clitic or a particle. However, as no examples of anything intervening between *ka-* and the verb has been seen, it seems to form a grammatical word with the verb, even though there is not enough evidence to say whether it is a separate phonological word.

(429) – (432) show examples from the corpus. While I was able to find many instances of this used with 1st person subjects, I could not find any examples in the corpus

Table 8.4: The verb *kùgòná* 'to sleep' in the Jussive

	FO1 AFF
1st SG	kángòné
1st PL	kátúgòné
2nd SG	kógòné
2nd PL	kámúgòné
AGR 1	kágòné
AGR 2	kábágòné

of this form used with other persons, although speakers accepted and produced such forms in elicitation.

(429) *Ǹbé, múkáírè, kánkùwe émìtwàlo éíkùmí.* (C)

mbé mu-ˊkáírè ká-n-ku-w-e\HL(H) é-mi-ˋtwàló é-ìkùmí
NEG 1-old_person JUS-1SGS-2SGO-give-SUB\SUB AUG-4-ten_thousand AUG-ten
'No, madam, let me give you 100,000shs.'

(430) *Ǹti, kále, átyânú, kátútùmùlé kwìwé.* (C)

ǹtî kálè á-tyânú ká-tu-tum.ul-e\H.LH ku=ìˊ-we
SBR INTJ AUG-now JUS-1PLS-speak.SEP1-SUB\SUB 17=PRO-2SG
'That, okay, now, let's talk about you.'

(431) *Náyê, kátúbòne ébyâba ómú màisó* (C)

náyê ká-tu-bon-e\H.LH é-bi-a-ab-a\H.LH ó-mu=ma-ˋìsó
but JUS-1PLS-see-SUB\SUB REL-8S-TNS-go-FV\F1 AUG-18=6-eye
'But let's see what will happen. (lit. what will go in the eye)'

(432) *Nè nkóbà: "Kánkòlè kòmpyútà."* (C)

ni ǹˊ-kob-a\LHL(H) ká-n-kol-e\H.LH\FO2 kòmpyútà
NAR 1SGS-say-FV\PRES.SBR JUS-1SGS-do-SUB\SUB\FO2 computer
'I said: "Let me do computer."'

8.1.2.2 Jussive with *kùlèká*

In a similar vein, the verb *kùlèká* 'to leave, to let' in the Subjunctive can be used as a jussive/hortative auxiliary, like in (433) – (436). The auxiliary is in the Subjunctive and has a second person subject, and the lexical verb is also in the Subjunctive, with either a first or third person subject marker.

(433) *Ólèké njàbé ndetè kyéyò.* (C)

o-lek-e\H.LH *n-ab-e\H.LH* *n-let-e\H.LH\FO2* *ki-éyò*
2SGS-leave-SUB\SUB 1SGS-go-SUB\SUB 1SGS-bring-SUB\SUB\FO2 7-broom
'Let me go bring a broom.'

(434) Song lyric

Múlèke áyàbé, àyábà, múlèke áyàbé, àyába àndèkérèwó. (C)

mu-lek-e\H.LH *a-ab-e\H.LH* *à-ab-a\LHL* *mu-lek-e\H.LH* *a-ab-e\H.LH*
2PLS-leave-SUB\SUB 1S-go-SUB\SUB 1S-go-FV\PRES 2PLS-leave-SUB\SUB 1S-go-SUB\SUB
à-ab-a\LHL *à-n-lek-ire\LHL=wo*
1S-go-FV\PRES 1S-1SGO-leave-PST2\P2=16
'Let her go, she is going, let her go, she is going, she has left me.'

(435) *Ólèké bátùmùlé.* (C)

o-lek-e\H.LH *ba-tum.ul-e\H.LH*
2SGS-leave-SUB\SUB 2S-talk.SEP1-SUB\SUB
'Let them talk.'

(436) *Ólèké twábè, túnòònyéku éèyò kàdí kìkúmì.* (C)

o-lek-e\H.LH *tu-ab-e\HL(H)* *tu-noony-e\H.LH=ku* *e-ˋó*
2SGS-leave-SUB\SUB 1PLS-go-SUB\SUB 1PLS-look_for-SUB\SUB=17 AGR23-DEM_MED
kàdí kìkúmì
not hundred
'Let's go and look for at least 100.'

8.1.3 Conditional

The conditional mood is used in the apodosis of irrealis conditional clauses. There are two different morphological forms that correspond to the conditional mood, and while there might be differences in nuances, their main functions appear to be similar. I have currently not found any contexts where one is acceptable and the other not, but more research on this is needed. They will be referred to as C1 and C2.

8.1.3.1 C1

The first conditional form, which will be referred to as C1, consists of *anka-* in TA and *-ire* in FV. The tonal melody of a bisyllabic verb is LH.LHL. Table 8.5 shows some verbs in C1. For monosyllabic verbs like *kùlyá* the middle low is dropped, as in *yànkálíírè*. C1 can also be combined with the Habitual marker, as illustrated for the first two verbs

Table 8.5: Some verbs in C1 with AGR 1 subjects

	AFF	NEG
kùlòndá 'to select'	yànkálòndérè	tìyànkálòndérè
	yànkálòndéréngè	tìyànkálòndéréngè
kùlyá 'to eat'	yànkálíírè	tìyànkálíírè
	yànkálííréngè	tìyànkálííréngè
kwòzá 'to wash'	yànkóòzérè	tìyànkóòzérè
kwìbbá 'to steal'	yànkáìbbírè	tìyànkáìbbírè
kùjànjábá 'to treat'	yàkájànjábírè	tìyànkájànjábírè
kùkàlábándá 'to roast'	yànkákàlábándírè	tìyànkákàlábándírè

Table 8.6: Some verb in C1 with AGR 1 subjects and object markers. The object markers are *gu-* 'AGR 3', *ga-* 'AGR 6' and *mu-* 'AGR 1'

	AFF	NEG
kùlòndá 'to select'	yànkágùlòndérè	tìyànkágùlòndérè
kùmwá 'to shave'	yànkágùmwéírè	tìyànkágùmwéírè
kwìbbá 'to steal'	yànkágàìbbírè	tìyànkágàìbbírè
kùjànjábá 'to treat'	yànkámùjànjábírè	tìyànkámùjànjábírè

in Table 8.5, in which case the Habitual marker carries the final L tone, and the H tone before it expands to encompass the extra syllable. In the negative, a low-toned negative marker is attached, while the tonal melody stays the same. There is no Form 1/Form 2 alternation.

Object markers Table 8.6 shows some verbs in C1 with object markers. The object markers are low-toned.

8.1.3.2 C2

C2 is formed with *andi-* in TA and *-ire* in FV. Tonally, it is identical to C1, with a LH.LHL melody. Table 8.7 shows some verbs in C2. Much like C1, C2 can also be combined with the Habitual marker.

8.1.3.3 Usage of the conditional mood

Both from elicitation and looking at examples from the corpus, the two conditional forms seem to have more or less the same functions. Their main function, is in the apodosis of irrealis conditional clauses. In elicitation, to get a conditional verb form, I used sentences along the line of "If I had been rich, I would…". An example is given in (437).

Table 8.7: Some verbs in C2 with AGR 1 subjects

	AFF	NEG
kùlòndá 'to select'	yàndílòndérè	tìyàndílòndérè
kwòzá 'to wash'	yàndíyòzérè	tìyàndíyòzérè
kwìbbá 'to steal'	yàndíìbbírè/yàndíìbbírè	tìyàndíìbbírè
kùlyá 'to eat'	yàndíríírè	tìyàndíríírè
kùjànjábá 'to treat'	yàndíjànjábírè	tìyàndíjànjábírè
kùkàlábándá 'to roast'	yàndíkàlábándírè	tìyàndíkàlábándírè

(437) *Sìngá nààlì mùgàìgá, nàndílíírèngè bùlì kíntù.*

sìngá *n-a-li\L.LH\FO2* *mu-ˋgàìgá* *n-andi-ly-ire-nga\LH(L)HL* *bùlí\FL*
COND.IRLS 1SGS-TNS-COP2\P5\FO2 AGR1-rich 1SGS-COND-eat-PST2-HAB\COND every\FL
ki-ˊntù
7-thing
'If I had been rich, I would eat everything.'

A few additional examples of this from the corpus are given below. (438) and (444) show C1, while (440), (441) and (442) are examples of C2. The protasis clause generally contains the conjunction *sìngá* 'if'. The tense of the protasis clause is decided by the actual time of the counterfactual event. In (440) for instance, the counterfactual event is being born in a different place, and so P5 is used, as the event of being born took place in the distant past. In (444), the wood chopping happened on the same day, and so is in P2. In (442), the counterfactual event relates to having a choice at the present moment, and so is in the Present. When the protasis has a meaning along the lines of 'if x had another identity', like in (438) ('If you were the mother...') and (441) ('If you were the bird...'), then it appears either a Present or a past tense is possible. It is also possible for the protasis not to be headed by a conjunction, as in (443).

(438) *Sìngá wàbbàìrè nîìwe ómámà, wànkákòlérèngè níkì?* (W)

sìngá *o-a-bb-ire\L.LH\FO2* *ní-ìˊ-we* *ó-mámà*
COND.IRLS 2SGS-TNS-COP1-PST2\P5\FO2 COP3-PRO-2SG AUG-mom
o-anka-kol-ire-nga\LH.LHL *níkì*
2SGS-PST1-do-PST2-HAB\COND what
'If you were the mom, what would you have done?'

(439) *Ójôní n'ámwìrámu ààti: "Sìngá tìnjábìré nì mbéèta énkwì ómú ndìkíryá, tìwànkábbáíre áànú ngà òwóta ómúsyò."* (C)

ó-ƀoni ni à´-mu-ir-a\LH(LH)=mu à-tî sìngá
AUG-PN.M NAR 1S-1O-reply-FV\PRES.SBR=18 AGR1-QUOT COND.IRLS
ti-n-ab-ire\LHLH ni ǹ´-bbeet-a\LHL(H) é-n-kwí
NEG-1SGS-go-PST2\P2.NEG NAR 1SGS-chop-FV\PRES.SBR AUG-10-firewood
ó-mu=n.dìkíryá ti-o-anka-bb-ire\LH(L)HL a-`nú ngà
AUG-18=9.dark NEG-2SGS-PST1-COP1-PST2\COND AGR16-DEM_PROX SIM
ò-ot-a\LHL ó-mu-´syò
2SGS-get_warm-FV\PRES AUG-3-fire
'John answered her: 'If I had not gone to chop firewood in the dark, you would not be here warming yourself on the fire."'

(440) *Ótèèbèrèzé, ótèèbèrèze óbùlàmú bwò, óbwàndíbbáírè sìngá wàbyàlìwìrè mù nsì gèndí.*

o-teeberez-e\H.LH o-teeberez-e\H.LH ó-bu-`làmú=bu-o
2SGS-imagine-SUB\SUB 2SGS-imagine-SUB\SUB AUG-14-life=AGR14-2SG.POSS
ó-bu-andi-bb-ire\LH(L)HL sìngá o-a-by.al-iw-ire\L.LH\FO2
REL-14S-COND-COP1-PST2\COND COND.IRLS 2SGS-TNS-give_birth.EXT-PASS2-PST2\P5\FO2
mu=n.`sí\FL ge-`ndí
18=9.country\FL AGR9-other
'Imagine, imagine what your life would be like if you were born in a different country.'

(441) *Sìngá níìwe óNyónyi òyó, wàndíkàngíre ókú mùsáále ògwó?* (W)

sìngá ní-ì´-we ó-ny.`ónyì o-`ó o-andi-kang-ire\LH.LHL
COND.IRLS COP3-PRO-2SG AUG-9.bird AGR1-DEM_MED 2SGS-COND-return-PST2\COND
ó-ku=mu-`sáálè ogw-`ó
AUG-17=3-tree AGR3-DEM_MED
'If you were that bird, would you return to that tree?'

(442) *Sìnga ósòbóla ókùfùná ámààní gá kìfúúsà, wàndífùnírè níkì?*

sìngá ò-sob.ol-a\LHL ó-ku-fun-a\LH á-ma-`ní ga-á
COND.IRLS 2SGS-can.SEP1-FV\PRES AUG-INF-get-FV\INF AUG-6-power AGR6-ASS
ki-`fúúsà o-andi-fun-ire\LH.LHL níkì
7-magician 2SGS-COND-get-PST2\COND what
'If you could pick a magical super power, what would you pick?'

(443) *Tòbóinékù njábùlò wàkábbáírè ngà òlìwo ésáàwá gìnú?* (C)

ti-o-bon-ire\LHLH=ku n.jábùló\FL o-anka-bb-ire\LH(L)HL ngà
NEG-2SGS-see-PST2\P2.NEG=17 9.difference\FL 2SGS-PST1-COP1-PST2\COND SIM
ò-li\LH(L)\FO2=wo é-sáàwá gi-`nú
2SGS-COP2\PRES\FO2=16 AUG-time AGR10-DEM_PROX
'If you hadn't seen a difference, would you be here now?'

In some cases, the protasis is not overtly stated. In (444), the parents, who have both passed, were mentioned right before. The understood counterfactual protasis is 'If our parents were still alive'.

(444) *Ǹkàkàsà nti átyânù bànkábbáirè bátùwùlìrìràmú ínò, ókùsìnzíríráku àànú, ówètùtúúkíré.* (W)

ǹ-kakas-a\LHL\FO2 ǹ-tî á-tyânú\FL ba-anka-bb-ire\LH(L)HL
1SGS-declare-FV\PRES\FO2 AGR1SG-QUOT AUG-now\FL 2S-PST1-COP1-PST2\COND
bà´-tu-wul.irir-a\LHL\FO2=mu ìnó ó-ku-sinz.irir-a\LH=ku
2S-1PLO-esteem.DUR1-FV\PRES\FO2=18 very AUG-INF-base.DUR1-FV\INF=17
a-`nú ówè-tu-tuuk-ire\LH
AGR16-DEM_PROX SBR-1PLS-arrive-PST2\P2.SBR
'I'm sure that they (our parents) would be very proud of us now, based on here, where we have gotten to.'

C1 and C2 are also sometimes used in contexts where they appear to have modal meanings along the lines of English 'should' or 'could', as illustrated in (445) and (446). Note that these still retain the counterfactual sense, but in addition there is a modal idea of a more desirable or more correct alternative. Note also (447), said by a patient to a doctor, where the usage of the conditional appears to relate to politeness, that is, by marking a request as hypothetical, it makes it less intrusive.

(445) *Ómwísíríkále ómùsàìzà n'àkóba "Aah!", n'àkúngà, n'àkóba áàtì "Mbé, tìkyàkáb-báirè kítì!"* (C)

ó-mu-ísíríkálè ó-mu-`sàìzá\FL ni à´-kob-a\LHL(H) INTJ ni à´-kung-a\LHL(H)
AUG-1-police_officer AUG-1-man\FL NAR 1S-say-FV\PRES.SBR INTJ NAR 1S-cry-FV\PRES.SBR
ni à´-kob-a\LH(LH) à-tî\FL mbé ti-ki-anka-bb-ire\LH(L)HL
NAR 1S-say-FV\PRES.SBR AGR1-QUOT\FL no NEG-7S-PST1-COP1-PST2\COND
kì´-tî
AGR7-like_this
'The male policeman cried and said: "No, it should not have been like this!"'

(446) *Mbú mámà kyàkábbáirè kìtyá?* (C)

mbú mámà ki-anka-bb-ire\LH(L)HL kì´-`tyá
HRS mom 7S-PST1-COP1-PST2\COND AGR7-how
'Mother, how was it supposed to be?'

(447) *Tyânú mùsàwò, mbáírè nsábà, ntì wànkánkùbbírè, wànkámpáírèku óbújánjábì óbùsóókà.* (C)

tyânú mu-ˋsàwó\FL ǹ-bb-ire\LHL ǹ-sab-a\LHL ǹ-tî\FL
now 1-doctor\FL 1SGS-COP1-PST2\P2 1SGS-request-FV\PRES AGR1SG-SBR\FL
o-anka-n-kubb-ire\LH.LHL o-anka-n-w-ire\LH(L)HL=ku
2SGS-PST1-1SGO-inject-PST2\COND 2SGS-PST1-1SGO-give-PST2\COND=17
ó-bu-ˊjánjábì ó-bu-sook-a\LHL
AUG-14-treatment REL-14S-be_first-FV\PRES
'Now doctor, I was requesting, that you would give me an injection, you would give me the first treatment.'

A conditional can also be used in contexts discussing something that was a possibility in the past, but has been disproven. For instance (448) is from a story where the speaker was asked why he had brought an umbrella to work the day before, and he answers that he did that because it could have been raining. This conversation happens at a time where the participants both know that it did not in fact rain that day, so it is no longer a possible situation.

(448) *Nálètére ámànvîírí, kùbbángà, ólwìsì nàkábbáírè ntàmbúla ókwìza ókú múlímò ónkéndì n'ánkùbbá.* (C)

n-a-let-ire\H.LHL á-ma-n.ˋvîírí kùbbángà ó-lu-ìsí\FL
1SG-TNS-bring-PST2\P3 AUG-6-9.umbrella because AUG-11-sometimes\FL
n-anka-bb-ire\LH(L)HL ǹ-tamb.ul-a\LHL ó-ku-iz-a\LH ó-ku=mu-ˊlímò
1SGS-PST1-COP1-PST2\COND 1SGS-walk.SEP1-FV\PRES AUG-INF-come-FV\INF AUG-17=3-work
ó-n.kéndì ni à-ˊ-n-kubb-a\LH
AUG-9.rain NAR 1S-1SGO-hit-FV\PRES.SBR.UC
'I brought an umbrella, because it could have started raining while I was walking to work.'

8.1.4 Optative

In addition to heading the protasis of an irrealis conditional, *sìngá* can also be used to express something as desirable, along the lines of the English 'I wish…' or 'if only…', as in (449) and (450). Just like in the protasis usage, this is also an irrealis context. In (450), the question in (450b) makes it clear that the first speaker did not in fact say what he wishes he had, and so the wish is a counterfactual one, and in (449) it is clear that the addressee is not in fact dead. The desired outcome does not have to be counterfactual. In

(451) the speaker wishes God will help provide an outcome, and must therefore believe that it is a possible situation.

(449) *Uhmm! Yéna áíze ákòbe áàti ómáye ààti: "Sìngá wàfíírè!"* (C)

EXCL a-énà a-iz-e\HL(H) a-kob-e\H.LH à-tî ó-má=y-e
EXCL AGR1-also 1S-come-SUB\SUB 1S-say-SUB\SUB AGR1-QUOT AUG-mom=AGR9-1POSS
à-tî sìngá o-a-f-ire\(H)L.HL
AGR1-QUOT OPT 2SGS-TNS-die-PST2\P5.SBR
'Yes, let her also come and tell her mother "I wish you were dead!"'

(450) a. A: *Átyânu òbóna àfíírè ngà ókó-tì, nàáli óòtì ńkòbé, kàlé sìngá nàkòbèré.* (C)

á-tyânú ò-bon-a\LHL à-f-ire\LHL ngà ò-kob-a\LHL òtî\FL
AUG-now 2SGS-see-FV\PRES 1S-die-PST2\P2 SIM 2SGS-say-FV\PRES AGR2SG-QUOT\FL
n-a-li\L.LH ò-tî n-kob-e\H.LH kàlé sìngá n-a-kob-ire\LH
1SGS-TNS-COP2\P5 like\FL 1SGS-say-SUB\SUB okay OPT 1SGS-TNS-say-PST2\P5
'After seeing him dead, then you say, I was about to say, I wish I said it.'

b. B: *Lwákí tíwàkóbérè?*

lwákí ti-o-a-kob-ire\H.LHL
why NEG-2SGS-TNS-say-PST2\P5.NEG
'Why didn't you say it?'

(451) *Sáá gìnú, táálí kwàba ókùkòlá síînyá, nàyé sìnga óKàtónda ámùyámbà n'àbííta ólùzûngú n'ókùbàlá.* (C)

sáàwá gi-`nú ti-a-li\(L)H ku-ab-a\LH ó-ku-kol-a\LH
hour AGR10-DEM_PROX NEG-1S-COP2\PRES.NEG INF-go-FV\INF AUG-INF-do-FV\INF
síînyá nàyê sìngá ó-ka-`tóndà à´-mu-yamb-a\LHL ni à´-biit-a\LHL(H)
senior but OPT AUG-12-God 1S-1O-help-FV\PRES NAR 1S-pass-FV\PRES.SBR
ó-lu-`zûngú nè ó-ku-bal-a\LH
AUG-11-English CONJ AUG-INF-count-FV
'This time he is not going to do senior school, but I wish God helps him pass English and Maths.'

8.2 Modality

Lugwere has a series of modal verbs and constructions that can be used to express modality. Overall, there are more options to express possibility (Section 8.2.2), than there is to express necessity (Section 8.2.1).

8.2.1 Necessity/Obligation

The main construction to express obligation in Lugwere, regardless of which flavour of modality, is with a copula (*-li* in the Present tense) and the conjunction *nè*. This is also how possession is expressed, and so this is a parallel construction to the English 'have to'. This is sometimes translated as 'have to' or 'must', and sometimes as 'should', in all cases it can be considered a necessity or an obligation, but Lugwere does not make any further distinction between a weak obligation (should) or a strong obligation (must, have to). In many cases, the copula and the conjunction are merged, and the /l/ gets deleted, giving forms such as *àìna ókùsòmá* 's/he has to study', *òìna ókùsòmá* 'you sg have to study'. Below are examples showing this construction used in a deontic context (452), an epistemic context (453), and a dynamic context (454).

(452) *Ómú dònésyà, ámátéékà gàkóbà ntì ngà òòlì kùvùga épíkípìkí òyna ókùzwàla élèmèntí.*

ó-mu=dònésyà á-ma-ˊtéékà gàˊ-kob-a\LHL ǹtî\FL ngà ò-li\LH(L)\FO2
AUG-18=Indonesia AUG-6-law 6S-say-FV\PRES SBR\FL SIM 2SGS-COP2\PRES\FO2
ku-vug-a\LH é-píkípìkí ò-li\LH(L)\FO2=nà ó-ku-zw.al-a\LH
INF-ride-FV\INF AUG-motorbike 2SGS-COP2\PRES\FO2=CONJ AUG-INF-wear.EXT-FV\INF
élèmèntí
helmet
'In Indonesia, the law states that when you ride a motorbike you must wear a helmet.'

(453) Context: I know that Brian will come to the village this week, but I don't know which day. It is the last day of the week, so since I know that he will definitely come this week, I know that he will arrive today.

ÓBríànì àálì n'ókùtùùka ólwátyânú, m̀méítè.

ó-Bríànì à-li\LH(L)\FO2 nè ó-ku-tuuk-a\LH ó-lu-átyânú
AUG-PN.M 1S-COP2\PRES\FO2 CONJ AUG-INF-arrive-FV\INF AUG-11-today
ǹ-many.IRR\LHL
1SGS-know.IRR\PRES
'Brian must arrive today, I am certain.'

(454) Context: You are on a bus to Kampala. You have not had a chance to go to the toilet for 4 hours, and your bladder is full. You text your friend:

Ǹdì n'ókusikámá ínò dálá.

ǹ-li\LH(L)\FO2 nè ó-ku-sik.am-a\LH ìnó dálá
1SGS-COP2\PRES\FO2 CONJ AUG-INF-pee.POS-FV\INF very really
'I really have to pee.'

The verb *kùtàká* has a broad range of uses, covering the semantic areas of English 'to want', 'to love', and 'to like', as well as functioning as a future auxiliary (see Section 6.9). Additionally, it can sometimes be used as a modal verb indicating dynamic necessity, as in (455). This is especially often the case when there is a Agreement Class 7 subject, in some cases somewhat of a 'dummy' subject that does not actually agree with any noun in the context, and this can be understood as something along the lines of 'it is necessary', as in (456).

(455) Context: You have an old car. Because it is old:

Émótòca ètáka óìró.

é-mótòca è-tak-a\LHL óìró
AUG-car 9S-want-FV\PRES oil
'The car needs oil.'

(456) *Kálè bànângé, ékyálo égìkìtùùkìrè, kìtákà kwègéndérézá.* (C)

kálè ba-`nângé é-ki-álò é-gi-ki-tuuk-ire\LH\FO2
INTJ 2-dear.1SG.POSS AUG-7-world REL-23O.REL-7S-arrive-PST2\P2.SBR\FO2
ki-tak-a\LHL ku-e.genderez-a\LH
7S-want-FV\PRES INF-REFL.be_careful-FV\INF
'So, my dears, now where the world has come to, it is necessary to be careful.'

Another verb that can be used to mark necessity or obligation is *kùtèèkwá*, as illustrated in (457). In the corpus there were not many examples of this, and they all appear to be deontic.

(457) *Òtéékwa ókùbbà mùgùmú.* (C)

ò-teek.w-a\LHL ó-ku-bb-a\LH\FO2 mu-`gùmú
2SGS-must.PASS1-FV\PRES AUG-INF-COP1-FV\INF\FO2 AGR1-strong
'You must be strong.'

Finally, there is *-sanire* which is used to express weak deontic obligation, as in (458). It conjugates as a P2 verb, and there does not appear to be an Infinitive or to exist in other tenses. This is also sometimes found with a dummy Agreement Class 7 subject.

(458) *Ómwàná, yèsáníre ókù- ókùmànyáku ókùlìmá?* (C)

ó-mu-àná à-e´.san-ire\LHL FS *ó-ku-many-a\LH=ku*
AUG-1-child 1S-REFL.supposed-PST2\P2 FS AUG-INF-know-FV\INF=17
ó-ku-lim-a\LH
AUG-INF-farm-FV\INF
'A child, is he supposed to know how to farm?'

8.2.2 Possibility/Permission/Ability

When it comes to expressing possibility, there are more options. Firstly, there is *kùsòbólá*, which roughly translates to 'to be able to, can', and which can be used to express possibility in any flavour of modality. This verb has a transitive Separative extension, and therefore undergoes imbrication, like the verbs shown in Section 9.8.4. Some examples are given below, where it is used to express dynamic (459), epistemic (460) and deontic (461) modal possibility.

(459) *óMéèri àsòbóla ókutùmúla éndìmi ìsáátú.*

ó-Méèri à-sob.ol-a\LHL ó-ku-tum.ul-a\LH é-n-`lìmí
AUG-PN.F 1S-can.SEP1-FV\PRES AUG-INF-speak.SEP1-FV\INF AUG-10-language
ì-sáátú
AGR10-three
'Mary can speak three languages.'

(460) Context: I know that Brian will come to the village this week, but I don't know which day.

óBríàn àsòbóla ókwìza ólwátyânú.

ó-Bríàn à-sob.ol-a\LHL ó-ku-iz-a\LHL ó-lu-átyânú
AUG-PN.M 1S-can.SEP1-FV\PRES AUG-INF-come-FV\INF AUG-11-TODAY
'Brian might come today.'

(461) Mary is learning Lugwere from Milika, and Milika always tells her that she has to speak only in Lugwere. One day, Mary has something important to tell Milika, but she doesn't know how to say it in Lugwere. Milika gives her permission to tell it in English.

Òsòbóla ókùtùmúla ólùzûngú.

ò-sob.ol-a\LHL ó-ku-tum.ul-a\LH ó-lu-`zûngú
2SGS-can.SEP1-FV\PRES AUG-INF-speak.SEP1-FV\INF AUG-11-English
'You may speak English.'

There is also the form *-inza*, which conjugates like a Present tense verb, but which does not appear to occur in the Infinitive, nor in other tenses. Table 8.8 shows its Present tense forms. Note that for the first person singular, the root /n/ is dropped, which is possibly due to a variant of Meinhof's law (see Section 3.1.3.1).

Like *kùsòbólá*, this form can be used with any modal flavour, although in contexts where a dynamic and a deontic possibility are contrasted, like in (464), the speakers tended to use *kùsòbólá* to indicate dynamic possibility, and *-inza* for the deontic possibility. While speakers did accept *-inza* in some dynamic modality contexts in elicitation when asked for judgements, it does appear to be more common in epistemic and deontic contexts. A couple of examples are given in (462) and (463).

Table 8.8: The possibility modal *-inza*

	FO1 AFF	FO1 NEG
1st SG	ìnyízà	tìnyízá
1st PL	tùyínzà	tìtùyínzá
2nd SG	òyínzà	tòyínzá
2nd PL	mùyínzà	tìmùyínzá
AGR 1	àyínzà	tàyínzá
AGR 2	bàyínzà	tìbàyínzá

(462) Context: Michael is looking for his pet cat, but cannot find it. Michael knows that his cat is very elusive/mysterious. Michael tells his sister:

Ópúsíkàti àyínza ókùbbá múndà, òòba áànzá.

ó-púsíkàtí à-inz-a\LHL ó-ku-bb-a\LH mu-´ndà òbá a-`nzá
AUG-cat 1S-may-FV\PRES AUG-INF-COP1-FV\INF 18-inside or 16-outside
'The cat may be inside, or outside.'

(463) Context: According to the rules of the hospital, only family members are allowed to enter the patient's room during visiting hours. You came to visit your sister, but it was after visiting hours. But the really nice nurse says:

Òyínza ókùngírá.

ò-inz-a\LHL ó-ku-ng.ir-a\LH
2SGS-may-FV\PRES AUG-INF-enter.APPL-FV\INF
'You may enter.'

(464) Context: Kana's teacher told her class that it was okay/they were allowed to go swimming, but Kana doesn't want to because she cannot swim!

ÓKáàna àyínza ókwàba ókùwùgá, nàyé tàsóbóla ókùwùgá.

ó-Káàna à-inz-a\LHL ó-ku-ab-a\LH ó-ku-wug-a\LH nàyê
AUG-PN.F 1S-may-FV\PRES AUG-INF-go-FV\INF AUG-INF-swim-FV\INF but
ti-a-sob.ol-a\LH ó-ku-wug-a\LH
NEG-1S-can.SEP1-FV\PRES.NEG AUG-INF-swim-FV\INF
'Kana may go swimming, but she can't swim.'

Another verb that expresses possibility is *kwèzyá*, and this seems to primarily be used for epistemic and dynamic possibilities. An example is given in (465). While this is quite common in the written resources (the Bible translation and the stories published by The Lugwere Bible Translation Society and SIL), I did not find any instances of it in the transcriptions of the recordings of natural speech.

(465) *Ààlé, ónòònèrèryéku ómúntù yénáyénà àyézya ókúnbbèèrá ómú kígósì kìnú.* (W)

ààlé o-noon.erery-e\H.LH=ku ó-mu-´ntù o∼ena∼o-énà
INTJ 2SGS-search.DUR1-SUB\SUB=17 AUG-1-person AGR1∼REDUP∼AGR1-any
à-yezy-a\LHL ó-ku-n-bbeer-a\LH ó-mu=kí-gósì ki-`nú
1S-be_able-FV\PRES AUG-INF-1SGO-help-FV\INF AUG-18=7-hardship AGR7-DEM_PROX
'Then help me get someone who can rescue me from this hardship.'

Another irregular modal verb which can express possibility is *-andibbanga*. This appears to be the *-bba* copula with the C2 *-andi* prefix, and the final vowel *-a* plus the Habitual *-nga*. Outside of this form, though, the *-andi* prefix does not combine with final vowel *-a*. The form agrees with the subject. The examples in the corpus all appear to relate to epistemic possibility. An example is given in (466).

(466) *Tòsésémá. Gwàndìbbángà músúújà, àté ↓nátègèèrá ntyà ntì músúújà?* (C)

ti-o-sesem-a\LH gu-andi-bb-a-nga\LHL mu-´súújà àtê
NEG-2SGS-vomit-FV\PRES.NEG 3S-COND-COP1-FV-HAB\PRES.IRR 3-malaria CONJ
n-a-teg.eer-a\H.LH ǹ-tyâ\FL ǹ-tî\FL mu-´súújà
1SGS-TNS-understand.APPL-FV\F1 AGR1SG-how\FL AGR1SG-SBR\FL 3-malaria
'You don't vomit. It could be malaria, how will I know that it is malaria?'

kùdèmbá is another verb that can be used to express epistemic possibility, as in (467).

(467) *Tóyába ókùbbèèta énkwi ésáàwá gìnú ómú ndìkíryá, òdèmbà n'òbbánga òira ógìrétà ólúmò nèlùgwa ómúkì? Ómú nzírà.* (C)

ti-o-ab-a\(L)H *ó-ku-bbeet-a\LH* *é-n-ˋkwí* *é-sáàwá*
NEG-2SGS-go-FV\SUB.NEG AUG-INF-chop-FV\INF AUG-10-firewood AUG-time
gi-ˋnú *ó-mu=n.dìkíryá* *ò-demb-a\LHL\FO2* *nè*
AGR10-DEM_PROX AUG-18=9.dark 2SGS-might-FV\PRES\FO2 CONJ
ò-bb-a-nga\LHL *ò-ir-a\LHL* *ò´-gi-let-a\LHL* *ó-lu-´mò*
2SGS-COP1-FV-HAB\PRES 2SGS-return-FV\PRES 2SGS-10O-bring-FV\PRES AUG-AGR11-one
ni *lù´-gw-a\LH(LH)* *ó-mu=ki* *ó-mu=n.´zírà*
NAR 11S-fall-FV\PRES.SBR AUG-18=what AUG-18=9.path
'Don't go to chop firewood now in the dark, you might be bringing them back and one falls on the what? On the path.'

In addition to the modal verbs proper, there is the conjunction *òòbâ*, which can mean 'or', but which can also be used to express that something is an epistemic possibility, as in (468a) below. (468b) shows that the *-bba* copula with a subordinating prefix can also be used in this function, in addition to meaning 'if'/'when'.

(468) Context: When the light is on at Mary's house, it is usually a sign that she is home. You want to go visit Mary, and walking by her house, you see that the light is on right now. But you also see sandals by the front door that could be Mary's sister's. You think to yourself: Mary should be at home, but it's not for sure.

a. *Òòba ÓMéèri ààli ìká.*

Òbâ Ó-Méèri à-li\LH(L) *ì-ˋká*
if AUG-PN.F 1S-COP2\PRES 5-home
'Maybe Mary is at home.'

b. *Áàbba ÓMéèri ààli ìká.*

áà-à´-bb-a\LH(LH) *Ó-Méèri* *à-li\LH(L)* *ì-ˋká*
SBR-1S-COP1-FV\PRES.SBR AUG-PN.F 1S-COP2\PRES 5-home
'Maybe Mary is at home.'

8.2.3 Summary of modality

Table 8.9 gives an overview of the different verbs and constructions used to mark different kinds of modality. The information about modal flavours relies primarily on

Table 8.9: Summary of modal expressions

	Possibility/Permission/Ability	Necessity/Obligation
Deontic	kùsòbólá -inza	-li ne kùtèèkwá -sanire
Epistemic		
	kùsòbólá -inza òòbá -andibbanga -demba kwèzyá áà-SM-bba	-li ne
Dynamic		
	kùsòbólá -inza kwèzyá	-li ne kùtàká

what examples were found in the corpus, as well as judgements in elicitation for the more common expressions. Future research into the exact distribution and potential modal flavours of each expression would be beneficial.

8.3 Evidentiality - the hearsay marker *mbu*

Lugwere has a particle *mbu* that can be added to a clause to mark something as hearsay, indicating that the speaker does not have first-hand knowledge of its veracity. (469) – (471) show examples from the corpus, and in each case it is clear that the information presented is something that the speaker has gotten from a secondary source, rather than something they know first-hand. (469) shows the particle functioning like a complementiser, while in (470) – (471) it does not mark the beginning of reported speech, but rather the beginning of a hearsay fact.

(469) *Kéísi ómáma n'ánkóbà mbu ómùsèìzà yàbìtìré [unclear] kàsèìzà kàgèngé.* (C)

kéísi ó-máma ni à´-n-kob-a\LHL(H) mbu ó-mu-`sèìzà a-a-bit-ire\L.LH
then AUG-mom NAR 1S-1SGO-say-FV\PRES.SBR HRS AUG-1-man 1S-TNS-pass-PST2\P5
(...) ka-`sèìzà ka-`gèngé
(...) 12-man 12-leper
'Then mom told me that the person who passed was a leper.'

(470) *Ábàndi ábàbyàire ábámò bàbínga ábààlá b'éika ékídà, bábo ábáìna ébídà mbù bàfúnírè ìká (bá)bàswàzírè, bábèmúkíryè.* (C)

á-ba-ˋndí á-ba-ˋbyàìré á-ba-ˊmò bàˊ-bing-a\LHL á-ba-àlá ba-á
AUG-AGR2-other AUG-2-parent AUG-AGR2-one 2S-chase-FV\PRES AUG-2-girl AGR2-ASS
é-ì-ˋká é-ki-ˊdà ba-ba-ˋó á-bàˊ-li\LH(L)=nà
AUG-5-home AUG-7-stomach AGR2-AGR2-DEM_MED REL-2S-COP2\PRES=CONJ
é-bi-ˊdà mbu bàˊ-fun-ire\LHL ì-ˋká bàˊ-ba-swaz-ire\LHL
AUG-8-stomach HRS 2S-get-PST2\P2 5-home 2S-2O-embarass-PST2\P2
bàˊ-ba-eˊ.muk-y-ire\LHL
2S-2O-REFL.be_uncovered-CAUS1-PST2\P2
'Some other parents chase their girls from home due to pregnancy. Those who are pregnant, (they say) they got it from home, they are ashamed, they have been uncovered.'

(471) *Ábàndì bàkóbà òòdi ómùgàndáwè nííye éníkì, kùbbángà mbu ómùgàndáwè bààlì bámùwáire éígònà Kátííryò. Mbu íìyé mbù n'àìta ómúntù.* (C)

á-ba-ˋndí\FL bàˊ-kob-a\LHL o-ˋdí ó-mu-ˋgàndá=o-e
AGU-AGR2-other\FL 2S-say-FV\PRES AGR1-DEM_DIST AUG-1-parallel_sibling=AGR1-1POSS
ní-ì-yé é-níkì kubbanga mbu ó-mu-ˋgàndá=o-e
COP3-PRO-AGR1 AUG-what because HRS AUG-1-parallel_sibling=AGR1-1POSS
ba-a-li\L.LH\FO2 bàˊ-mu-w-ire\LHL é-ì-gòná\FO2 Kátííryò mbu ìˊ-ye
2S-TNS-COP2\P5\FO2 2S-1O-give-PST2\P2 AUG-5-land\FO2 PN.P HRS PRO-AGR1
mbu ni àˊ-it-a\LH(LH) ó-mu-ˊntù
HRS NAR 1S-kill-FV\PRES.SBR AUG-1-person
'Others say that it is his brother who is what, because (they say) his brother was given land at Katiryo. (They say,) as to him, he killed a person.'

9 Derivation and Valency Changing Morphology

Contents

9.1 Lugwere reflexes of Bantu extensions . . . 436
9.2 Causative . . . 438
9.2.1 Causative morphology . . . 439
9.2.2 Causative usages . . . 443
9.2.3 Causative syntax . . . 450
9.2.4 Lexicalised Causatives . . . 456
9.3 Applicative . . . 457
9.3.1 Applicative morphology . . . 457
9.3.2 Applicative usage . . . 458
9.3.3 Applicative syntax . . . 468
9.3.4 Lexicalised Applicatives . . . 473
9.4 Neuter . . . 474
9.4.1 Neuter morphology . . . 475
9.4.2 Neuter semantics and usage . . . 475
9.4.3 Neuter syntax . . . 479
9.4.4 Lexicalised Neuters . . . 481
9.5 Reciprocal . . . 482
9.5.1 Reciprocal morphology . . . 482
9.5.2 Reciprocal usage . . . 483
9.5.3 Reciprocal syntax . . . 485
9.5.4 Lexicalised Reciprocals . . . 487
9.6 Passive . . . 488
9.6.1 Passive morphology . . . 488
9.6.2 Passive usage and syntax . . . 488
9.6.3 Lexicalised Passives . . . 493

9.7 Reflexive . . . 494
9.7.1 Reflexive Morphology . . . 494
9.7.2 Reflexive usage . . . 495
9.7.3 Reflexive syntax . . . 498
9.7.4 Lexicalised Reflexives . . . 500
9.8 Non-productive extensions . . . 502
9.8.1 -an (Associative) . . . 502
9.8.2 -at (Tentative) . . . 507
9.8.3 -am (Positional) . . . 510
9.8.4 -ul/-uk (Separative) . . . 513
9.8.5 -al (Extensive) . . . 524
9.8.6 -ik (Impositive) . . . 530
9.8.7 Other verbal derivational processes . . . 532
9.9 Ordering of extensions in Lugwere . . . 535
9.10 Other irregular verbs . . . 537
9.10.1 Verbs in *-ona* . . . 537
9.10.2 *kùmànyá* . . . 538
9.10.3 *kùtàká* . . . 539

9.1 Lugwere reflexes of Bantu extensions

Lugwere has reflexes of all the Proto-Bantu extensions. Some are very productive, while others are less so, and some are restricted to a small group of lexemes. Table 9.2 lists the Lugwere reflexes alongside the PB forms. Due to the fact that Lugwere has a five vowel system, rather than the PB seven, we see that PB /i/ and /ɪ/ both correspond to Lugwere /i/, and PB /ʊ/ corresponds to Lugwere /u/. Otherwise, PB /d/ corresponds to Lugwere /l/ (note that due to orthographic conventions the phoneme is written as <r> following a front vowel).

This chapter will discuss each of the extensions in Table 9.2 in turn. In general, the extensions slot in between the root and the final vowel. For inflectional categories that use the general or the subjunctive stem, this is a regular, agglutinative process, and tonally the verbs simply behave like longer verb stems. In inflectional categories that use the past tense stem, however, certain extensions undergo imbrication, either optionally or obligatorily. Table 9.2 illustrates the forms that results for combining different extensions with *-ire*. In some cases there is both a regular and an imbricated stem in free variation. Extensions that have a non-low vowel display vowel harmony

Table 9.1: Proto-Bantu extensions and Lugwere reflexes

	Proto-Bantu	Lugwere
Causative	*-i/*-ici	-y,-isy
Applicative	*-ɪd	-ir
Impositive	*-ɪk	-ik
Neuter	*-ɪk	-ik
Positional (stative)	*-am	-am
Associative (reciprocal)	*-an	-an/ -angan
Repetitive	*-ag ∼ *-ang	-iag, (-nga?)
Extensive	*-ad	-al
Tentative (contractive)	*-at	-at
Separative	*-ʊd, *-ʊk	-ul, -uk
Passive	*-ʊ/*-ibʊ	-iw, -w

between the root and the suffix. If the root has a mid vowel, the extension will use either /e/ or /o/, and if it has a high or low vowel, it will use /i/ or /u/.

Imbrication can be described as a process where the first part of the *-ire* suffix undergoes metathesis with a preceding consonant. The process is illustrated in (472). The normal rules for hiatus resolution then apply, meaning that /u/ or /o/ + /i/ becomes /wi/, and /a/ or /e/ + /i/ become the diphthongs /ai/ and /ei/. /i/ + /i/ results in a long vowel. Because no consonant clusters are allowed, the /l/ of the past suffix deletes.

(472) a. *kùzìmúlá* 'to diagnose'

-zimul-ire –> -zimuirre –> -zimwire

b. *kùgùlírá* 'to buy with/for'

-gulir-ire –> -guliirre –> -guliire

c. *kùlòlérá* 'to search with/for'

-loler-ire –> -loleirre –> -loleire

d. *kùtyàmá* 'to sit'

-tyam-ire –> -tyairme –> tyaime

e. *kùsòmésyá* 'to teach'

-somesy-ere –> -someserye

The Causative *-y* and the Passive *-w* also participate in imbrication, and methatesis with the *-ire* suffix. For the long Causative *-isy* the *-ir* is thus inserted after the /s/, giving

-isirye, as shown in (472e). When the Applicative and the Causative are combined, the Applicative can be imbricated in a similar way to the past suffix, see Section 9.9.

With only one set of exceptions (see Section 9.10), imbrication only happens when extensions are involved, so the triggering context is best explained by morphology. Most extensions allow imbrication at least optionally, with the exception of extensions with the velar /k/, which never allow imbrication. Most verbs where imbrication occurs have a stem of at least three syllables because the most common is for an extension to be added to a CVC root (or onto a verb that already has other extensions), but there is a number of bisyllabic verbs that undergo imbrication. These are verbs that are best understood diachronically as CV verb stems plus a VC extension. It seems most bisyllabic verbs with a long stem vowel allow imbrication if they end in a sequence that is identical to one of the imbricating extensions. This can be understood either as all -CVVCV stem verbs historically having had an extension, i.e. that they are all diachronically CV+VC. Alternatively, it is possible that many CVVCV stem verbs diachronically do have extensions, and that imbrication was later generalised to all such words by analogy.

The next few sections will look at the extensions that are still productive in Lugwere today. Section 9.2 discusses the Causative, Section 9.3 the Applicative, Section 9.4 the Neuter, Section 9.5 the Reciprocal, Section 9.6 the Passive, and Section 9.7.1 looks at the Reflexive. While this latter is not an extension proper since it is marked with a prefix, it is discussed in this chapter alongside the extensions as it serves a similar valency changing function.

9.2 Causative

Lugwere has reflexes of both the short and the long causative from PB.[1] In addition, there is a reduplicated version of the long causative, *-isisy*. These are all fairly productive, but the short Causative is somewhat less productive. There are also words

[1]Much of what is presented in this section, particularly in Sections 9.2.2.1 and 9.2.2.1, was first described in Sæbø (forthcoming), and most of the examples are the same as presented there. The article goes into a more detailed discussion of non-causative usages of the Causative affixes, and the typology of such usages

Table 9.2: Lugwere extensions in the past tense

	Underlying	Surface
Causative 1	-y + -ire	-irye
	-y + -ere	-erye
Causative 2	-isy + -ire	-isirye
	-esy + -ere	-eserye
Causative 3	-isisy + -ire	-isisirye
	-esesy + -ere	-eseserye
Applicative	-ir + ire	-iire
	-er + -ire	-eire
Impositive	-ik + -ire	-ikire
	-ek + -ere	-ekere
Neuter	-ik + -ire	-ikire
	-ek + -ere	-ekere
Positional (stative)	-am + -ire	-aime/-amire
Associative (reciprocal)	-an + -ire	-aine/-anire
Associative (reciprocal)	-angan- + -ire	-angaine/-anganire
Extensive	-al- + ire	-aire
Tentative (contractive)	-at- + ire	-aite
Separative transitive	-ul + -ire	-wiire
	-ol + -ire	-weire
Separative intransitive	-uk + -ire	-ukire
	-ok + -ere	-okere
Passive 1	-w + ire	-irwe
	-w + ere	-erwe
Passive 2	-iw + ire	-irwe/-iwirwe
	-ew + ere	-ewere/-ewerwe

where the Causative affixes (most commonly the short Causative) have become lexicalised. The long and short causatives are not in complementary distribution as in PB, but can occur with the same verbs. The monosyllabic verbs only occur with the long Causative *-isy*.

9.2.1 Causative morphology

The Causative extension *-isy* and the reduplicated *-isisy* display vowel harmony with the stem. The suffixes have /e/ vowels following stems whose final vowel is a mid /o/ or /e/. Elsewhere, that is, following /i/, /a/ and /u/, the suffixes use /i/. In verb forms that use the general stem, the suffixes are inserted between the root and the final vowel, and the verbs inflect regularly. In forms that use the past tense stem, the short Causative *-y* is inserted inside of the past tense suffix, becoming *-irye/-erye*. The longer suffixes, *-isy* and *-isisy*, are split so that the final /j/ is inserted into the past suffix, while the initial

part stays in the slot following the root, becoming *-isirye/-eserye* and *-isisirye/-eseserye*.

Table 9.3 shows the verb *kùgùlyá* 'to sell (lit. make buy)' in the Present tense and in P2, P3, P5, F1 and F2. The Present tense forms illustrate how verbs with *-y* behave regularly in forms that use the general stem, while in forms that use the past tense stem the extension and the past suffix merge. In F2, the forms can have the tones generally found on trisyllabic and longer verbs, even thought the extension does not actually add an additional syllable to the word.

Table 9.3: The conjugation of *kùgùlyá* 'to sell' with AGR 1 subjects

	FO1 AFF	FO1 NEG
Present	àgúlyà	tàgúlyá
P2	àgùlíryè	tàgúlìryé
P3	yágùlíryè	tìyágùlíryè
P5	yàgùlìryé	tíyàgúlíryè
F1	yágùlyá	tìyàgùlé
F2	yàlígúlyà /yàlígùlyâ	tìyàlígùlyá

Table 9.4 shows the conjugations of the verbs *kùbàlísyá* 'to make count, to count with' and *kùgònésyá* 'to make sleep, put to bed' in the Present tense, P2, P3, P5, F1 and F2. The second root has a mid vowel, and the Causative suffix shows vowel harmony, becoming *-esy*.

Table 9.5 shows the conjugation of *kùgùlísísyá*, which has the reduplicated suffix. Similarly to what was seen above, the suffix merges with the past tense suffix, becoming *-isisirye*. In slow, careful speech, the suffix retains the two identical /is/ syllables, however it is quite common for the vowel between the two sibilants to be devoiced or deleted, giving forms such as [àgùlís:jà].

9.2.1.1 Spirantisation

Section 3.1.3.3 mentioned that some consonants (optionally) undergo spirantisation when palatalised and potentially also when preceding the vowel /i/ in some morphological contexts. The *-isy* Causative suffix is itself sometimes spirantised to [-iʃ]. When followed by the *-y* Causative, some consonants can also undergo spirantisation. Roots ending in /k/ are spirantised to /t͡ʃ/ in this context, and the semivowel is absorbed into the affricate. This is widespread and appears to be productive. It is also reflected in the

Table 9.4: The conjugation of *kùbàlísyá* 'to make count' *kùgònésyá* 'to make sleep' with AGR 1 subjects

	FO1 AFF	FO1 NEG
Present	àbàlísyà	tàbálísyá
	àgònésyà	tàgónésyá
P2	àbàlísíryè	tàbálìsìryé
	àgònéséryè	tìyágònéséryè
P3	yábàlísíryè	tíyábálísíryè
	yágònéséryè	tìyágònéséryè
P5	yàbàlìsìryé	tíyàbálísíryè
	yàgònèsèryé	tíyàgónéséryè
F1	yábàlìsyá	tìyàbàlìsyé
	yágònèsyá	tàgònèsyé/tíyàgònèsyé
F2	yàlíbàlíísyà	tìyàlíbàlíísyá
	yàlígònésyà	tìyàlígònésyá

Table 9.5: The conjugation of *kùgùlísísyá* 'to make buy' with AGR 1 subjects

	FO1 AFF	FO1 NEG
Present	àgùlísísyà	tàgúlísísyá
P2	àgùlísísíryè	tàgúlìsìsìryé
P3	yágùlísísíryè	tìyágùlísísíryè/tíyágúlísísíryè
P5	yàgùlìsìsìryé	tíyàgúlísísíryè
F1	yágùlìsìsyá	tìyàgùlìsìsyé
F2	yàlígùlísísyà	tìyàlígùlísísyá

orthography, where /k/ final roots with the *-y* Causative are written with <c>, rather than <ky>. When such a verb is put in the past tense, the *-y* is realised inside the past suffix *-ire*. Surprisingly, however, even though the immediate context that caused the spirantisation is thus removed, the root final consonant is still pronounced /t͡ʃ/. This is an instance of multiple exponence, and similar phenomena are found also in other Bantu language, see for instance Hyman et al. (2017) and Hyman (2003). (473) below shows a few examples, giving both the Infinitive and a P2 form.

(473) a. *kùtùùká* 'to arrive'
àtùùkírè 's/he arrived'
kùtùùcá 'to bring'
àtùùcíryè 's/he brought'

b. *kùlàmúká* 'to wake up (intr.)'
àlàmúkírè 's/he woke up'
kùlàmúcá 'to wake s.b.'
àlàmúcíryè 's/he woke s.b.'

Apart from this regular rule, there are some examples of lexicalised pairs where it looks like spirantisation has taken place at some point, but where no productive rule currently exists. A *-y* Causative can productively be made from a verb root ending in /l/ by simply palatalizing the /l/, as in *kùgùlá* 'to buy' *kùgùlyá* 'to sell' and *kùkàlá* 'to dry (intr.)' *kùkàlyá* 'to dry (tr.)'. There are, however, examples in the corpus where an /z/ corresponds to an /l/, as in the words listed in (474). These verbs do not have the *-y* suffix in past tense stem, however. There is also a handful of examples of /g/ and /ʤ/ corresponding, a couple are shown in (475). In these cases, the *-y* appears in the past tense forms, i.e. *àkànjíryè* 's/he returned'. These correspondences could be the result of a previously active rule, or borrowing. There are verbs ending in /ʧ/ or /ʤ/ with no causative meaning, and no non-Causative base verb in the dictionary, that nonetheless conjugate like Causative verbs, see for instance (476).

(474) a. *kùsùùbírá* 'to hope'
àsùùbíírè 's/he hoped'
kùsùùbízá 'to promise'
àsùùbízírè 's/he promised'

b. *kùcààlá* 'to visit'
àcáírè 's/he visited'
kùcààzá 'to host guests'
àcààzírè 's/he hosted guests'

(475) a. *kùkàngá* 'to return'

àkàngírè 's/he returned'

kùkànjá 'to return (s.t.)'

àkànjíryè 's/he returned (s.t.)'

b. *kùlùgá* 'to suffer'

àlùgírè 's/he suffered'

kùlùùjá 'to make suffer'

àlùùjíryè 's/he made suffer'

(476) a. *kùkòdóócá* 'to be soft, kind, tender, to obey, submit'

àkòdóócéryè 's/he obeyed'

b. *kùfùùjá* 'to foam or froth at the mouth.'

àfùùjíryè 's/he foamed at the mouth'

9.2.2 Causative usages

9.2.2.1 Causative

All of the three Causative affixes can be used in causative contexts. (477) and (478) show examples from the corpus of the *-isy* affix, (479) is an example of the *-y* suffix, and (480) shows the *-isisy* suffix.

(477) *Mbu òòdi ówámùgàngúlìsya ámàìzi áàti "pa!" (...)* (C)

mbu o-ˋdí *ówè-à´-mu-gang.ul-isy-a\LHLH* *á-ma-ˋìzí*
HRS AGR1-DEM_DIST SBR-1S-1O-overturn.SEP1-CAUS2-FV\PRES.SBR AUG-6-water
à-tî *pa*
AGR1-like ONOM
'When the other makes her throw down the water like "pah!" (...)'

(478) *Éèmùmálà, bábàábísya ámàìzí.* (C)

éè-mù´-mal-a\LHL(H) *bà´-ba-ab-isy-a\LHL* *á-ma-ˋìzí*
SBR-2PLS-finish-FV\PRES.SBR 2S-2PLO-go-CAUS2-FV\PRES AUG-6-water
'When you finish, they make you fetch water.'

(479) *Kéísì n'ómwìrùkya áìná? Ómwídwálìró.* (C)

kéísì ni *ò´-mu-ir.uk-y-a\LHL(H)* *áìná* *ó-mu=ì-dwálìró*
then NAR 2SGS-1O-run.SEP2-CAUS1-FV\PRES.SBR.UC where AUG-18=5-hospital
'Then where do you rush him? To the hospital.'

(480) *Àmùgìngìsìsya ámàìzí.*

à-mu-ging-isisy-a\LHL\FO2 á-ma-ìzí
1S-1O-carry-CAUS3-FV\PRES\FO2 AUG-6-water
'S/he makes her/him carry water.'

Commonly, the three affixes are interchangable, and using one over another does not significantly change the meaning. In other cases, there might be lexicalised meanings associated with only one causative form, most commonly the *-y* suffix. Compare, for instance, *kùnààbá* 'to bathe', *kùnààbísísyá*/*kùnààbísyá* 'to make bathe' and *kùnààbyá* 'to do the dishes'. A common usage of *-y* is to turn a change-of-state verb into a Causative, as for instance in (481). Generally, the *-y* suffix is the one with the most limited distribution, while *-isy* is fully productive. *-isisy* is the least common by far, and most of the examples in the corpus relate to the lexicalised verb *kùwùlísísyá* 'to listen'.

(481) a. *Ólùgwéyè lùkálírè.*

o-lu-ˋgwéyè lù´-kal-ire\LHL
AUG-11-dress 11S-dry-PST2\P2
'The dress dried.'

b. *Éísànà lìkálírye ólùgwéyè mángù.*

é-ì-sàná\FL lì´-kal-y-ire\LHL ó-lu-ˋgwéyè mángù
AUG-5-sun\FL 5S-dry-CAUS1-PST2\P2 AUG-11-dress quickly
'The sun dried the dress quickly.'

The Lugwere Causative has quite a wide range of usages, and covers both direct and indirect causation, as well as the sociative (see Section 9.2.2.2). In (482), for instance, the person is simply facilitating drinking by bringing beverages, while (483) can be understood as the child being caused to drink in a more direct way, either by being told to, or physically made to.

(482) *Ǹti ónáànì níìye ánywìsyá.* (C)

ǹtî ó-náàní\FL ní-ì´-ye á-a-nyw-isy-a\LH
SBR AUG-who\FL COP3-PRO-AGR1 REL-1S-drink-CAUS2-FV\PRES.SBR
'This one is the one who will provide drinks.'

(483) *Ànywìsírye ómwànà màtá.*

à-nyw-isy-ire\LHL o-mu-àná\FL ma-ˋtá
1S-drink-CAUS2-PST2\P2 AUG-1-child\FL 6-milk
'S/he made the child drink milk.'

9.2.2.2 Sociative

In addition to the causative usages proper, where one participant makes or causes another to do something, either directly or indirectly, the Lugwere Causative affixes can also be used with a sociative interpretation. That is, they can be used in contexts where one participant carries out an action alongside another participant, often interpreted as the one helping the other with the action. This usage appears to be productive, and speakers accepted it in most cases where the context would allow such an interpretation. As it is expressed identically to the causative meaning, the context or other knowledge of the situation is the only way to differentiate between a sociative and a causative interpretation. (484) below is an example from the corpus that was interpreted as sociative by the speaker who translated it. That is, in this context, the addressee grinds alongside the 3 girls, rather than the girls making the addressee grind.

(484) *Òòba ófùnírèku ábàálà bàsátú, bákùsyèsèsyàku éídébè.* (C)

òòbá o-fun-ire\LHL=ku á-ba-`àlá\FL ba-`sàtú
or 2SGS-get-PST2\P2=17 AUG-2-girl\FL AGR2-three
bà´-ku-sy-isisy-a\LHL\FO2=ku é-ì-débè
2S-2SGO-grind-CAUS3-FV\PRES\FO2=17 AUG-5-container
'Or you got three 3 girls and they help you grind in the container.'

9.2.2.3 Instrumental

Another very common function of the Causative suffixes is that of promoting an instrument to direct object. This is a function shared with the Applicative marker (see Section 9.3). Dixon (2012) classifies five main semantic groups that fall under the category of instrumental arguments, which he calls 'implement', 'surface effect', 'something which assists', 'materials used' and 'reason/cause'. The Lugwere Causative suffixes can be used to promote arguments of all these categories to direct objects.

By 'implement' it is meant either a tool, a weapon, or another object that physically changes the state of the original object. 'Hit' or 'break' are examples of predicates that often take an implement instrumental argument, as in (485).

(485) *Bámùkùbbìsyà (n'ó)mwìgó.*

bà´-mu-kubb-isy-a\LHL\FO2 (nè ó-)mu-ìgó
2S-1O-hit-CAUS2-FV\PRES\FO2 (CONJ AUG-)1-stick
'They hit him with the stick.'

'Surface effect' refers to instruments which do not profoundly alter an object, but only affects its surface. Examples of predicates that commonly have such an instrument, are 'wipe', 'sweep' and 'touch', and an example with the Lugwere Causative suffix is given in (486).

(486) *Àsìmúlísya éménzà (n'é)kítímbò.*

à-sim.ul-isy-a\LHL é-`ménzà (nè é-)ki-´tímbò
1S-wipe.SEP1-CAUS2-FV\PRES AUG-table (CONJ AUG-)7-cloth
'She wipes the table with a cloth.'

The third category 'something which assists', refers to instruments that help achieve something without necessarily directly altering the direct object, like in the previous two categories. Examples would be 'ascend with a rope' or 'cook with pan', and a Lugwere example is given in (487)

(487) *Nàsòmèré ngà ìswè mméítè nti ókùbàla òtèkwà kùbàlìsyà bùwòngó.* (C)

n-a-som-ire\L.LH ngà ì´-swe ǹ-many.IRR\LHL ǹ-tî
1SGS-TNS-study-PST2\P5 SIM PRO-1PL 1SGS-know.IRR\PRES AGR1SG-SBR
ó-ku-bal-a\LH o-teek.w-a\LHL\FO2 ku-bal-isy-a\LH\FO2
AUG-INF-count-FV\INF 2SGS-must.PASS1-FV\PRES\FO2 INF-count-CAUS2-FV\INF\FO2
bu-`wòngó
14-brain
'I studied knowing that for us, math, you must calculate with the brain.'

Then there is 'materials used', examples of which would be the instruments in phrases such as 'build with bricks' or 'cover with a shawl', and (488) shows a Lugwere example from the corpus.

(488) *Ngà mùzímbìsyà bìsáàlé …* (C)

ngà mù´-zimb-isy-a\LHL\FO2 bi-´sáàlé
SIM 2PLS-build-CAUS2-FV\PRES\FO2 8-tree
'When you would build with wood…'

Lastly, an instrumental argument of the type 'reason/cause' can promote the reason, cause or motive of an action to a direct object. This category differs somewhat from the others in not being what people would typically consider an 'instrument', but is included as a subcategory since it tends to use the same type of (applicative) marking as other instruments. And indeed, in Lugwere as well, the Causative can be used to promote a reason or a cause, as the example in (489) shows.

(489) *Àkìkòlèsyà kùtàká.*

à-ki-kol-isy-a\LHL\FO2 ku-tak-a\LH
1S-7O-do-CAUS2-FV\PRES\FO2 INF-love-FV\INF
'S/he does it because of love.'

While the examples given so far use the *-isy* suffix, the other two Causative suffixes can also be used in similar ways, as shown in (490).

(490) a. *Àsíbya ómbùlì múgúwà.*

à-sib-y-a\LHL ó-m.ʼbùlí\FO2 mu-ˊgúwà
1S-tie-CAUS1-FV\PRES AUG-9.goat\FO2 3-rope
'He ties the goat with a rope.'

b. *Àlùmìsìsyà màìnó.*

à-lum-isisy-a\LHL\FO2 ma-ìnó
AUG-bite-CAUS3-FV\PRES\FO2 6-tooth
'He bites with the teeth.'

9.2.2.4 Comitative

The comitative is another type of argument that can often be promoted to direct object by applicative morphology cross-linguistically. In Lugwere, the Applicative suffix cannot be used with this function, but there is a small group of verbs where the Causative suffixes can in fact promote a comitative argument to direct object position. This is illustrated in (491) for the verb *kùkàyáná* 'to argue'. In (491a) the comitative argument is oblique, headed by the conjunction *nè* 'with'. In (491b) the verb has the Causative suffix, and the comitative argument appears as a direct object. (491c) shows that without the Causative, it is not possible for *nè* to be dropped.

(491) a. *Lwákí múlì kùkàyáná n'ómùkáágwà wànyú?*

lwákí mù´-li\LH(L) ku-kaay.an-a\LH nè ó-mu-ˋkáágwà o-ànyú
why 2PLS-COP2\PRES INF-argue.ASO-FV\INF CONJ AUG-1-friend AGR1-2PL.POSS
'Why are you guys arguing with your friend?'

b. *Lwákí múlì kùkàyánísya ómùkáágwà wànyú?*

lwákí mù´-li\LH(L) ku-kaay.an-isy-a\LH ó-mu-ˋkáágwà o-ànyú
why 2PLS-COP2\PRES INF-argue.ASO-CAUS2-FV\INF AUG-1-friend AGR1-2PL.POSS
'Why are you guys arguing with your friend?'

c. ** Lwákí múlì kùkàyáná ómùkáágwà wànyú?*

lwákí mù´-li\LH(L) ku-kaay.an-a\LH ó-mu-ùkáágwà o-ànyú
why 2PLS-COP2\PRES INF-argue.ASO-FV\INF AUG-1-friend AGR1-2PL.POSS
Intended: 'Why are you guys arguing with your friend?'

Most of the verbs that allow for this kind of usage of the Causative relate to interpersonal actions, such as *kùlwàná* 'to fight', *kùkàyáná* 'to argue' and *kùsyàná* 'to reconcile'. Many of these are actions that inherently require more than one participant, although as shown in (492), *kùbìná* can also be used in this way. Note that the relevant verbs almost all have the *-an* extension (often called Associative, see Section 9.8.1), a suffix which in Lugwere today is not productive, but there are quite a few lexicalised Associative verbs. *kùbìná* 'to dance', although it's final consonant is /n/, does not have the Associative suffix.

(492) *Âbìnà n'ómwàlá, àmùbìnísyà.* (C)

à-bin-a\LHL\FO2 nè ó-mu-àlá à-mu-bin-isy-a\LHL
1S-dance-FV\PRES\FO2 CONJ AUG-1-girl 1S-1O-dance-CAUS2-FV\PRES
'He dances with a girl, he dances with her.'

9.2.2.5 No change in argument structure

With some verbs, the addition of a Causative suffix does not change the semantic or syntactic structure of the clause. That is, both with and without the Causative suffix, the verb can take the same amount of arguments, and these have the same thematic roles. Often, this is the case with verb roots that inherently have a causative element to their semantics, such as for instance *kùlàgá* 'to show' in (493), as 'to show' could be paraphrased as 'cause to see'. Another example is *kwìtá* 'to kill', as in (494),

which could be though of as 'to cause to die'. For these types of verbs, then, it is perhaps not surprising that the Causative suffix can be added, without altering the valency of the verb.

(493) a. *Ǹjàbà kúmùlàga ómùkáágwà wàngé.*

ǹ-ab-a\LHL\FO2 ku-mu-lag-a\LH ó-mu-ˋkáágwà o-àngé
1SGS-go-FV\PRES\FO2 INF-1O-show-FV\INF AUG-1-friend AGR1-1SG.POSS
'I am going to show him my friend.'

b. *Ǹjàbà kúmùlàgìsyà mùkáágwà wàngé.*

ǹ-ab-a\LHL\FO2 ku-mu-lag-isy-a\LH\FO2 mu-ˋkáágwà o-àngé
1SGS-go-FV\PRES\FO2 INF-1O-show-CAUS2-FV\INF\FO2 1-friend AGR1-1SG.POSS
'I am going to show him my friend.'

(494) Idiom

Ómùfu àìtísya ómwòmí. (C)

ó-mu-ˋfú à-it-isy-a\LHL ó-mu-òmí
AUG-1-dead_person 1S-kill-CAUS2-FV\PRES AUG-1-living_person
'The dead person causes the living one to die.' (Idiom refering to how one might die traveling for a funeral, or from grief)

This does sometimes happen with verbs that are not inherently causative as well, and in such cases the Causative suffix can likely be linked to another function, unrelated to valency change. (495a) is a sentence from the corpus, but a speaker accepted (495b) as meaning more or less the same. When asked about the difference, he suggested (495a) had more emphasise on the idea of 'just starting for real' at that point, meaning it might have an intensifying function. Further research into such examples is needed.

(495) a. *Nêngá, ókùtàndíkísya ókùsòma ókú nyèrènyêré...* (C)

nenga ó-ku-tand.ik-isy-a\LH ó-ku-som-a\LH ó-ku=nyere∼nyêré
CONJ AUG-INF-start.IMP-CAUS2-FV\INF AUG-INF-study-FV\INF AUG-17=REDUP∼real
'But starting to study for real...'

b. *Nênga ókùtàndíka ókùsòma ókú nyèrènyêré...*

nenga o-ku-tand.ik-a\LH o-ku-som-a\LH o-ku=nyere∼nyêré
CONJ AUG-INF-start.IMP-FV\INF AUG-INF-study-FV\INF AUG-17=REDUP∼real
'But starting to study for real...'

9.2.3 Causative syntax

When used as a causative, a Causative suffix introduces a new causer argument, which takes up the subject position; it precedes the verb and triggers subject agreements, as in (496b). The subject of the base verb becomes a direct object, it follows the verb and can trigger object agreement, as in (496c)

(496) a. *Éngwéyè gìfúdúúkírè.*

é-n-ˋgwéyè gìˊ-fud.uk-ire\LHL
AUG-10-cloth 10S-get_dirty.SEP2-PST2\P2
'The clothes got dirty.'

b. *Sám àfùdúúkísíryè ngwèyé.*

Sám à-fud.uk-isy-ire\LHL n-ˋgwéyè
PN.M 1S-get_dirty.SEP2-CAUS2-PST2\P2 10-cloth
'Sam made the clothes dirty.'

c. *Sám àgìfùdúúkísíryè.*

Sám à-gi-fud.uk-isy-ire\LHL
PN.M 1S-10O-get_dirty.SEP2-CAUS2-PST2\P2
'Sam made them dirty.'

If the base verb is transitive, it is most common for the base object to follow the causee object, as in (497b). In such double object constructions, neither object is marked as oblique, and both can trigger object agreement, as in (497d) and (497e). The order of the two object markers is flexible, as shown by (497f) and (497g).

(497) a. *ÓShàníta àyòzyà ngwèyé.*

ó-Shànítà à-oz-a\LHL\FO2 n-ˋgwéyè
AUG-PN.F 1S-wash-FV\PRES\FO2 10-cloth
'Shanita washes clothes.'

b. *Ɉén àyòzésya óShànítà ngwèyé.*

Ɉén à-oz-isy-a\LHL ó-Shànítà n-ˋgwéyè
PN.F 1S-wash-CAUS2-FV\PRES AUG-PN.F 10-cloth
'Jen makes Shanita wash clothes.'

c. *Ɉén àmwòzèsyà ngwèyé.*

Ɉén à-mu-oz-isy-a\LHL\FO2 n-ˋgwéyè
PN.F 1S-1O-wash-CAUS2-FV\PRES\FO2 10-cloth
'Jen makes her wash clothes.'

d. *J̌én àgyòzésya óShànítà.*

J̌én à-gi-oz-isy-a\LHL ó-Shànítà
PN.F 1S-10O-wash-CAUS2-FV\PRES AUG-PN.F
'Jen makes Shanita wash them.'

e. *Àmùgyòzésyà.*

à-mu-gi-oz-isy-a\LHL
1S-1O-10O-wash-CAUS2-FV\PRES
'She makes her wash them.'

f. *Àgìmwòzéséryè.*

à-gi-mu-oz-isy-ire\LHL
1S-10O-1O-wash-CAUS2-PST2\P2
'She made her wash them.'

When a Causative verb is passivised, either the causee or the base object can become the subject, as illustrated in (498b) and (498c). This means that the two objects largely share the object-properties equally.

(498) a. *Ómùsàwo àmènyésésérye ómwàna ékìkópù.*

ó-mu-ˋsàwó à-meny-isisy-ire\LHL ó-mu-àná é-ki-ˋkópù
AUG-1-doctor 1S-break-CAUS3-PST2\P2 AUG-1-child AUG-7-cup
'The doctor made the child break the cup.'

b. *Ómwàna àmènyésésèwérwe ékìkópù n'ómùsàwó.*

ó-mu-àná à-meny-isisy-iw-ire\LHL é-ki-ˋkópù nè ó-mu-ˋsàwó
AUG-1-child 1S-break-CAUS3-PASS2-PST2\P2 AUG-7-cup CONJ AUG-1-doctor
'The child was made to break the cup by the doctor.'

c. *Ékìkópù kìménYésèwérwè ómwàná n'ómùsàwó.*

e-ki-ˋkópù kì´-meny-isisy-iw-ire\LHL ó-mu-àná nè ó-mu-ˋsàwó
AUG-7-cup 7S-break-CAUS3-PASS2-PST2\P2 AUG-1-child CONJ AUG-1-doctor
'The cup was made to be broken by the child by the doctor.'

When used in a sociative sense, the mapping of thematic roles to syntactic positions differ. In these cases, just like in the Causative cases, a new subject is introduced, but instead of being a causer, this new subject is an agent, along with the base subject, which has become a direct object agent. Note that the sociative and the comitative usages of the Causative morphology, although similar in meaning and function, differ in a couple of ways. While they both have two arguments that function as agents, in

the sociative usage the base subject, which in some way is the 'main' agent, becomes the direct object, while a new agentive subject is introduced. This new subject is in a sense a secondary participant, and is often considered to 'help' the main agent. Look for instance at (499b). Here, the context is that the brother has lost a friend, and the base sentence would be something like (499a). The brother is, in a sense, the primary mourner. In (499b) however, the speaker accompanies the brother to the funeral. He is accompanying or assisting the brother with his grief.

(499) a. *Ómwònyókò wànge ákúngà mùkáágwà wê.*

ó-mu-ònyókò *o-àngé* *à-kung-a\LHL* *mu-ˋkáágwà=o-e*
AUG-1-opposite_sex_sibling AGR1-1SG.POSS 1S-cry-FV\PRES 1-friend=AGR1-1POSS
'My sibling is mourning her/his friend.'

b. *Ǹkùngìsyà mwònyókò wàngé.*

ǹ-kung-isy-a\LHL\FO2 *mu-ònyókò* *o-àngé*
1SGS-cry-CAUS2-FV\PRES\FO2 1-opposite_sex_sibling AGR1-1SG.POSS
'I am mourning someone on behalf of/for my sibling.'

In the comitative usage, however, the base subject remains the subject of the new comitative construction, and a new object is added, as in (500). This often refers to reciprocal actions, where both participants could participate equally. In such cases, the comitative direct object takes on all the properties of an object; appearing directly following the verb, able to trigger object agreements (as in (500c)), and able to be the subject of a passive clause, as in (500d).

(500) a. *Érìk àlwànà nè Sáàmú.*

Érìk *à-lw.an-a\LHL\FO2* *nè* *Sáàm*
PN.M 1S-fight.ASO-FV\PRES\FO2 CONJ PN.M
'Eric fights with Sam.'

b. *Érìk àlwànísya óSáàmú.*

Érìk *à-lw.an-isy-a\LHL* *ó-Sáàm*
PN.M 1S-fight.ASO-CAUS2-FV\PRES AUG-PN.M
'Eric fights Sam.'

c. *Érìk àmùlwànísyà.*

Érìk *à-mu-lw.an-isy-a\LHL*
PN.M 1S-1O-fight.ASO-CAUS2-FV\PRES
'Eric fights him.'

d. *Sám àlwànísíwà n'Érìki.*

Sám à-lw.an-isy-iw-a\LHL nè Érìk
PN.M 1S-fight.ASO-CAUS2-PASS2-FV\PRES CONJ PN.M
'Sam was fought by Eric.'

When the Causative suffixes are used to promote an instrumental argument, it introduces an additional object, while the base subject stays the same. In these cases, both the new object and any base object both retain their status, and while the instrumental object can be marked with the conjunction *nè*, it is not obligatory, and it is possible for both to be unmarked, as in (501b). The order of the two objects is flexible, but in all such double object constructions, the presence/absence of an augment is important when it comes to which orders are possible. In (501c), the order where the instrument precedes the patient is only possible if the patient does not have an augment. Again, both objects can trigger object agreements, and the order of the agreements is flexible, as in (501d) and (501e). (502) shows that for a verb where a Causative affix promotes an instrument to object position, both the base object (the patient argument in this case) and the instrument can be the subject of a passive clause.

(501) a. *Érìk àzímba ényùmbá n'ámátáfáàlí.*

Érìk à-zimb-a\LHL é-ny.ˋùmbá nè á-ma-ˊtáfáàlí
PN.M 1S-build-FV\PRES AUG-9.house CONJ AUG-6-brick
'Eric builds a house with bricks.'

b. *Érìk àzìmbísya ényùmbà mátáfáàlí.*

Érìc à-zimb-isy-a\LHL é-ny.ˋùmbá\FL ma-ˊtáfáàlí
PN.M 1S-build-CAUS2-FV\PRES AUG-9.house\FL 6-brick
'Eric builds a house with bricks.'

c. *Érìk àzìmbìsyà mátáfáàlì (*é)nyùmbá.*

Érìk à-zimb-isy-a\LHL\FO2 ma-ˊtáfáàlí\FL ny.ˋùmbá
PN.M 1S-build-CAUS2-FV\PRES\FO2 6-brick\FL 9.house
'Eric builds a house with bricks.'

d. *Érìk àgàgìzìmbísyà.*

Érìk à-ga-gi-zimb-isy-a\LHL
PN.M 1S-6O-9O-build-CAUS2-FV\PRES
'Eric builds it with it.'

e. *Érìk àgìgàzìmbísyà.*

Érìk à-gi-ga-zimb-isy-a\LHL
PN.M 1S-9O-6O-build-CAUS2-FV\PRES
'Eric builds it with it.'

(502) a. *Ómùgài gùményéséwérè kìkópù n'ómwànà.*

ó-mu-ˋgáí\FL gù´-meny-isy-iw-ire\LHL ki-ˋkópù nè ó-mu-ànà
AUG-3-mingling_stick\FL 3S-break-CAUS2-PASS2-PST2\P2 7-cup CONJ AUG-1-child
'The mingling stick was used by the child to break the cup.'

b. *Ékìkópù kìményéséwére ómùgài n'ómwànà.*

é-ki-ˋkópù kì´-meny-isy-iw-ire\LHL ó-mu-ˋgáí\FL nè
AUG-7-cup 7S-break-CAUS2-PASS2-PST2\P2 AUG-3-mingling_stick\FL CONJ
ó-mu-ànà
AUG-NF1-child
'The cup was broken with a mingling stick by the child.'

In elicitation, speakers would sometimes use the *-isisy* when there was more than one additional argument added to the base verb. In (503), for instance, the speaker translated (503a) with *-isy* and (503b), where there is both a causer and an instrument, with *-isisy*. Similarly, in (504), we have the verb *kùsòmésyá*. This is based on the base verb *kùsòmá* 'to study/read'. *kùsòmésyá* 'lit. to make learn' means 'to teach'. When paying someone's school fees, one is in a sense 'causing (the teacher) to cause (the children) to study', and the double Causative marking makes sense in this context of two levels of causation.

(503) a. *Àsàlísya ébìjò (n'á)kámbè.*

à-sal-isy-a\LHL é-bi-ˋjó\FL (nè á-)ka-´mbè
1S-cut-CAUS2-FV\PRES AUG-8-sweet_potato\FL (CONJ AUG-)12-knife
'S/he cuts sweet potatoes with a knife.'

b. *Ǹmùsàlísisya ébìjò (n'á)kámbè.*

ǹ-mu-sal-isisy-a\LHL é-bi-ˋjó\FL (nè á-)ka-´mbè
1SGS-1O-cut-CAUS3-FV\PRES AUG-8-sweet_potato\FL (CONJ AUG-)12-knife
'I make her/him cut sweet potatoes with a knife.'

(504) *Kùkòlá níkì? Kùsòmèsèsyà bàànà.* (C)

ku-kol-a\LH níkì ku-som-isisy-a\LHL\FO2 ba-ànà
INF-do-FV\INF what INF-learn-CAUS3-FV\INF\FO2 2-child
'To do what? To pay fees for children.'

It is also possible to introduce more than one additional argument with one marker. In (505a) below, the verb *kùtèmésyá* 'to make cut' has three objects, neither of which is marked as oblique, although the instrumental could be marked with *nè*, and that appears to be more common. All three objects can trigger object agreements, as in (505b–d), and the order of the object markers is flexible.

(505) a. *Àkàtèmésérye ómúyémbe ómwàná kámbè.*

à-ka-tem-isy-ire\LHL ó-mu-´yémbè ó-mu-àná ka-ámbè
1S-12O-cut-CAUS2-PST2\P2 AUG-3-mango AUG-1-child 12-knife
'S/he made the child cut the mango with a knife.'

b. *Àkàmùgùtèmésérye̩.*

à-ka-mu-gu-tem-isy-ire\LHL
1S-12O-1O-3O-cut-CAUS2-PST2\P2
'S/he made him cut it with it.'

c. *Àmùgùkàtèmésérye̩.*

à-mu-gu-ka-tem-isy-ire\LHL
1S-1O-3O-12O-cut-CAUS2-PST2\P2
'S/he made him cut it with it.'

d. *Àgùmùkàtèmésérye̩.*

à-gu-mu-ka-tem-isy-ire\LHL
1S-3O-1O-12O-cut-CAUS2-PST2\P2
'S/he made him cut it with it.'

In addition to the morphological causative strategies outlined in Section 9.2.1, Lugwere also has an analytic causative construction, formed by the verb *kùlètá* 'to bring' with the Applicative extension (see Section 9.3). (506) shows an example of *kùlètá* meaning 'to bring', while (507) and (508) shows it used to express a causative meaning. There is an additional causative strategy, where in many cases the transitive Separative extension (*-ul*) functions as a causative version of the intransitive Separative extension (*-uk*) (see Section 9.8.4).

(506) *Ng'óntáámà, bàléta óntáámà.* (C)

ngà ó-n.´táámà bà´-let-a\LHL ó-n.´táámà
SIM AUG-9.sheep 2S-bring-FV\PRES AUG-9.sheep
'The sheep, they brought the sheep.'

(507) *(...) ékyákùlètèra ókùkòbéra ómúntu ógòndí.* (C)

é-ki-a-ku-let-ir-a\H.LH *ó-ku-kob-ir-a\LH* *ó-mu-´ntù*
REL-7S-TNS-2SGO-bring-APPL-FV\F1 AUG-INF-say-APPL-FV\INF AUG-1-person
ó-g-òndí
AUG-AGR1-other
'... which will make you tell someone else.'

(508) *Àndètéire ókùlyá.*

à-n-let-ir-ire\LHL *ó-ku-ly-a\LH*
1S-1SGO-bring-APPL-PST2\P2 AUG-INF-eat-FV\INF
'He made me eat.'

9.2.4 Lexicalised Causatives

Lugwere has many lexicalised Causative verbs. These might be verbs with causative meanings that lack a non-causative counterpart, or they are verbs that have Causative morphology, but lack a causative meaning, also sometimes called pseudo-causatives (Good 2007). (509) lists some verbs with what appears to be to be the *-y* suffix. These do not have a causative meaning, but in the past tense the glide separates from the rest of the stem, just as in Causatives. This happens even with verbs that do not have a non-Causative base counterpart, like (509c–d). Some verbs might also have a more or less causative meaning, but be specialised or unpredictable in other ways, such as *kùbyàlísyá* 'to be a midwife (lit. to make give birth)'. (510) shows a few more examples of lexicalised Causatives that have at least one meaning that is unpredictable from the base verb.

(509) a. *kùbìtá* 'to pass'
kùbìtyá 'to overtake, surpass'
àbìtíryè 's/he overtook'

b. *kùbònà* 'to see'
kùbòniá 'to open your eyes, to be awake'
àbònéryè 's/he opened his/her eyes'

c. *kùgèzyá* 'to try'
àgèzéryè 's/he tried'

d. *kùbùùlyá* 'to ask'
àbwíryè 's/he asked'

(510) a. *kùbyàlá* 'to give birth'
kùbyàlísyá 'to be a midwife, to breed (animals)'

b. *kùgàitá* 'to join'
kùgàitísyá 'to fine, to charge an offender'

c. *kùgònà* 'to sleep'
kùgònésyá 'to cause to lie down, euph. to have sexual intercourse.'

d. *kùfá* 'to die'
kùfiìsyá 'to be bereaved'

e. *kùgèzyá* 'to try'
kùgèzésyá 'to experiment'

9.3 Applicative

The Applicative suffix is very productive, and is used to promote a range of different adjuncts to object position, such as instruments, beneficiaries, location, time and goal. There are also quite a large number of words where the Applicative affix has become lexicalised.

9.3.1 Applicative morphology

The Lugwere reflex of the PB applicative is *-ir*, and this affix is subject to vowel harmony with the stem. The past tense suffix always uses the *-ire* form after the Applicative, i.e. there is no vowel harmony between the Applicative extension and the past suffix. The Applicative suffixes always use imbricated past tense stems, where the /l/ of the Applicative suffix is deleted, which results in either a long vowel, *-iire*, or a diphthong, *-eire*, depending on the vowel of the Applicative suffix. Table 9.6 shows the conjugation of the Applicative verbs *kùgùlírá* 'buy for/with' and *kùlòlérá* 'searching on behalf of'.

Table 9.6: Conjugation of the Applicative verbs *kùgùlírá* 'to buy for/with' and *kùlòlérá* 'to search on behalf of' with AGR 1 subjects

Tense	FO1 AFF	FO1 NEG
Present	àgùlírà	tàgúlírá
	àlòlérà	tàlólérá
P2	àgùlíírè	tàgúlìíré
	àlòléírè	tàlólèíré
P3	yágùlíírè	tíyágùlíírè
	yálòléírè	tíyálòléírè
P5	yàgùlìíré	tíyàgúlíírè
	yàlòlèíré	tíyàlóléírè
F1	yágùlìrá	tìyàgùlìré
	yálòlèrá	tìyàlòlèré
F2	yàlígùlírà	tìyàlígùlírá
	yàlílòlérà	tìyàlílòlérá

9.3.2 Applicative usage

This section will look at the different usages of the Applicative suffix, focusing on what types of thematic roles can be promoted to direct object by use of the Applicative. The discussion largely follows Dixon (2012), who systematically goes over the types of arguments commonly promoted by applicatives cross-linguistically. As the discussion will show, many of these thematic roles can indeed be promoted by the Lugwere Applicative, but there are also cases where an argument cannot be promoted (comitative), or where Applicative morphology is not necessary for a certain type of argument to be an object (recipients).

9.3.2.1 Goal

Dixon (2012) divides the category of Goal into four subcategories, which he names 'additional argument', 'recipient', 'stimulus for a stative verb' and 'stimulus for a corporal

verb'. The reason why these are all categorised under 'Goal' is that in languages that have more than one applicative marker, they tend to be marked in the same way.

Additional argument The first category, 'additional argument' refers to an additional goal argument being added to a self-contained sentence. The argument can for instance be a recipient, a beneficiary or a maleficary. This is a common usage of the Lugwere Applicative, illustrated in (511). (511a) shows a base sentence and (511b) shows how a recipient argument can be added by the use of the prepostion *èèrí*, while (511c) has an Applicative verb, and neither the patient nor the recipient have any oblique marking. (511d) shows that even if the verb is Applicative, it is still possible to include the preposition before the recipient argument, while (511e) shows that without the Applicative suffix, it is not possible to leave out the preposition.

(511) a. *Àwàndíka ébbàlúwà bùlì wíìkí.*

à-wand.ik-a\LHL é-ˋbbàlúwà bùlí\FL wíìkí
1S-write.IMP-FV\PRES AUG-letter every\FL week
'He writes letters every week.'

b. *Àwàndíka ébbàlúwa èèrì Ɉóòní bùlì wíìkí.*

à-wand.ik-a\LHL é-ˋbbàlúwà èèrí\FL Ɉóòní bùlí\FL wíìkí
1S-write.IMP-FV\PRES AUG-letter to\FL PN.M every\FL week
'He writes letters to John every week.'

c. *Àwàndíkíra óƉóòni ébbàlúwà bùlì wíìkí.*

à-wand.ik-ir-a\LHL ó-Ɉóòní é-ˋbbálùwá bùlí\FL wíìkí
1S-write.IMP-APPL-FV\PRES AUG-PN.M AUG-letter every\FL week
'He writes letters to John every week.'

d. *Àwàndíkíra ébbàlúwa èèrì Ɉóòní bùlì wíìkí.*

à-wand.ik-ir-a\LHL é-ˋbbàlúwà èèrí\FL Ɉóòní bùlí\FL wíìkí
1S-write.IMP-APPL-FV\PRES AUG-letter to\FL PN.M every\FL week
'He writes letters to John every week.'

e. ? *Àwàndíka ÓƉóòni ébbàlúwà bùlì wíìkí.*

à-wand.ik-a\LHL ó-Ɉóòní é-ˋbbàlúwà bùlí\FL wíìkí
1S-write.IMP-FV\PRES AUG-PN.M AUG-letter every\FL week
Intended: 'He writes letters to John every week.'

Below are examples of the Applicative from the Corpus used to promote a recipient (512), and a benefactive (513).

(512) *Dàànì wàngé ngà àngùlíra ébíntu èbyó byómbyónà.* (C)

dáánì *o-àngé* *ngà* *à-n-gul-ir-a\LHL* *é-bi-´ntù*
monther_in_law AGR1-1SG.POSS SIM 1S-1SGO-buy-APPL-FV\PRES AUG-8-thing
ebi-`ó *bi∼ón∼bi-ónà*
AGR8-DEM_MED AGR8∼REDUP∼AGR8-all
'My mother in law would buy all those things for me.'

(513) *Ǹdì n'ókwàbá n'ómùlìmírákù.* (C)

ǹ-li\LH(L)\FO2 *nè* *ó-ku-ab-a\LH* *nè* *ó-ku-mu-lim-ir-a\LH=ku*
1SGS-COP2\PRES\FO2 CONJ AUG-INF-GO-FV\INF CONJ AUG-INF-1O-dig-APPL-FV\INF=17
'I must go and dig for him/her.'

While these types of additional arguments can be expressed as oblique clauses, generally headed by the preposition *èèrí* 'for', the Applicative seems to be the most common way to include such arguments.

Recipient The category 'recipient' refers to the recipient argument in ditransitive verbs, such as 'give', 'send', 'lend' or 'sell' (Dixon 2012). Most language can have the theme as a direct object of such verbs, but some require an Applicative in order for the recipient argument to be a direct object. This differs from examples such as (512) in that the recipient is considered to be an argument rather than an adjunct of the base verb.

In Lugwere, verbs like *kùwá* 'to give', *kùtùmá* 'to send', *kùsìndíká* 'to send' and *kùtùndá* 'to sell' are inherently ditransitive, and do not require any Applicative marking, as illustrated in (514). In fact, in elicitation, a speaker found attempts to use an Applicative in such a context ungrammatical, see (515b). One verb for 'to send' is *kùwèèréryá*, which does appear to have some lexicalised Applicative morphology (most likely from the verb *kuwa* 'to give' + Applicative marking), though this does not synchronically need to be applicativised to take a recipient argument.

(514) *N'àkóbà: "Kàdóndì, ndì kwàba ókùwa ékìrábò."* (C)

ni *à´-kob-a\LHL(H)* *Kàdóndì* *ǹ-li\LH(L)\FO2* *ku-ab-a\LH*
NAR 1S-say-FV\PRES.SBR PN.F 1SGS-COP2\PRES\FO2 INF-GO-FV\INF

ó-ku-ku-w-a\LH *é-ki-ˋrábò*
AUG-INF-2SGO-give-FV\INF AUG-7-gift
'She said: "Kadondi, I am going to give you a gift."'

(515) a. *Ǹba ómwàna ébítábò bùlì mwànká.*

ǹ-w-a\LHL *ó-mu-àná* *é-bi-ˊtábò* *bùlí\FL* *mu-ànká*
1SGS-give-FV\PRES AUG-1-child AUG-8-book every\FL 3-year
'I give books to the child every year.'

b. * *Ǹbííra ómwàna ébítábò bùlì mwànká.*

ǹ-w-ir-a\LHL *ó-mu-àná* *é-bi-ˊtábò* *bùlí\FL* *mu-ànká*
1SGS-give-APPL-FV\PRES AUG-1-child AUG-8-book every\FL 3-year
Intended: 'I give books to the child every year.'

For some other verbs that take a recipient type argument, such as *kùkòbá* 'to say, to tell', for instance, using Applicative marking, as in (516), is not uncommon, but also not necessary, as illustrated by (517).

(516) *Bámùkòbérà báti (...)* (C)

bàˊ-mu-kob-ir-a\LHL *bàˊ-tî*
2S-1O-say-APPL-FV\PRES AGR2-QUOT
'They tell him that (...)'

(517) *Ǹga ànkóba àáti (...)* (C)

ngà à-n-kob-a\LHL *à-tî*
SIM 1S-1SGO-say-FV\PRES AGR1-QUOT
'He would tell me that (...)'

Stimulus for a stative verb By 'stimulus of a stative verb' Dixon (2012) refers to the stimulus argument in phrases such as 'worry about', 'be happy about', 'be ashamed of', and so on. In Lugwere, some such verbs, like *kwèrálííkírírá* 'to worry' or *kwènyúmírírwá* 'to be proud, to enjoy' have lexicalised Applicative marking, but nonetheless tend to use additional marking in order to include a stimulus argument, as in (518) where a locative prefix is added, although they can also have the stimulus as an unmarked direct object, as illustrated by (519).

(518) a. *Nèrálíkíríra ókú bìbúùzó byàngé.*

ǹ-e´.ral.ik.irir-a\LHL ó-ku=bi-`búùzó bi-àngé
1SGS-REFL.worry.NUT.DUR1-FV\PRES AUG-17=8-exam AGR8-1SG.POSS
'I worry about my exam.'

b. *Nèrálìkìrìrà ìnó.*

ǹ-e´.ral.ik.irir-a\LHL\FO2 ìnó
1SGS-REFL.worry.NUT.DUR1-FV\PRES\FO2 very
'I worry a lot.'

(519) *Ǹbáíre àànu nèrálíkíránga éntè ìtáánú.* (C)

ǹ-bb-ire\LHL a-`nú ǹ-e´.ral.ik.irir-a-nga\LHL
1SGS-COP1-PST2\P2 AGR16-DEM_PROX 1SGS-REFL.worry.NUT.DUR1-FV-HAB\PRES
é-n.´tè i-`táánú
AUG-10.cow AGR10-five
'I was here worried about 5 cows.'

Stimulus for a corporal verb The term 'stimulus for a corporal verb' is used by Dixon (2012) to refer to the stimulus of verbs such as 'to laugh' and 'to cry'. The stimulus argument for the Lugwere verbs like *kùsèká* 'to laugh' and *kùkùngá* 'to cry' can be a direct object, and the verb can have Applicative morphology as in (520), but it is not obligatory, as shown by (521).

(520) Part of an idiom

Òsèkéra ábàfá. (C)

ò-sek-ir-a\LHL á-ba-f-a\LH
2SGS-laugh-APPL-FV\PRES REL-2S-die-FV\PRES.SBR
'You laugh at those who die.'

(521) *Òlwò bàtándìka ókúnsèká.* (C)

olu-`ó\FL bà´-tand.ik-a\LHLH ó-ku-n-sek-a\LH
AGR11-DEM_MED\FL 2S-begin.IMP-FV\PRES.SBR AUG-INF-1SGO-laugh-FV\INF
'Then they started laughing at me.'

9.3.2.2 Locative

The Lugwere Applicative is often used with locative arguments, but these are the arguments that are least likely to take on object properties, and generally require a locative

nominal prefix. (522b) shows an example of an Applicative verb with a locative argument. The locative argument still has a locative prefix (in this case the Class 17 *ku-*), and it is in fact possible to express this without Applicative morphology, as in (522a). As shown by the discussion in Section 5.4, there is reason to treat locative nouns as NPs, rather than PPs, so we might still want to consider the locative argument a direct object. (522c) is an attempt at dropping the locative nominal prefix, but yields an odd sentence, meaning something like 'The car drives for the road'. The locative prefix is therefore required in order to retain the locative interpretation of *lúgúúdò* 'road'. However, in some cases it is possible to omit a locative prefix, as in (523). This seems mostly to be the case for place names, it seems to only be possible if the noun has an inherent locative meaning.

(522) a. *Émótòka èvúga ókú lúgúúdò.*

é-mótòká è-vug-a\LHL ó-ku=lu-ˊgúúdò
AUG-car 9S-drive-fv\pres AUG-17=11-road
'The car drives on the road.'

b. *Émótòka èvùgíra ókú lúgúúdò.*

é-mótòká è-vug-ir-a\LHL ó-ku-lu-ˊgúúdò
AUG-car 9S-drive-APPL-FV\PRES AUG-17=11-road
'The car drives on the road.'

c. # *Émótòka èvùgìrà lúgúúdò.*

é-mótòká è-vug-ir-a\LHL\FO2 lu-ˊgúúdò
AUG-car 9S-drive-APPL-FV\PRES\FO2 11-road
Infelicitous: 'The car drives for the road.'

d. * *Émótòka èlùvùgírà.*

é-mótòká è-lu-vug-ir-a\LHL
AUG-car 9S-11O-drive-APPL-FV\PRES
Intended: 'The car drives on it.'

e. *Émótòka èvùgìràkú.*

é-mótòká è-vug-ir-a\LHL\FO2=ku
AUG-car 9S-drive-APPL-FV\PRES\FO2=17
'The car drives on it.'

(523) *Ǹze óbbáába ówánge àkòlèrà Kámpálà.* (C)

ì´-nze ó-bbáábbà ó-o-àngé à-kol-ir-a\LHL\FO2 Kámpálà
PRO-1SG AUG-dad AUG-AGR1-1SG.POSS 1S-work-APPL-FV\PRES\FO2 PN.P
'As for me, my dad works in Kampala.'

Whether or not an Applicative suffix is used, or can be left out, varies, and is probably dependent on the context as well as the verb and the specific location involved. While (522a) above was considered fine, in (524), the speaker consulted considered (524b) to be ungrammatical. The exact distribution of the locative Applicative, in which contexts it is obligatory, in which contexts it is not possible, as well whether there is any difference in nuance between sentences like (522a) and (522b), are questions that still require further research.

(524) a. *Ábàànà bàzényèrà mù nyùmbá.*

á-ba-ànáː\FL bà´-zeny-ir-a\LHL\FO2 mu=ny.`ùmbá
AUG-2-child\FL 2S-play-APPL-FV\PRES\FO2 18=9.house
'The children play in the house.'

b. * *Ábàànà bàzényà mù nyùmbá.*

á-ba-ànáː\FL bà´-zeny-a\LHL mu=ny.`ùmbá
AUG-2-child\FL 2S-play-FV\PRES 18=9.house
Intended: 'The children play in the house.'

Demonstratives from a locative class is also often an object in locative Applicative constructions, as in (525).

(525) *Kásómérò kàálí ààwó, ngà tusómèra ààwó.* (C)

ka-´sómérò ka-a-li\L.LH awa-`ó ngà tù´-som-ir-a\LHL\FO2
12-school 12S-TNS-COP2\P5 AGR16-DEM_MED SIM 1PLS-study-APPL-FV\PRES\FO2
awa-`ó
AGR16-DEM_MED
'The school was there, we would study there.'

9.3.2.3 Instrumental

Similarly to the Causative affixes (see Section 9.2.2.3), the Applicative suffix can be used to introduce all the different types of Instrumental arguments outlined in Dixon (2012). As illustrated by the unacceptability of leaving out the conjunction in (526b),

it is generally not possible for an instrumental argument to be a direct object unless there is some kind of Applicative morphology on the verb (be that the Applicative or the Causative suffix). Instrumental arguments can also be included as an oblique, then generally using the conjunction *nè*, except where the argument in question is a cause/reason, where conjunctions like *ólwákùbbâ*, *òòlwâ*, *kùbbâ* or *kùlwá* are used, all roughly meaning 'because'. Even when the verb has Applicative morphology, it is possible for the oblique marking to remain, so that in (526a) the conjunction *nè* can optionally be included.

(526) a. *Bámùkùbbìrà (n'ó)mwìgó.*

bà´-mu-kubb-ir-a\LHL\FO2 (nè ó-)mu-ìgó
2S-1O-hit-APPL-FV\PRES\FO2 (CONJ AUG-)3-stick
'They hit him/her with a stick.'

b. *Bámùkùbbà *(n'ó)mwìgó.*

bà´-mu-kubb-a\LHL\FO2 nè ó-mu-ìgó
2S-1O-hit-FV\PRES\FO2 CONJ AUG-3-stick
'They hit him/her with a stick.'

(526) is an example of an implement instrument promoted by the Applicative prefix. Below are sentences illustrating the promotion of a 'surface effect' (527), 'something which assists' (528), 'material used' (529) and 'reason/cause' (530). (These terms are defined in Section 9.2.2.3 above). Reason type arguments can also in some cases be included without any valency increasing morphology, see for instance (471) from Chapter 8, where the pregnancy, *kídà* 'stomach' is the reason why the girls are chased from home, but the verb *kùbìngá* 'to chase' has no valency increasing morphology, and the reason argument has no preposition and is not marked as an adjunct in any way.

(527) *Àsìmúlíra éménzà (n'é)kítímbò.*

à-sim.ul-ir-a\LHL é-`ménzà (nè é)ki-´tímbò
1S-wipe.SEP1-APPL-FV\PRES AUG-table (CONJ AUG-)7-cloth
'S/he wipes the table with a cloth.'

(528) *Âté ìímwè, bábàbbèèyèrà níkì? Sênté.* (C)

àtê ì´-mwe\FL bà´-ba-bbeey-ir-a\LHL\FO2 níkì sênté
CONJ PRO-2PL\FL 2S-2PLO-lie-APPL-FV\PRES\FO2 what money
'And as for you, what do they use to lie to you? Money.'

(529) *Ábántù bàzímbíra ámànyùmbà mátáfáàlí.*

*á-ba-ˊntù bàˊ-zimb-ir-a\LHL á-ma-ny.ˋùmbá*FL *ma-ˊtáfáàlí*
AUG-2-person 2S-build-APPL-FV\PRES AUG-6-9.house\FL 6-brick
'People build houses out of bricks.'

(530) *Bàlwánìrà mùkàlí.*

*bàˊ-lw.an-ir-a\LHL*FO2 *mu-ˋkàlí*
2S-fight.ASO-APPL-FV\PRES\FO2 1-woman
'They fight because of a woman.'

9.3.2.4 Other functions

Besides the functions listed above, Dixon (2012) also lists the comitative as a type of argument that can often be promoted by an applicative. In Lugwere, the Applicative suffix cannot promote a comitative argument, and the Causative suffix can do so only to a very limited extent (see Section 9.2.2.4). There are, however, a few other contexts in which the Lugwere Applicative is used which do not fit into any of Dixon (2012)'s categories of common applicative agruments.

Time intervals The Applicative suffix is sometimes used in expressions describing time intervals, as in (531).

(531) a. *Àkòléra ésáàwà mùnáná bùlì lùnákù.*

*à-kol-ir-a\LHL *é-sáàwá*FL *mùnáná bùlí*FL *lu-ˋnákù*
1S-work-APPL-FV\PRES AUG-hour\FL eight every\FL 11-day
'S/he works for 8 hours every day.'

b. *Àbbáíre àsòméránga ésáàwà mòizá.*

*à-bb-ire\LHL *à-som-ir-a-nga\LHL *é-sáàwá*FL *mòˊ-iza*
1S-COP1-PST2\P2 1S-read-APPL-FV-HAB\PRES AUG-hour\FL one-AGR9
'S/he has been reading for an hour.'

Together The corpus contains quite a few instances of the Applicative suffix used with the word *áámò* 'together'. The word *áámò* is the numeral 'one' with Class 16 agreements, and perhaps the locative class has something to do with this usage developing. (532) – (534) show some examples.

(532) *(…) óòbá kùlìira áámo émérè (…)* (W)

óòbá ku-ly-ir-a\LH a-´mò é-mérè
or INF-eat-APPL-FV\INF AGR16-one AUG-food
'(…) or having food together (…)'

(533) *Bàkólèra àámò.* (C)

bà´-kol-ir-a\LHL\FO2 a-´mò
2S-work-APPL-FV\PRES\FO2 AGR16-one
'They work together '

(534) *Múlèkè túsòmère àámò!* (W)

mu-lek-e\H.LH\FO2 tu-som-ir-e\H.LH\FO2 a-´mò
2PLS-let-SUB\SUB\FO2 1PLS-read-APPL-SUB\SUB\FO2 AGR16-one
'Let's Read Together! (Title of a booklet with Lugwere texts)'

Kímò Another context that often coincides with Applicative marking, is the word *kímò*. This is the Agreement Class 7 version of the numeral 'one', and from the examples in the corpus, it appears to be able to function as an adverbial indicating intensity, as for instance in (535) where it is translated as '(work) hard', or in (536) where it is translated by '(love) a lot'.

(535) *Nga òòlì n'ókùkòlérá kímò.* (C)

ngà ò-li\LH(L)\FO2 nè ó-ku-kol-ir-a\LH ki-´mò
SIM 2SGS-COP2\PRES\FO2 CONJ AUG-INF-work-APPL-FV\INF AGR7-one
'When you had to work hard.'

(536) *Bàtándíka ókúntàkìrà kímò, bántwàlìrà kímò ng'ómwànà.* (C)

bà´-tand.ik-a\LHL ó-ku-n-tak-ir-a\LH\FO2 ki-´mò
2S-start.IMP-FV\PRES AUG-INF-1SGO-want-APPL-FV\INF\FO2 AGR7-one
bà´-n-tw.al-ir-a\LHL\FO2 ki-´mò ngà ó-mu-àná
2S-1SGO-take.EXT-APPL-FV\PRES\FO2 AGR7-one SIM AUG-1-child
'They started to love me a lot and took me in as their child.'

This section has looked at some of the main usages of the Applicative, but it is clear that there are many nuances to the usage of this affix that still need further investigation, and there are many instances in the corpus where the Applicative marker is used, which cannot easily be sorted into any of the categories discussed here.

9.3.3 Applicative syntax

The Applicative suffix allows an oblique argument to take on full objecthood status, where it can occur directly following the verb without any oblique marking, trigger object indexation, and be the subject of a passive clause. How many of these properties an applied object takes on, however, differs based on the thematic role in question.

9.3.3.1 Goal arguments

Instrumental and goal type arguments can display all object properties. (537) shows an example of a goal argument of the 'additional argument' type, and the base form in (537a) shows that the sentence is indeed complete without the goal argument. In (537b) and (537c) the verb has the Applicative suffix, and the goal argument, *Shànítà* (name) is added. It does not have any oblique marking, and the order between the two objects is flexible, so that either can directly follow the verb (the augment likely plays a role in the order of multiple objects, but this has not yet been sufficiently studied). (537d) shows that the applied object can trigger object agreement, and (537e) shows that it is possible for the verb to have two object markers, while (537f) and (537g) show that either object can be the subject of a passive clause. Finally, (537h) shows that the goal argument cannot be a direct object without the Applicative morphology.

(537) a. *Ɉén àtùngà kítéétéèyí.*

Ɉén à-tung-a\LHL\FO2 ki-´téétéèyí
PN.F 1S-sew-FV\PRES\FO2 7-dress
'Jen is sewing a dress.'

b. *Ɉén àtùngìrà Shàníta ékítéétéèyí.*

Ɉén à-tung-ir-a\LHL\FO2 Shànítà ki-´téétéèyí
PN.F 1S-sew-APPL-FV\PRES\FO2 PN.F 7-dress
'Jen is sewing a dress for Shanita.'

c. *Ɉén àtùngìrà kítéétéèyi óShànítà.*

Ɉén à-tung-ir-a\LHL\FO2 ki-´téétéèyí ó-Shànítà
PN.F 1S-sew-APPL-FV\PRES\FO2 7-dress AUG-PN.F
'Jen is sewing a dress for Shanita.'

d. *J̌én àmùtùngìrà kítéétéèyí.*

J̌én à-mu-tung-ir-a\LHL\FO2 ki-´téétéèyí
PN.F 1S-1O-sew-APPL-FV\PRES\FO2 7-dress
'Jen is sewing a dress for her.'

e. *J̌én àkìmùtùngírà.*

Jen à-ki-mu-tung-ir-a\LHL
PN.F 1S-7O-1O-sew-APPL-FV\PRES
'Jen is sewing it for her.'

f. *Ékítéétéèyì kìtúngìrìwà Shànítà.*

é-ki-´téétéèyí\FL kì´-tung-ir-iw-a\LHL\FO2 Shànítà
AUG-7-dress\FL 7S-sew-APPL-PASS2-FV\PRES\FO2 PN.F
'The dress is being sewn for Shanita.'

g. *Shàníta àtùngíríwa ékítéétéèyí.*

Shànítà à-tung-ir-iw-a\LHL é-ki-´téétéèyí
PN.F 1S-sew-APPL-PASS2-FV\PRES AUG-7-dress
'Shanita is being sewn the dress.'

h. * *J̌én àtùngà kítéétéèyi óShànítà.*

J̌én à-tung-a\LHL\FO2 ki-´téétéèyí ó-Shànítà
PN.F 1S-sew-FV\PRES\FO2 7-dress AUG-PN.F
Intended: 'Jen is sewing a dress for Shanita.'

For some types of additional argument, the Applicative is the only way they can be included. An attempt to include the benefactive in (537) without the Applicative suffix was unsuccessful; unlike a recipient it can for instance not be introduced by the preposition *èèrí* 'to'.

9.3.3.2 Instrumental arguments

An applied instrumental argument can also appear without any oblique marking, as illustrated by (538b), where the applied object is the only object, and in (538c) and (538d), which show that when there are two objects, in this case an instrument and a patient, both can occur without oblique marking, and the order of the two arguments is flexible.

(538) a. *ÓǰÉn àtúngà.*

ó-J̌én à-tung-a\LHL
AUG-Jen 1S-sew-FV\PRES
'Jen is sewing.'

b. *Ójén àtùngìrà kyáláàní.*

ó-Ɉén à-tung-ir-a\LHL\FO2 ki-álàání
AUG-PN.F 1S-sew-APPL-FV\PRES\FO2 7-sewing_machine
'Jen is sewing on/with the sewing machine.'

c. *Ójén àtùngìrà kyáláànì kítéétéèyí.*

ó-Ɉén à-tung-ir-a\LHL\FO2 ki-álàání\FL ki-ˊtéétéèyí
AUG-PN.F 1S-sew-APPL-FV\PRES\FO2 7-sewing_machine\FL 7-dress
'Jen is sewing a dress on/with the sewing machine.'

d. *Ójén àtùngíra ékítéétéèyì kyáláàní.*

ó-Ɉén à-tung-ir-a\LHL é-ki-ˊtéétéèyí\FL ki-álàání
AUG-PN.F 1S-sew-APPL-FV\PRES AUG-7-dress\FL 7-sewing_machine
'Jen is sewing a dress on/with the sewing machine.'

With instruments, there were varying judgements when it comes to whether or not they can be the subject of a passive clause. If (538c) is made passive, the verb requires a locative marker in order for *kyáláànì* 'sewing machine' to be the passive subject, as in (539b). The patient, *kítéétéèyí* 'dress', can be a passive subject without a locative enclitic on the verb, however. In other cases, such as the sentences given in (540), the instrument could not be made a passive subject even with a locative enclitic, while in (541) the instrument could be a passive subject even without any locative enclitics.

(539) a. * *Ékyáláànì kìtúngìrìwa kítéétéèyí.*

é-ki-álàání\FL kìˊ-tung-ir-iw-a\LHL\FO2 ki-ˊtéétéèyí
AUG-7-sewing_machine\FL 7S-sew-APPL-PASS2-FV\PRES\FO2 7-dress
Intended: 'With/on the sewing machine is sewn a dress.'

b. *Ékyáláànì kìtúngìrìwàku ékítéétéèyí.*

é-ki-álàání\FL kìˊ-tung-ir-iw-a\LHL\FO2=ku ki-ˊtéétéèyí
AUG-7-sewing_machine\FL 7S-sew-APPL-PASS2-FV\PRES\FO2=17 7-dress
'With/on the sewing machine is sewn a dress.'

c. *Ékítéétéèyì kìtúngírwa ékyáláàní.*

é-ki-ˊtéétéèyì kìˊ-tung-ir-w-a\LHL é-ki-álàání
AUG-7-dress 7S-sew-APPL-PASS1-FV\PRES AUG-7-sewing_machine
'A dress is sewn on the sewing machine.'

(540) a. *Érìk àzìmbìrà nyùmbà mwîkó.*

Érìk à-zimb-ir-a\LHL\FO2 ny.`ùmbá\FL mu-îkó
PN.M 1S-build-APPL-FV\PRES\FO2 9.house\FL 3-trowel
'Eric builds a house with a trowel.'

b. *Ényùmba èzìmbìrwà mwîkó.*

é-ny.`ùmbá è-zimb-ir-w-a\LHL\FO2 mu-îkó
AUG-9.house 9S-build-APPL-PASS1-FV\PRES\FO2 3-trowel
'The house is built with a trowel.'

c. * *Ómwîkò gùzímbìrwà nyùmbá.*

ó-mu-îkó\FL gù´-zimb-ir-w-a\LHL\FO2 ny.`ùmbá
AUG-3-trowel\FL 3S-build-APPL-PASS1-FV\PRES\FO2 9.house
Intended: 'The trowel is used to build the house.'

d. * *Ómwîkò gùzímbìrwàmù/kù nyùmbá.*

ó-mu-îkó\FL gù´-zimb-ir-w-a\LHL\FO2=mu/ku\FO2 ny.`ùmbá
AUG-3-trowel\FL 3S-build-APPL-PASS1-FV\PRES\FO2=18/17\FO2 9.house
Intended: 'The trowel is used to built the house.'

(541) a. *Éma àyózéra éngwèyè sàbúùní.*

Émà à-oz-ir-a\LHL é-n-`gwéyè sàbúùní.1
PN.M 1S-wash-APPL-FV\PRES AUG-10-cloth soap
'Ema washes clothes with soap.'

b. *Ósàbúùnì àyòzéréwa éngwèyè.*

ó-sàbúùní\FL à-oz-ir-iw-a\LHL é-n-`gwéyè
AUG-soap\FL 1S-wash-APPL-PASS2-FV\PRES AUG-10-cloth
'The soap is used to wash clothes.'

An instrumental applied object can trigger object agreements, as show in (542).

(542) a. *Bámùkùbbìrà mwìgó.*

bà´-mu-kubb-ir-a\LHL\FO2 mu-ìgó
2S-1O-hit-APPL-FV\PRES\FO2 3-stick
'They hit him/her with a stick.'

b. *Bámùgùkùbbírà.*

bà´-mu-gu-kubb-ir-a\LHL
2S-1O-3O-hit-APPL-FV\PRES
'They hit him with it.'

c. *Bágùmùkùbbírà.*

bà´-gu-mu-kubb-ir-a\LHL
2S-3O-1O-hit-APPL-FV\PRES
'They hit him with it.'

9.3.3.3 Locative arguments

The noun representing the location needs a locative prefix in most cases, however this does not necessarily make the locative argument oblique. As discussed in Section 5.4.4, there are good reasons to consider nouns with locative markers more like NPs than PPs. (543) shows that the order of the locative object and the base object is flexible. The locative argument can be replaced with a locative object enclitic, as in (543c).

(543) a. *J̌én àsùmbíra ámátóókè mwífúmbírò.*

J̌én à-sumb-ir-a\LHL á-ma-´tóókè mu=ì-fúmbírò
PN.F 1S-cook-APPL-FV\PRES AUG-6-matooke 18=5-kitchen
'Jen is cooking matooke in the kitchen.'

b. *J̌én àsùmbìrà mwífúmbírò mátóókè.*

J̌én à-sumb-ir-a\LHL\FO2 á-ma-´tóókè mu=ì-fúmbírò
PN.F 1S-cook-APPL-FV\PRES\FO2 AUG-6-matooke 18=5-kitchen
'Jen is cooking matooke in the kitchen.'

c. *J̌én àgàsùmbìràmú.*

J̌én à-ga-sumb-ir-a\LHL\FO2=mu
PN.F 1S-5O-cook-APPL-FV\PRES\FO2=18
'Jen is cooking it in there.'

It is also possible to index both the locative class, by enclitic, and the primary class of the noun, by object prefix, as in (544b).

(544) a. *Ǹsùmbìrà kú gáàsí.*

ǹ-sumb-ir-a\LHL\FO2 ku=gáàsí.9
1SGS-cook-APPL-FV\PRES\FO2 17=gas_cooker
'I am cooking on the gas cooker.'

b. *Ǹgìsùmbìràkú.*

ǹ-gi-sumb-ir-a\LHL\NJ=ku
1SGS-9O-cook-APPL-FV\PRES\FO2
'I am cooking on it.'

A locative applied object can also be made the subject of a passive clause, but might require a locative enclitic on the verb, as (545a) was found questionable by one speaker. It is also possible for the noun not to carry a locative marker in this case, but then a locative enclitic on the verb is preferable, as in (545d). (545c) was rejected by one speaker, but another found it acceptable.

(545) a. ? *Mwífúmbírò mùsúmbìrìwà mátóókè.*

mu-ì-ˊfúmbírò mu-sumb-ir-iw-a\LHL\FO2 ma-ˊtóókè
18=5-kitchen 18S-cook-APPL-PASS2-FV\PRES\FO2 6-matooke
Intended: 'lit. In the kitchen is cooked matooke.'

b. *Mwífúmbírò mùsúmbìrìwàmù mátóókè.*

mu-ì-ˊfúmbírò mu-sumb-ir-iw-a\LHL\FO2=mu\FO2 ma-ˊtóókè
18=5-kitchen 18S-cook-APPL-PASS2-FV\PRES\FO2=18\FO2 6-matooke
'The matooke is cooked in the kitchen. (lit. in the kitchen is cooked there matooke)'

c. ? *Ìfúmbírò lìsúmbìrìwà mátóókè.*

ì-ˊfúmbírò li-sumb-ir-iw-a\LHL\FO2 ma-ˊtóókè
5-kitchen 5S-cook-APPL-PASS2-FV\PRES\FO2 6-matooke
Intended: lit. The kitchen is cooked matooke in.'

d. *Éífúmbírò lìsúmbìrìwàmù mátóókè.*

é-ì-ˊfúmbírò li-sumb-ir-iw-a\LHL\FO2=mu\FO2 ma-ˊtóókè
AUG-5-kitchen 5S-cook-APPL-PASS2-FV\PRES\FO2=18\FO2 6-matooke
'The matooke is cooked in the kitchen. (lit. The kitchen is cooked matooke in)'

A locative argument can, additionally, be placed in the subject position in non-passive contexts, in what is called a locative inversion construction, which will be discussed in Section 10.5.

9.3.4 Lexicalised Applicatives

The Nzogi & Diprose (2012) dictionary contains quite a large amount of verbs that end in *-era* or *-ira*, and many of these are presumably lexicalised Applicative verbs, also called pseudo-applicatives. Many of them have meanings that are no longer predictable based on their base form. Some such verbs are given in (546), where the meaning of the

verb with the Applicative suffix cannot be derived from the meaning of the base form based on a productive applicative semantic process. Other lexicalised Applicatives in the dictionary lack a corresponding base verb in the dictionary, such as the words in (547). Such lexicalised Applicatives do have the imbricated Applicative past stem, as in *nèrábíírè* 'I forgot', the P2 form of *kwèrábírá* 'to forget'.

(546) a. *kùbònà* 'to see'
kùbònérá 'to cheat in a test'

b. *kùfùùwá* 'to blow'
kùfùùyírá 'to spray'

c. *kùtììká* 'to load'
kùtììkírá 'to crown'

d. *kùsìgá* 'to sow, plant, disperse'
kùsìgírá 'to delegate'

(547) a. *kwèrábírá* 'to forget'

b. *kùwùlírá* 'to hear, to feel'

c. *kùbùùlírá* 'to preach'

d. *kùkèbérá* 'to evaluate, correct, check'

e. *kùnywègérá* 'to embrace, hug'

f. *kùjùlírá* 'to testify, bear witness'

g. *kùlààlírá* 'to be stuck, caught in'

9.4 Neuter

The neuter extension is productive in Lugwere, and can be applied to most verbs, typically to express the idea of 'X can be Ved' or 'X is V-able'. While it can be used with both transitive and intransitive verbs, it has a detransitivizing effect when applied to a transitive verb.

9.4.1 Neuter morphology

The neuter suffix is *-ik*, which becomes *-ek* when following a mid vowel. The neuter extension does not use an imbricated past stem, and so behaves like a regular verb both segmentally and tonally, as illustrated in Table 9.7 which shows the conjugation of *kùgùlíká* 'to be buy-able' (using subject markers from Class 9) and *kùbònéká* 'to look (intr)'.

Table 9.7: The conjugation of the verbs *kùgùlíká* 'to be buy-able' and *kùbònéká* 'to look' with AGR 1 and AGR 9 subjects

	FO1 AFF	FO1 NEG
Present	ègùlíkà	tègúlíká
	àbònékà	tàbónéká
P2	ègùlíkírè	tègúlìkìré
	àbònékérè	tàbónèkèré
P3	yágùlìkírè	tíyágúlíkírè
	yábònékérè	tíyábónékérè
P5	yàgùlìkìré	tíyàgúlíkírè
	yàbònèkèré	tíyàbónékérè
F1	yágùlìká	tìyàgùlìké
	yábònèká	tìyàbònèké
F2	yàlígùlíkà	tìyàlígùlíká
	yàlíbònékà	tìyàlíbònéká

9.4.2 Neuter semantics and usage

9.4.2.1 Passive possibility

The most productive usage of the Neuter extension, is to express passive potential. That is, what might be expressed in English as 'X can be V-ed', i.e. 'the food can be eaten', as in (548) and (549). This usage is very productive in elicitation, and speakers accepted that the Neuter suffix could be added to pretty much any verb, and would

generally always be translated or used with a passive possibility meaning when asked for examples. There are not very many examples of this usage in the corpus, however.

(548) *Ómwàna àgìngíkà.*

ó-mu-ànà à-ging-ik-a\LHL
AUG-1-child 1S-lift-NUT-FV\PRES
'The child can be picked up.'

(549) a. *Tèbák-áti ómwàlá yénkáni nîiye àyònónókà, n'ómwísúkà n'àkòlà níkì?* (C)

ti-bà´-kob-a\LHL bà´-tî ó-mu-àlá a-énkánì ní-ì´-ye
NEG-2S-say-FV\PRES AGR2-QUOT AUG-1-girl AGR1-only COP3-PRO-AGR1
à-onon.ok-a\LHL nè ó-mu-ísúkà nè à´-kol-a\LHL\FO2 níkì
1S-get_spoiled.SEP2-FV\PRES CONJ AUG-1-boy CONJ 1S-do-FV\PRES\FO2 what
'They don't say that it is only girls that get spoilt, a boy also does what?'

b. *A-a-awo- àwònónékà.*

FS à-onon-ik-a\LHL
FS 1S-get_spoiled-NUT-FV\PRES
'[stammers] He gets spoilt.'

While the argument promoted to subject is most often a patient/theme direct object, other arguments or even adjuncts can also be promoted. If the Neuter suffix is added to an intransitive verb, what might have been an optional adjunct for the base form will become the subject. In (550a) it is a location, and in (550b) it is the stimulus.

(550) a. *Óbúlírì bùgónèkàkú.*

ó-bu-´lírì bù´-gon-ik-a\LHL\FO2=ku
AUG-14-bed 14S-sleep-NUT-FV\PRES\FO2=17
'The bed can be slept on.'

b. *Ómùlème àsèkékà?*

ó-mu-`lèmé à-sek-ik-a\LHL
AUG-1-disabled_person 1S-laugh-NUT-FV\PRES
'Can a disabled person be laughed at?'

In elicitation, speakers tend to translate Present tense forms as relating to the potential or possibility of something being done, although in the corpus it is also often translated in a way that implies indicative, rather than potential, modality. Even in such cases, however, the focus appears to be on an action actually being able to be

realised or completed. There is perhaps an implication that if something can be done, it is done, or if something is not done, it cannot be done (or vice versa). This seems to fit for (551), for instance, where if they decide to do something, and it is possible, there is an implication that it will be done, or in (552), where a link can be made between never being seen, and it being impossible for them to be seen. This focus on the possibility or potential of something to be realised seems to be the main difference between a Passive verb and a Neuter verb.

(551) *Bàgàndá, bàkólà kímò. Ékíbàtéésà kikóléká.* (C)

ba-ˋgàndá *bà´-kol-a\LHL* *ki-´mò* *é-ki-bà´-tees-a\LHL*
2-same_sex_sibling 2S-work-FV\PRES AGR7-one REL-7O.REL-2S-discuss-FV\PRES
kì´-kol-ik-a\LHL
7S-do-NUR-FV\PRES
'They are brothers, and they work together. What they discuss is done.'

(552) Context: Talking about black ants (*bùsòlí*)

Tèbùbónéká. (C)

ti-bu-bon-ik-a\LH
NEG-14S-see-NUT-FV\PRES.NEG
'They are never seen.'

While the completion appears to be more an implicature in the Present tense, in simple past forms it is an entailment. In (553), for instance, it is understood that the house was actually built, perhaps with difficulty, as the focus is on the fact that it was indeed possible to do so. The context in (554) sets up a scenario where the building of a house was possible, but was nevertheless not carried out. With a simple past verb form, this was considered impossible, showing that the completion is an entailment of a simple past neuter verb. A past Imperfective, as in (554b) was accepted in such a context, since, as discussed in Section 7.6.7, such forms do not entail completion.

(553) *Ényùmbà yázìmbíkírè.*

é-ny.ˋùmbá\FL *a-a-zimb-ik-ire\H.LHL*
AUG-9-house\FL 1S-TNS-build-NUT-PST2\P3
'(Despite difficulties) the house was finally built.'

(554) Context: Mary plans to build a house, she has found a location and bought the materials. Some time later, John comes to ask about the house. He sees that it is not yet built, so he asks: Was it not possible to build the house?

a. # *Yázìmbìkírè, nàyé ↓nábbáírè tíntàká.*

e-a-zimb-ik-ire\H.LHL nàyê n-a-bb-ire\H(L)HL
9S-TNS-build-NUT-PST2\P3 but 1SGS-TNS-COP1-PST2\P3
ti-n-tak-a\H.LH
NEG-1SGS-want-FV\PRES.NEG.IRR
Intended: 'It was possible to build, but I didn't want to.'

b. *Yábbáire èzìmbíkà, nàyé ↓nábbáírè tíntàká.*

e-a-bb-ire\H(L)HL è-zimb-ik-a\LHL nàyê n-a-bb-ire\H(L)HL ti-n-tak-a\H.LH
9S-TNS-COP1-PST2\P3 9S-build-NUT-FV\PRES but 1SGS-TNS-COP1-PST2\P3 NEG-1SGS-want-FV\PRES.NI
'It was possible to build, but I did not want to.'

9.4.2.2 Verbs of perception

The Neuter suffix is commonly found on the verb *kùbòná* 'to see', in order to express how something looks, i.e. 'X looks Y', as for instance in (555). The verb *kùwùlírá* 'to hear' can also be used in a similar way, as in (556a). While there is no base verb here, a version with the Applicative suffix is possible, but has a different interpretation.

(555) *Àbònèkà kúsà.*

à-bon-ik-a\LHL\FO2 ku-´sà
1S-see-NUT-FV\PRES\FO2 AGR15-good
'S/he looks good.'

(556) a. *Kìwúlìkà kúsà.*

kì´-wul.ik-a ku-´sà
7S-hear.NUT-FV AGR15-good
'It sounds good.'

b. *Kìwúlìrà kúsà.*

kì´-wul.ir-a\LHL\FO2 ku-´sà
7S-hear.APPL-FV\PRES\FO2 AGR15-good
'It hears well.'

9.4.2.3 Verbs of breaking

With verbs of breaking, the Neuter suffix is commonly used to turn a transitive clause with an agent subject and a patient object into an intransitive clause with a patient subject. This usage resembles a medio-passive. (557) and (558) show examples of this.

(557) a. *Àmènyérèmu énsákà.*

à-meny-ire\LHL=mu é-n.´sákà
1S-break-PST2\P2=18 AUG-9.pot
'S/he broke the pot in half.'

b. *Énsáka èmènyékérè.*

é-n.´sákà è-meny-ik-ire\LHL
AUG-9.pot 9S-break-NUT-PST2\P2
'The pot broke.'

(558) a. *Ànyìírírèmu ólùgwéyè.*

à-nyiir-ire\LHL=mu ó-lu-`gwéyè
1S-tear-PST2\P2=18 AUG-11-cloth
'S/he tore the cloth in half.'

b. *Ólùgwéyè lùnyííríkírè.*

ó-lu-`gwéyè lù´-nyiir-ik-ire\LHL
AUG-11-cloth 11S-tear-NUT-PST2\P2
'The cloth tore.'

9.4.3 Neuter syntax

The Neuter extension reduces valency by one, in a way similar to the Passive suffix, and in fact it does meet the criteria outlined for passives in Section 2.4.1.7. With a transitive base verb, it is commonly the object that is promoted to subject, while with an intransitive verb, an adjunct can be promoted, as in (559), where the Neuter subject is an instrument, or as in (560) and (550a) above where it is a location. The base subject can be included in a *nè* phrase, like for a verb with the Passive extension, and it is also possible to leave out the conjunction, as in (561d). The base subject does then have all the object properties, and can trigger object agreement (561e), but does not appear to be able to be the subject of a passive. When the argument promoted is locative, a locative enclitic is generally necessary, as in (560).

(559) *Mùpíìrà gùzényékà.*

mu-ˋpíìrá\FL gù´-zeny-ik-a\LHL
3-ball\FL 3S-play-NUT-FV\PRES
'A ball can be played with.'

(560) a. *Óbúlírì bùgónèkàkú.*

ó-bu-´lírì bù´-gon-ik-a\LHL\FO2=ku
AUG-14-bed 14S-sleep-NUT-FV\PRES\FO2=17
'The bed can be slept on.'

b. *Óbúlírì bùgónèkàkù mwàná.*

ó-bu-´lírì bù´-gon-ik-a\LHL\FO2=ku\FO2 mu-àná
AUG-14-bed 14-sleep-NUT-FV\PRES\FO2=17\FO2 1-child
'The bed can be slept on by the child.'

c. *Óbúlírì búmùgònèkàkú.*

ó-bu-´lírì bù´-mu-gon-ik-a\LHL\FO2=ku
AUG-14-bed 14S-1O-sleep-NUT-FV\PRES\FO2=17
'The bed can be slept on by him/her.'

(561) a. *Ómwàna àsúmba ámátóókè.*

ó-mu-àná à-sumb-a\LHL á-ma-´tóókè
AUG-1-child 1S-cook-FV\PRES AUG-6-matooke
'The child is cooking matooke.'

b. *Ámátóókè gàsúmbíkà.*

á-ma-´tóókè gà´-sumb-ik-a\LHL
AUG-6-matooke 6S-cook-NUT-FV\PRES
'Matooke can be cooked.'

c. *Ámátóókè gàsúmbíkà n'ómwàná.*

á-ma-´tóókè gà´-sumb-ik-a\LHL nè ó-mu-àná
AUG-6-matooke 6S-cook-NUT-FV\PRES CONJ AUG-1-child
'Matooke can be cooked by the child.'

d. *Ámátóókè gàsúmbíka *(ó)mwàná.*

á-ma-´tóókè gà´-sumb-ik-a\LHL ó-mu-àná
AUG-6-matooke 6S-cook-NUT-FV\PRES AUG-1-child
'Matooke can be cooked by the child.'

e. *Ámátóókè gámùsùmbíkà.*

á-ma-´tóókè gà´-mu-sumb-ik-a\LHL
AUG-6-matooke 6S-1O-cook-NUT-FV\PRES
'The matooke can be cooked by him/her.'

9.4.4 Lexicalised Neuters

The dictionary contains a selection of Neuter verbs. Many of these are verbs of breaking, which all behave as described in Section 9.4.2.3, i.e. see the dictionary entries in (562). Others verbs similarly have a more or less predictable meaning based on the base verbs, such as those in (563). There are other verbs, with similar meanings that fit the regular meaning of the Neuter, which lack a base verb counterpart, some of these are given in (564). For *kùwùlíká* 'to be audible', there is no base verb **kùwùlá*, but there is *kùwùlírá* 'to hear, to feel' and *kùwùlísísyá* 'to listen', and it also sometimes uses a double Neuter suffix as in *kùwùlíkíká* 'to be audible'. Finally, there are a few verbs that don't have base counterparts, and whose meanings do not fit into the general pattern of the Neuter, some are listed in (564). As these are intransitive, I consider them here to be instances of the Neuter extension, rather than the Impositive (see Section 9.8.6), which is identical, but tends to have transitive verbs.

(562) a. *kùmènyá* 'to break'
kùmènyéká 'to be broken'

b. *kùbèbényá* 'to spoil a child, to damage'
kùbèbényéká 'to be spoiled, to be damaged'

(563) a. *kùmànyá* 'to know'
kùmànyíká 'to become known, to become famous'

b. *kùtègéérá* 'to understand'
kùtègéérékéká 'to be understandable'

c. *kwèsígá* 'to lean yourself against'
kwèsígíká 'to be reliable, dependable, honest'

(564) a. *kwèbéréká* 'to be foreseeable'

b. *kùgèndéká* 'be approachable, friendly, easy-going'

c. *kùwùlíká* 'to be audible'
kùwùlíkíká 'to be audible'

(565) a. *kùnèkáánéká* 'to glitter, glisten'

b. *kwèwómbéékà* 'to be humble, to fold your hands to pray'

c. *kùfùnyángúlíkà* 'to stink excessively'

d. *kùpàlíkà* 'to crackle, pop, sizzle'

e. *kùtùkúlíkà* 'to become reddish or bloodshot'

f. *kùsìríkà* 'to be quiet, to mute a sound'

9.5 Reciprocal

Lugwere has two suffixes that relate to reciprocality. One is *-an*, clearly a direct reflex of the PB **-an*. It is found on quite a few verbs that have meanings which inherently include more than one participant, such as *kùlwànà* 'to fight'. However, it is not productive today. In order to productively form a Reciprocal verb, the suffix *-a(n)gan* is used. *-a(n)gan* clearly has links to *-an*, as it appears to be *-an* combined with another element, possibly a reflex of the PB repetitive extension **-ag* ∼ **-ang*. This link is further evidenced by the fact that both *-an* and *-a(n)gan* form imbricated past stems in the same way. For easy of reference, *-a(n)gan* will be called the Reciprocal, while *-an* will be referred to as the Associative, following the terminology in Schadeberg & Bostoen (2019). The *-angan* suffix functions as a reciprocal, while *-an* is typically applied to verbs that relate to people interacting or associating with each other. The Reciprocal will be discussed in this section, while the *-an* suffix is described in Section 9.8.1.

9.5.1 Reciprocal morphology

The Reciprocal extension is *-angan*, where the first nasal of the suffix can optionally be dropped, giving *-agan*. Frequently, the Reciprocal extension co-occurs with the Reflexive, as in *kwèbónángánà* 'to see each other'. Table 9.8 shows the conjugation of *kùbònángánà*, and the conjugation of *kwèbónángánà* is shown below in Table 9.10, both meaning 'to see each other'. The Reciprocal has an optional imbricated past stem *-angaine*, but it can also be conjugated with a regular past stem. Table 9.8 has both singular and plural forms. While the Reciprocal does logically require at least two participants, it is possible to use singular forms in constructions like *Âbònángánírè n'ómwànà* 'He met with the child (lit. He met each other with the child)'.

Table 9.8: Conjugation of *kùbònángáná* 'to see each other' with AGR 1 and AGR 2 subjects. Two alternative past tense stems are shown

	FO1 AFF	FO1 NEG
Present	àbònángánà	tàbónángáná
	bàbónángánà	tìbàbónángáná
P2	àbònángánírè/	tàbónàngànìré/
	àbònángáínè	tàbónàngàìné
	bàbónángánírè /	tìbàbónàngànìré/
	bàbónángáínè	tìbábònàngàìné
P3	bábònángánírè/	tìbábònángánírè/
	bábònángáínè	tìbábònángáínè
P5	bàbònàngànìré/	tíbàbónángánírè/
	bàbònàngàìné	tíbàbónángáínè
F1	bábònàngàná	tìbàbònàngàné
F2	bàlíbònángánà	tìbàlíbònángáná

9.5.2 Reciprocal usage

9.5.2.1 Reciprocal

The most common function of the Reciprocal suffix is in reciprocal sentences, where two (or more) participants both act on each other. The most common instance of this in the corpus is in the verb *kùtàkángáná* 'to love each other', and an example is given in (566). (567) – (568) also show a couple of examples where two participants act on each other. In these two cases, the participants are both agents and themes, but it is possible for other thematic roles to be involved. In (569), for instance, the participants are both agent/experiencer and stimulus, in (570) agent/experiencer and recipients (to respect is literally 'to give respect'), and in (571) the participants are agents and location. Note that in (570), the verb *kùwá* 'to give' is ditransitive, and therefore allows the theme argument to follow the Reciprocal verb.

(566) *Bálì bàbírí nè bàtákángánà.* (C)

bà´-li\LH(L) ba-ˋbírí nè bà´-tak-angan-a\LHL
2S-COP2\PRES AGR2-two CONJ 2S-love-RECIP-FV\PRES
'They are two and they love each other.'

(567) *Bàkúbbángánà.* (C)

bà´-kubb-angan-a\LHL
2S-hit-RECIP-FV\PRES
'They beat each other.'

(568) *Ólèkè twábè túgòné twa- éízò twábònàgàna éízo ámàkéézì.* (C)

ó-lek-e\H.LH\FO2 tu-ab-e\HL(H) tu-gon-e\H.LH FS é-ìzó
2SGS-let-SUB\SUB\FO2 1PLS-go-SUB\SUB 1SGS-sleep-SUB\SUB FS AUG-tomorrow
tu-a-bon-angan-a\H.LH é-ìzó á-ma-àkéézì
1PLS-TNS-see-RECIP-FV\F1 AUG-tomorrow AUG-6-morning
'Let's go to sleep, tomorrow, we'll see each other tomorrow morning.'

(569) *Tùsékàngàná.* (C)

tù´-sek-angan-a\LHLH
1PLS-laugh-RECIP-FV\PRES.SBR
'We laughed at each other.'

(570) *Tìbàwángána ébìtîibwá.* (C)

ti-ba-w-angan-a\LH é-bi-`tîibwá
NEG-2S-give-RECIP-FV\PRES.NEG AUG-8-respect
'They don't respect each other.'

(571) *Ngáne ébátùnóónyà, tùgónàngànàku óòtí màpúúsì.* (C)

ngane éè-bà´-tu-noony-a\LHL(H) tù´-gon-angan-a\LHL\FO2=ku òòtî
CONJ SBR-2S-1PLO-search-FV\PRES.SBR 1PLS-sleep-RECIP-FV\PRES\FO2=KU like
ma-`púúsì
6-cat
'Even if they search for us we can sleep on each other like cats.'

9.5.2.2 Comitative

In addition to the reciprocal usages, there are a few examples in the corpus where it seems that the participants are carrying out an action together, but not on each other. See for instance (572): it is not possible for the agent to also be the patient - one cannot dig a person. Similarly, in (573) growing old is not a transitive verb, and it is not possible to give birth to one another - likely here what is intended is a focus on growing old and having children together. Another example is given in (574). Commonly, the verb *kùkòlángáná* means to 'work together' or 'collaborate', rather than 'to do/make each other'.

(572) *Tùpúlàngàná n'énkùmbi ókú mwíga èèyó.* (C)

tù´-pul-angan-a\LHLH nè é-n.kùmbí ó-ku=mu-ígà
1PLS-dig-RECIP-FV\PRES.SBR CONJ AUG-9.hoe AUG-17=3-swamp
'We dug with hoes in the swamp there.'

(573) *Ààwò mùkáíríyágánà nì mùbyálàgànà nì mùbba áàwó nì mùpúlàníngá* (C)

awa-ˋó\FL mù´-kairiy-angan-a\LHL ni
AGR16-DEM_MED\FL 2PLS-grow_old-RECIP-FV\PRES NAR
mù´-by.al-angan-a\LHLH ni mù´-bb-a\LH(LH) awa-ˋó
2PLS-give_birth.EXT-RECIP-FV\PRES.SBR NAR 2PLS-COP1-FV\PRES.SBR AGR16-DEM_MED
ni mù´-pulaning-a\LHLH
NAR 2PLS-plan-FV\PRES.SBR
'There you would grow old together, you give birth and you live there, then you plan together.'

(574) *Ìnze, ómúntu ányúmyà, tìnkólágáná nàyê.* (C)

ì´-nze ó-mu-´ntù á-a-nyum.y-a\LHL
PRO-1SG AUG-1-person REL-1S-chat.CAUS1-FV\PRES
ti-n-kol-angan-a\LH nà´ˋ-ye
NEG-1SGS-work-RECIP-FV\PRES.NEG CONJ-AGR1
'As for me, a person who converses, I don't deal with him/her.'

9.5.3 Reciprocal syntax

The Reciprocal suffix typically reduces the valency of the verb by one, as the subject is the same participant as one other argument. In (575a), the base sentence is transitive, and takes a patient direct object. In (575b), on the other hand, the verb can no longer take a direct object, and *púúsì* 'cat' needs to be introduced by an oblique phrase headed by *nè* 'with, and'. (575c) shows that the other agent/patient participant cannot generally be a direct object, and requires a conjunction.

(575) a. *Ómbwà àlùmà púúsì.*

ó-m.ˋbwá à-lum-a\LHL\FO2 ˋpúúsì
AUG-9.dog 1S-bite-FV\PRES\FO2 cat
'The dog bites the cat.'

b. *Ómbwà àlùmàngànà n'ópúúsì.*

ó-m.ˋbwá à-lum-angan-a\LHL\FO2 nè ó-ˋpúúsì
AUG-9.dog 1S-bite-RECIP-FV\PRES\FO2 CONJ AUG-cat
'The dog and the cat are biting each other.'

c. * *Ómbwa àlùmàngànà púúsì.*

ó-m.ˋbwá à-lum-angan-a\LHL\FO2 ˋpúúsì
AUG-9.dog 1S-bite-RECIP-FV\PRES\FO2 cat
Intended: 'The dog and the cat are biting each other.'

As more than one participant is required semantically for a reciprocal interpretation, it is common for the subject of the verb to be plural, but as mentioned above, it is also possible to have a singular subject, as long as another participant is indicated another way, most commonly with a oblique comitative argument. It is also possible for a comitative argument phrase to be included even if the subject is plural, as in (577). In (576), it is not possible in the recording to hear a conjunction, but the speaker who transcribed it added one, and in elicitation speakers rejected forms without a conjunction. Perhaps in natural, rapid speech the conjunction might merge with the end of the verb, but speakers' top down analysis still seems to consider there to be a conjunction.

(576) *Munânge, éntákàngàna (n')ómùnânge óònú (...)* (C)

mu-ˋn.ângé *é-n´-tak-angan-a\LHLH* *(nè)* *ó-mu-ˋn.ângé*
1-dear.1SG.POSS SBR-1SGS-love-RECIP-FV\PRES.SBR (CONJ) AUG-1-dear.1SG.POSS
o-ˋnú
AGR1-DEM_PROX
'My dear, when I love my fellow here (...)'

(577) *Òòyo ónyèrè bàtàkàngàìné n'ómwísúkà wê.* (C)

o-ˋó *ó-nyèré\FL* *ba-a-tak-angan-ire\L.LH nè*
AGR1-DEM_MED AUG-really\FL 2S-TNS-love-RECIP-PST2\P5 CONJ
ó-mu-ísúkà=o-e
AUG-1-man=AGR1-1POSS
'That one, really, loved her boyfriend. (lit. that one loved each other with her boyfriend)'

It is also possible for an object specifying the part of the subject that is affected to follow the verb, as in (578). An example from the corpus that seems to fit this is given in (579), although this is more metaphorical, as they are not literally pulling each other by the blood, but the blood is still a specification of the part that is affected. (580) shows an example of reciprocal clause with an overt patient object.

(578) *Émbwà gìlúmángáíne ébìgèré.*

é-m.ˋbwá *gì´-lum-angan-ire\LHL* *é-bi-ˋgèré*
AUG-10.dog 10S-bite-RECIP-PST2\P2 AUG-8-foot
'The dogs bit each other's feet.'

(579) *Bàbírí bàsíkángána ómúsááyè.* (C)

ba-ˋbírí bà´-sik-angan-a\LHL ó-mu-´sááyè
AGR2-two 2S-pull-RECIP-FV\PRES AUG-3-blood
'The two of them, they are deeply in love. (lit. they pull each other by the blood)'

(580) *Bàfúwàngánáku ámàlwá.* (C)

bà´-fuw-angan-a\LHLH=ku á-ma-ˋlwá
2S-blow-RECIP-FV\PRES.SBR=17 AUG-6-millet_beer
'They spit millet beer on each other.' (Part of a ceremony for the birth of twins.)

9.5.4 Lexicalised Reciprocals

There are not many Reciprocal verbs listed in the Nzogi & Diprose (2012) dictionary, and most of those are verbs whose meaning can transparently be derived from the meaning of the base verb plus the reciprocal meaning of the Reciprocal suffix. Additionally, there are some verbs whose meanings are not derivable, yet not too far removed from the idea of reciprocality, such as *kùtègéérágáná*, which can mean 'reach an agreement', and which is based on the verb *kùtègéérá* 'to understand', so would literally mean 'to understand each other'. It is expected that there would be less lexicalised Reciprocals than for some of the other extensions, because the current productive Reciprocal suffix is likely a newer development.

One relatively commonly used lexicalised Reciprocal, is *kùkwàtágáná* 'to be about', and an example is given in (581). A couple of other verbs whose meaning is not predictable is given in (582).

(581) *Ólúgérò lùkwátàgànà ku Ánà.* (C)

ó-lu-ˋgérò lù´-kw.at.agan-a\LHL\FO2 ku=Ánà
AUG-11-story 11S-be_about.TENT.RECIP-FV\PRES\FO2 17=PN.F
'The story is about Ana.'

(582) a. *kùtàbángáná* 'to unite, blend, associate with'

b. *kùsàgááságáná* 'to waver, sway to and fro, to be unsteady, unstable, to be morally unstable, sexually unfaithful'

c. *kwàgáágáná* 'to be equal to, even with, to be balanced, to be level'

9.6 Passive

9.6.1 Passive morphology

The Passive extension is most commonly *-iw*, alternating with *-ew* when following a mid vowel. There are a few verbs that use the short Passive *-w*. This is most commonly lexicalised, and many verbs with *-w* do not have a passive meaning (see 9.6.3 below). Many lexicalised verbs with *-w* also have a lexicalised Applicative, such as *kùfùmbírwá* 'to marry'. In the past, the Passive, past tense and Applicative suffixes merge, giving *-iirwe* or *-eirwe*. Sometimes either *-iw* or *-w* can be used with the same root. For the root in *kùlùmá* 'to bite', Nzogi & Diprose (2012) lists the verb *kùlùmwá* meaning 'to feel labour pains', while a regular Passive *kùlùmíwá* 'to be bitten' can also be formed.

Verbs with the *-iw* suffix can optionally use a past stem with a *-w* following the liquid of the past tense suffix. In these cases we get what looks like double marking of the Passive, as in *àbyàlíwírwè*, see (583).

(583) *Àbyàlíwírwè.*

à-by.al-iw-w-ire\LHL
1S-give_birth.EXT-PASS2-PASS1-PST2\P2
'S/he was born.'

9.6.2 Passive usage and syntax

The Passive can be used to promote a (patient) object to subject position, as illustrated by the alternation in (584), where *mátóókè* is the direct object in (584a) and the subject in (584b).

(584) a. *Ómúntu àtúnda ámátóókè.*

ó-mu-ńtù à-tund-a\LHL á-ma-ńtóókè
AUG-1-person 1S-sell-FV\PRES AUG-6-matooke
'The person sells matooke.'

b. *Ámátóókè gàtúndìwà n'ómúntù.*

á-ma-ńtóókè gà-́tund-iw-a\LHL\FO2 nè ó-mu-ńtù
AUG-6-matooke 6S-sell-PASS2-FV\PRES\FO2 CONJ AUG-1-person
'The matooke is sold by the person.'

Table 9.9: The Passive verbs *kùbyàlíwá* 'to be born', *kùlòléwá* 'to be searched for' and *kùfùmbírwá* 'to marry' with AGR 1 subjects. Two alternative past tense stems are shown

	FO1 AFF	FO1 NEG
Present	àbyàlíwà	tàbyáliwá
	àlòléwà	tàlóléwá
	àfùmbírwà	tàfúmbírwá
P2	àbyàlíwírè/ àbyàlíwírwè	tàbyáliwìré/ tàbyáliwìrwé
	àlòléwérè/ àlòléwérwè	tàlólèwèré/ tàlólèwèrwé
	àfùmbíírwè	tàfúmbìirwé
P3	yábyàlíwírè/ yábyàlíwírwè	tìyábyàlíwírè/ tíyábyáliwírwè
	yálòléwérè/ yálòléwérwè	tìyálòléwérè/ tìyálòléwérwè
	yáfùmbíírwè	tíyáfúmbíirwè
P5	yàbyàliwìré/ yàbyàliwìrwé	tíyàbyáliwírè/ tíyàbyáliwírwè
	yàlòlèwèré/ yàlòlèwèrwé	tíyàlóléwérè/ tíyàlóléwérwè
	yàfùmbìirwé	tíyàfúmbíirwè
F1	yábyàliwá	tìyàbyàliwé
	yálòlèwá	tìyàlòlèwé
	yáfùmbìrwá	tìyàfùmbìrwé
F2	yàlíbyàlíwà	tìyàlíbyàlíwá
	yàlílòléwà	tìyàlílòléwá
	yàlífùmbírwà	tìyàlífùmbírwá

The new (patient) subject controls agreement, just like an active subject. The agent can be expressed in a passive clause either by use of the conjunction *nè*, as in (584b) or (585b), or by having it follow the verb, much like a direct object would, as illustrated in (585c). In clauses like this, the agent behaves like a canonical direct object in multiple

ways: besides occupying the position following the verb, which is generally where a direct object would be, it can also trigger object agreement, as in (585d). It also triggers Form 2 rather than Form 1. The only objecthood test it does not pass, is passivisation, but this would mean passivising an already Passive verb, and it is very unclear what that would even mean, and difficult to test properly. Besides this, however, there is an interesting symmetry between the active and the passive sentences, where the patient object of the active sentence can take on all subject properties in a passive sentence, and the agent subject of the active sentence can take on almost all properties of the object in the passive clause.

(585) a. *Ómwàlà àsùmbà mùtyêré.*

ó-mu-àlá\FL à-sumb-a\LHL\FO2 mu-`tyêré
AUG-1-girl\FL 1S-cook-FV\PRES\FO2 3-rice
'The girl cooks rice.'

b. *Ómùtyêrè gùsúmbíwà n'ómwàlá.*

ó-mu-`tyêré gù´-sumb-iw-a\LHL nè ó-mu-àlá
AUG-3-rice 3S-cook-PASS2-FV\PRES CONJ AUG-3-girl
'The rice is cooked by the girl.'

c. *Ómùtyêrè gùsúmbìwà mwàlá.*

ó-mu-`tyêré gù´-sumb-iw-a\LHL\FO2 mu-àlá
AUG-3-rice 3S-cook-PASS2-FV\PRES\FO2 AUG-3-girl
'The rice is cooked by the girl.'

d. *Ómùtyêrè gúmùsùmbíwà.*

ó-mu-`tyêré\FL gù´-mu-sumb-iw-a\LHL
AUG-3-rice\FL 3S-1O-cook-PASS2-FV\PRES
'The rice is cooked by her.'

When both agent and patient are people, however, the speaker consulted did not allow the agent to be marked with an object marker on a passivised verb, as shown by the unacceptability of (586d).

(586) a. *Sám àkùbbírè Érìkí.*

Sám à-kubb-ire\LHL Érìk
PN.M 1S-hit-PST2\P2 PN.M
'Sam hit Eric.'

b. *Érìk àkùbbíwírè n'óSáàmú.*

Érìk à-kubb-iw-ire\LHL nè ó-Sáàm
PN.M 1S-hit-PASS2-PST2\P2 CONJ AUG-PN.M
'Eric was hit by Sam.'

c. *Érìk àkùbbíwíre óSáàmú.*

Érìk à-kubb-iw-ire\LHL ó-Sáàm
PN.M 1S-hit-PASS2-PST2\P2 AUG-PN.M
'Eric was hit by Sam.'

d. * *Érìk àmùkùbbíwírè.*

Érìk à-mu-kubb-iw-ire\LHL
PN.M 1S-1O-hit-PASS2-PST2\P2
Intended: 'Eric was hit by him.'

(587) – (592) show some examples of Passive constructions from the corpus. Note the interesting usage of the verb *kùkòzéséwá*, in (591), which has a first person singular subject, even though the thing that is used, is the name. The subject then has a semantic role more akin to a maleficiary. In (592), the Passive of *kùkwàtá* is used, meaning that the idea of getting an illness is expressed as the illness getting/taking/grabbing a person, rather than the other way around. While some lexical Passives, such as *kùfùmbírwá* 'to get married' are very common, genuinely passive constructions are fairly sparse in the corpus, both in the texts that were recorded by me, and the Bible translation.

(587) *Òònù Námwísyángà, àmànyíwírè ngà Fàtúmà, ómùkyàlá wá …* (C)

o-ˋnú Námwísyángà à-many-iw-ire\LHL ngà Fàtúmà ó-mu-ˋkyàlá
AGR1-DEM_PROX PN.F 1S-know-PASS2-PST2\P2 SIM PN.F AUG-1-wife
o-á
AGR1-ASS
'This is Namwisyanga, the one known as Fatuma, the wife of …'

(588) *Kùbàtízíwá, éíra okus- ókùbàtìzìwà wàsòmàngá búsómì.* (C)

ku-batiz-iw-a\LH é-ìrâ FS ó-ku-batiz-iw-a\LH\FO2
INF-baptize-PASS2-FV\INF AUG-long_ago FS AUG-INF-baptize-PASS2-FV\INF\FO2
o-a-som-a-nga\LH\FO2 bú´-som-ì
2SGS-TNS-study-FV-HAB\P5\FO2 14∼REDUP∼NMLZ
'To be baptised, back then, to get baptised, you would first study.'

(589) *Ébyáwàndìkìwà bítùkòbà ntì (…)* (C)

é-bi-a-wand.ik-iw-a\H.LH\FO2 bì´-tu-kob-a\LHL\FO2 ǹtî\FL
REL-8S-TNS-write.IMP-PASS2-FV\F1\FO2 8S-1PLO-say-FV\PRES\FO2 QUOT\FL
'The writings tell us that (…)'

(590) *Ngà mbyàlíwà mú kífo ékyètéwà Tìrìnyí.* (C)

ngà ǹ-by.al-iw-a\LHL mu=ki-´fò é-ki-et-iw-a\LHL
SIM 1SGS-give_birth.EXT-PASS2-FV\PRES 18=7-place REL-7S-call-PASS2-FV\PRES
Tìrìnyí
PN.P
'I was born in a place called Tirinyi.'

(591) From the consent form

Tìnkózéséwa élìná lyàngé. (C)

ti-n-kozes-iw-a\LH é-li-ìná li-àngé
NEG-1SGS-use-PAS2-FV\PRES.NEG AUG-5-name AGR5-1SG.POSS
'Not to use my name.'

(592) *Ómùkàlì n'àizà n'àkwátìwa óbùlwàìré.* (C)

ó-mu-`kàlí\FL nè à´-iz-a\LHL\FO2 ni à´-kw.at-iw-a\LHLH
AUG-1-woman\FL CONJ 1S-come-FV\PRES\FO2 NAR 1S-take.TENT-PASS2-FV\PRES.SBR
ó-bu-lwàìré
AUG-14-illness
'The woman got infected with an illness.'

Since Passive forms appear to be quite rare, the corpus has quite a few examples of English Passive constructions corresponding to Lugwere active constructions. In these cases sometimes a general Agreement Class 2 'they' is used as the subject. A common example of this is a Lugwere phrase for giving one's name, shown in (593), which uses an active clause, i.e. 'they call me'. (594) shows a further example from the corpus.

(593) *Bánjètà Méèrí.*

bà´-n-et-a\LHL\FO2 Méèrí
2S-1SGO-call-FV\PRES\FO2 PN.F
'I am called Mary.'

(594) *Kálè ìswè bátwìbbírè.* (C)

kálè ì´-swe\FL bà´-tu-ibb-ire\LHL
INTJ PRO-1PL\FL 2S-1PLO-steal-PST2\P2
'But, as for us, we were conned. (lit. they stole (from) us)'

9.6.3 Lexicalised Passives

The two Passive suffixes *-iw* and *-w* are also found on a dozen or so lexicalised verbs. As will become apparent from the examples listed below, many of these have a combination of a Passive and an Applicative marker.

In some of these, there is still a clear link to a passive meaning, even thought the verb has developed some meanings where the subject is more of an agent. Take for instance the verb *kùgàitíbwá*, which can mean 'to wed, get married'. It can also mean 'to be joined together', which is a Passive of *kùgàitá* 'to join, merge, unite, wed'. While there is no verb **kùfùmbá* or **kùfùmbírá*, a similar origin could perhaps be posited for *kùfùmbírwá* 'to marry'. Another couple of examples is given in (595).

(595) a. *kùfá* 'to die'
kùfiìrwá 'suffer loss, lose s.b. by death.'

b. *kùlèmá* 'to stymie, hinder'
kùlèmwá/kùlèmérérwá 'to fail'

Some lexicalised Passives behave more or less like active verbs. In (596), the verb takes a theme object, and the subject has a role that is closer to an agent or experiencer than a patient.

(596) *ÓMéri àlèmérwérwe ébìbúùzó.*

ó-Méri *à-lem.erer.ew-w-ire\LHL* *é-bi-`búùzó*
AUG-PN.F 1S-fail.DUR1.PASS2-PASS1-PST2\P2 AUG-8-test
'Mary failed the test.'

There are also some verbs where in the base form the subject is the stimulus for an experience, such as *kùnyùmá* 'to be enjoyable', where a Passive form exists that has as its subject the experiencer of that stimulus, i.e. *kùnyùmírwá* 'to enjoy'. A couple of other such pairs exist, shown in (597). There are also a few lexicalised Passives where the subject is the experiencer, but where the root either does not have a base form, or it does but that meaning cannot straightforwardly be tied to the meaning of the Passive, i.e. *kùsàálírwaá* 'to be sad' and *kùsàálá* 'to roar (of flames)'.

(597) a. *kùsìnyá* 'to tire, bore'
kwèsìnywá 'to feel disgusted, fed up, irritated, impatient, bored'
b. *kùwòòmá* 'to be delicious'
kùwòòmérwá 'to relish, enjoy, savour'

Another couple of verbs that appear to be lexicalised Passives are given in (598) below.

(598) a. *kùcèèréwá* 'to delay, to be late'
b. *kùtèèká* 'to put'
kùtèèkwá 'must, to have to, to be supposed to, ought to'

9.7 Reflexive

The Reflexive is formed by use of the prefix *e-*, and in addition to being productively used to form reflexive verbs, it is also lexicalised on a large amount of verbs.

9.7.1 Reflexive Morphology

The Reflexive is the only one of the regular valency changing affixes of Lugwere that does not use an extension. Instead, the Reflexive is formed by the addition of *e-* in the object slot. The prefix has a floating high tone associated with it, which behaves just like the floating high tones associated with all the CV- subject prefixes. It is realised on the first syllable of the stem in the Present tense and P2, which would otherwise have a low tone for 1st and 2nd person singular and Agreement Classes 1 and 9. When combined with subject markers that have a floating high tone, the Reflexive has no discernible effect on the tone. A possible interpretation is that the high tone is not attached to the Reflexive marker, but perhaps a result of the fact that the subject marker and the Reflexive together form a CV structure. As only the subject prefixes that have a syllable structure other than CV lack a floating high tone, it is possible to imagine that it was lost in cases where the subject marker consisted of only a vowel or only a nasal.

Table 9.10 shows the conjugation of the verbs *kwèrágá* 'to show off (lit. show oneself)' and *kwèbónángáná* 'to see each other'.[2] In the second verb, the Reflexive is combined with the Reciprocal extension, see Table 9.8 to compare the tonal behaviour of *kùbònángáná*, which means the same but does not have the Reflexive prefix, i.e. *àbònángànà* with a low tone on the first syllable of the stem, as opposed to *yèbónángànà*.

The *a-* prefix is not overtly present in either the future or the past forms, as it merges with the Reflexive prefix. This means that the only difference between the Present tense affirmative and the F1 affirmative is the tone, and that P2, P3 and P5 are only differentiated by tone, so for 's/he showed him/herself' we have P2 *yèrágírè*, P3 *yéràgírè* and P5 *yèràgìré*.

The subject markers are combined with the Reflexive in a similar way to how they combine with the *a-* tense prefix. Subject makers ending in /a/ lose this vowel, as illustrated by *bèrágírè* 'they showed off (P2)'. Subject markers ending in /i/ or /u/ get a semivowel, as in *mwèrágà*, while the 1st person singular prefix is realised as *n-*. Table 9.11 shows the 1st and 2nd person forms plus Agreement Class 1 and 2 in the Present tense. This table also has Form 2, showing that even the person categories that normally do not have a floating high tone, i.e. 1st and 2nd person singular and Agreement Class 1, have a high tone on the first syllable of the stem on affirmative verbs in Form 2 contexts, much like what is normally only the case for subject markers with a floating high tone (compare *yèrábìrà bìbúùzó* 's/he forgets the exam' to *àjànjàbà mùlwàìré* 's/he treats the patient').

9.7.2 Reflexive usage

The main usage of the Reflexive prefix is in reflexive contexts, where it can be used productively. There is also a large number of lexicalised Reflexives, which mostly do not have a reflexive meaning, discussed in Section 9.7.4.

[2]The Reciprocal has an optional imbricated past stem, discussed in Section 9.5, but here only the version with the regular past stem is given

Table 9.10: The conjugation of *kwèrágá* 'to show oneself', *kwèbónángáná* 'to see each other' and *kwèrábírá* 'to forget' with AGR 1 subjects

	FO1 AFF	FO1 NEG
Present	yèrágà	tìyèrágá
	yèbónángánà	tìyèbónángáná
	yèrábírà	tìyérábírá
P1	yànkérágá	tìyànkérágá
P2	yèrágírè	tìyèrágìré
	yèbónángánírè	tìyèbónàngànìré
	yèrábíírè	tìyèrábììré
P3	yéràgírè	tíyérágírè
	yébònángánírè	tìyébònángánírè
	yéràbíírè	tíyérábíírè
P5	yèràgìré	tíyèrágírè
	yèbònàngànìré	tíyèbónángánírè
	yèràbììré	tíyèrábíírè
F1	yéràgá	tìyèràgé
	yébònàgàná	tìyèbònàgàné
	yéràbìrá	tìyèràbìré
F2	yàlyérágà	tìyàlyéràgá
	yàlyébónágánà	tìyàlyébònágáná
	yàlyéràbírà	tìyàlyéràbírá

9.7.2.1 Reflexive

The main productive usage of the Reflexive prefix is in reflexive contexts, where the subject acts upon itself. A couple examples of this from the corpus are given in (599) – (600).

(599) *ÓBàlúkà nì yèèbúúlya áàtí...* (W)

ó-Bàlúkà ni à´-e´-buul.y-a\LH(LH) à-tî
AUG-PN.F NAR 1S-REFL-ask.CAUS1-FV\PRES.SBR AGR1-QUOT

Table 9.11: The verb *kwèrábírá* 'to forget' in the Present tense

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
1st SG	nèrábírà	nèrábìrà	tìnèrábírá	tìnèràbìrà
1st PL	twèrábírà	twèrábìrà	tìtwèrábírá	tìtwèràbìrà
2nd SG	wèrábírà	wèrábìrà	tìwèrábírá	tìwèràbìrà
2nd PL	mwèrábírà	mwèrábìrà	tìmwèrábírá	tìmwèràbìrà
AGR 1	yèrábírà	yèrábìrà	tìyérábírá	tìyèràbìrà
AGR 2	bèrábírà	bèrábìrà	tìbèrábírá	tìbèràbìrà

'Baluka asked herself…'

(600) *Ómpìrì nì yègólòlèrá ókú mwìgó gwá Cùlí, nì yèjánùùlá.* (W)

ó-m.pìrí\FL ni à´-e´-gol.ol-ir-a\LHLH ó-ku=mu-ìgó
AUG-9-snake\FL NAR 1S-REFL-straighten.SEP1-APPL-FV\PRES.SBR AUG-17=3-stick
gu-á cùlí ni à´-e´-jan.ul-a\LHLH
AGR3-ASS hyena NAR 1S-REFL-stretch.SEP1-FV\PRES.SBR
'The snake wrapped itself onto the stick of the hyena and it stretched itself.'

9.7.2.2 Combined with the Applicative

The corpus contains quite a few examples of the Reflexive prefix combined with the Applicative suffix. A couple of examples are given in (601) – (603) (see also (600) above). This usage is initially a bit puzzling, as the Reflexive generally reduces valency, while the Applicative increases it. And they do indeed appear to cancel each other out, as the verbs have the same valency as the base would. In (602), for instance, *kwègúlúkírá* is used intransitively, just like *kùgùlúká* 'to fly'. It is also unclear at this point what the difference in meaning or connotation between this construction and a base verb is. When asked, a speaker considered (603a) and (603b) to mean the same.

(601) *Yègùlùkìirè kwègùlùkìrà swii!* (C)

a-a-e-gul.uk-ir-ire\LH\FO2 ku-e-gul.uk-ir-a\LH\FO2 swii
1S-TNS-REFL-fly.SEP2-APPL-PST2\P5\FO2 INF-REFL-fly.SEP2-APPL-FV\INF\FO2 ONOM
'It just flew, swii!'

(602) *Tùtúúka èèyo, ómùkàlì yèbyálìrá kúsánì.* (C)

tù´-tuuk-a\LHL e-`ó ó-mu-`kàlí\FL
1PLS-arrive-FV\PRES AGR23-DEM_MED AUG-1-woman\FL
à´-e´-by.al-ir-a\LHLH ku-´sánì
1S-REFL-give_birth.EXT-APPL-FV\PRES.SBR 15-well
'We reached there and the woman gave birth well.'

(603) a. *Àsòmà kítábò.*

à-som-a\LHL\FO2 ki-´tábò
1S-read-FV\PRES\FO2 7-book
'He is reading a book.'

b. *Yèsómèrà kítábò.*

à-e´-som-ir-a\LHL\FO2 ki-´tábò
1S-REFL-read-APPL-FV\PRES\FO2 7-book
'He is reading a book.'

There are examples of combinations of Reflexive and Applicative markers where their usage clearly makes sense, and where the Applicative does add an argument, which just happens to correspond to another argument controlled by the verb, as for instance in (604), where the person bought something for herself. It is possible that the usage shown in the examples above might have come from the extension of the pattern in bridging contexts such as (604).

(604) *Yègùlìíréyo ákàpòlótí kè.* (C)

a-a-e-gul-ir-ire\LH=yo á-ka-`pòlótí=ka-e
1S-TNS-REFL-buy-APPL-PST2\P5=23 AUG-12-plot=AGR12-1POSS
'She bought her plot there.'

9.7.3 Reflexive syntax

When used as a reflexive, the Reflexive prefix reduces the number of arguments a verb takes by one, as two slots in the verb's semantic argument template are filled by the same syntactic entity. This is shown, for instance in (605a), where *kùlùmá* 'to bite' is transitive, but in (605b) *kwèlúmá* 'to bite oneself' only requires one argument, a subject.

It is also possible to specify further how the reflexive action was done, by use of an additional argument. This can be for instance the location on the agent that the action was done to, as in (605c), an instrument (606), a location (607), or a stimulus, as in (608). These arguments can have all the properties of a direct object: it immediately follows the verb (605c), or a locative class marker can optionally be used, it can be made the subject of a Passive (605d) (note that the verb still carries the Reflexive prefix, so it is not just a passive of the base verb, like the English 'the leg is bitten'), and it can trigger

object agreements (605e), in which case the reflexive prefix is often present twice, once following the subject marker and once following the object marker.

(605) a. *Émbwà èlùmà púúsì.*

é-m.ˋbwá è-lum-a\LHL\FO2 ˋpúúsì
AUG-9.dog 9S-bite-FV\PRES\FO2 cat
'The dog bites the cat.'

b. *Émbwà yèlúmà.*

é-m.ˋbwá è´-e´-lum-a\LHL
AUG-9.dog 9S-REFL-bite-FV\PRES
'The dog bites itself.'

c. *Émbwà yèlúma ékigèré.*

é-m.ˋbwá è´-e´-lum-a\LHL é-ki-´gèré
AUG-9.dog 9S-REFL-bite-FV\PRES AUG-7-leg
'The dog bites itself in the leg.'

d. *Ékígèrè kyèlúmíwà nè mbwá.*

é-ki-´gèré\FL kì´-e´-lum-iw-a\LHL nè m.ˋbwá
AUG-7-leg\FL 7S-REFL-bite-PASS2-FV\PRES CONJ 9.dog
'The leg was bitten by the dog itself.'

e. *Yékyèlúmà.*

è-e´-ki-e´-lum-a\LHL
9S-REFL-7O-REFL-bite-FV\PRES
'It bites itself in it.'

(606) *Nèngá yèbííkà múgáírè, tímásúúkà.* (C)

nèngá à-e´-biik-a\LHL mu-´gáírè ti-ma-´súúkà
CONJ 1S-REFL-cover-FV\PRES 3-bark_cloth NEG-6-bed_sheet
'But when he was covering himself with the tree bark, not bed sheets.'

(607) *Nèbónà (ómú) kìfáánàní.*

ǹ-e´-bon-a\LHL (ó-mu=)ki-ˋfáánàní
1SGS-REFL-see-FV\PRES (AUG-18=)7-photo
'I see myself in the photo.'

(608) *Nèséka énsòbí yàngé.*

ǹ-e´-sek-a\LHL é-n.sòbí e-àngé
1SGS-REFL-laugh-FV\PRES AUG-9.mistake AGR9-1SG.POSS
'I laugh at my mistake.'

There are many lexicalised Reflexive verbs, and many of these do not have a reflexive meaning. Some of these are transitive, and can therefore take a direct object, as in (609). As shown in (609b), when such verbs have an object marker, there is an additional *e-* prefix following the object marker. For tenses that have the *a-* prefix, the Reflexive marker following the subject can be replaced by the *a-*, as shown by the two variants in (609c).

(609) a. *Nèrábííre ébìtêngí.*

ǹ-e´.rab.ir-ire\LHL *é-bi-`têngí*
1SGS-REFL.forget.APPL-PST2\P2 AUG-8-fabric
'I forgot the bitengi (type of fabric).'

b. *Nébyèràbíírè màkéézì gànú*

ǹ-e´-bi-e´.rab.ir-ire\LHL *ma-`kéézì ga-`nú*
1SGS-REFL-8O-REFL.forget.APPL-PST2\P2 6-morning AGR6-DEM_PROX
'I forgot them this morning'

c. *Nábyèràbíírè/nébyèràbíírè*

n-a-e-bi-e.rab.ir-ire\H.LHL
1SGS-TNS-REFL-8O-REFL.forget.APPL-PST2\P3
'I forgot them.'

d. *Ébìtêngì byèrábírwa ómwànà.*

é-bi-`têngí\FL *bi-e.rab.ir-w-a\LHL* *ó-mu-ànà*
AUG-8-fabric\FL 8-REFL.forget.APPL-PASS1-FV\PRES AUG-1-child
'The bitengi are forgotten by the child.'

9.7.4 Lexicalised Reflexives

Nzogi & Diprose (2012) lists over 500 verbs that start with *kwe-*. Some of these are verbs with a stem-initial /e/, but the majority are likely verbs that synchronically or diachronically have the Reflexive prefix. As expected, some of the verbs listed have meanings that can be quite transparently derived from the base verb's meaning + a reflexive element, but many have meanings that are either not fully predictable from the base verb, or, as is often the case, have no base verb counterpart.

(610) shows some verbs that have more or less unpredictable meanings, but where an element of reflexivity is still present. Apart from such verbs, the remaining lexicalised verbs show a large range of meanings. Some of the types that are commonly

found, are either verbs relating to mental states or emotions, as in (611), or verbs relating to movement or behaviour, as in (612), in addition to quite a few other verbs that do not fall into any of these categories. Another common lexicalised Reflexive verb is *kwèyóngérá*, meaning 'to continue'. Note, similarly to what was described in Section 9.7.2.2, many of the lexicalised Reflexive verbs also combine the Reflexive prefix with the Applicative suffix.

Finally, perhaps the most used lexicalised Reflexive of all is the verb used to express gratitude. This verb is, as far as I can tell, used only in the Subjunctive, most commonly the second person, as in *wébàlé* 'thank you SG' or *mwébàlé* 'thank you PL', but can also be used in the third person, to express gratitude towards someone not present, i.e. *yébàlé* 'thanks to him/her'.

(610) a. *kùbbìirá* 'to amass, accumulate'
kwèbbííryá 'to congregate, converge.'

b. *kùfùùnyá* 'to roll up, fold'
kwèfùnyá 'to crease, wrinkle.'

c. *kùgòlólá* 'to iron'
kwègólólá 'to stretch yourself'

(611) a. *kwèrábírá* 'to forget'

b. *kwègéndérézá* 'to be careful'

c. *kwèrálíkírírá* 'to worry'

d. *kwèjálábyá* 'to relish'

e. *kwègómbá* 'to crave for, hunger, thirst, desire'

f. *kwèwúúnyá* 'to wonder, marvel'

(612) a. *kwèbbálá* 'to dodge, duck'

b. *kwèbítyá* 'to behave'

c. *kwèfúlúgúnyá* 'to toss and turn'

d. *kwèkéryá* 'to exert yourself, to display energy, vigour'

e. *kwèjúúlá* 'to swim'

f. *kwègóónyólá* 'to twist, contort'

9.8 Non-productive extensions

The next few subsections will discuss the non-productive extensions. Some of these, such as the Positional and Tentative, are found on only a small set of verbs, and even for those there can be uncertainty as to whether what looks like an extension was indeed historically a separate morpheme from the root, as they generally do not have any base root counterparts, nor do the roots always appear with other extensions. Where the verbs allow for imbricated past stems, however, we can be moderately certain that these are indeed historically verbs with extensions, although even in these cases, we cannot rule out analogy.

In other cases, such as the Separative, there is a large number of lexical items that have the extensions, and while the roots in question rarely exist as a base verb by itself, it is common that the two Separative extensions, as well as the Extensive, are found on the same root, making it clear that these are indeed extensions, and that they are still analysable as suffixes today.

9.8.1 -an (Associative)

9.8.1.1 Associative morphology

The Associative suffix *-an* has an imbricated past stem, *-aine*. It can optionally be used with a regular stem, but this seems more common for longer verbs. Bisyllabic verbs like *kùlwàná* 'to fight' and *kùgàànà* 'to refuse' are most commonly heard with an imbricated stem, although speakers did accept regular stem forms. Table 9.12 shows the conjugation of the verbs *kùlwàná* 'to fight' and *kùgàbáná* 'to share', giving both the regular and the imbricated past stem versions. Note that the negative F2 of *kùlwàná* has a LHLH melody, where a LH melody is what bisyllabic verbs without an extension use.

Table 9.12: The conjugation of *kùlwànà* 'to fight' and *kùgàbánà* 'to share' with AGR 1 subjects. Two alternative past tense stems are shown

	FO1 AFF	FO1 NEG
Present	àlwánà	tàlwáná
	àgàbánà	tàgábáná
P2	àlwáínè/ àlwànírè	tàlwáìné/ tàlwánìré
	àgàbáínè/ àgàbánírè	tàgábàìné/ tàgábànìré
P3	yálwáínè/ yálwànírè	tíyálwáínè/ tíyálwànírè
	yágàbáínè/ yágàbánírè	tíyágàbáínè/ tíyágábánírè
P5	yàlwàìné / yàlwànìré	tíyàlwáínè/ tíyàlwánírè
	yàgàbàìné/ yàgàbànìré	tíyàgábáínè/ tíyàgábánírè
F1	yálwàná	tìyàlwàné
	yágàbàná	tìyàgàbàné
F2	yàlírwánà	tìyàlírwàná
	yàlígàbánà	tìyàlígàbáná

9.8.1.2 Associative usage

Nzogi & Diprose (2012) lists around 80 words ending in *-ana* (excluding those verbs that end in *-angana*), and only about 30 or so have meanings that relate to interpersonal relationships.

Firstly, there is a group of verbs that refer to the relationship between objects/people, comparing them (i.e. *kwàwúkáná* 'to differ' and *kùfàànáná* 'to be similar'), or describing their position relative to each other (i.e. *kùlìráná* 'be next to'). These are given in (613).

(613) a. *kwàwúkáná* 'to differ, separate from, divorce'

b. *kùfàànáná* 'to resemble, to be similar'

c. *kùlìráná* 'to be next to, near'

d. *kwàbíráná* 'to be in order, alongside, to be matching, corresponding, consistent, harmonious'

e. *kwènkánkáná* 'to be equal'

f. *kùcàànáná* 'to put in order of size, position, numbers, etc. '

A second group of verbs relate to people meeting or gathering, given in (614). Some verbs also have to do with utterances, generally with negative connotations, given in (615).

(614) a. *kùjàgáánáná* 'to party, revel, make merry, celebrate noisily'

b. *kwàgáánáná* 'to encounter or meet with s.b. or s.t. either by chance or planned'

c. *kùkùmbáánáná* 'to gather together'

d. *kùsìsínkáná* 'to meet s.t. or s.b.'

e. *kùsàngáánáná* 'to meet with, encounter'

f. *kùlàágáánáná* 'to make an appointment'

(615) a. *kùlàbánkáná* 'to talk incoherently'

b. *kùwòògáná* 'to shout, speak loudly, make noise'

c. *kwèwáánáná* 'to boast, brag'

d. *kùlògóótáná* 'to babble; talk in a continuous, incoherent, and confused way'

e. *kùwàànáná* 'to praise, flatter, commend'

f. *kùlàájáná* 'to sound an alarm, cry for help'

Another group of verbs have to do with conflict or competition, given in (616).

(616) a. *kùgùgúláná* 'to row, fight, dispute'

b. *kùkààyáánáná* 'to dispute, contest, challenge'

c. *kùgàànáná* 'to refuse, deny, hinder, obstruct, negate'

d. *kùlwànáná* 'to fight'

e. *kùsìndáná* 'to compete'

f. *kùvùnáánáná* 'to accuse, blame'

g. *kùtòngáná* 'to quarrel'

h. *kùpàtáná* 'to bargain, negotiate a sale'

i. *kwàkáná* 'to argue against, refute'

Finally, (617) shows some more verbs that have something to do with the interaction or relationship between two entities, but which do not fit into any of the above categories.

(617) a. *kùgàbáná* 'to share'

b. *kùtùùkáná* 'to conform, be suitable, to meet a standard'

c. *kùwùlíkíkáná* 'to be known, heard of widely'

d. *kùgàwúkáná* 'to sever, divide up, break up, separate from'

e. *kùcànkáláná* 'to become mixed up, messed up'

f. *kwèyáná* 'to press demands that are impossible to be fulfilled'

Many of these verbs can be used intransitively with a plural subject, and some can introduce a second participant as a direct object, as illustrated by (618a).

(618) a. *ÓJáíms àlìrànà Sáàm ómú kìbîìná.*

ó-Jáíms à-lir.an-a\LHL\FO2 Sáàm ó-mu=ki-ˋbîìná
AUG-PN.M 1S-be_next_to.ASO-FV\PRES\FO2 PN.M AUG-18=7-class
'James sits next to Sam in class.'

b. *ÁbàMàriánà bàlíránà mù kìbîìná.*

á-ba-Màriánà bàˊ-lir.an-a\LHL mu=ki-ˋbîìná
AUG-2-PN.F 2S-be_next_to.ASO-FV\PRES 18=7-class
'Marianah and her friends sit next to each other in class.'

Other verbs, generally those relating to conflict, are intransitive and cannot have a direct object. This is the case for *kùlwànáná* 'to fight'. A second participant can be introduced with the conjunction *nè* 'with'. For some such verbs, it is also possible to introduce a second participant as a direct object if the verb has the Causative extension, as illustrated in (619c)(see also 9.2.2.4).

(619) a. *Érìk àtòngáínè n'ójéèní.*

Érìk à-tong.an-ire\LHL nè ó-ǰéèní
PN.M 1S-quarrel.ASO-PST2\P2 CONJ AUG-PN.F
'Eric quarrelled with Jenny.'

b. * *Érìk àtòngáínè ójéèní.*

Érìk à-tong.an-ire\LHL ó-ǰéèní
PN.M 1S-quarrel.ASO-PST2\P2 AUG-PN.F
Intended: 'Eric quarrelled with Jenny.'

c. *Érìk àtòngánísírye ójéèní.*

Érìk à-tong.an-isy-ire\LHL ó-ǰéèní
PN.M 1S-quarrel.ASO-CAUS2-PST2\P2 AUG-PN.F
'Eric quarrelled with Jenny.'

The rest of the verbs with the *-an* suffix do not have anything to do with interaction or relationships. Instead, they are typically intransitive, and many of them have meanings related to fidgeting (see (620)) or working (see (621)). An overarching idea seems to be that of hurried or hasty action. Some more verbs that fit this idea are given in (622). Many of the verbs have somewhat negative connotations. (623) shows some verbs denoting entering or being in a (negative) state. Many verbs also show full or partial reduplication of the root, as for instance *kùsànsáánáá* 'to be scattered, spread'.

(620) a. *kùbyàngátáná* 'to fidget or fumble whilst doing s.t. in a rush'

b. *kùfùlúgútáná* 'to be restless, fiddle, fidget'

c. *kùfùyáfúyáná* 'to fidget, fumble, to act in a rushed manner.'

d. *kùkìríkítáná* 'to fidget, fumble, to act in a rushed manner'

e. *kùlèbálébáná* 'to fidget, fumble, to act in a rushed manner'

f. *kùgàgáálíkáná* 'to fumble, to be clumsy doing s.t'

(621) a. *kùfàmbíkáná* 'to strive, labour, work hard'

b. *kùtàwááaná* 'to labour, strive, struggle, to suffer, to be disturbed or troubled'

c. *kùsùmbúkáná* 'to labour, toil, travail, work hard'

d. *kùlùgálúgáná* 'to work impatiently, under pressure, to a deadline'

e. *kùkàlábáná* 'to toil, labour, strive'

f. *kùlwàníkáná* 'to strive'

(622) a. *kùwùgáwúgáná* 'to move falteringly'

b. *kwàlááná* 'to scramble, scuffle, to move quickly in an undignified manner to win a share in s.t. put up for grabs'

c. *kùyòyóótáná* 'to panic and do s.t. in a hasty or rash manner'

d. *kùsàgááságáná* 'to waver, sway to and fro, to be unsteady, to be morally unstable, sexually unfaithful'

(623) a. *kùtàsáána* 'to be unworthy'

b. *kùvùlávúláná* 'to be messy, dirty'

c. *kùyòbáyóbáná* 'to be confused'

d. *kùfàfáágáná* 'to become depraved, subverted, degenerate'

e. *kwèrírígáná* 'to worry, fret'

f. *kùdàmbádámbáná* 'to suffer a lot'

g. *kùlùlúnkáná* 'to be greedy, impatient'

9.8.2 -at (Tentative)

There are not many verbs in Lugwere that have the Tentative (also called contractive) *-at* extension. The most common Tentative verb is *kùkwàtá* 'to grasp, catch, hold'. This verb appears to be a reflex of PB **kʊ́-at-* 'seize'. It also has an imbricated past tense stem, becoming *-kwaite*.

9.8.2.1 Tentative morphology

Verbs with the Tentative extension can use either a regular past stem, or an imbricated past stem ending in *-aite*. Table 9.13 shows the conjugation of *kùkwàtá*, illustrating both the regular and the (more commonly used) imbricated past stem versions. Because the root is monosyllabic, and the merger of the past suffix and the extension leads to the loss of a syllable (i.e. *-aite* as opposed to *-atire*), the imbricated stem forms behaves like verbs with monosyllabic stems.

Table 9.13: The conjugation of *kùkwàtá* 'to hold' with AGR 1 subjects. Two alternative past tense stems are shown

	FO1 AFF	FO1 NEG
Present	àkwátà	tàkwátá
P2	àkwáítè/ àkwàtírè	tàkwáìté/ tàkwátìré
P3	yákwáítè/ yákwàtírè	tíyákwáítè/ tíyákwátírè
P5	yàkwàìté/ yàkwàtìré	tíyàkwáítè/ tíyàkwátírè
F1	yákwàtá	tìyàkwàté
F2	yalíkwátà	tìyàlíkwàtá

9.8.2.2 Tentative distribution

The Nzogi & Diprose (2012) dictionary lists a few more verbs that end in *-ata*, and thus appear to have a tentative extension, at least historically. The relevant verbs are all listed in (624). For some of them a speaker accepted an imbricated past stem like for *kùkwàtá* e.g. *tùpyáítè, tùsàláákáítè, gùswásswáítè, àcáítè.* The last was considered only marginally possible.

A couple of things should be noted. Firstly, many of these are verbs with bisyllabic stems, which means that there is a significant possibility that the /t/ is simply the second consonant of a regular CVC root without an extension. However, the fact that all of these have a long vowel could indicate that there has been an extension there historically. The most clearcut verb, *kùkwàtá*, is also bisyllabic, and so it could similarly be the case that these are monosyllabic roots with an extension, but for the moment it remains unclear. Secondly, a lot of the forms show partial reduplication, i.e. *kùgàgátá*, *kùkàkàtá*, and *kùswàswátá*, and *kùfàtááfátá* have a fully reduplicated stem. (625) shows forms where the Tentative appears to be combined with other extensions. None of the verbs discussed here have counterparts of base verbs stems without the extension, however *kùfùmbáátírá* 'to hug' seems to use the same root as *kùfùmbírwá* 'to marry'.

Some of these forms have a link to what has been reconstructed as the semantic core for PB, i.e. "actively making firm contact". This clearly fits for *kùkwàtá* 'to grasp, catch, hold', as well as *kùfàtááfátá* 'to paw, touch clumsily' and *kùfùmbáátírá* 'to hug', whose primary meaning has to do with touching, grabbing or holding. *kwìkàtá* 'to

stuff, shove in', *kwàlàmátá* 'scrape the surface of s.t', *kùkàlámátá* 'to grate' and *kùfùfúlyátá* 'to rummage' similarly have meanings that require contact with something, and *kùwàátá* 'to peel' and *kùnyàátá* 'to eat without sauce' relate to actions that require grabbing something.

(624) a. *kwàtá* 'to split, crack; break by itself, to flower, e.g., cassava, potato, yam'
b. *kwìkátá* 'to stuff, squeeze, shove in, to push, press down'
c. *kùwàátá* 'to peel'
d. *kùcàátá* 'to be firm, stable, strong, determined'
e. *kùdàátá* 'to plough, till or cultivate a field for the first time'
f. *kùfàtááfátá* 'to paw, touch clumsily'
g. *kùfùfúlyátá* 'to rummage; search unsystematically and untidily for s.t.'
h. *kùgàgátá* 'to nurse, care for'
i. *kùkàkátá* 'to become fully grown, of crops, to keep on, persevere in mastering s.t.'
j. *kùnyàátá* 'to eat without sauce'
k. *kùpyàtá* 'to sprint'
l. *kùswàswátá* 'to have a sour taste'
m. *kùsàátá* 'to feel a sharp piercing pain'

(625) a. *kwàlámátá* 'to scratch s.t. off, to cut thin slices off s.t., scrape the surface of s.t'
b. *kùkàlámátá* 'to scale, grate; to scrape the top surface of s.t.'
c. *kùfùmbáátírá* 'to embrace, hug'
d. *kùkàkáátíkákù* 'to set limits, regulations, to impose a requirement'
e. *kùkàláátírá* 'to emphasise, stress, underscore'
f. *kùpàátííká* 'to set limits, regulations, to impose a requirement'

Additionally, there are two verbs that appear to have been built on an imbricated past stem of a Tentative verb, and whose meanings fit the semantic core of the Tentative, namely *kùgàità* 'to join, merge, unite, wed, perform addition', and *kùkàità* 'to kill'. These have regular past forms, i.e. *àgàìtírè* 'he joined'. More research is needed to properly establish the origin of these, and indeed to properly establish which of the forms listed in (624) – (625) do indeed diachronically have a Tentative extension.

9.8.3 -am (Positional)

The positional suffix is *-am*, and the most common positional verb is *kùtyàmá* 'to sit', which has the imbricated past tense stem *-tyaime*. Nzogi & Diprose (2012) list around two dozen verbs that end in *-ama*, and it is likely that many of these (diachronically) have the positional extension, although only some of them can use an imbricated past tense stem.

9.8.3.1 Positional morphology

Table 9.14 shows the conjucation of the verbs *kùtyàmá* 'to sit' and *kùlùngámá* 'to move in a direction' in the Present tense, P2, P3, P5, F1 and F2. The table gives the two possible past tense forms, as the positional verbs can generally be used either with a regular past tense stem, or with an imbricated past tense stem ending in *-aime*.

9.8.3.2 Positional distribution

Below, in (626) is a list of verbs from Nzogi & Diprose (2012) that likely have a positional extension. Speakers accepted imbricated past tense forms for most of these, although there were some discrepancies between the speakers asked: one speaker accepted imbricated forms for *kùkwàmá* and *kwèyámá*, while another did not.

(626) a. *kùfùkámá* 'to urinate'

b. *kùfùùnámá* 'to grovel'

c. *kùgàlámá* 'to widen, broaden'

d. *kùkòtámá* 'to bow, crouch, stoop'

e. *kùkùnámá* 'to strip, unclothe exposing private parts'

Table 9.14: The conjugation of *kùtyàmá* 'to sit' and *kùlùngámá* 'to move in a direction' with AGR 1 subjects. Two alternative past tense stems are shown

	FO1 AFF	FO1 NEG
Present	àtyámà	tàtyámá
	àlùngámà	tàlúngámá
P2	àtyáímè/ àtyàmírè	tàtyáìmé/ tàtyámìré
	àlùngáímè/ àlùngámírè	tàlúngàìmé/ tàlúngàmìré
P3	yátyáímè/ yátyàmírè	tíyátyáímè/ tíyátyámírè
	yálùngáímè/ yálùngámírè	tíyálùngáímè/ tìyálùngámírè
P5	yàtyàìmé/ yàtyàmìré	tíyàtyáímè/ tíyàtyámírè
	yàlùngàìmé/ yàlùngàmìré	tíyàlúngáímè/ tíyàlúngámírè
F1	yátyàmá	tìyàtyàmé
	yálùngàmá	tìyàlùngàmé
F2	yàlítyámà	tìyàlítyàmá
	yàlírùngámà	tìyàlírùngámá

f. *kùsàsáámá* 'to become sour, to have an acid taste'

g. *kwèìgámá* 'to take shelter, refuge from the rain'

h. *kùlùngámá* 'to move in a direction'

i. *kùsìkámá* 'to urinate'

j. *kùtàmá* 'to become clotted, of milk'

k. *kùtàmáátámá* 'to err'

l. *kùtèngámá* 'to stagnate, of a liquid'

m. *kwèyámá* 'to vow, pledge, promise'

n. *kùkwàmá* 'to be wedged in, stuck'

o. *kùsàmá* 'to bark'

p. *kùlàámá* 'to curse, to swear'

q. *kùcàámá* 'to digress, divert, err, euph. to defecate.'

r. *kùgàámá* 'to chorus, utter in unison'

Some of these fit with what has been suggested as the semantic core of the positional, which Schadeberg & Bostoen (2019) define as "assuming a position", or "to be in a position" when used with a perfective aspect. For some of the words in (626), this meaning is clearly present, such as *kùfùùnámá* 'to grovel', *kùkòtámá* 'to bow,', *kwèigámá* 'to take shelter', *kùtèngámá* 'to stagnate' and *kùkwàmá* 'to be stuck'. *kùfùkámá* and *kùsìkámá*, both meaning 'to urinate' are also actions where one assumes a certain position. Other words relate to entering/changing a state rather than a position, such as *kùsàsáámá* 'to become sour', *kùtàmá* 'to become clotted' and *kùkùnámá* 'to strip'. A couple of others seem to relate to location or position, without meaning to assume a position, such as *kùgàlámá* 'to widen' and *kùlùngámá* 'to move in a direction'. A few others related to utterances, such as *kùsàmá* 'to bark', *kùlàámá* 'to curse, swear', *kwèyámá* 'to vow', and *kùgàámá* 'to utter in unison'.

As has also been reported for other languages, the Positional often alternates with the Impositive and the (transitive) Separative, and in some cases also the Extensive extensions. While there are generally no simple base forms of these roots in the dictionary, in some cases there are reduplicated forms. Examples are given in (627) – (630). While these appear to have the same root with different extensions, it is hard to discern any consistent meaning contributed by the root itself in most cases.

(627) a. *kùkòt-ám-á* POS 'to bow, crouch, stoop'

b. *kùkòt-ík-á* IMP 'to insert, slot in'

c. *kùkòt-ól-á* SEP1 'to thump, pound'

d. *kùkòtáákótá* REDUP 'to stoop, walk hunched over'

(628) a. *kùgàl-ám-á* POS 'to widen, broaden'

b. *kùgàl-ál-á* EXT 'to unclutter, clear, to come to the rescue of s.b., take good care of s.b.'

c. *kùgàl-úl-á* SEP1 'to change over, turn around or over, transform, transfer, to translate'

d. *kùgàl-áál-á* EXT 'to dwell in peace and tranquillity.'

(629) a. *kùsàsá-ám-á* POS 'to become sour; have an acid taste'

b. *kùsàs-ík-á* NUT 'to blossom, flower, bloom'

c. *kùsàs-úlá* SEP1 'to pay'

(630) a. *kùfùùn-ám-á* POS 'to grovel'

b. *kùfùùn-ík-á* IMP 'to invert, turn upside down'

c. *kùfùùn-úk-úl-á* SEP2-SEP1 'to remove a cover from s.t.'

9.8.4 -ul/-uk (Separative)

Similarly to what has been reconstructed for PB (see Section 2.4.6), Lugwere has two Separative suffixes, *-uk* and *-ul*, with the allomorphs *-ok* and *-ol* following a mid vowel. The first of these is generally intransitive, while the second is transitive. The two suffixes often alternate with each other on the same root. These affixes do not appear to be productive, but they are found in many lexemes; significantly more than any of the other non-productive extensions. Nzogi & Diprose (2012) lists over 200 verbs ending in *-uka* or *-oka*, and close to 300 verbs ending in the transitive Separative *-ula/-ola*.

9.8.4.1 Separative morphology

Both the intransitive and the transitive Separative suffixes undergo vowel harmony, and have the variants *-ok* and *-ol* after mid vowels. The intransitive Separative has a regular past tense stem, as shown in Table 9.15 for *kùlàmúká* 'to wake up' and *kùsòdóká* 'to escape'.

The transitive Separative extension has an imbricated past tense stem, becoming *-wiire*, or *-weire* following a mid vowel. Table 9.16 shows the conjugation of the verbs *kùzìmúlá* 'to diagnose' and *kùgòlólá* 'to iron'.

Table 9.15: The conjugation of *kùlàmúká* 'to wake up' and *kùsòdóká* 'to escape' with AGR 1 subjects

	FO1 AFF	FO1 NEG
Present	àlàmúkà	tàlámúká
	àsòdókà	tàsódóká
P2	àlàmúkírè	tàlámùkìré
	àsòdókérè	tàsódòkèré
P3	yálàmúkírè	tíyálámúkírè
	yásódókérè	tíyásódókérè
P5	yàlàmùkìré	tíyàlámúkírè
	yasodokere	tiyasodokere
F1	yálàmùká	tìyàlàmùké
	yásòdòká	tìyàsòdòké
F2	yàlíràmúkà	tìyàlíràmúká
	yàlísòdókà	tìyàlísòdóká

9.8.4.2 Separative distribution

As mentioned in Section 2.4.6, the semantic core of the separative in PB has been summarised as "movement out of some original position" (Schadeberg & Bostoen 2019). The Separative has also commonly been called the 'reversive', because it tends to include verbs relating to undoing or redoing an action, something which can be considered a subcategory of "movement out of some original position". Many of the Lugwere Separative verbs can also be classified as denoting "movement out of some original position".

Firstly, there are quite a lot of verbs relating to undoing or redoing an action. Most of these have the transitive Separative extension, but there are at least two intransitive verbs with a reversive meaning, given in (631). The first, *kùlìikúká*, alternates with Impositive *kùlìiká*, while the second alternates with a base verb without an extension.

(631) a. *kùlìiká* 'to bury'
kùlìikúká 'to resurrect'

Table 9.16: The conjugation of *kùzìmúlá* 'to diagnose' and *kùgòlólá* 'to iron' with AGR 1 subjects. Two alternative past tense stems are shown

	FO1 AFF	FO1 NEG
Present	àzìmúlà	tàzímúlá
	àgòlólà	tàgólólá
P2	àzìmwírè	tàzímwìré
	àgòlwéírè	tàgólwèìré
P3	yázìmwírè	tìyázìmwírè
	yágòlwéírè	tíyágólwéírè
P5	yàzìmwìré	tíyàzímwírè
	yàgòlwèìré	tíyàgólwéírè
F1	yázìmùlá	tìyàzìmùlé
	yágòlòlá	tìyàgòlòlé
F2	yàlízìmúlà	tìyàlízìmúlá
	yàlígòlólà	tìyàlígòlólá

b. *kùnììná* 'to climb, ascend'
kùnììnúká 'to descend, come down'

Some of the transitive Separative verbs with reversive meanings are given in (632). While many of these alternate with either a base verb or an Impositive verb (as shown in (632a–e), many do not have such a counterpart (632f–i), so while *kwìjúlúlá* means 'to undo', there is no verb based on the same root that means 'to do'. Interestingly, many of the reversive verbs use a reduplicated version of the Separative extension, i.e. *-ulul* or *-olol*. There are also a couple of verbs that combine the intransitive and the transitive Separative extensions, given in (633).

(632) a. *kùtììká* 'to load'
kùtììkúlá 'to unload, offload'

b. *kùtùngá* 'to sew, stitch, knit, weave'
kùtùngúlúlá 'to unpick, unsew.'

c. *kùtìbíká* 'to tether, tie, fasten'
kùtìbúlá 'to untie, unlace, untether, loosen'

d. *kùsàbíká* 'to seal, wrap'
kùsàbííkúlúlá 'to unseal'

e. *kùmòòná* 'to block an opening'
kùmòònólólá 'to unblock an opening'

f. *kwìjúlúlá* 'to undo'

g. *kùsànsúlá* 'to undo a thatch roof'

h. *kùvùngúlá* 'to invert, overturn s.t., to place s.t. upside down'

i. *kùtààgúlúlá* 'to undo strands that have been woven, stitched, or sewn together'

(633) a. *kùsààn-úk-úl-á* SEP2-SEP1 'to uncover, open up'
kùsààn-ík-ír-á IMP-APPL 'to cover s.t.'

b. *kùsèr-úúk-úl-úl-á* SEP2-SEP1-SEP1 'to uncover s.t., to undo a thatch of a roof'
kùsèr-ék-á IMP 'to cover, shroud, to thatch a roof'

Some intransitive verbs have meanings related to crossing, changing or becoming, given in (634).

(634) a. *kùcùùká* 'to turn, switch, convert'

b. *kùsùùká* 'to change, become like, turn into'

c. *kwàmbúká* 'to go across, to cross over'

d. *kùsòmóká* 'to go across, to cross over'

There is also a large group of verbs, both intransitive and transitive, which refer to separating from something. The intransitive examples in (635) include active verbs, typically indicating movement, such as *kùsìmbúká* 'to get moving'. There are also a few verbs indicating escape, either actively as in *kùtèbúká* 'to escape', or with a more passive sense, such as *kùlòkóká* 'to be rescued from harm'. Others, like *kùtòndóká* 'to come off' have meanings relating to breaking or falling apart.

(635) a. *kùsìmbúká* 'to depart, set off, to get get moving'
b. *kùwùlúká* 'to exit, to graduate'
c. *kwàwúká* 'to branch off, to move sideways'
d. *kùtèbúká* 'to escape, break loose'
e. *kùbàndúká* 'to elope'
f. *kùsòdóká* 'to escape, slip in or away, sneak away'
g. *kùlòkóká* 'be delivered, rescued or saved from harm'
h. *kùwùmúká* 'to be relieved from or succeed in eluding s.t. dangerous or unpleasant'
i. *kùtòndóká* 'to come off, fall off, be separated, to die suddenly'
j. *kùwùnúká* 'to get lose from grip, to survive; escape peril'
k. *kùkàpúká* 'to break, tear or cut off'
l. *kùsùsúwúká* 'to peel, shell; strip by itself of the skin, shell, or husk, as reptiles do'
m. *kùkùcúká* 'to fall, tear off and drop by itself'

The transitive verbs typically indicate actively separating something from an object, and a handful of examples are shown in (636). Many of them involve breaking or cutting off part of a whole.

(636) a. *kwàwúlá* 'to divide, distinguish, differentiate, categorise, classify, separate'
b. *kùsùmbúlá* 'to deprive, expropriate'
c. *kùsèèbúlá* 'to say farewell, dismiss, send off'
d. *kùkùtúlá* 'to divide, tear, take apart, to cut into two pieces'
e. *kùkèpúlá* 'to trim, amputate, clip'
f. *kùsònzólá* 'to pare, trim, to explain, describe'
g. *kùgùzúlá* 'to pluck, pull off, pick off'
h. *kùsòdólá* 'to steal a bit, to illegally siphon off a bit of s.t.'
i. *kùmòmólá* 'to segregate, discriminate, show favouritism'

(635) showed some examples of verbs describing movement away from. There are also a lot of intransitive Separative verbs describing the manner of movement, such as the examples given in (637). There are not many such verbs with the transitive Separative extension, but a couple exist, given in (638), including the very common verb *kùtàmbúlá* 'to walk'. These verbs are intransitive, despite having the transitive extension. (639) gives some other examples of intransitive verbs with the *-ul* extension.

(637) a. *kùgùlúká* 'to fly'

b. *kùsyòtóká* 'to sprint'

c. *kùsòmbóká* 'to flock, teem'

d. *kùjùùká* 'to hop, fly, skip'

e. *kùcèncédúká* 'to run on toes.'

f. *kùkìnúká* 'to walk in a flaunting manner'

g. *kùtàmbúká* 'to jump, leap over, pass over, to skip over, omit'

h. *kùlùùtúúká* 'to walk hurriedly'

i. *kùtyèrémúká* 'to slide, slither, slump'

(638) a. *kùtàmbúlá* 'to walk, move, travel'

b. *kùbìgúlá* 'to walk in a flaunting manner'

(639) a. *kùwùùmúlá* 'to rest, relax, to take a break, holiday; retire, euph. to die'

b. *kùtùkúlá* 'to be clean'

c. *kùnyùnyúúlá* 'to be sweet, sugared'

d. *kùŋòlólá* 'to snore'

e. *kùkòlólá* 'to cough, to clear the throat'

f. *kùgàgánúlá* 'to arise, rise up'

A very common function of the intransitive suffix is to indicate either being in or entering a state. (640) shows some examples of stative verbs, (641) shows some verb indicating entering a state, and (642) shows some verbs relating to a change of state.

(640) a. *kùbèbénúká* 'to be crunchy'

b. *kùsòbóká* 'to be possible, to be doable'

c. *kùtábúká* 'to be agitated, troubled, stirred up'

d. *kùwùdúúká* 'to be ungrateful'

e. *kùjàànúúká* 'to be elastic, stretchy'

f. *kùsòòká* 'to be first, to lead, be prior, to go first'

(641) a. *kùgùnjúká* 'to become civilised'

b. *kùkàyúká* 'to become angry, to raise your voice in anguish'

c. *kùsìndúúká* 'to become loose'

d. *kùkàlángúká* 'to solidify, harden, stiffen'

e. *kùtùtúmúká* 'to become famous, popular'

f. *kùfùdúúká* 'to become dirty or soiled'

g. *kùcàmúká* 'to become excited'

(642) a. *kùzèrémúlúká* 'to melt'

b. *kùwènyúká* 'to vanish, disappear suddenly, to pass away rapidly'

c. *kwàmúká* 'to stop raining'

d. *kùlàmúká* 'to wake up, to regain consciousness'

e. *kùkàlángúká* 'to solidify, harden, stiffen'

f. *kùwìizúká* 'to dawn'

g. *kwìsúúká* 'to recover, to come out of an undesirable condition well'

h. *kùsùsúngúká* 'to rot'

i. *kùlàbúká* 'to gain knowledge or wisdom, to mature mentally.'

There are transitive Separative verbs that have the meaning 'cause to enter a state', some of which correspond to intransitive verbs with meanings of either entering or being in a state. Some examples are given in (643)

(643) a. *kùkàlángúlá* 'to strengthen'
kùkàlángúká 'to solidify, harden, stiffen, to turn from a liquid or gas into a solid'

b. *kùsèngúlá* 'to cause to migrate, shift, move, to transfer, transplant, uproot'
kùsèngúká 'to migrate, transfer, move, shift residence'

c. *kùgùnjúlá* 'to make civilised'

d. *kùjàànúúlá* 'to stretch, elongate, extend'

e. *kùkèndúlá* 'to emaciate; make thin, small'

f. *kùkànkánúlá* 'to cause s.t. to wear out, depreciate, become scrap, to ruin, dilapidate, destroy'

g. *kùsètúlá* 'to lift, raise, or carry off s.t., to set upright'

Quite a few intransitive verbs also relate to meanings such as arising, appearing or emerging, some examples are given in (644).

(644) a. *kùgàgámúká* 'to arise, rise up, get up'

b. *kùtèmúká* 'to spring forth, well up'

c. *kwìgúká* 'to come out from, to land, end up at, to emerge from'

d. *kùbbùtúká* 'to appear, be found, emerge'

e. *kùsòwótóká* 'to protrude, stick out'

f. *kùmàsúká* 'to emerge, to appear, of the new moon'

g. *kùsèbúká* 'to sprout, bud, shoot, germinate'

Many of the transitive Separative verbs have meanings relating to breaking, damaging or hitting something, some are given in (645).

(645) a. *kùpòsóólá* 'to hit hard, thump, beat heavily'

b. *kùkòtólá* 'to thump, pound'

c. *kùbàbúlá* 'to scorch, char, sear, singe'

d. *kùbìnúlá* 'to sprain, dislocate, wrench'

e. *kùbbòngólá* 'to break s.t., to crack s.t.'

f. *kùsùsúngúlá* 'to smash or break s.t.'

g. *kùmàtúlá* 'to bruise, scrape, scratch up'

h. *kùsìmúlá* 'to kick'

Finally, a majority of the verbs with the transitive Separative extension denotes a range of transitive meanings, that do not fall into clear categories. Some of the more common ones are given in (646).

(646) a. *kùsòbólá* 'to be able, to be possible'

b. *kùnyònyólá* 'to explain, define'

c. *kùzìmúlá* 'to diagnose'

d. *kùtùmúlá* 'to speak, say, talk'

e. *kùgòlólá* 'to iron clothes, to unfold, to correct, mark, edit'

f. *kùtòòlá* 'to take, pick up, to pay a mandatory levy, e.g., tax, to request donations'

g. *kùsàsúlá* 'to pay'

The transitive and the intransitive Separative extensions often form pairs of verbs, and often the transitive is a causative version of the intransitive. While this is a very common process, it is not fully productive, as there are some intransitive verbs that cannot form a transitive/causative counterpart this way. In many cases it is also possible for the Causative *-y* to be used instead or as well as the transitive Separative, having mostly the same meaning. As discussed in Section 9.2.1.1, the Causative *-y* causes spiratisation when following /k/, as in the pairing *kùlàmúká* 'to wake up' *kùlàmúcá* 'to wake s.b.'.

(647a) is an example of a verb that cannot use the transitive Separative to form a causative, but rather requires the Causative extension. (648) shows that for the verb *kùbàndúká* 'to elope', either the Causative or the transitive Separative can be used, as well as a combination of the two, all of which mean roughly the same thing.

(647) a. *kùbbìrúká* 'to grow well in stature.'

b. **kùbbìrúlá* Intended: 'to cause s.b. to grow'

c. *kùbbìrúcá* 'to cause s.b. to grow'

(648) a. *kùbàndúká* 'to elope'

b. *kùbàndúlá* 'to cause s.b. to elope'

c. *kùbàndúlyá* 'to cause s.b. to elope'

d. *kùbàndúcá* 'to cause someone to elope'

(649) shows some more pairings where the intransitive has an active meaning, and the transitive Separative has a causative meaning. In other cases, the transitive represents an active version of a more passive intransitive, illustrated in (650). A common pairing is also that of an anticausative intransitive verb, as in (651) where the verb with the Separative transitive extension is a transitive or causative version of the verb with the intransitive Separative extension.

(649) a. *kùnìinúká* 'to descend, come down'
kùnìinúlá 'to bring down, lower'

b. *kùgòògóká* 'to bow, crouch, stoop'
kùgòògólá 'to cause to crouch, stoop'

c. *kùsèngúká* 'to migrate, transfer, move, shift residence'
kùsèngúlá 'to cause to migrate, shift residence, to transfer, transplant, uproot'

(650) a. *kùkùùká* 'to become uprooted'
kùkùùlá 'to dig up, root out, unearth'

b. *kùlòkóká* 'to be saved, rescued'
kùlòkólá 'to salvage, relieve, save from ruin, destruction, or harm'

c. *kùbàbúká* 'to be scorched, charred, singed'
kùbàbúlá 'to scorch, char, singe'

(651) a. *kùbbòngóká* 'to become cracked or broken, by itself'
kùbbòngólá 'to break s.t., crack s.t.'

b. *kùsìndúúká* 'to become loose'
kùsìndúúlá 'to untie, unwrap, loosen'

c. *kùtùmbúká* 'to be set aflame'
kùtùmbúlá 'to cause to start to burn, metaphor. to promote, boost'

d. *kùkàmúká* 'to dry by dripping liquid'
kùkàmúlá 'to squeeze, wring; press liquid out of s.t.'

In the examples given above, the main difference between the transitive and the intransitive examples is the valency, while the core meaning of the verb root is generally consistent. In other cases, the meaning of the transitive and the intransitive can differ quite a bit. Sometimes, as in the examples in (652), a (metaphorical) link might still be discernible, for instance, in (652c), 'to rot' can be considered a way to become broken, and in (652a) there might be a link between predicting the future and being considered mentally disturbed. In other cases, such as those given in (653), it is hard to find a link between the two verbs.

(652) a. *kùlàlúká* 'to be mentally disturbed, insane'
kùlàgúlá 'to prophesy, divine, predict'

b. *kùsòdóká* 'to escape, sneak away'
kùsòdólá 'to steal a bit; illegally siphon off a nip from a large quantity of s.t.'

c. *kùsùsúngúká* 'to rot'
kùsùsúngúlá 'to smash or break s.t.'

(653) a. *kwìrùká* 'to run, take off, flee'
kwìrùlá 'to plough a second time'

b. *kùlàmúká* 'to wake up'
kùlàmúlá 'to set a price for an item for sale, to pronounce a judgment'

c. *kùwàngúká* 'to become loose, of the head on a tool'
kùwàngúlá 'to win, defeat, overcome'

In summary, the concept of "movement out of some original position" fits many of the Separative verbs in Nzogi & Diprose (2012), especially if the idea of movement is applied to movement out of a state as well as physical movement. Many of the (intransitive) verbs also relate to the manner of movement, a meaning that seems closely related. There are also some verbs that do not fit neatly into this category.

9.8.5 -al (Extensive)

The Extensive is found in more verbs than the Impositive, Positional and Tentative extensions, but is far from as common as the Separative extensions. A search in Nzogi & Diprose (2012) yields a bit over 100 verbs ending in *-ala*. The Extensive verbs use an imbricated past tense stem *-aire*, and there is no option to use a regular past stem. The extension and the past tense suffix merge to become *-aire* or in some cases *-eire*. Common Extensive verbs include *kùlwálá* 'to get sick', *kùbyàlá* 'to give birth' and *kùzwàlá* 'to dress, to wear'. There are also some very common bisyllabic verbs that end in *-ala*, but which do not use an imbricated past stem. Examples of this is *kùbàlá* 'to count', *kùsàlá* 'to cut', *kùmàlá* 'to finish' and *kùkàlá* 'to dry'. Likely the /l/ is just the second consonant of the root, and they do not actually have the Extensive extension.

9.8.5.1 Extensive morphology

Table 9.17 shows the conjugation of the verbs *kùbyàlá* 'to give birth', *kùlwàlá* 'to get sick' and *kùsìgálá* 'to stay'. The imbricated stem has an /ai/ diphthong in most cases, but this becomes /ei/ for some verbs, mostly following a palatalised or a palatal consonant, as illustrated for *kùbyàlá* in Table 9.17.

9.8.5.2 Extensive distribution

Meanings that have been reported for the Extensive in other Bantu languages include indicating an action that is extended in time or space, or "the (active) entering of a passive state where the action expressed by the basic verb potentially or actually affects the subject", "to be in a spread-out position", or meanings related to being ill or suffering (Schadeberg & Bostoen 2019). Elements of all these senses are found for the Lugwere Extensive verbs.

(654) shows some examples of verbs with meanings related to being extended in space, most of which relate to bulging, protruding or sticking out. An interesting observation is that in all these cases, the verb has four syllables, and the two syllables preceding the extensive suffix have the same vowel in all cases, i.e. *kùsìsìnálá* has /i/ in the first two syllables of the stem, *kùkòsówálá* has /o/, and so on. There are also multiple

Table 9.17: The conjugation of *kùbyàlá* 'to give birth', *kùlwàlá* 'to get sick' and *kùsìgálá* 'to stay' with AGR 1 subjects

	FO1 AFF	FO1 NEG
Present	àbyálà	tàbyálá
	àlwálà	tàlwálá
	àsìgálà	tàsígálá
P2	àbyéírè	tàbyéìré
	àlwáírè	tàlwáìré
	àsìgáírè	tàsígàìré
P3	yábyéírè	tíyábyéírè
	yálwáírè	tíyálwáírè
	yásìgáírè	tíyásígáírè
P5	yàbyèìré	tíyàbyéírè
	yàlwàìré	tíyàlwáírè
	yàsìgàìré	tíyàsígáírè
F1	yábyàlá	tìyábyàlé
	yálwàlá	tìyàlwàlé
	yásìgàlá	tìyàsìgàlé
F2	yàlíbyálà	tìyàlíbyálá
	yàlírwálà	tìyàlírwàlá
	yàlísìgálà	tìyàlísìgálá

verbs where the two stem syllables preceding the Extensive suffix are identical, so that it looks like a partial reduplication, i.e. *kùkùkúnálá* and *kùkìkínálá*.

(654) a. *kùsìsínálá* 'to protrude, jut out'

b. *kùkùlúbálá* 'to protrude, jut out, swell'

c. *kùkùdúmbálá* ' to bulge, protrude, to swell or stick out'

d. *kùkùkúnálá* 'to be raised upward, to elevated'

e. *kùkòsówálá* 'to outgrow a particular stature, status, position, or location'

f. *kùkìkínálá* 'to protrude, project out, jut out, bulge out'

g. *kùgùlúmálá* 'to bulge, protrude; swell or stick out'

h. *kùkàpálálá* 'to stick out, to be perpendicular'

A few verbs relate to either spreading something out or levelling/flattening something, and these are given in (655).

(655) a. *kùgwàláálá* 'to level, even out, to make s.t. flush, flat or straight'

b. *kwànzálá* 'to spread s.t. out, esp. in the sun to dry.'

c. *kùsànsálá* 'to scatter, strew, spread out'

d. *kùtàndábálá* 'to be spread out, to extend, broaden, occupy space'

e. *kùlàngáálá* 'to lie bare, to be in the open.'

There are also verbs that relate to activities being extended in time, such as *kùsìgálá* 'stay, remain', as well as some verbs referring to staying still. These are given in (656). Note again that some of these appear to show reduplication of the first syllable of the stem.

(656) a. *kùsìgálá* 'to stay, remain, to survive'

b. *kùkòkónyálá* 'to be idle, do nothing'

c. *kùlèrémálá* 'to stagnate, be idle'

d. *kùgàláálá* 'to dwell in peace and tranquillity'

e. *kùlàlámbálá* 'to stagnate, stand still, be idle'

f. *kùwàngáálá* 'to be durable, longlasting'

g. *kùtìntímálá* 'to linger, to be inactive, motionless, static, still'

h. *kùgàyáálá* 'to be sluggish, move slowly, to delay, procrastinate'

(657) shows some verbs with meanings relating to entering a state. Many of these are based on nominal/adjectival roots, which are listed above the verb. In some cases, the ending is *-wala*, the /w/ possibly introduced as a way to resolve the hiatus that would occur from attaching *-ala* to an adjectival stem ending in a vowel. See also (672).

(657) a. -*`cáàfú* 'dirty'
kùcààfúwálá 'to become dirty'

b. -*`gàigá* 'rich'
kùgàigáwálá 'to become rich'

c. -*`sirú* 'stupid'
kùsirúwálá 'to become stupid'

d. -*`gèngé* 'leprous'
kùgèngéwálá 'to become leprous'

e. -*ófù* 'blind'
kwòfúwálá 'to become blind.'

f. -*ìrúgázú* 'black'
kwìrúgálá 'become dark'

g. *kùsààtáwálá* ' become sterile, infertile, incapable of reproducing, of an animal.'

There are also quite a few verbs that relate to being or becoming sick, hurt or disabled in some way, given in (658) below.

(658) a. *kùlwàlá* 'to fall ill, to become sick'

b. *kùgòdóbálá* 'to be paralysed'

c. *kùnyàlálá* 'to have diarrhoea'

d. *kùgòngóbálá* 'to be humpbacked, hunched over'

e. *kùkàngábálá* 'to be hurt, harmed, wounded, to have an ache or pain, to become paralysed.'

f. *kùlèmálá* 'to be disabled, crippled'

g. *kùsyàlálá* 'to become deaf'

Next, there is a large group of verbs that refer to a bodily action, either a movement as in (659), a bodily function as in (660), or a facial expression, as in (661).

(659) a. *kùcùncúmálá* 'to squat'

b. *kwèbbálá* 'to dodge, duck, to hedge, to evade, put off, circumvent'

c. *kwètálá* 'to whirl, to move rapidly round and round, to do things frantically'

d. *kùsàmbágálá* 'to thrash about'

e. *kùsùndáálá* 'to squat'

f. *kùkònkómálá* 'to sit by idly and slothfully'

g. *kùjàláálá* 'to lie down, fall over and lie down helplessly'

h. *kùgàlángálá* 'to roll, to move by turning over or rotating'

(660) a. *kùbàizágálá* 'to belch, burp'

b. *kùnyàálá* 'to urinate'

c. *kùkàdámbálá* 'to swell up'

(661) a. *kùtwàkáálá* 'to turn red or bloodshot, of eyes'

b. *kùdùnkúnyálá* 'to frown, glower, look angry or sullen'

c. *kùmìnyáálá* 'to frown, glower, look angry or sullen'

d. *kùmùmúnyálá* 'to smile sheepishly, smirk, sneer, leer'

e. *kùgìgínálá* 'to grin, bare your teeth'

Another large category of verbs relate to moods, emotions or personality traits, and some are given in (662)

(662) a. *kùbbùmbútálá* 'to sulk, be sullen, moody'

b. *kùcàkálá* 'to make merry'

c. *kùdòndóbálá* 'to be depressed, low in spirits'

d. *kwèyágálá* 'to be happy, joyful'

e. *kwìnálá* 'to be irritated, annoyed'

f. *kùmàntáálá* 'to be absent-minded, to be obstinate'

g. *kùyùngúbálá* 'to be sad, sorrowful, grief-stricken'

h. *kwènyínyálá* 'to feel antipathy, aversion, distaste'

i. *kwèsísíwálá* 'to dread, feel alarmed'

j. *kùwùgúlálá* 'to be dumbfounded, flabbergasted, to be absent-minded, lost in thought'

k. *kùsàngáálá* 'to be happy, glad, joyful, excited'

l. *kùtìŋíŋálá* 'to be absent-minded, scatty, lost in thought, preoccupied'

m. *kùlèfúlálá* 'to be careless, negligent, irresponsible'

Another smaller group includes ideophones or verbs related to certain sounds, as given in (663)

(663) a. *kùcàlácálá* 'to make a sound as of s.t. frying in a pan'

b. *kùsàgálá* 'to make a rattling or rustling sound'

c. *kùpàlálá* 'to fly while flapping the wings (idiophone)'

d. *kùpàpálá* 'to be caught in a trap, to be captured, trapped, to make a flapping noise (ideophone)'

It is hard to come up with a semantic core that includes all of the above categories of verbs. What can be said, is that many of them relate to either being in or entering a state. Besides the stative verbs listed above, there are also another handful of stative verbs that did not fit any of the main categories listed. Overall, almost all the verbs with the Extensive extension are intransitive, but there is about half a dozen transitive verbs, some of which are very common, listed in (664). There is also *kùcàálá* 'to visit', which is intransitive, and to introduce a visitee one can either use a noun with a locative prefix, or use an Applicative suffix.

(664) a. *kùbyàlá* 'to give birth'

b. *kùzwàlá* 'to dress, to wear'

c. *kwàngálá* 'to find by chance, happen upon'

d. *kùtwàlá* 'to take, put, convey, place'

e. *kùjàálá* 'to forfeit, forego, offer up'

f. *kùkàngáálá* 'to grab, snap up'

The Extensive commonly alternates with the two Separative extensions, and perhaps the most commonly used such pair is the one in (665a-b). It also sometimes alternates with the Impositive, as in (665c).

(665) a. *kwìgálá* 'to shut, close, stop up'

b. *kwìgúlá* 'to open s.t., to unblock'

c. *kwìgíká* 'to lean s.t. against s.t.'

d. *kwìgúká* 'to come out from; appear suddenly from nowhere, to land, to open up to allow passage through'

9.8.6 -ik (Impositive)

The impositive extension *-ik* is segmentally (and tonally) identical to the neuter extension (see Section 9.4), but while the neuter extension functions as a detransitiviser, verbs with the Impositive extension are transitive.

9.8.6.1 Impositive morphology

Table 9.18 shows the conjugation of the verb *kùsìndíká* 'to push' and *kùkòméká* 'to make something stand straight'. Overall, it is identical to the Neuter. The only difference was that the speaker recorded had some variation in the tone for F2, giving both forms like *yàlísíndíkà*, which has the tones expected for a bisyllabic verb, rather than the LH.LHL generally found on trisyllabic verbs, and forms like *yàlísùlíkà* 's/he will tilt', with the expected LH.LHL melody.

9.8.6.2 Impositive distribution

The most common meaning attributed to the Impositive is that of "putting something into some position". There are quite a few verbs that fit this pattern, and some of the clearest ones are given in (666) below.

(666) a. *kùfùùníká* 'to invert, turn upside down'

b. *kùkòtíká* 'to insert, slot in, tuck in'

c. *kùsùlíká* 'to tilt; to raise s.t. up at one end'

Table 9.18: The conjugation of *kùsìndíká* 'to push' and *kùkòméká* 'to make s.t. stand still' with AGR 1 subjects

	FO1 AFF	FO1 NEG
Present	àsìndíkà	tàsíndíká
	àkòmékà	tàkóméká
P2	àsìndíkírè	tàsíndìkìré
	àkòmékérè	tàkómèkèré
P3	yásìndíkírè	tíyásíndíkírè
	yákòmékérè	tíyákómékérè
P5	yàsìndìkìré	tíyàsíndíkírè
	yàkòmèkèré	tíyàkómékérè
F1	yásìndìká	tìyàsìndìké
	yákòmèká	tìyàkòmèké
F2	yàlísíndíkà/yàlísìndíkà	tìyàlísìndíká
	yálíkóméká/yàlíkòméká	tìyàlíkòméká

d. *kùtìbíká* 'to tether, tie, fasten'

e. *kùlììká* 'to bury'

f. *kùbììká* 'to cover over; to spread s.t. over the surface of s.t. to conceal or protect; to lay an egg'

g. *kùsìndíká* 'to push, propel; to postpone'

h. *kwènyéká* 'to tilt, slant; to bend s.t. over from a vertical position'

i. *kùkòméká* 'to make s.t. stand straight, still, and stiff'

j. *kwàníká* 'to hang, spread out to dry in the sun; to raise up'

k. *kwìgíká* 'to lean s.t. against s.t. e.g., set up cooking stones for a fireplace'

l. *kwìníká* 'to dip, immerse, plunge, submerge, soak into; to insert, slot, shove or stuff in'

In addition, there are some verbs ending in *-ik/-ek* which are transitive, and thus probably best considered as having the Impositive rather than the Neuter extension,

even though they do not denote physically putting something in some position. Some of these are shown in (667). Most of these still have the Impositive meaning of putting something somewhere in a metaphorical sense, however. *kùwàndíká* 'to write' could be considered putting letters on a page, and *kùgùlíká* 'to name s.b.' is perhaps 'putting a name on someone'. *kùsèréká* 'to cover' involves putting something in a position, but the direct object is not the thing being put, but rather the thing that is covered, so syntactically it differs slightly from the verbs in (666). *kwòmbéká* 'to build' similarly involves putting objects in specific positions, but that is not the main meaning, and the direct object is the thing being built, rather than the objects put in place.

(667) a. *kùgùlíká* 'to name s.b.'

b. *kùwàndííká* 'to write, scribble, record, document'

c. *kùtàndííká* 'to begin, start, ignite'

d. *kwòmbéká* 'to construct, build'

e. *kùsèréká* 'to cover, shroud, to thatch a roof'

f. *kùsèngéká* 'to demarcate, delimit, define, outline, to articulate an issue clearly'

9.8.7 Other verbal derivational processes

This section looks at a few derivational processes other than the reflexes of the PB extensions.

9.8.7.1 Reduplication

Chapter 7 discussed various forms of reduplication as strategies for inflection, but the Nzogi & Diprose (2012) dictionary also shows that reduplication is a common strategy for derivation. There are a few different morphological/templatic strategies used, depending on how much of the root/stem is reduplicated. The standard Bantu root consists of a CVC sequence, and (668) shows a few cases where only the first CV has been reduplicated, but not the second C. When the second C is a nasal, there are cases where that is also reduplicated, as in (669). Finally, sometimes the whole stem with the final vowel *-a* is reduplicated, as in (670). While it is possible for these to have a base

verb equivalent, the majority do not. It is also quite common for extensions to be added at the end of the reduplicated sequence, which is the case for quite a few of the verbs in (668) – (670), such as *kù-kà-kád-úk-á*, where /ka/ is reduplicated, and then followed by the intransitive Separative extension *-uk*. While the reduplicated verbs have a lot of different meanings, none of which appear to be productive or transparent, many of the verbs do have meanings relating to doing things in a rushed, imprecise or 'bad' manner, or actions being repeated, potentially in an iterative way.

These derivational reduplicative strategies differ from the reduplication discussed in Section 7.2.2 in that they conjugate regularly, the past tense suffix is for instance only added at the end, and is not reduplicated. Table 9.19 shows the conjugation of *kùgàlágálá* 'to nurse'.

(668) a. *kùbèbéná* 'to crunch, chew noisily'
b. *kùkàkádúká* 'to arise with difficulty'
c. *kùgùgúmá* 'to stammer, stutter'
d. *kùgùgúná* 'to gnaw'
e. *kùcìcíná* 'to giggle'
f. *kùcòcówá* 'to pour in plenty'

(669) a. *kùtènténá* 'to smash'
b. *kùkènkénúlá* 'to grind or crush nuts coarsely into a flour or paste'
c. *kùkònkóná* 'to knock, tap, rap'
d. *kùkùnkúná* 'to totter, stagger'
e. *kùsònsónyá* 'to deliver a wave of successive pecks or stings, e.g., like a fighting bird'
f. *kùkànkánúlá* 'to cause s.t. to wear out, depreciate, to ruin, dilapidate, destroy'

(670) a. *kùbìtábítámù* 'to skim over'
b. *kùkòjákójá* 'to write clumsily'
c. *kùfùyáfúyáná* 'to fidget, fumble, act in a rushed manner'

d. *kùmùlámúlá* 'to chew, as in chewing bubble gum'

e. *kùmìnáminá* 'to fondle, stroke'

f. *kùpìrápírá* 'to drill, to tattoo, to ignite a fire by friction, to fan, agitate the air'

Table 9.19: The conjugation of *kùgàlágálá* 'to nurse' with AGR 1 subjects

	FO1 AFF	FO1 NEG
Present	àgàlágálà	tàgálágálá
P2	àgàlágálírè	tàgálàgàlìré
P3	yágàlágálírè	tíyágàlágálírè
P5	yàgàlàgàlìré	tíyàgálágálírè
F1	yágàlàgàlá	tìyàgàlàgàlé
F2	yàlígàlágálà	tìyàlígàlágálá

9.8.7.2 Other derivational suffixes

-yag The suffix *-yag* can be productively used to create the Durative aspect, and its conjugation was covered in Section 7.2.5. The verbs in (671) appear to be lexicalised Duratives. These generally all have base verb counterparts, and the verbs mostly share a semantic core with the base forms, although not always. Where they do, the version with the *-yag* suffix sometimes denotes a more careless or intense action than the base.

(671) a. *kùtèmá* 'to cut'
kùtèmyágá 'to cut randomly into pieces.'

b. *kwèmá* 'to step'
kwèmyágá 'to trample'

c. *kùnyìirá* 'to tear, rip'
kùnyìiryágá 'to tear into pieces.'

d. *kùtàlá* 'to despise, scorn'
kùtàlágá 'to rust, corrode.'

e. *kùtàmbúlyá* 'to transport'
kùtàmbúlyágá 'to loiter'

-w A nominal/adjectival root is sometimes made into a verb by the addition of *-w*, as illustrated by the pairs in (672).

(672) a. *-ˊzítò* 'heavy'
kùzìtówá 'to be heavy.'

b. *-ˊnáfù* 'weak'
kùnàfúwá 'to become weak.'

c. *-ˋwànvú* 'long, tall'
kùwànvúwá 'to lengthen, become long.'

d. *-ángù* 'light, quick, early'
kwàngúwá 'to rush, be quick'

9.9 Ordering of extensions in Lugwere

One verb can have more than one extension. This is common in lexicalised verbs, and in those cases it is not possible to establish a fixed order that the extensions go in, as this is likely dependent on the order of lexicalisation. Look, for instance, at the two verbs in (673), where the order of the associative *-an* an the separative *-ul* is reversed.

(673) a. *kùbbùng-úl-án-á* 'row, fight, brawl, dispute, wrangle.'

b. *kùgàg-án-úl-á* 'arise, rise up; get on your feet from a sitting or kneeling position.'

Normally, the verb will have imbrication with the final extension, but with a *-y* Causative, the metathesis of the imbrication seems to target the whole palatalised consonant that the causative forms with the preceding extension, so that for instance the P2 of *kùgàlámbúlyá* 'to rinse' is *àgàlámbwíryè* 's/he rinsed'. Note that this only happens when the preceding consonant is also part of an extension, it does not happen with a verb like *kùgùlyá* 'to sell', where the P2 form is *àgùlíryè* 's/he sold', where only the causative partakes in imbrication.

There are not many cases in the corpus where extensions are productively combined. Most of the forms in the corpus with more than one extension are based on words like

kùlìsyá or *kùsòmésyá*, which have the conventional meanings 'to teach' and 'to graze (animals)', and so the affixes are likely somewhat lexicalised even if the meanings can quite easily be derived from 'to cause to study' and 'to cause to eat'.

When trying to investigate the combination of extensions in elicitation, speakers will often try to introduce one or more arguments by means other than extensions, for instance by using the analytic causative constructions with *kùlètérá*. When asked for judgements or when asked specifically to express something with one word, it is possible to get words with multiple productive extensions, however. There seems to be quite a bit of flexibility when it comes to the ordering of extensions also when they are used productively. A speaker accepted both (674a) and (674b), for instance. Note that when the Applicative follows the Causative, it causes imbrication, and the extensions are realised *-isiry*. (675) shows another couple of examples where a speaker accepted both orders, (675a) shows a Reciprocal and a Causative suffix, and (675b) shows the Causative and the Passive.

(674) a. *Mírìkà àmùsùmbírísya ámátóókè gáàsí*

Mírìkà à-mu-sumb-ir-isy-a\LHL á-ma-´tóókè gáàsí
PN.F 1S-1O-cook-APPL-CAUS-FV\PRES AUG-6-matooke gas.9
'Mirika cooks matooke for him with gas.'

b. *Mírìkà àmùsùmbísírya ámátóókè gáàsí*

Mírìkà à-mu-sumb-isy-ir-a\LHL á-ma-´tóókè gáàsí
PN.F 1S-1O-cook-APPL-CAUS-FV\PRES AUG-6-matooke gas.9
'Mirika cooks matooke for him with gas.'

(675) a. *tùsúmbísyángánà* 'we make each other cook'

tùsúmbágánísyà 'we make each other cook'

b. *kùsùmbíwísyá* 'to be cooked using'

kùsùmbísíwá 'to be cooked using'

At present there has not been enough time to fully explore which productive extensions can be combined, what orders are possible, and how the order changes the meaning or scope where more than one order is possible. More research on this is needed.

9.10 Other irregular verbs

9.10.1 Verbs in *-ona*

The verb *kùbònà* 'to see' has an imbricated past stem, becoming *-boine*. This has clear parallels to the past stems found with extensions, which have been discussed above, even though it does not have an extension. This is not unusual, however, and cognates of this verb irregularly has an imbricated stem in many languages, for instance in Cibemba, where it imbricates even though it does not meet the phonological criteria necessary for imbrication in the language (Hyman 1995).

Interestingly, there are a few other verbs that end in /-ona/ which can get an (optional) imbricated past stem, including *kùkònkónà* 'to knock'. (676) lists all the verbs that end in /-ona/ where the speaker consulted accepted an imbricated past stem. There does not seem to be much of a semantic red thread going through these, and most of them are bisyllabic, or (partially) reduplicated versions of what appears to be a CVC root. It is therefore unlikely that we are dealing with an affix here. More likely, the common verb *kùbònà* had an imbricated stem, probably at an earlier stage than Lugwere given that this verb is irregular in other languages. The other verbs ending in /-ona/ could have started behaving similarly to *kùbònà* due to analogy. Notably, there are some verbs in /-ona/, for instance the common verb *kùgònà* 'to sleep', which do not allow an imbricated past stem. The conjugation of *kùbònà* is shown in Table (9.20).

(676) a. *kòbònà* 'to see'

b. *kùbònáábónà* 'to suffer'

c. *kùkònkónà* 'to knock, tap, rap'

d. *kùmòònà* 'to block an opening'

e. *kùŋòònà* 'to clean, cleanse, neaten, tidy'

f. *kùsòkónà* 'to pick the teeth'

g. *kwònóónà* 'to destroy, spoil, ruin'

Table 9.20: The conjugation of *kùbònà* 'to see' with AGR 1 subjects

	FO1 AFF	FO1 NEG
Present	àbónà	tàbónà
P2	àbóínè	tàbóìné
P3	yábóínè	tíyábóínè
P5	yàbòìné	tíyàbóínè
F1	yábònà	tìyàbòné
F2	yàlíbónà	tìyàlíbònà

9.10.2 *kùmànyá*

The verb *kùmànyá* 'to know' has an irregular Present tense stem *-meite*, as in *àméítè* 's/he knows'. A regular version also exists, but is more limited in its distribution. The form bears some resemblance to irregular past tense stems of verbs the with the tentative extension, compare the P2 form of *kùkwàtá* 'to seize', which is *àkwáítè*.

Two things can be said about the history of this word. Likely the Present tense form with *-meite* originated as a P2 form. It has what looks like a Tentative extension imbricated past stem, and tonally it also resembles a P2, note for instance in Table 9.21 that there is no difference between Form 2 and Form 1 affirmative forms, which is consisted with the tonal behaviour of P2 verbs, but not the Present tense. The tone of the negative forms are closer to the P2 LHLH than the Present tense LH, but because the negative marker itself is high, it is not really consistent with either.

Likely, the fact that the Present form originated from a P2 form has to do with the semantics of 'to know'; to be in the state of knowing something, one must have learned it in the past, and if there is some overlap in the verbs used to express being in the state of knowing something, and the act of finding out, it is not too surprising if a past tense form, perhaps originally meaning something like 'I found out', comes to be used for being in the state of knowing something. Some other verbs can also get present tense interpretations from P2 forms, i.e. *àgònérè* 'he fell asleep' – 'he sleeps' (see Section 7.6). Other than in the Present tense, this verb is completely regular.

Additionally, we might speculate that the verb at some point had a tentative extension. This would make sense with the meaning of 'finding out' or 'coming to know', as

Table 9.21: The verb *kùmànyá* 'to know' in the Present tense with AGR1 and AGR2 subjects. Form 2 is given with the object *mwànà* 'child'

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
AGR 1	àmáítè	àmáítè mwànà	támáìté	támáìtè mwànà
AGR 2	bàmáítè	bàmáítè mwànà	tíbámáìté	tíbámáìtè mwànà

the tentative extension typically has meanings relating to "actively making firm contact", and metaphorically coming to know something could be seen as making contact with a fact, or perhaps 'seizing' it. At some point the *-ata* extension could have then merged with the verb root, leading to the deletion of the /ny/.

While the irregular form is most commonly used in the Present tense, there are examples of it being used as a past tense stem, see for instance (159).

9.10.3 *kùtàká*

The verb *kùtàká* has an irregular tonal melody in the Present tense negative, as shown in Table 9.22. Instead of the expected LH melody, there is a (L)HLH melody.

Table 9.22: *kùtàká* 'to want' in the Present tense

	FO1 AFF	FO1 NEG
1st SG	ǹtákà	tíntàká
1st PL	tùtákà	tìtútàká
2nd SG	òtákà	tótàká
2nd PL	mùtákà	tìmútàká
AGR 1	àtákà	tátàká
AGR 2	bàtákà	tìbátàká

10 Locative Enclitics

Contents

10.1 Morphology **541**
10.2 Locative usages **543**
10.2.1 The locative classes 543
10.2.2 Object marker for location 544
10.2.3 Indicator of location of action 545
10.3 Non-locative usages **548**
10.3.1 Partitive 548
10.3.2 Verbs of breaking and opening 551
10.3.3 Marker of concern 552
10.3.4 Rather/instead 552
10.3.5 Change in meaning 553
10.4 Existential phrases **554**
10.5 Locative inversion **556**

The locative noun classes behave differently from other noun classes in multiple ways. One important difference, is that a locative object is marked with an enclitic, rather than a prefix. In addition to marking locative objects, these enclitics have several other usages, which will be described in this chapter. Section 10.1 looks at the morphology of these markers, and concludes that they are best considered enclitics. Section 10.2 then looks at the locative usages of these enclitics, while Section 10.3 discusses a range of non-locative functions, such as the partitive. Section 10.4 then discusses the role of the enclitics in existential constructions, and Section 10.5 gives a few examples of

locative inversion constructions.

10.1 Morphology

There are four locative noun classes, and as outlined in Section 5.3, the object enclitics for these are *=yo* (AGR 23), *=ku* (AGR 17), *=wo* (AGR 16), and *=mu* (AGR 18). Note that two of these, Class 23 and 16, are formed by use of the '-o of reference' (see Section 2.4.7).

These enclitics attach in the locative slot, which follows post-FV. Tonally, the enclitics always have the opposite tone to the final syllable of the verb-form. When the locative enclitics have a high tone in Form 1 contexts, they get a low tone in Form 2 contexts. The affirmative of the Present tense and F2 are in Form 2 when they carry a locative enclitic. The negative forms of P3, P5 and F2 are also somewhat irregular. In P3 and P5, the verb itself would normally have a final low tone in the negative, but here the final syllable of the base verb form is high, and the locative marker is low (as it is always the opposite of the syllable it attaches to). Compare, for instance, the P3 form *tíyágùlíréwò* 's/he did not buy there', to the form without a locative, which is *tíyágùlírè* 's/he did not buy'. In the affirmative, however, the form is as expected, with a low tone on the last syllable of the base verb form, and, as always, the opposite tone on the following locative marker: *yágùlírèwó* 's/he bought there', and *yágùlírè* 's/he bought' without a locative marker.

The fact that the Present and F2 affirmative forms are in Form 2 when there is a locative marker, might tell us something about whether these markers should be considered suffixes, enclitics or separate words, as Form 2 is generally not triggered by the internal morphology of the verb (see Section 7.3.1, where the fact that verbs are in Form 2 is used as argumentation that a construction is composed of two words, rather than one morphological form).

Form 2 of the affirmative of the Present tense and F2 behave differently from others in another way as well: they are the only forms where the tone that lowers in Form 2 is non-final. It is therefore likely no coincidence that these are the tenses that have Form 2 in this context. The fact that no other tenses with a Form 1/Form 2 alternation use Form 2, and the fact that not even the negative of the Present and F2 use Form 2

Table 10.1: The verb *kùgùlá* 'to buy' with the Class 16 locative enclitic *=wo*, with AGR 1 and AGR 2 subjects Underlined forms are of note either because the verb uses Form 2, or because there is an unexpected high tone, see the discussion.

	FO1 AFF	FO2 AFF	FO1 NEG	FO2 NEG
Infinitive	kùgùláwò	…	kùtágúláwò	…
Present	àgùlàwó	àgùlàwò	tàgúláwò	…
	bàgúlàwó	bàgúlàwò	tìbàgúláwò	…
P1	yànkágúláwò	…	tìyànkágúláwò	…
P2	àgùlírèwó	àgùlírèwò	tàgúlìréwò	…
	bàgúlírèwó	bàgúlírèwò	tìbàgúlìréwò	…
P3	yágùlírèwó	yágùlírèwò	tíyágùlírèwò	…
P5	yàgùlìréwò	…	tíyàgúlírèwò	…
P5 Habitual	yàgùlàngáwò	…	tíyàgúlángáwò	…
F1	yágùláwò	…	tìyàgùléwò	…
F2	yàlígùlàwó	yàlígùlàwò	tìyàlígùláwò	…
SUBJUNCTIVE	ágùléwò	…	tágúláwò	…
C1	yànkágùlírèwó	yànkágùlírèwò	tìyànkágùlírèwò	

in this context, makes it doubtful that the locative marker is in fact a separate word. Generally, the same rules seem to govern the usage of Form 2, regardless of tense and polarity. If a following word can cause Form 2 for some tenses, it should cause the form for all the tenses and polarities, or there should at least be a similar level of variation for all tenses, as seen with adverbials. This is therefore more likely a morphological irregularity with the affirmative Present and F2.

There are only two other elements that can follow the final vowel, and that is the Habitual marker (see Section 7.2.1) and a reduplicated form (see Section 7.2.2). In both cases the tonal melody stretches to encompass the additional syllable(s). If we consider those two cases to be part of the phonological word, then the locative markers behave differently both from separate words, and from elements that are part of the same phonological word as the verb stem. It does therefore seem reasonable to suggest that these are enclitics, like they have been reported to be in other languages (Persohn & Devos 2017). Further evidence for this can perhaps be found in the fact that tonally, they behave similarly to the 2nd person singular and the Class 1 possessive enclitics, which also take on the opposite tone of the last syllable of the word they attach to (see Section 3.2.11).

10.2 Locative usages

The locative markers have a range of functions. Some usages are widespread and productive. The aspectual usages of *=ku*, for instance, can occur with almost any verb. Other functions are restricted to specific lexical items: *=wo* can, for instance, be used to indicate the completion of an action, but only with certain verbs of opening or breaking. This section looks at those usages that relate directly to location, while the next section looks at non-locative usages.

10.2.1 The locative classes

Before looking at the specific ways these markers are used, it is useful to first review the basic locative meaning of each of them (see Section 4.1.14).

=ku is the Agreement Class 17 marker, and the corresponding nominal prefix is *ku-*. While it can be used as quite a generic locative, its more specific sense is 'on top of'.

=mu is the Agreement Class 18 marker, and the corresponding nominal prefix is *mu-*. This class expresses the sense of 'in' or 'inside'.

=wo is the Agreement Class 16 marker, and the corresponding nominal prefix is *wa-*. This class can be used to indicate a place close to the speaker, or a place that is visible (as opposed to hidden). It can also be used to refer to a specific spot. It is also the class most commonly used in existential constructions.

=yo is the Agreement Class 23 marker, and the corresponding nominal prefix is *Ø-*. When used as a noun class, this is most commonly used for place names like names of cities. As an enclitic, however, it largely functions as an opposition to the Class 16 marker: it indicates a place further away, or not visible. It can, for instance, be used about one's back, or the underside of a table. Sometimes this is also translated with 'inside' - potentially because the inside is a part that is often not visible from the outside.

There is a lot of overlap in the semantics of the nominal prefixes and the verbal enclitics, but there are differences. While Class 23 is normally only used with place names as a noun class marker, the enclitic has a much broader usage. The nominal prefixes are primarily used to make a noun into a locative argument. The enclitics can refer back to such arguments, but they also have a range of other functions, outlined in this chapter.

Class 18 and Class 17 are commonly used as nominal prefixes, while it is somewhat rarer to have nouns in classes 16 and 23. All four classes commonly occur as post-final locatives, however. It is possible to combine the two types of marking, as in (677).

(677) *óMàríána àbóínèmu ómú nsákà.*

óMàríána à-bon-ire\LHL=mu ó-mu=n.´sákà
AUG-PN.F 1S-see-PST2\P2=18 AUG-18=9.pot
'Marianah saw inside the pot.'

Importantly, the verbal and nominal prefixes do not always have to have the same class, even when ostensibly referring to the same location. There is a large extent of semantic agreement, both when it comes to the post-final locative markers, and when it comes to locative classes and agreements in the adnominal domain.

(678) *Àgònàyó kwísómérò.*

à-gon-a\LHL\FO2=yo ku=ì-sómérò
1S-sleep-FV\PRES\FO2=23 17=5-school
'S/he sleeps there in the school.'

10.2.2 Object marker for location

One function of the post-final locative markers is as object markers for locations. In these cases, the argument that the locative marker indexes is the object of the verb i.e. the thing seen in (679), the thing to be known in (680) and (682). In (681) the *=yo* marker which functions as an object is combined with *=ku*, which here is part of the morphology of the Experiential aspect.

(679) *Àbóínèwó?*

à-bon-ire\LHL=wo
1S-see-PST2\P2=16
'Did he see that place? (said while still close to the place)'

(680) *Ǹsòbóla ókùmànyáyo égìtwàbá?*

ǹ-sob.ol-a\LHL ó-ku-many-a\LH=yo é-gi-tù´-ab-a\LH
1SGS-can.SEP1-FV\PRES AUG-INF-know-FV\INF=23 REL-23O.REL-1PLS-go-FV\PRES.SBR
'May I know where we are going?'

(681) *Òwùlìràngàkúwò?*

o-wul.ir-a-nga\LHL\FO2=ku=wo
2SGS-hear.APPL-FV-HAB\PRES\FO2=17=16
'Have you ever heard about this place? (close, that we can see)'

(682) *Ǹméítèyó.*

ǹ-many.IRR\LHL=yo
1SGS-know.IRR\PRES=23
'I know that place.'

10.2.3 Indicator of location of action

One very common usage of these markers is to function as a sort of adverbial: they can indicate where an action takes place, or the direction of an action. Have a look at (683), for instance. Here the object of *kùbònà* 'to see' is *nánkìbóbò* 'lizard', and the locative marker indicates where the lizard was seen. The *=mu* marker does not act as an argument here, which is why an object, *nánkìbóbò*, can be inserted without any valency increasing morphology.

Similarly, the *=yo* in (684) indicates where the person ate, and the location is very clearly not an object here, but has an adverbial function. (685) similarly indicates where something took place, and (686) indicates where the cake is gone from, i.e. it had been 'on' something, as indicated by the use of Class 17.

(683) *óMàríàna àbóínèmù nánkìbóbò.*

o-Màriànà à-bona-ire\LHL=mu\FO2 nánkìbóbò
AUG-PN.F 1S-see-PST2\P2=18\FO2 lizard
'Marianah saw a lizard inside.'

(684) a. *A: Mùlíírèyo?*

mù´-ly-ire\LHL=yo
2PLS-eat-PST2-\P2=23
'Did you PL eat there?'

b. *B: Éè, tùlíírèyó.*

éè tù´-ly-ire\LHL=yo
yes 1PLS-eat-PST2\P2=23
'Yes, we ate there.'

(685) *Àfíírèwó.*

à-f-ire\LHL=wo
1S-die-PST2\P2=16
'He died here.'

(686) *Ékéèk èwéírèkú.*

é-kéèk.9 è-w-ire\LHL=ku
AUG-cake 9S-be_over-PST2\P2=17
'The cake is gone (from the plate).'

=yo can indicate somewhere further from the speaker ('there' as opposed to 'here'), but it can also indicate a location that is not visible, such as one's back, or the underside of a table. Example (687) could for instance mean to get burned somewhere like the back, which is not visible to you.

(687) *Òyíírèyó?*

ò-y-ire\LHL=yo
2SGS-get_burned-PST2\P2=23
'Did you get burned there (on your back)?'

Example (688) also shows how the locative markers have a very similar function to locative adverbials, like *àànú* (which are actually just demonstratives in the locative classes). However, *=wo* and *=yo* do not directly correspond to 'here' and 'there', *=wo* simply expresses a place closer to the speaker, but not necessarily exactly where they are.

(688) a. *Ǹkòlàwó.*

ǹ-kol-a\LHL\FO2=wo
1SGS-work-FV\PRES\FO2=16
'I work here/there (close).'

b. *Ǹkòla àànú.*

ǹ-kol-a\LHL\FO2 aa-`nú
1SGS-work-FV\PRES\FO2 AGR16-DEM_PROX
'I work here.'

In addition to static location, the locative markers can also be used to indicate direction or destination. Which interpretation a specific marker has, largely depends

on the semantics of the verb it attaches to. If that verb has a meaning that involves motion, the locative marker is likely to be interpreted as indicating the direction/goal.

Some examples of markers indicating direction towards a location are given in (689).

(689) *Ózémù!*

o-iz-e\H(L)H=mu
2SGS-come-SUB\SUB=18
'Come inside!'

(690) *Àgwíírèmú.*

à-gw-ire\LHL=mu
1S-fall-PST2\P2=18
'He fell inside.'

(691) *Yèséndérèyò nyúmà.*

à-e´-send-ire\LHL=yo\FO2 ny.úmà
1S-REFL-move-PST2\P2=23\FO2 9.back
'He pushed himself backwards (on the chair).'

=wo can be used to indicate a specific spot, as in (692), which can be said even if the speaker is distant from the location in question.

(692) *Ǹsìbírèwó.*

ǹ-sib-ire\LHL=wo
1SGS-tie-PST2\P2=16
'I tied (the goat) there (in the specific spot).'

And, if the semantics of the verb in question allow, the markers can also indicate motion away from, as for instance with *kùsìká* 'to pull'. In (693) *=yo* is used to indicate motion out of something. In these cases it is likely the "out of sight" element of the meaning of *=yo* that is employed, i.e. something is extracted from a position where it is not visible.

(693) *Ndì kùtòòláyò séntè kwísímù.*

ǹ-li\LH(L)\FO2 ku-tool-a\LH=yo sênté\FL ku=ì-símù
1SGS-COP2\PRES\FO2 INF-take_out-FV\INF=23 money\FL 17=5-phone
'I am taking out money from my phone.'

10.3 Non-locative usages

10.3.1 Partitive

=ku is productively used as a partitive, and it also functions as a politeness marker and is part of the formation of the Experiential aspect (see Section 7.3.3.1). Persohn & Devos (2017) argue that these latter two functions developed diachronically from the partitive function, and as they are all expressed with the same class maker, that seems like a plausible explanation also for Lugwere. Example (694) illustrates the partitive usage of *=ku*.

(694) a. *Ànywírèkú.*

à-nyw-ire\LHL=ku
1S-drink-PST2\P2=17
'S/he drank a bit.'

b. *Ànywírèku ámàìzí.*

à-nyw-ire\LHL=ku á-ma-ˋìzí
1S-drink-PST2\P2=17 AUG-6-water
'S/he drank a bit of water.'

(695) Talking about medicine

Nà bìdi ébíntù bìdi [unclear] bìrámyàkú. (C)

na bi-ˋdí é-bi-ˊntù bi-ˋdí (…) bìˊ-lam.y-a\LHL=ku
CONJ AGR8-DEM_DIST AUG-8-thing AGR8-DEM_DIST (…) 8S-cure.CAUS1-FV\PRES=17
'And the other things (…) they help a bit.'

=mu also has some partitive usages in Lugwere. It is less widespread than the *=ku* partitive, and has not undergone the further grammaticalisation to marker of politeness. An example from the corpus is given in (696). This partitive usage has potentially developed from the usage illustrated in (697), where *=mu* is used to indicate 'only some out of many'. It is possible to see how this sense could have developed from the locative meaning of 'inside'; (697) could perhaps be paraphrased as 'within the group of many, two died', and the path from 'some out of many' to a partitive 'a bit, for a short while' seems short.

(696) *Wèrábíírèmú.*

ò-e´.rab.ir-ire\LHL=mu
2SGS-REFL.forget.APPL-PST2\P2=18
'You have forgotten a bit.'

(697) *Éíbìrì nîgyò gìfíírémù.*

é-ìbírí\FL ní-ì´-gyo\FO2 gì´-f-ire\LH=mu
AUG-two\FL COP3-PRO-AGR10\FO2 10S-die-PST2\P2.SBR=18
'(Out of the many) only two died.'

The two partitive markers can combine, as in (698), or the *=ku* marker can be doubled to strengthen the partitive meaning, i.e. 'a little bit', as in (699). This doubling is perhaps also a way to disambiguate it from the politeness reading, to indicate that it is indeed a small amount that is intended, not just politeness.

(698) *Òwùlìràmúku óbùdèmbí.*

o-wul.ir-a-\LHL\FO2=mu=ku ó-bù-dèmbí
2SGS-feel.APPL-FV\PRES\FO2=18=17 AUG-14-tiredness
'You feel a bit tired.'

(699) *Ǹdíírèkúkù.*

ǹ-ly-ire\LHL=ku=ku
1SGS-eat-PST2\P2=17=17
'I ate a little bit.'

10.3.1.1 Marker of politeness

=ku is commonly used to soften requests or questions. It seems clear why a partitive marker would appear in requests, as one can imagine the marker indicating that the request is smaller in scope. This makes sense in sentences like (700), where the partitive indicates 'just give me a little bit of cassava', thus making the request smaller in scope. In (701), the *=ku* could indicate 'wear for a little bit', thus again making the request smaller in scope. While this seems like a pretty good explanation for why *=ku* was originally used in such requests, it currently has a much wider usage, and can be used also in contexts where the pure partitive meaning does not extend, as in (702a), where one cannot 'know a little bit where the toilet is' - either you know or you do not. The

politeness carries across, however, and so the speaker who was consulted considered this a more polite request than (702b), which was also judged to be possible.

(700) *Mwàná ìswe, ómpéku ómùwògó, nkùwe ékàlámù.* (C)

mu-àná ì´-swe o-n-w-e\H.LH=ku ó-mu-`wògó
1-child PRO-1PL 2SGS-1SGO-give-SUB\SUB=17 AUG-3-cassava
n-ku-w-e\H.LH é-kàlámù
1SGS-2SGO-give-SUB\SUB AUG-9-pencil
'Our child, give me some cassava and I will give you a pencil.'

(701) *Ékìrábò, n'ámpa ógómàsí. N'àkòba ààti: "ózwàléku ólùgwéyè lùlwó!"* (C)

é-ki`lábò ni à´-n-w-a\LH(LH) ó-gómàsí ni à´-kob-a\LHL\FO2
AUG-7-gift NAR 1S-1SGO-give-FV\PRES.SBR AUG-gomez NAR 1S-say-FV\PRES.UC\FO2
à-tî o-zw.al-e\H.LH=ku o-lu-`gwéyè lu-lu-`ô.
AGR1-QUOT 2SGS-wear.EXT-SUB\SUB=17 AUG-11-DRESS AGR11-AGR11-2SG.POSS
'The gift, she gave me a gomez (a style of dress). And she told me: "put on your dress!"'

(702) a. *Ǹsòbóla ókùmànyáku étóòyi égyêrí?*

ǹ-sob.ol-a\LHL ó-ku-many-a\LH=ku é-tóòyí.9
1SGS-can.SEP1-FV\PRES AUG-INF-know-FV\INF=17 AUG-toilet
é-gi-è-li\LH
REL-23O.REL-9S-COP2\PRES.SBR.UC
'May I know where the toilet is?' (polite)

b. *Ǹsòbóla ókùmànya étóòyi égyèrí?*

ǹ-sob.ol-a\LHL ó-ku-many-a\LH é-tóòyí.9
1SGS-can.SEP1-FV\PRES AUG-INF-know-FV\INF AUG-toilet
é-gi-è-li\LH
REL-23O.REL-9S-COP2\PRES.SBR
'Can I know where the toilet is?'

In a similar way, the marker can be used in questions, like in (703) – (704). Here again, it is used to make the question more polite. Note that in (703) it makes little sense to tie the usage directly to the partitive usage, as that would mean indicating that people had only given a few things for the birthday, which seems like it would rather make the question less polite. In (704) the speaker who was consulted explained that (a) is a more polite way to ask than (b).

(703) *Bákùlèètérèkú níkì ókú mázálíwà gó?* (C)

ba-ku-leet-ire\H.LHL=ku niki ó-ku=ma-ˊzálíwà=ga-o
2S-2SGO-bring-PST2\P3=17 what AUG-17=6-birthday=AGR6-2SG.POSS
'What did they bring you on your birthday?'

(704) a. *Míkalu òlwáínèkú n'ójáímsì?*

Míkalu o-lw.an-ire\LHL=ku nè ó-ǰáímsì
PN.M 2SGS-fight.ASO-PST2\P2=17 CONJ AUG-PN.M
'Michael have you fought with James?' (polite)

b. *Míkalu òlwáínè n'ójáímsì?*

Míkalu o-lw.an-ire\LHL nè ó-ǰáímsì
PN.M 2SGS-fight.ASO-PST2\P2 CONJ AUG-PN.M
'Michael have you fought with James?'

10.3.1.2 Experiential aspect

The locative enclitics, generally *=ku* are also used for the Experiential aspect, this was discussed and exaplified in Section 7.3.3.1.

10.3.2 Verbs of breaking and opening

With verbs of breaking, *=mu* can be used to indicate that something was broken to the point of being separated into two parts. If only a tiny bit is broken off, *=ku* can be used instead. Some verbs that can get this interpretation is *kùtèmá* 'to cut', *kùsàlá* 'to cut', *kùmènyá* 'to break' and *kùlùmá* 'to bite'. Examples are shown in (705) and (706).

(705) *Àsàlírèmu ókálòti àkàtí.*

à-sal-ire\LHL=mu ó-kálòtí a-ˋkàtí
1S-cut-PST2\P2=18 AUG-carrot 16-middle
'S/he cut the carrot in half.'

(706) *ÓMàríánà àbàlùmíírèmu ómúyémbè n'óShánítà.*

ó-Màríánà à-ba-lum-ir-ire\LHL=mu ó-mu-ˊyémbè nè ó-Shánítà
AUG-PN.F 1S-2O-bite-APPL-PST2\P2=18 AUG-3-mango CONJ AUG-PN.F
'Marianah shared the mango with Shanita by biting it.'

With verbs of opening, and some verbs of breaking, *=wo* can be used to indicate completion. Most commonly, perhaps, this is seen with the verbs *kwìgálá* 'to close' and

kwìgúlá 'to open', where *kwìgúláwò* means 'to open widely' and *kwìgáláwò* means 'to close fully'. A speaker also suggested this interpretation for *kùmènyáwò*, and *kùtèmáwò*, giving the translations 'to break off completely' and 'to cut down completely'.

10.3.3 Marker of concern

Some of the markers have preposition-like functions that go beyond physical location. *=ku*, for instance, can be used to introduce a topic, much like 'about' in English, as illustrated in (707). A Class 17 nominal proclitic is used to introduce such an argument. (708) combines a Class 17 locative enclitic with a nominal Class 17 proclitic.

(707) a. *kùlònsyá* 'to chat, converse, narrate, recount'

kùlònsyákù 'to talk about'

b. *kùlòwóózá* 'to think, imagine, ponder'

kùlòwóózákù 'to think of'

(708) *Ǹtàkà kùtùmúláku kùmwàlá wàngé.*

ǹ-tak-a\LHL\FO2 ku-tum.ul-a\LH=ku ku-mu-àlá o-àngé
1SGS-want-FV\PRES\FO2 INF-talk.SEP1-FV\INF=17 17=1-girl AGR1-1SG.POSS
'I want to talk about my daughter.'

10.3.4 Rather/instead

Another function of *=mu* is to express the idea of 'rather' or 'instead' - as in doing one action instead of another, or finding one action preferable to another.

(709) *Âsòmàmú.*

à-som-a\LHL\FO2=mu
1S-read-FV\PRES\FO2=18
'S/he would rather read.'

(710) *Ómú kifò ky'ókùnààbya ámàsàwáàní, àzènyàmu mùpîirá.*

ó-mu=kì´-fò ki-á ó-ku-naab.y-a\LH á-ma-´sàwáàní
AUG-18=7-place AGR7-ASS AUG-INF-wash.CAUS1-FV\INF AUG-6-plate
à-zeny-a\LHL\FO2=mu mu-`pîirá
1S-play-FV\PRES\FO2=18 9.ball
'Instead of washing the dishes, he plays ball.'

10.3.5 Change in meaning

The locative enclitics can also change the basic meaning of the verb in more or less predictable ways. In this way, the locative enclitics have a derivational function.[1] On the more predictable side are words such as *kùbbá* 'to be' and *kùbbáwò* to which Nzogi & Diprose (2012) gives the following translations 'be, exist, live, happen, be around, available, present'. To 'be alive' is a meaning that quite easily follows from the compositional meaning of the verb, and the Class 16 locative enclitic.

In other cases, the meanings are less predictable, such as in (711) – (713). However, the semantic link between the base meaning and the derived meaning is still very close - the idea of 'to answer, repeat' is still closely linked to the idea of 'to return'.

(711) a. *kwìrá* 'to return'

b. *kwìrámù* 'to answer, to repeat'

(712) a. *kùkòbá* 'to tell, say'

b. *kùkòbákù* 'to reprimand, chide, criticise'

(713) a. *kùwá* 'to give'

b. *kùwááyò* 'to donate'

Some examples where the lexicalised meanings are more distant from the base meanings are given in (714) – (720).

(714) a. *kùsàlá* 'to cut'

b. *kùsàláwò* 'to decide, to choose'

c. *kùsàlámù* 'to cross through, to annul, cancel'

(715) a. *kùfá* 'to die'

b. *kùfáákù* 'to faint, to care for'

c. *kùfááyò* 'to take responsibility'

(716) a. *kùfìká* 'to miss out'

[1] Not too unlike how prepositions and prefixes with originally locative meanings are used in Germanic and Slavic languages.

b. *kùfiìkáwò* ‘to be left over’

(717) a. *kùtùùká* ‘to reach, arrive’

b. *kùtùùkáyò* ‘to be unconscious, in a coma’

(718) a. *kùfùmá* ‘to be popular, famous, renowned’

b. *kùfùmáwò* ‘to offer a bonus, give extra’

(719) a. *kwèbítyá* ‘to smear, cover yourself with a substance by smearing’

b. *kwèbítyákù* ‘to ignore, overlook, avoid’

(720) a. *kùgwá* ‘to fall’

b. *kùgwáwò* ‘to happen or occur suddenly’

10.4 Existential phrases

Existential phrases are formed with the *-li* copula (in the Present tense), and are required to contain either a locative enclitic, or another locative element, as shown in (721) (see also Section 6.8.2.6). Non-existence is expressed with the verb *kùbùlá* ‘to lack’, and similarly requires a locative element, as illustrated in by the ungrammaticality of (722b). The locative enclitic can be either of the locative classes, but Class 16 seems to be the most commonly used one.

(721) a. *Ámátóókè gálìwó.*

á-ma-ˊtóókè gà ˊ-li\LH(L)=wo
AUG-6-matooke 6S-COP2\PRES=16
‘There is matooke.’

b. *Ámátóókè gálì mù nyùmbá.*

á-ma-ˊtóókè gà ˊ-li\LH(L) mu=ny.ˋùmbá
AUG-6-matooke 6S-COP2\PRES 18=9.house
‘There is matooke in the house.’

c. * *Ámátóókè gálì.*

á-ma-ˊtóókè gà ˊ-li\LH(L)
AUG-6-matooke 6S-COP2\PRES
Intended: ‘There is matooke.’

(722) a. *Ámátóókè gàbúlàwó.*

á-ma-ˊtóókè gàˊ-bul-a\LHL=wo
AUG-6-matooke 6S-lack-FV\PRES=16
'There is no matooke.'

b. * *Ámátóókè gàbúlà.*

á-ma-ˊtóókè gàˊ-bul-a\LHL
AUG-6-matooke 6S-lack-FV\PRES
'Intended: There is no matooke.'

In existential phrases, the verb can have subject markers that agree either with the thing that exists (or not), or it can have a locative subject marker (most commonly Class 16). This is illustrated in (723) below. When the subject marker is locative, there are certain restrictions on which subject classes can co-occur with which enclitic classes. Most commonly, the subject marker and the enclitic will be from the same class, as in (723a–c). Class 16 subject markers can co-occur with the other enclitics, as in (723d), but the other locative subject markers cannot co-occur with enclitics of other classes, as illustrated by the ungrammaticality of (723e).

(723) a. *Ámátóókè wáliwó.*

á-ma-ˊtóókè wàˊ-li\LH(L)=wo
AUG-6-matooke 16S-COP2\PRES=16
'There is matooke.'

b. *Ámátóókè wàbúlàwó.*

á-ma-ˊtóókè wàˊ-bul-a\LHL=wo
AUG-6-matooke 16S-lack-FV\PRES=16
'There is no matooke.'

c. *Ámátóókè kùbúlàkú.*

á-ma-ˊtóókè kùˊ-bul-a\LHL=ku
AUG-6-matooke 17S-lack-FV\PRES=17
'There is no matooke (on it).'

d. *Ámátóókè wàbúlàkú.*

á-ma-ˊtóókè wàˊ-bul-a\LHL=ku
AUG-6-matooke 16S-lack-FV\PRES=17
'There is no matooke (on it).'

e. * *Ámátóókè kùbúlàmú.*

á-ma-´tóókè kù´-bul-a\LHL=ku
AUG-6-matooke 17S-lack-FV\PRES=18
Intended: 'There is no matooke (inside/on).'

(724) and (725) show examples in the past tense, using both the *li* and *bba* copulas.

(724) *Kwàlíku ómùsàìza ómùkùlú, ògúbètánga óTèkó.* (C)

ku-a-li\LH=ku ó-mu-`sàìzá ó-mu-`kùlú ó-gu-ba-et-a-nga\LHL.HL
17S-TNS-COP2\P5=17 AUG-1-man AUG-AGR1-old REL-1O.REL-2S-call-FV-HAB\P5.SBR
ó-Tèkó
AUG-PN.M
'There was an old man called Teko.'

(725) *Énzálà gyàbbàngáku éírà?*

é-n.zálà gi-a-bb-a-nga\LH=ku é-ìrâ
AUG-10.hunger 10S-TNS-COP1-FV-HAB\P5=17 AUG-long_ago
'Was there famine long ago?'

In existential phrases the word order is also flexible. The thing that exists (or not) can come in the cannonical subject position, as in the examples above, or it can follow the copula, as in (726). In both cases, the copula can show subject agreement with the thing that exists, or with a locative class.

(726) a. *Gálìwo ámátóókè.*

gà´-li\LH(L)=wo á-ma-´tóókè
6S-COP2\PRES=16 AUG-6-matooke
'There is matooke.'

b. *Wálìwo ámátóókè.*

wà´-li\LH(L)=wo á-ma-´tóókè
16S-COP2\PRES=16 AUG-6-matooke
'There is matooke.'

10.5 Locative inversion

As in many Bantu languages (see Section 2.4.9), Lugwere allows locative inversion constructions. These are constructions such as that illustrated in (727a), where a locative phrase, in this case the Class 23 distal demonstrative, which would otherwise be an

adjunct, has been moved to the subject position, and triggers subject agreement on the verb. In such cases an agreeing locative enclitic is necessary, as shown by the ungrammaticality of (727d). In (727b) the verb has an Applicative suffix, but this is not necessary, as shown by (727c). (728) shows locative inversion with a Class 18 locative phrase, (729) has a Class 17 locative argument, and (730) shows inversion with a Class 16 proximal demonstrative. These examples show both unergative (727, 729, 730) and unaccusative (728) verbs. Attempts to create a locative inversion construction with the transitive verb *kùsùmbá* 'to cook' were unsuccessful, but more research is needed to fully map what types of verbs allow locative inversion, and which do not. While a speaker accepted sentences such as those given in (727) – (730) in elicitation, clear examples of locative inversion have not really been found in the corpus, so while possible, this does not appear to be a very common construction.

(727) a. *Ábàànà bàzényà èèdí.*

á-ba-ànáFL bà´-zeny-a\LHL ee-`dí
AUG-2-child\FL 2S-play-FV\PRES AGR23-DEM_DIST
'The children are playing there.'

b. *Èèdi èzènyèràyo ábàànáFO2=yo.*

e-`dí e-zeny-ir-a\LHL\FO2=yo á-ba-ànáFO2=23
AGR23-DEM_DIST 23S-play-APPL-FV\PRES\FO2=23 AUG-2-child
'The children are playing there.'

c. *Éédì èzènyàyo ábàànáFO2=23.*

e-`dí e-zeny-a\LHL\FO2=yo á-ba-ànáFO2=23
AGR23-DEM_DIST 23S-play-FV\PRES\FO2=23 AUG-2-child
'The children are playing there.'

d. * *Èèdi èzènyéra ábàànáFO2=23.*

ee-`dí e-zeny-ir-a\LHL á-ba-ànáFO2=23
AGR23-DEM_DIST 23S-play-APPL-FV\PRES AUG-2-child
'Intended: The children are playing there.'

(728) a. *Ómwífúmbírò múlì kùsèkérámù Jêní.*

ó-mu=ì-fúmbírò mù´-li\LH(L) ku-sek-ir-a\LH=mu Jenny
AUG-18=5-kitchen 18S-COP2\PRES INF-laugh-APPL-FV\INF=18 PN.F
'In the kitchen Jen is laughing.'

b. * *Ómwífúmbírò múlì kùsèkérá Ĵêní.*

ó-mu=ì-fúmbírò mù´-li\LH(L) ku-sek-ir-a\LH Ĵenny
AUG-18=5-kitchen 18S-COP2\PRES INF-laugh-APPL-FV\INF PN.F
Indented:'In the kitchen Jen is laughing.'

(729) *Ókú ménzà kúlì kùsòmérákù bàáná.*

ó-ku=`ménzà kù´-li\LH(L) ku-som-ir-a\LH=ku ba-ána
AUG-17=table 17S-COP2\PRES INF-read-APPL-FV\INF=17 2-child
'On the table, the children are reading.'

(730) *Àánù wàzényèràwo ábàáná.*

aa-`nú\FL wà´-zeny-ir-a\LHL\FO2=wo á-ba-ána
AGR16-DEM_PROX\FL 16S-play-APPL-FV\PRES\FO2=16 AUG-2-child
'Here the children are playing.'

Conclusion and Future Research

This thesis has given a comprehensive overview of the Lugwere verb system, by looking at the morphology of verbs with different types of stems and extensions in different tenses, aspects, and moods and by providing descriptions of the semantics and usages of the different TAM categories and both productive and unproductive extensions. A lot of focus was put on verbal tone, a topic that has not previously been covered in much detail. The Lugwere system of verbal tone melodies is complex, and has some very interesting features, such as the Form 1/Form 2 alternation.

Chapter 3 gave a description of Lugwere phonology, providing the background knowledge needed on Lugwere tonology, as well as information about the segmental phonological processes that play a role in the verbal morphology. Chapter 4 then gave an account of the Lugwere noun class system and agreements, as an understanding of the noun class system is helpful for understanding the agreement morphemes that occur on verbs. Chapter 5 gave an overview of the verbal morphology, covering topics such a the verbal template, how to make questions and negatives, and the properties of subjects and objects. Chapters 6 – 10 then went into detail looking at the morphology and usages of different tense, aspect, mood and modality categories, as well as valency changing affixes and locative enclitics. There was also a discussion of how tense and aspect interacts with different aktionsarten.

A project such as this can only skim the surface of everything there is to say about Lugwere verbs. Considering the amount of books, articles and studies being published yearly about an already thoroughly studied language such as English, no doubt every single chapter in this thesis could with benefit be expanded to the length of a book. Here I want to highlight a couple of topics that I would be very interested in exploring further in my future research.

Firstly, the discussion of the distribution of the Form 1/Form 2 alternation in Section 5.10 is primarily based on elicited data, and largely depended on the speakers' own awareness of tone. To get a more complete picture of this alternation, including what factors are involved in determining whether Form 2 or Form 1 form is used, it would be beneficial to study this phenomenon in naturalistic data. Seeing as I already have a large corpus, this is simply a matter of tone-marking more of it. This would be a time-consuming process, but could likely provide valuable insight into not just the Form 1/Form 2 distribution, but verbal tone in general. There are surely processes and phenomena that the current study has missed, which would become more apparent when looking at more tone-marked language materials. In investigating the Form 1/Form 2 alternation, it would also be necessary to investigate the distribution of the augment, seeing as the two often correlate. More in-depth study of the corpus would again be helpful in this regard.

Another area that I hope to be able to investigate further is how Lugwere grammatical tone compares to the tonology of other, closely related languages. I am very interested in the diachrony of tone and tonogenesis (see Sæbø et al. (2025) for my work on this topic), and I think it would be very interesting to look at data on grammatical tone from closely-related Bantu languages, to see if anything can be discerned regarding the diachronic development of grammatical tone, or whether certain tonal morphemes can be traced back to a segmental origin.

Bibliography

Ahn, Dorothy & Jenneke Van der Wal. 2019. What does that Lugwere demonstrative refer to? A semantic analysis of proximity and exteriority. *Studies in African Linguistics* 48(1). 1–24.

Anthony, Laurence. 2024. Antconc (version 4.3.1) [computer software]. https://www.laurenceanthony.net/software/AntConc.

Bar-el, Leora. 2015. Documenting and classifying aspectual classes across languages. In *Methodologies in semantic fieldwork*, Oxford University Press. doi:10.1093/acprof:oso/9780190212339.003.0004. https://doi.org/10.1093/acprof:oso/9780190212339.003.0004.

Bastin, Yvonne. 1983. Essai de classification de quatre-vingt langues bantoues par la statistique grammaticale. *Africana linguistica* 9. 11–108.

Bastin, Yvonne, André Coupez, Evariste Mumba & Thilo C Schadeberg. 2002. Bantu lexical reconstructions 3/Reconstructions lexicales bantoues 3. *Tervuren: Royal Museum for Central Africa, online database: http://linguistics. africamuseum. be/BLR3. html* .

Beaudoin-Lietz, Christa, Derek Nurse & Sarah Rose. 2003. Pronominal object marking in Bantu. In *Proceedings of the 4th World Congress of African Linguistics, New Brunswick*, 175–188.

Bertinetto, Pier Marco, Karen H. Ebert & Casper Groot. 2000. The progressive in Europe. In Östen Dahl (ed.), *Tense and aspect in the languages of Europe*, 517–558. Berlin, New York: De Gruyter Mouton. doi:doi:10.1515/9783110197099.4.517. https://doi.org/10.1515/9783110197099.4.517.

Bertinetto, Pier Marco & Alessandro Lenci. 2012. Habituality, pluractionality, and imperfectivity. In Robert I. Binnick (ed.), *The Oxford handbook of tense and aspect*, Oxford University Press. doi:10.1093/oxfordhb/9780195381979.013.0030. https://doi.org/10.1093/oxfordhb/9780195381979.013.0030.

Bickel, Balthasar; Bernard Comrie; Martin Haspelmath. 2008. *The Leipzig glossing rules: Conventions for interlinear morpheme-by-morpheme glosses.* Max Planck Institute for Evolutionary Anthropology.

Bleek, Wilhelm Heinrich Immanuel. 1862. *A comparative grammar of South African languages*, vol. 1. Gregg International.

Blench, Roger M. 2022. The relevance of Bantoid for the reconstruction of Proto-Bantu verbal extensions. In *On reconstructing Proto-Bantu grammar*, 235–280.

Boersma, David, Paul Weenink. 2025. Praat: doing phonetics by computer [computer program] version 6.2.05. https://praat.org.

Bossong, Georg, Bernard Comrie, Yaron Matras & Östen Dahl. 2000. Tense and aspect in the languages of Europe.

Bostoen, Koen. 2008. Bantu spirantization: Morphologization, lexicalization and historical classification. *Diachronica* 25(3). 299–356.

Bostoen, Koen & Mark Van de Velde. 2019. Introduction. In Mark Van de Velde, Koen Bostoen, Derek Nurse & Gérard Philippson (eds.), *The Bantu languages*, Routledge.

Botne, Robert. 2003. To die across languages: Toward a typology of achievement verbs. *Linguistic typology* 7. 233–278.

Botne, Robert. 2012. Remoteness distinctions. In Robert I. Binnick (ed.), *The Oxford handbook of tense and aspect*, Oxford University Press.

Bresnan, Joan. 1994. Locative inversion and the architecture of universal grammar. *Language* 72–131.

Bresnan, Joan & Jonni M Kanerva. 1989. Locative inversion in Chichewa: A case study of factorization in grammar. *Linguistic inquiry* 1–50.

Budd, Peter. 2014. Partitives in Oceanic languages. *Partitive cases and related categories* 523–561.

Cheng, Lisa Lai-Shen. 2025. Relative clauses. In *The Oxford guide to the Bantu languages*, Oxford University Press. doi:10.1093/oso/9780198808343.003.0012. https://doi.org/10.1093/oso/9780198808343.003.0012.

Cole, Desmond T. 1967. The prefix of Bantu noun class 10. *African Studies* 26(3). 119–138. doi:10.1080/00020186708707260. https://doi.org/10.1080/00020186708707260.

Cole, Desmond Thorne. 1965. Some features of Ganda linguistic structure. *African studies* 24. 3–54, 71–116, 199–240.

Comrie, Bernard. 1976. *Aspect : an introduction to the study of verbal aspect and related problems* (Cambridge textbooks in linguistics). Cambridge: Cambridge University Press.

Comrie, Bernard. 1985. *Tense* (Cambridge Textbooks in Linguistics). New York: Cambridge University Press.

Connell, Bruce. 2001. Downdrift, downstep, and declination. In *Proceedings of typology of African prosodic systems workshop*, Bielefeld University.

Corbett, Greville. 1991. *Gender* (Cambridge Textbooks in Linguistics). Cambridge University Press.

Creider, Chet A & J Peter Denny. 1975. The semantics of noun classes in Proto-Bantu. In Robert K. Herbert (ed.), *Patterns in language, culture and society*, 142–163. Columbus: Department of Linguistics, Ohio State University.

Dahl, Östen. 1985. *Tense and aspect systems*. Oxford: Blackwell.

Diercks, Michael. 2013. Indirect agree in Lubukusu complementizer agreement. *Natural Language & Linguistic Theory* 31(2). 357–407.

Dixon, R. M. W. 2012. *Basic linguistic theory: Further grammatical topics*, vol. 3. Oxford University Press.

Dixon, R. M. W. & Alexandra Y. Aikhenvald. 2003. *Word: a typological framework* 1–41. Cambridge University Press.

Dixon, Robert M. W. 2023 - 2010. *Basic linguistic theory: Methodology*, vol. 1 (Oxford scholarship online). Oxford: Oxford University Press.

Doke, Clement M. (Clement Martyn). 1935. *Bantu linguistic terminology*. London: Longmans, Green.

Downing, Laura J & Lutz Marten. 2019. Clausal morphosyntax and information structure. In *The Bantu languages*, 270–307. Routledge.

Dryer, Matthew S. & Martin Haspelmath (eds.). 2013. *WALS online (v2020.4)*. Zenodo. doi:10.5281/zenodo.13950591. https://doi.org/10.5281/zenodo.13950591.

Eberhard, David M., Gary F. Simons & Charles D. Fennig (eds.). 2021. *Ethnologue: Languages of the world*. Dallas, Texas: SIL International 24th edn. http://www.ethnologue.com.

Ferrari-Bridgers, Franca. 2009. Luganda verb morphology. *Studies in African Linguistics* 38(1). 53–79.

Filip, Hana. 2012. Lexical aspect. In Robert I. Binnick (ed.), *The Oxford handbook of tense and aspect*, Oxford University Press. doi:10.1093/oxfordhb/9780195381979.013.0025. https://doi.org/10.1093/oxfordhb/9780195381979.013.0025.

Givón, Talmy. 1971. Some historical changes in the noun-class system of Bantu: Their possible causes and wider implications. In Chin-Wu Kim & Herbert Stahlke (eds.), *Papers in African linguistics*, 33–54. Carbondale and Edmonton: Linguistic Research Inc.

Goldsmith, John A. 1976. *Autosegmental phonology*. Bloomington, Ind: Indiana University Linguistics Club.

Good, Jeff. 2007. Slouching towards deponency: A family of mismatches in the Bantu verb stem. In *Deponency and morphological mismatches*, British Academy. doi:10.5871/bacad/9780197264102.003.0009. https://doi.org/10.5871/bacad/9780197264102.003.0009.

Gray, Hazel. 2013. *Locatives in Ikizu*. Leiden University MA thesis.

Greenberg, Joseph H. 1972. Linguistic evidence regarding Bantu origins. *The Journal of African History* 13(2). 189–216. doi:10.1017/S0021853700011427.

Gregersen, Edgar A. 1967. Prefix and pronoun in Bantu. In *Indiana university publications in anthropology and linguistics*, Baltimore: Waverly Press.

Grégoire, Claire. 1975. *Lees locatifs en Bantou*. Musée royal de l'Afrique centrale.

Güldemann, Tom & Ines Fiedler. 2019. Niger-Congo "noun classes" conflate gender with deriflection. *Grammatical gender and linguistic complexity* 1. 95–145.

Hammarström, Harald. 2019. An inventory of Bantu languages. In Mark Van de Velde, Koen Bostoen, Derek Nurse & Gérard Philippson (eds.), *The Bantu languages*, 17–78. Routledge.

Hammarström, Harald, Robert Forkel, Martin Haspelmath & Sebastian Bank. 2021. *Glottolog 4.4*. Leipzig: Max Planck Institute for Evolutionary Anthropology. doi:10.5281/zenodo.4761960. https://glottolog.org/accessed2021-05-30.

Heine, Bernd. 2019. On the grammaticalization of some processes of word formation in Africa. *SKASE Journal of Theoretical Linguistics* 16(1). 2–19.

Hinnebusch, Thomas J. 1989. Bantu. In John T. Bendor-Samuel (ed.), *The Niger-Congo languages*, 450–473. Lanham, New York and London: University Press of America.

Hockett, Charles F. 1958. *A course in modern linguistics*. New York: Macmillan.

Hyman, Larry. 2019. Segmental phonology. In *The Bantu languages*, 128–149. Routledge.

Hyman, Larry M. 1995. Minimality and the prosodic morphology of Cibemba imbrication .

Hyman, Larry M. 2002. Suffix ordering in Bantu: A morphocentric approach. In *Yearbook of morphology 2002*, 245–281. Springer.

Hyman, Larry M. 2003. Sound change, misanalysis, and analogy in the Bantu causative. *Walter de Gruyter* .

Hyman, Larry M. 2017. Disentangling conjoint, disjoint, metatony, tone cases, augments, prosody, and focus in Bantu. In Jenneke van der Wal & Larry M Hyman (eds.), *The conjoint/disjoint alternation in Bantu*, 100–121. De Gruyter Mouton Berlin.

Hyman, Larry M, Sharon Inkelas & Fred Jenga. 2017. Multiple exponence in the Lusoga verb stem. *On looking into words (and beyond)* 171.

Isabirye, James. 2020. Namadu drum music and dance as mediation of healing rituals among the Bagwere people of Uganda. *Muziki : journal of music research in Africa* 17(1). 46–71.

Kadima, Marcel. 1969. *Le système des classes en bantou*. Leuven: Vander: Université Nationale de Leiden dissertation.

Kagaya, Ryohei. 2005. Guere-go no meishi to meishishūshoku-go no onchō katachi bunseki = a tonal analysis of nouns of the Gwere language. *Journal of Asian and African studies/Ajia*

Afuriku gengo bunka kenkyu 69. 123–176.

Kagaya, Ryohei. 2006. *A Gwere vocabulary*, vol. 48 (Asian and African Lexicon). Tokyo: Institute for the Study of Languages and Cultures of Asia and Africa (ILCAA), Tokyo University of Foreign Studies.

Kemmer, Suzanne. 1993. *The middle voice* (Typological studies in language, v. 23). Amsterdam: John Benjamins Pub. Co. 1st edn.

Kimenyi, Alexandre. 1976. *A relational grammar of Kinyarwanda*: University of California, Los Angeles dissertation.

Kouteva, Tania, Bernd Heine, Bo Hong, Haiping Long, Heiko Narrog & Seongha Rhee. 2019. *World lexicon of grammaticalization.* Cambridge University Press.

Leben, William R. 2018. Autosegmental phonology. doi:10.1093/acrefore/9780199384655.013.365. https://oxfordre.com/linguistics/view/10.1093/acrefore/9780199384655.001.0001/acrefore-9780199384655-e-365.

Louie, Meagan. 2015. The problem with no-nonsense elicitation plans (for semantic fieldwork). In M. Ryan Bochnak & Lisa Matthewson (eds.), *Methodologies in semantic fieldwork*, 47–71. Oxford University Press.

Maho, J. F. 1999. *A comparative study of Bantu noun classes* (Orientalia et Africana Gothoburgensia ; 13). Göteborg, Sweden: Acta Universitatis Gothoburgensis.

Mair, Christian. 2012. Progressive and continuous aspect. In Robert I. Binnick (ed.), *The Oxford handbook of tense and aspect*, Oxford University Press.

Marlo, Michael R. 2015. On the number of object markers in Bantu languages. *Journal of African languages and linguistics* 36(1). 1–65.

Marlo, Michael R. & David Odden. 2019. Tone. In Mark Van de Velde, Koen Bostoen, Derek Nurse & Gérard Philippson (eds.), *The Bantu languages*, 150–171. Routledge 2nd edn.

Mauri, Caterina, Andrea Sansò, Johan van der Auwera & Jan Nuyts. 2016. The linguistic marking of (ir)realis and subjunctive. In *The Oxford handbook of modality and mood* (Oxford Handbooks in Linguistics), Oxford University Press.

Meeussen, A. E. 1959. *Essai de grammaire Rundi*, vol. 24 (Annalen van het Koninglijk Museum van Belgisch-Congo: Reeks in 8). Tervuren.

Meeussen, Achille Emile. 1967. Bantu grammatical reconstructions. *Africana Linguistica* 3(1). 79–121. doi:10.3406/aflin.1967.873. https://www.persee.fr/doc/aflin_2033-8732_1967_num_3_1_873.

Meinhof, Carl. 1932. Introduction to the phonology of the Bantu languages. *NJ van Warmelo. Berlin: Reimer* .

Mikkelsen, Line. 2005. *Copular clauses : Specification, predication and equation.* Amsterdam: John Benjamins Publishing Company.

Morrison, Michelle. 2025. Imbrication. In *The oxford guide to the bantu languages*, Oxford University Press. doi:10.1093/oso/9780198808343.003.0040. https://doi.org/10.1093/oso/9780198808343.003.0040.

Mukama, Ruth G. 1973. *A comparative analysis of some features of transitivity in Bantu languages with special reference to Kiswahili and Lugwere*: University of York dissertation.

Muzale, Henry Rugaiganisa Tilengerwa. 1998. *A reconstruction of the Proto-Rutara tense/aspect system.* Newfoundland: Memorial University of Newfoundland dissertation.

Ndoboli, Titus. 1994. *The tense system of Lugwere.* Kampala: Makerere University MA thesis.

Nurse, Derek. 2008. *Tense and aspect in Bantu.* Oxford: Oxford University Press.

Nurse, Derek & Maud Devos. 2019. Aspect, tense and mood. In Mark Van de Velde, Koen

Bostoen, Derek Nurse & Gérard Philippson (eds.), *The Bantu languages* (Routledge language family series), Routledge 2nd edn.

Nuyts, Han & Johan van der Auwera (eds.). 2016. *The Oxford handbook of modality and mood*. Oxford University Press.

Nuyts, Jan, Johan van der Auwera & Jan Nuyts. 2016a. Analyses of the modal meanings. In *The Oxford handbook of modality and mood* (Oxford Handbooks in Linguistics), Oxford University Press.

Nuyts, Jan, Johan van der Auwera & Jan Nuyts. 2016b. Surveying modality and mood: An introduction. In *The Oxford handbook of modality and mood* (Oxford Handbooks in Linguistics), Oxford University Press.

Nzogi, Richard. 2005a. Empandiika y'olutumu olugwere 'Lugwere language spelling guide'.

Nzogi, Richard. 2005b. The grammaticalization and discourse use of tense, aspect and mode in Lugwere. SIL Language and Culture Archives.

Nzogi, Richard. 2009a. Amasomo g'olugwere (akatabo akokubiri) (Lugwere reader book 2). Lugwere Bible Translation and Literacy Association.

Nzogi, Richard. 2009b. Disambiguating grammatical tone in Gwere orthography by using clarifying words. SIL Language and Culture Archives.

Nzogi, Richard. 2011a. Amasomo g'olugwere: Akatabo akokubiri (Lugwere literacy teachers' resource book 2 primary 1 term 2). Lugwere Bible Translation and Literacy Association.

Nzogi, Richard. 2011b. Amasomo g'olugwere: Akatabo akokusatu (Lugwere reader book 3 for primary 1 term 3). Lugwere Bible Translation and Literacy Association.

Nzogi, Richard. 2011c. Lugwere literacy hour teachers' resource book 1 primary 1 term 1 Lugwere pre-primer. SIL International.

Nzogi, Richard & Martin Diprose. 2012. *Ekideero ky'olugwere 'a Lugwere dictionary'*. Lugwere Bible Translation and Literacy Association and SIL International.

Nzogi, Richard Kijjali. 2006. Lugwere phonology statement. SIL International Dallas, Texas.

Pacchiarotti, Sara. 2020. *Bantu applicative constructions* (Stanford monographs in African languages). Stanford: CSLI Publications.

Persohn, Bastian & Maud Devos. 2017. Post-final locatives in Bantu: Axes of variation and non-locative functions. *Africana Linguistica* 23. 3–46.

Philippson, Gérard & Rebecca Grollemund. 2019. Classifying Bantu languages. In Mark Van de Velde, Koen Bostoen, Derek Nurse & Gérard Philippson (eds.), *The Bantu languages*, Routledge.

Polinsky, Maria. 2013. Applicative constructions. In Matthew S. Dryer & Martin Haspelmath (eds.), *The World Atlas of Language Structures online*, Zenodo. doi:10.5281/zenodo.13950591. https://doi.org/10.5281/zenodo.13950591.

Sæbø, Lilja Maria. forthcoming. Non-prototypical usages of the Lugwere causative extension. In Vicki Carstens; Katherine Russell; Olawale Akingbade; Deborah Morton Michael Diercks (ed.), *ACAL 54*, 297–325. Berlin: Language Science Press.

Sæbø, Lilja Maria, Eitan Grossman & Steven Moran. 2025. Tonogenesis. *Diachronica* .

Salzmann, Martin. 2011. Towards a typology of locative inversion–Bantu, perhaps Chinese and English–but beyond? *Language and Linguistics Compass* 5(4). 169–189.

Schadeberg, Thilo C & Koen Bostoen. 2019. Word formation. In *The Bantu languages*, 172–203. Routledge.

SIL International. 2023. Fieldworks (version 9.1) [computer program]. https://software.sil.org/fieldworks/.

Smith, Carlota S. 1997. *The parameter of aspect* (Studies in linguistics and philosophy ; 43).

Dordrecht: Kluwer Academic 2nd edn.

Snider, Keith. 2018. *Tone analysis for field linguists.* SIL International.

TFS Working Group. 2010. Totem field storyboards. https://totemfieldstoryboards.org/.

Uganda Bureau of Statistics. 2006. *2002 Uganda population and housing census: Population composition*, vol. 5. Uganda Bureau of Statistics.

Uganda Bureau of Statistics. 2016. *The national population and housing census 2014.* Kampala: Uganda Bureau of Statistics.

Uganda Bureau of Statistics. 2024. *The national population and housing census 2024*, vol. 1. Kampala: Uganda Bureau of Statistics.

Vander Klok, Jozina. 2012. Modal questionnaire for cross-linguistic use.

Van de Velde, Mark. 2019. Nominal morphology and syntax. In Mark Van de Velde, Koen Bostoen, Derek Nurse & Gérard Philippson (eds.), *The Bantu languages*, Routledge.

Vendler, Zeno. 1957. Verbs and times. *The philosophical review* 66(2). 143–160.

Vendler, Zeno. 1967. *Linguistics in philosophy* chap. Verbs and times, 97–121. Cornell University Press. http://www.jstor.org/stable/10.7591/j.ctvr7f2mf.

Van der Wal, Jenneke. 2011. Focus excluding alternatives: Conjoint/disjoint marking in Makhuwa. *Lingua* 121(11). 1734–1750.

Van der Wal, Jenneke. 2017a. Introduction. In Jenneke van der Wal & Larry M Hyman (eds.), *The conjoint/disjoint alternation in Bantu*, 1–14. Berlin, Boston: De Gruyter Mouton.

Van der Wal, Jenneke. 2017b. What is the conjoint/disjoint alternation? Parameters of crosslinguistic variation. In Jenneke van der Wal & Larry M Hyman (eds.), *The conjoint/disjoint alternation in Bantu*, 14–60. Berlin, Boston: De Gruyter Mouton.

Van der Wal, Jenneke & Allen Asiimwe. 2020. The tonal residue of the conjoint/disjoint alternation in Rukiga. *Studies in African Linguistics* 49(1). 43–59.

Van der Wal, Jenneke & Larry M Hyman (eds.). 2017. *The conjoint/disjoint alternation in Bantu*, vol. 301. De Gruyter Mouton.

Welmers, William Everrett. 1973. *African language structures.* Berkeley, Los Angeles and London: University of California Press.

Yip, Moira Jean Winsland. 2002. *Tone.* Cambridge University Press.

Zellers, Margaret, Alena Witzlack-Makarevich, Lilja Saeboe & Saudah Namyalo. 2021. An exploration of the acoustic space of rhotics and laterals in Ruruuli. In *Interspeech 2021*, 1454–1458. doi:10.21437/Interspeech.2021-1328.

Zellers, Saudah Namyalo; Alena Witzlack-Makarevich; Anatole Kiriggwajjo; Amos Atuhairwe; Zarina Molochieva; Ruth Mukama; Margaret. 2021. *A dictionary and grammatical sketch of Ruruuli-Lunyala.* Berlin.

Zúñiga, Fernando & Seppo Kittilä. 2019. *Grammatical voice.* Cambridge University Press.