# OCCASIONAL PAPERS

## in the study of

### SUDANESE LANGUAGES

#### No. 10

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OCCASIONAL PAPERS

in the study of

SUDANESE LANGUAGES

No. 10
There are a number of institutions and individuals who are interested in research on languages in Sudan and there is a need to make research presently being done available to others. The purpose of these Occasional Papers is to serve as an outlet for work papers and other useful data which might otherwise remain in private files. We hope that Sudanese and non-Sudanese linguists alike may profit from such a series of papers.

Manuscripts for the series are welcomed. A Word document following the format of the pages in this volume should be sent to the editor for consideration.

Occasional Papers in the study of Sudanese Languages No. 10
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Contents of volumes 1-9 are listed on the last 2 pages.
Preface to Volume 10

I am pleased to present the 10th volume in the continuing series of *Occasional Papers in the study of Sudanese Languages*. This volume contains a welcome breadth of contributions from translators, academics, and consultants. The volume includes papers on three languages from what is now South Sudan: Kakwa, Mündü, and Tennet. And the linguistic diversity of the Nuba Mountains region is particularly well represented by four languages from different language families: Ama, Laru, Lumun, and Tima.

The papers explore various topics in language description. Phonological studies continue to support the development of orthographies, and the determination of accurate language names, in particular Laru [lro] and Kakuwâ [keo]. A finding presented across two papers is the type of vowel system found in two different Sudanese languages Laru and Fur, which both disallow advanced tongue root in mid-height vowels: */e/,*/*o/*. Studies in grammar include papers on pronominal marking in Tennet and negation in Tima, while other papers describe unusual affixes: a rare dual verbal suffix in Ama and the “persona” prefix of Lumun. Finally, two discourse studies provide us with accounts of participant reference for Lumun and Mündü, complete with texts.

I thank the authors for their work to document and describe Sudanese languages. My thanks goes also to the reviewers and the typesetter Janet Sweet for helping to bring about the present volume. As orthographies are developed for Sudanese languages, it is to be hoped that facts such as those analysed and documented here will also be made available in a suitable form to readers from the language communities.

Russell Norton
Editor

January 2012
Phonology of Kakuwâ (Kakwa)
by Yuga Juma Onziga and Leoma Gilley

0. Introduction

Kakuwâ is a Nilo-Saharan (Eastern Nilotic sub-group) language.¹ It is spoken by about 200,000 – 300,000 people living in Yei County (Southern Sudan), Ko’buko District (northwest of Uganda), and in Kakuwâ County (northeast Democratic Republic of the Congo). Kakuwâ is thus spoken in a region bordering Sudan, Uganda, Congo. The name of the language was corrupted into Kakwa by the colonial authorities (British, Belgians, and Turks) who arrived in the region during the 19th century. The origin of Kakuwâ² is the agentive prefix ka- and the verb kúwâ ‘to be bitten’ or ‘biting’. Kakuwâ refers both to the speakers of the language and the language itself.³

The following data provide evidence for the phonemes that need to be included in the orthography. The topics cover the consonants, vowels, syllable structure, tone and potential graphemes.

I. Consonants

The following 31 consonants are found in Kakuwâ.

<table>
<thead>
<tr>
<th>labial</th>
<th>alveolar</th>
<th>retroflex</th>
<th>palatal</th>
<th>velar</th>
<th>labiovelar</th>
</tr>
</thead>
<tbody>
<tr>
<td>voiceless plosives</td>
<td>p</td>
<td>t</td>
<td>ţ</td>
<td>k</td>
<td>kp</td>
</tr>
<tr>
<td>voiced plosives</td>
<td>b</td>
<td>d</td>
<td>ď</td>
<td>j</td>
<td>g</td>
</tr>
<tr>
<td>implosives</td>
<td>ɓ</td>
<td>ɗ</td>
<td>ŋ</td>
<td>f</td>
<td></td>
</tr>
<tr>
<td>prenasalized plosives</td>
<td>mb</td>
<td>nb</td>
<td>nd</td>
<td>nj</td>
<td>ŋg</td>
</tr>
<tr>
<td>nasals</td>
<td>m</td>
<td>n</td>
<td>ŋ</td>
<td>ŋ</td>
<td>ŋm</td>
</tr>
<tr>
<td>voiceless fricatives</td>
<td>s</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>voiced fricatives</td>
<td>(z)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>prenasalized fricatives</td>
<td>(ⁿz)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>liquids</td>
<td>l, r</td>
<td></td>
<td>y⁵</td>
<td></td>
<td>w</td>
</tr>
</tbody>
</table>

The following data show where each of the consonants can occur in Kakuwâ. All consonants can occur in word initial or medial position. There are no coda consonants in Kakuwâ.

² The word Kakuwâ means ‘thorn’.
³ http://www.kakwa.org/index.htm
⁴ {j} is the palatal plosive and alternates freely with the voiced alveolar fricative. Some dialects prefer one over the other.
⁵ {y} is the palatal approximant.
Table 1: Consonant contrasts in initial and medial positions of words.

In this section we examine the data by identifying minimal pairs of sounds. In this way, it can be demonstrated which sounds are phonemes in Kakuwâ and thus need to be

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6 The [z] and [j] are in free variation, [j] is commonly heard among the Kakuwâ of Uganda and the Sudan while [z] is more commonly heard among the Congo Kakuwâ.

7 The abbreviations used in this paper are: 3p ‘3rd person’, aux = Auxiliary, Def = Definite, Dem = Demonstrative, fm ‘feminine’, Gen = Genitive, ms ‘masculine’, Obj = Objective Case, pl ‘plural’, Rel = Relative Pronoun, sg ‘singular’
represented in the orthography. Low tones are unmarked in these data. Table 2 demonstrates the minimal or near minimal pairs of contrasting consonants.

<table>
<thead>
<tr>
<th>Consonant Pairs</th>
<th>Initial Tones</th>
<th>Examples</th>
<th>Translations</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-b</td>
<td>B</td>
<td>bajû</td>
<td>'to refuse'</td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>lípô</td>
<td>'mud'</td>
</tr>
<tr>
<td>b-f</td>
<td>B</td>
<td>bâyû</td>
<td>'to convey'</td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>këbâ</td>
<td>'to scrape, cut'</td>
</tr>
<tr>
<td>b-d</td>
<td>B</td>
<td>baŋdô</td>
<td>'to search'</td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>lôbô</td>
<td>'good' (ms, sg)</td>
</tr>
<tr>
<td>p-t</td>
<td>B</td>
<td>pûre</td>
<td>'to awaken, awakening'</td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>lëpë</td>
<td>'3p sg Obj'</td>
</tr>
<tr>
<td>m-n</td>
<td>B</td>
<td>mako</td>
<td>'potatoes'</td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>kômô</td>
<td>'visitors, guests'</td>
</tr>
<tr>
<td>b-m</td>
<td>B</td>
<td>bonê!</td>
<td>'See!'</td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>lôbô</td>
<td>'follower'</td>
</tr>
<tr>
<td>t-t</td>
<td>B</td>
<td>tëqa</td>
<td>'to rip, tear'</td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>pûtû</td>
<td>'dust'</td>
</tr>
<tr>
<td>d-d</td>
<td>B</td>
<td>dïqô</td>
<td>'to strangle'</td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>môqô</td>
<td>'to insult, try'</td>
</tr>
<tr>
<td>t-đ</td>
<td>B</td>
<td>tërà</td>
<td>&lt;of a plant&gt; 'to yield fruits'</td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>putô</td>
<td>'to appear, show up'</td>
</tr>
<tr>
<td>t-d</td>
<td>B</td>
<td>tômë</td>
<td>'elephant'</td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>wâtë</td>
<td>'women, wives'</td>
</tr>
<tr>
<td>d-đ</td>
<td>B</td>
<td>dô</td>
<td>'2p sg'</td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>lôdô</td>
<td>'wet/moist' (ms, sg)</td>
</tr>
<tr>
<td>d-f</td>
<td>B</td>
<td>dâqô</td>
<td>'to belittle, demean, criticize'</td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>lidô</td>
<td>'hiccup'</td>
</tr>
</tbody>
</table>

\(^8\) B = Beginning of the word, V = between vowels
<table>
<thead>
<tr>
<th>t-r</th>
<th>B</th>
<th>tóró</th>
<th>máta</th>
<th>‘hailstones’</th>
<th>róró</th>
<th>‘throat, voice, message’</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>‘chief’</td>
<td>sárá</td>
<td>‘announcement, pronouncement’</td>
</tr>
<tr>
<td>d-r</td>
<td>B</td>
<td>dúga</td>
<td>modá</td>
<td>‘to push, shove aside’</td>
<td>rubá</td>
<td>‘abandoned home, homestead or village’</td>
</tr>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>‘How many?’</td>
<td>bérí</td>
<td>‘line, alignment’</td>
</tr>
<tr>
<td>t-r</td>
<td>B</td>
<td>tóga</td>
<td>núti</td>
<td>‘to scratch’</td>
<td>róba</td>
<td>‘to reimburse, pay back’</td>
</tr>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>‘hip socket’</td>
<td>mûrî</td>
<td>‘dikdik’</td>
</tr>
<tr>
<td>q-r</td>
<td>B</td>
<td>dzogu</td>
<td>gôda</td>
<td>‘to coil round an object’</td>
<td>rodû</td>
<td>‘to surpass, surpassing’</td>
</tr>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>‘to snore’</td>
<td>mûrâ</td>
<td>‘to unite, reconcile’</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>‘snoring’</td>
<td></td>
<td>‘unity, reconciliation’</td>
</tr>
<tr>
<td>g-gg</td>
<td>B</td>
<td>gôñë</td>
<td>jâgu</td>
<td>‘side’</td>
<td>âgolë</td>
<td>‘slasher’</td>
</tr>
<tr>
<td>V</td>
<td>(zágu)</td>
<td></td>
<td></td>
<td>‘to smash’</td>
<td>maâgô</td>
<td>‘to insist’</td>
</tr>
<tr>
<td>n-gg</td>
<td>B</td>
<td>nûtó</td>
<td>lôñá</td>
<td>‘person/human’</td>
<td>âgûlûâgûlû</td>
<td>‘round-shaped’</td>
</tr>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>‘day, frequency’</td>
<td>âbâgâ</td>
<td>‘to move round the perimeter’</td>
</tr>
<tr>
<td>j-f</td>
<td>B</td>
<td>jiíjo</td>
<td>lôja (lôza)</td>
<td>‘to grind’</td>
<td>fíjo</td>
<td>‘to dilute’</td>
</tr>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>&lt;of a substance&gt; ‘to become red’</td>
<td>mûfa</td>
<td>‘to hurt, wound’</td>
</tr>
<tr>
<td>j-y</td>
<td>B</td>
<td>jegâ</td>
<td>sëja (seza)</td>
<td>‘to snatch’</td>
<td>yegâ</td>
<td>‘to carry, convey’</td>
</tr>
<tr>
<td>V</td>
<td>(zegâ)</td>
<td></td>
<td></td>
<td>‘to clean’</td>
<td>këya</td>
<td>‘soldiers, army’</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>‘to wipe’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kp-gb</td>
<td>B</td>
<td>kpókpö</td>
<td>kpékpê</td>
<td>‘flour’</td>
<td>gbâgbô</td>
<td>‘straight’</td>
</tr>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>‘epilepsy’</td>
<td>gbêgbê</td>
<td>‘communal sleeping place’</td>
</tr>
<tr>
<td>k-g</td>
<td>B</td>
<td>kûtû</td>
<td>mûkô</td>
<td>‘mouth, language’</td>
<td>gûgû</td>
<td>‘granary’</td>
</tr>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>‘waist, root’</td>
<td>mûgô</td>
<td>‘to close, shut, cover up’</td>
</tr>
<tr>
<td>k-kp</td>
<td>B</td>
<td>kûrû</td>
<td>mûkë</td>
<td>‘worms, germs’</td>
<td>kpûrû</td>
<td>‘unannounced, abruptly’</td>
</tr>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>‘mother-in-law’</td>
<td>lokpê</td>
<td>‘Monitor Lizard’</td>
</tr>
<tr>
<td>g-gb</td>
<td>B</td>
<td>girî</td>
<td>lôgô</td>
<td>‘all’</td>
<td>gbîrî</td>
<td>‘around the perimeter’</td>
</tr>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>‘hard, difficult’ (ms, sg)</td>
<td>nôgbô</td>
<td>‘father-in-law’</td>
</tr>
<tr>
<td>b-gb</td>
<td>B</td>
<td>bônô</td>
<td>lôbâ</td>
<td>‘to forget’</td>
<td>gbôgâ</td>
<td>‘to swim’</td>
</tr>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>‘handle’</td>
<td>lôgbâkî</td>
<td>‘flea’</td>
</tr>
<tr>
<td>l-r</td>
<td>B</td>
<td>liŋa?</td>
<td>‘Whose?’ (ms, sg)</td>
<td>ríba</td>
<td>‘to sew/mend’</td>
<td></td>
</tr>
<tr>
<td>-----</td>
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<td>-------</td>
<td>------------------</td>
<td>------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>mélésì</td>
<td>‘field, garden’</td>
<td>mérésì</td>
<td>‘beer’</td>
<td></td>
</tr>
<tr>
<td>d-r</td>
<td>B</td>
<td>díŋa?</td>
<td>‘to start, commence’</td>
<td>róba</td>
<td>‘to avenge, pay back, reimburse’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>mbúdè</td>
<td>‘to chat’</td>
<td>tůré</td>
<td>‘walking stick’</td>
<td></td>
</tr>
<tr>
<td>n-ɔd</td>
<td>B</td>
<td>niŋa?</td>
<td>‘Whose?’ (fm, sg)</td>
<td>ndídi</td>
<td>‘pleasant odour’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>kíné</td>
<td>‘goat’</td>
<td>i*dé</td>
<td>‘later today’</td>
<td></td>
</tr>
<tr>
<td>°d-*d̃</td>
<td>B</td>
<td>doó</td>
<td>‘bucket’</td>
<td>d̃il̃q̃il̃q̃</td>
<td>‘eel-like small black fish species’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>këndà</td>
<td>‘to read, study, count’</td>
<td>këndà</td>
<td>‘to tear up, rip’</td>
<td></td>
</tr>
<tr>
<td>n-*d̃</td>
<td>B</td>
<td>níčo</td>
<td>‘to manufacture using metals’</td>
<td>nílo</td>
<td>‘a kind of boys’ game of target shooting’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>monè</td>
<td>‘to wait or waiting towards’</td>
<td>lóndë</td>
<td>‘Colobus monkey’</td>
<td></td>
</tr>
<tr>
<td>d-*j</td>
<td>B</td>
<td>dúga</td>
<td>‘to push, eject’</td>
<td>jugà</td>
<td>‘to sniff, breath in’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>lósì</td>
<td>‘wet, moist’ (ms, sg)</td>
<td>lísì</td>
<td>‘long, tall, high’ (ms, sg)</td>
<td></td>
</tr>
<tr>
<td>d-*l</td>
<td>B</td>
<td>dó</td>
<td>‘you’ (sg)</td>
<td>ló</td>
<td>‘of’ (ms, sg)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>kadí</td>
<td>‘house, dwelling, nest’</td>
<td>malí</td>
<td>‘to be crazy; mental problem’</td>
<td></td>
</tr>
<tr>
<td>t-*l</td>
<td>B</td>
<td>tórò</td>
<td>‘sin, mistake’</td>
<td>lórò</td>
<td>‘ditch, channel’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>nátó</td>
<td>‘blunt’ (fm, sg)</td>
<td>maló</td>
<td>‘distant future’</td>
<td></td>
</tr>
<tr>
<td>t-t̃</td>
<td>B</td>
<td>tótò</td>
<td>‘to sleep, sleeping’</td>
<td>t̃t̃t̃</td>
<td>‘equal’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>kótè</td>
<td>‘tail, end’</td>
<td>lótf̃</td>
<td>‘the inside part of the roof’</td>
<td></td>
</tr>
<tr>
<td>°d-*q̃</td>
<td>B</td>
<td>dórú</td>
<td>‘grass, vegetation’</td>
<td>d̃lá*d̃l̃o</td>
<td>‘slimy, slippery’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>móq̃u</td>
<td>‘to insult, try’</td>
<td>s̃q̃o</td>
<td>‘to send, convey’</td>
<td></td>
</tr>
<tr>
<td>n-*z/*j</td>
<td>B</td>
<td>nēga</td>
<td>‘inclined, slope, tilted’</td>
<td>ñz̃ét̃a</td>
<td>‘to be hyperactive’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>kánà</td>
<td>‘free of charge’</td>
<td>r̃ñzá</td>
<td>‘squirrel’</td>
<td></td>
</tr>
<tr>
<td>°z/*j-*g</td>
<td>B</td>
<td>jũru</td>
<td>‘jeering’</td>
<td>g̃ól̃pí</td>
<td>‘whole, intact’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>mu*já</td>
<td>*‘dried out flakes of grain (sorghum or millet), cassava, potatoes, yams etc’</td>
<td>ru*g̃á</td>
<td>‘to fold’</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(mu*ñzá)</td>
<td></td>
<td></td>
<td>‘folding’</td>
<td></td>
</tr>
<tr>
<td>s-z</td>
<td>B</td>
<td>sóku</td>
<td>‘along with’</td>
<td>zorú (jorú)</td>
<td>‘living, alive’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>V</td>
<td>nōsu</td>
<td>‘together with’</td>
<td>sózu (s̃jú)</td>
<td>‘to wear, dress up, put on’</td>
<td></td>
</tr>
</tbody>
</table>
Table 2: Minimal Pairs for Consonants

<table>
<thead>
<tr>
<th>Consonants</th>
<th>English Meaning</th>
<th>English Meaning</th>
<th>English Meaning</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>y-ʄ</td>
<td>‘to spit, spitting’</td>
<td>‘thunder, lightning’</td>
<td>fáfu</td>
<td>‘to increase/multiply’</td>
</tr>
<tr>
<td>d- j</td>
<td>‘to bewitch’</td>
<td>‘papyrus mat’</td>
<td>jőŋ (zǒŋa)</td>
<td>‘laughter’</td>
</tr>
<tr>
<td>d – l</td>
<td>‘to become crazy’</td>
<td>‘to blow, pump’</td>
<td>lě́rí</td>
<td>‘drum’</td>
</tr>
<tr>
<td>n - n</td>
<td>‘to suckle’ ‘suckling’</td>
<td>‘snake’</td>
<td>nọgů</td>
<td>‘to repeat’ ‘redo’</td>
</tr>
<tr>
<td>j – j</td>
<td>‘endless suffering’</td>
<td>‘stranger’</td>
<td>ọntá</td>
<td>‘to agonize, suffer’</td>
</tr>
<tr>
<td>gb - ọmgb</td>
<td>‘to feast, ’wringing’</td>
<td>‘does feast’</td>
<td>ọmágu</td>
<td>‘to hold tightly, clasp’</td>
</tr>
<tr>
<td>gb - gb</td>
<td>‘all round’</td>
<td>‘anthill’</td>
<td>jíjí ọmgbá</td>
<td>‘name of a creeping medicinal plant species’</td>
</tr>
<tr>
<td>gb - gb</td>
<td>‘name of a tree species the fruits of which are edible’</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sounds from loan words**
The sounds [ʃ, f, v, kw, ks, h] are not used at all in the Kakuwâ language. However, loan words from English and Arabic do have these sounds, and are generally learned by those educated in those languages. Those unfamiliar with pronouncing these foreign sounds tend to use alternative sounds as shown in the following table:
Table 3: Pronunciation of foreign sounds by Kakuwâ speakers.

There is also an ‘h’ that occurs in exclamations in Kakuwa such as exclamations hayi! ‘No’, ‘What!’ or ahâ! ‘well, surely, absolutely!’. However, it does not occur as a regular part of the Kakuwa sound system.

II. Vowels

The following vowels are found in Kakuwâ.

\[
\begin{array}{c|c|c}
\text{Vowel} & \text{Kakuwâ Substitute} \\
\hline
\text{i} & \text{sáyi ‘tea’} \\
\text{u} & \text{sa’dírú ‘proper name of a female child’} \\
\text{æ} & \text{furáyì ‘pleasure, happiness’} \\
\text{ɔ} & \text{púlu ‘groundnuts/peanuts’} \\
\text{æ} & \text{kúwini ‘queen’} \\
\text{ɔ} & \text{èdîkôta ‘headquarter’} \\
\text{b} & \text{bídîyo ‘video’} \\
\text{d} & \text{dèrèba ‘driver’} \\
\text{b} & \text{bókîsì ‘box’}
\end{array}
\]

Kakuwâ seems to have a high vowel harmony system. There are seven (7) distinct vowels: [æ, i, ë, a, o, u] and [u]. There are two harmonic variants, [æ] and [o]. When mid vowels occur with the [+ATR] vowel [i] or [u], then they become [+ATR] [æ] or [o] as well. However, by themselves or with the [a], they remain as [-ATR] [ë] or [ɔ].

The following data show where each of the vowels can occur in Kakuwâ.
Table 4: Vowel sounds in the initial, medial and final position in words.

In order to see how the vowels function, Table 5 shows each vowel in the first syllable contrasted with each of the other vowels in the second position of the word. Most words are two-syllables.

Almost all possibilities are found with a few exceptions. There are so far no examples of the first vowel being [a] and the second vowel [u] or the first vowel [e] and the final vowel [u]. There are not a large number of vowels ending in [u], and this may account for why these gaps remain.
| a | máta ‘chief’ | jará ‘to be absent’ |
| e | wáté ‘women’ | káré ‘water-body’ e.g. river |
| i | párí ‘makeshift bed’ | márí ‘cattle enclosure’ |
| o | kajj ‘calves’ | dákó ‘palette’ |
| u | sáço ‘to announce’ | lágo ‘to release’ |

| e | rémba ‘to thatch’ | tégga ‘to diagnose’ |
| e | sété ‘winnower’ | lémé ‘fresh living grass’ |
| i | píré ‘to fatten’ | wírí ‘song’ |
| o | pirí ‘place’ | yífo ‘to dilute’ |
| u | móko ‘leg’ | dʒgo ‘to coil round an object’ |

| e | rémba ‘to thatch’ | tégga ‘to diagnose’ |
| e | sété ‘winnower’ | lémé ‘fresh living grass’ |
| i | kité ‘cow’ | wírí ‘song’ |
| i | píré ‘to fatten’ | wírí ‘song’ |
| o | mórí ‘finger’ | lómí ‘papyrus’ |
| o | píré ‘to fatten’ | mórí ‘finger’ |
| u | mórí ‘finger’ | lómí ‘papyrus’ |

| e | rémba ‘to thatch’ | tégga ‘to diagnose’ |
| e | sété ‘winnower’ | lémé ‘fresh living grass’ |
| i | kité ‘cow’ | wírí ‘song’ |
| i | píré ‘to fatten’ | wírí ‘song’ |
| o | mórí ‘finger’ | lómí ‘papyrus’ |
| o | píré ‘to fatten’ | mórí ‘finger’ |
| u | mórí ‘finger’ | lómí ‘papyrus’ |
There is some evidence that vowel length is contrastive as in the following words.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>kátá ‘available/present’</td>
<td>kaáta ‘a calf’</td>
</tr>
<tr>
<td>1b</td>
<td>ápa ‘platform’</td>
<td>aáté ‘personal female name’</td>
</tr>
<tr>
<td>1c</td>
<td>wáté ‘women’</td>
<td>meé ‘cone-shaped hole dug into the ground to trap passing game’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>kpée ‘in vain, futile attempt’</td>
</tr>
<tr>
<td>1d</td>
<td>kíté ‘cow’</td>
<td>stírh ‘grasshopper’</td>
</tr>
<tr>
<td>1e</td>
<td>kité ‘python’</td>
<td>gbúu adverb of character describing a surface as being covered in white stuff e.g. flour, snow.</td>
</tr>
<tr>
<td>1f</td>
<td></td>
<td>muú ‘abruptly’</td>
</tr>
</tbody>
</table>

It seems most likely that these long vowels were created by a loss of consonant. Of particular interest is the word with the long vowel in 1c. Note that in the word meé the first vowel has a Low tone, but the second of the ‘lengthened’ vowel has a Falling tone.

In order to examine this question more thoroughly, we examine other instances where vowels come together in words.

<table>
<thead>
<tr>
<th></th>
<th>Rare forms</th>
<th>More common forms</th>
<th>Gloss in English</th>
</tr>
</thead>
<tbody>
<tr>
<td>2a</td>
<td>yoá</td>
<td>yoígá</td>
<td>‘to sooth, to warm’</td>
</tr>
<tr>
<td>2b</td>
<td>yöú</td>
<td>yöígú</td>
<td>‘to think, ponder’</td>
</tr>
<tr>
<td>2c</td>
<td>móá</td>
<td>móígá</td>
<td>‘to hurt, wound’</td>
</tr>
<tr>
<td>2d</td>
<td>kíá</td>
<td>kíígá</td>
<td>‘to split, cut or chop’ e.g. wood</td>
</tr>
<tr>
<td>2e</td>
<td>mía</td>
<td>míígá</td>
<td>‘to visit, meet’</td>
</tr>
<tr>
<td>2f</td>
<td>néá</td>
<td>néígá</td>
<td>‘to flash, reflect’</td>
</tr>
<tr>
<td>2g</td>
<td>weá</td>
<td>weígá</td>
<td>‘to smear’</td>
</tr>
<tr>
<td>2h</td>
<td>wíá</td>
<td>wíígá</td>
<td>‘to bless’</td>
</tr>
<tr>
<td>2i</td>
<td>wóá</td>
<td>wóígá</td>
<td>‘to dig up’</td>
</tr>
<tr>
<td>2j</td>
<td>kétí</td>
<td>kéí</td>
<td>‘name of a mountain found in Ko’buko District of Uganda’</td>
</tr>
<tr>
<td>2k</td>
<td>keá</td>
<td>keya</td>
<td>‘soldiers/army’ loaned from Kiswahili (and originally coined from Kings African Rifles or ‘KAR’)</td>
</tr>
<tr>
<td>2l</td>
<td>kéég</td>
<td>keyé</td>
<td>‘army ants’</td>
</tr>
<tr>
<td>2m</td>
<td>ayígó</td>
<td>aígó</td>
<td>‘the sunny mid-morning period—usually around 10 am’</td>
</tr>
</tbody>
</table>

According to these data, we find that the palatal implosive is the most common consonant to be deleted in intervocalic position. However, it is not the only consonant that can be omitted. In Examples 2j – 2m, we see that the palatal semivowel can also, in some cases be deleted. However, this is a much more rare occurrence, and it would seem that the deletion of the implosive is more likely to be lost.
Given this assumption, we can conclude that the ‘long vowels’ seen above are most likely instances in which there was a palatal implosive that has been deleted. However, in the case of these few words, the two vowels were either the same or the vowels have assimilated.

This analysis would also agree with a tonal analysis that tone is assigned to a single vowel. Any single vowel can have either the High or Low tone or the Falling tone.

### III. Tone

Tone is extremely important in Kakuwâ. There are two level tone melodies (High and Low) as well as a Falling melody. Examples of these melodies in two-syllable words are shown below in Table 6.

<table>
<thead>
<tr>
<th></th>
<th>H</th>
<th>L</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>kútú ‘mouth’</td>
<td>rɔ́rɔ ‘voice/message’</td>
<td>wírî ‘song’</td>
</tr>
<tr>
<td>L</td>
<td>biró ‘game/play’</td>
<td>ɳɔrì ‘chain’</td>
<td>kendâ ‘to study/count’</td>
</tr>
<tr>
<td></td>
<td>waní ‘proper name of a male child’</td>
<td>kɔkɔ ‘chicken coop’</td>
<td>‘to give!’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>sɔrɔ ‘deep into’</td>
<td>kɛlɪ̂ ‘cane’</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>rîlô ‘to wilt’</td>
</tr>
</tbody>
</table>

Table 6: Tone melodies in two-syllable words

All of the tone melodies are represented in three-syllable words as well as shown in Table 7.

<table>
<thead>
<tr>
<th></th>
<th>HH</th>
<th>HL</th>
<th>HF</th>
<th>LL</th>
<th>LH</th>
<th>LF</th>
<th>FL</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>kúlúkú ‘gourd’</td>
<td>múrúto ‘necks’</td>
<td>kókɔfá ‘theft’</td>
<td>búlaní ‘bachelor’</td>
<td>náțɔrʊ̂ ‘red ones (fm, pl)’</td>
<td>“zɛ̀zɛ̀ta ‘to be hyper-active’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lɔ́mɪ́nɪ́ ‘skinny’</td>
<td>mûkɔ́tɔ ‘in/at the roots’</td>
<td>‘unknown’</td>
<td>‘no idea of’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘thin (ms, sg)’</td>
<td>tǐngíle ‘rhino’</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>kasɪ́rî ‘stars’</td>
<td>kɔ́rɔ̀dɔ ‘garbage/rubbish’</td>
<td>‘small earthen pot’</td>
<td>‘sweet’</td>
<td>‘visitor’</td>
<td>‘no examples’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>kɔ́tɔ́yá ‘in the evening’</td>
<td>mɔ́rɪ́tɔ ‘fingernail’</td>
<td>kɔ̀lɔlɔ ‘loose’</td>
<td>‘delicious’</td>
<td>mamalî ‘gets crazy’</td>
<td>No examples</td>
<td></td>
</tr>
<tr>
<td></td>
<td>kajółó ‘day before yesterday’</td>
<td>kɔ̀dɔ́fà ‘to steal/rob’</td>
<td>ɗgɔ́pɛ ‘yardstick’</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 7: Tone melodies in three-syllable words
lepíle  ‘baboon’

wʊrɔ-rɔ́!  ‘2p sg write! - away from the speaker’

Table 7: Tone melodies in three-syllable words.

In one-syllable words, both level and complex tones are possible.

3a  lɛ́  ‘milk’
3b  lɔ́  ‘of’ (ms, sg)
3c  lɔ  ‘the’ (ms, sg)
3d  na  ‘1p sg’
3e  kâ  ‘down’
3f  "doó  ‘bucket’

Tone is important at the lexical level, as well as at the grammatical level as seen by the examples shown below.

4a.  lɔ́  ‘of’ (ms, sg)
4b.  lɔ  ‘the’ (ms, sg)
5a.  kɪnɛ́!  ‘Close (it)!’
5b.  kɪnɛ́  ‘goat’
6a.  lɔrɔ́  ‘bad’ (ms, sg)
6b.  lɔrɔ  ‘ditch’
7a.  lɔkɛ́  ‘clean’ (ms, sg)
7b.  lɔkɛ́  ‘clean’ (pl)
7c.  lɔkɛ́!  ‘Help!’
8a.  kɔkɔ  ‘chicken coop’
8b.  kɔkɔ́  ‘to abandon’
9a.  líya?  (ms, sg)  ‘Where is it?’
9b.  líyâ  ‘to be squeezed, squeezing’

The importance of grammatical tone is shown in these examples. In addition, there is evidence of downstep\footnote{Downstep is marked by an exclamation point (!) where the Low tone is assumed to be. All tones after that will be lower than they would normally be.} such that a Low tone that does not surface affects the height of the tones following it so that they are lower than they would normally be.

In (10), the difference in the tone on lɔ́ and lɔ is the relative pronoun versus the verb ‘to be’ respectively. In (12), tone signals a difference in definite and indefinite for the noun kine ‘water’. Normally kɪ́nɛ́ is HH, as it is in the (12a) example, but in the (12b) example it is LL. The examples in (13a) show a tone change marking the difference

9
between being ‘in’ our house versus going ‘into’ our house. Finally, in (14), tone signals a difference in a genitive construction and a definite article (feminine).

10a. Ná ló wuɗó kuróput à na.
    1.SG REL.who.MS.SG write letter DEF.the.FM.SG
    ‘I am the one writing the letter’ or ‘I am the person writing the letter’

10b. Ná (ɪ)lɔ wuɗó kuróput à na.
    1.SG AUX.be.MS.SG write letter DEF.the.FM.SG
    ‘I am writing the letter.’

11a. Yí ló kúliya.
    1.PL REL.who.MS talking
    ‘It is we who are talking’

11b. Yí lɔ kúliya …
    1.PL REL.who.MS talking
    ‘Those of us talking…’ or ‘Those of us who talk…’

12a. Píyo líné līli
    water DEF.the.FM.PL cold
    ‘The water is cold.’

12b. Píyo kr'nc
    water DEM.here.FM.PL
    ‘Here is some water’

13a. Káya ɓa
    our home
    ‘In our home’

13b. Kayá ɓâ
    our home
    ‘Into our home’

14a. Ŋírɔ ná …
    child.SG GEN.of.FM.SG
    ‘Child [girl] of …’

14b. Ŋírɔ na
    Child.SG DEF.the.FM.SG
    ‘The child [girl]’

A full analysis of the tones in Kakuwâ is outside the scope of this paper.

IV. Syllable and Word Structures

The following syllable types are present in Kakuwâ. Note that only the V and CV syllables are found in unambiguous situations.

V í ‘in, at, up’ u.go ‘large bat’
CV ɓa ‘home’ mo.gâ ‘to catch’
Given the lack of other syllable types, the prenasalized consonants mb, nd, etc. must be viewed as single consonants, not a sequence of two consonants.

CV.CV  "mbú.ró  ‘non-stop’
V.CV   a."dú   ‘joke’

There is no evidence of syllabic nasals.

Words can have multiple syllables as shown in the various examples listed.

CV  lé    ‘milk’
V.CV  u.go   ‘large bat’
CV.CV  mɔ.gå   ‘to catch’
CV.CV.CV  só.kó.rí   ‘chicken’
CV.CV.CV.CV  bɔ.kó.kó.rí   ‘boundary’
CV.CV.CV.CV.CV  lu.go.lé.lé.gu   ‘millipede’
CV.CV.CV.CV.CV.CV  ku.jú.nú.tó.nó.to   ‘humming bird’
CV.CV  ka.ngé   ‘dregs’
V.V.CV  a.í.gó   ‘the sunny mid-morning period about 10 am’
V.CV.CV  o.zí.tá   ‘baboon’

Words such as kaáta ‘a calf’ should be syllabified as CV.CV. Likewise, kpéé ‘in vain, futile attempt’ would be interpreted as CV.V. Note that the tone on the first syllable of a word generally has a single level tone while the final syllables may carry complex tones.

V. Orthography

As a result of our study, we have shown that these consonants and vowels need to be included in our orthography. In this section, we will suggest the symbols that the community can consider. The sounds/letters are written in alphabetical order.

<table>
<thead>
<tr>
<th>Phonetic symbol</th>
<th>Proposed Grapheme</th>
<th>Example word</th>
<th>English meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>a</td>
<td>a’bugúti</td>
<td>‘dove’</td>
</tr>
<tr>
<td>b</td>
<td>b</td>
<td>bê’ya</td>
<td>‘to praise, honour’</td>
</tr>
<tr>
<td>ð</td>
<td>’b</td>
<td>‘bandrû</td>
<td>‘to search’</td>
</tr>
<tr>
<td>d</td>
<td>d</td>
<td>dúmba</td>
<td>‘to deceive’</td>
</tr>
<tr>
<td>q</td>
<td>dr</td>
<td>dró’yu</td>
<td>‘to bend, coil’</td>
</tr>
<tr>
<td>d</td>
<td>’d</td>
<td>’dúmba</td>
<td>‘to pick’</td>
</tr>
<tr>
<td>e</td>
<td>e</td>
<td>éja (éza)</td>
<td>‘to pick’ e.g. fruits, flowers</td>
</tr>
<tr>
<td>f</td>
<td>(f) For loan words</td>
<td>furáyi</td>
<td>‘pleasure, happiness’</td>
</tr>
<tr>
<td>g</td>
<td>g</td>
<td>guruté</td>
<td>‘lizard’</td>
</tr>
<tr>
<td>gb</td>
<td>gb</td>
<td>gbogbo</td>
<td>‘straight’</td>
</tr>
<tr>
<td>i</td>
<td>i</td>
<td>íni</td>
<td>‘here’</td>
</tr>
<tr>
<td>j or z</td>
<td>j or z</td>
<td>jóndra (zóndra)</td>
<td>‘to bring/fetch’</td>
</tr>
<tr>
<td>k</td>
<td>k</td>
<td>kúwâ</td>
<td>‘biting’ ‘be bitten’</td>
</tr>
<tr>
<td>kp</td>
<td>kp</td>
<td>kpógu</td>
<td>‘to knock, tap’</td>
</tr>
</tbody>
</table>
Proper tone marking will be important to ensure correct interpretation of the written symbols.

Tone marking will use an acute over the vowel for High tone é á, and a circumflex over the vowel for falling tone ê ô. The Low tone will be unmarked.

When two vowels occur together will be indicated by doubling the vowel letter as in aa.

These suggestions will need to be examined by the community in order to determine if they are acceptable.
Laru Vowel Harmony
Nabil Abdalla Kuku

1. Introduction

The Laru language is spoken in the Nuba Mountains of Southern Kordofan Province in Sudan. Because of insecurity in the home area, there are large displaced communities in Khartoum, Port Sudan, Sennar, and Atbara. According to the Sudan census of 1984, which excludes speakers living outside the home area, the number of the native speakers is 7600. According to a recent estimate (2003), which may include other tribes that are grouped under the Laru by the area administration, the population is 25-50,000.

Laru is one of the languages in the Nuba Mountains that was not studied for the purpose of Scripture translation during the missionary time period. Therefore there is not much written about this language. Laru is a Niger-Kordofanian language, in the Heiban group, which includes the languages Moro, Otoro, Kwalib, Tira, Hadra, and Shoai. The Laru are known by other Sudanese as Liira or Alliira, which are names given to the Laru by outsiders. Laru is spoken in three main dialects, the Yilaru, Yidundili and Yogoromany. The last two are closely related to the neighbouring Kwalib language. There are no major differences between the dialects. The degree of intelligibility between them is quite high. This description is on Yilaru, the central dialect, spoken in the area that all Laru native speakers consider the homeland of their ancestors.

The language was initially surveyed by Schadeberg (1981) but more recently studied by Hall (1995) for the purpose of forming an orthography. This study of the language is based on more than 500 words provided by native speakers including the main writer of this paper.

Laru is still under study. There is more to be discovered before reaching a comprehensive conclusion. I will present briefly something on the vowel harmony and how it affects the noun and verb roots.

2. Consonant Phonemes

There are 23 consonant phonemes found in noun roots, presented in Figure 1. The labialised consonants are not phonemes of root nouns or verbs and are therefore written between parentheses in the consonant chart. These labialized velar consonants only occur post-lexically in certain prefixes that have been joined to vowel-initial roots such as in $g^w$-i’dí ‘he (adult) came’ and $η^w$-abdó ‘he went up’.
Some consonants can be lengthened, although there has not been enough data or analysis to date to determine if length is contrastive and if so, which consonants can become geminate.

3. Vowel Phonemes

3.1 Vowel Phoneme Description

The eight-vowel system divides into two [ATR] sets: /ɪ, ʊ, ɛ, ɔ, a/ and /i, u, ə/. All eight vowels occur in word-initial, word-medial, and word-final positions. Vowel length occurs but is not contrastive in the language.6

Laru has 8 vowels in noun roots, evidenced by the following minimal and contrastive pairs. One pair of nouns is listed for each vowel pair, followed by one pair of verbs. In nouns, the class marker prefix is separated from the root by a hyphen.

---

1 The symbol /t/ is used instead of the IPA symbol /t̪/ because the dental is more common than the alveolar plosive, and thus uses the unmarked symbol.

2 The retroflex symbol /ʈ/ is used instead of the alveolar symbol /t/ to give contrast to the dental plosive.

3 The symbol /d/ is used instead of the IPA symbol /d̪/ because the dental is more common than the alveolar plosive, and thus uses the unmarked symbol.

4 There is no voiced alveolar plosive [d] in Laru, but instead there is an alveolar implosive [ɗ].

5 The symbol /y/ is used instead of the IPA symbol /j/.

6 However, this needs to be studied further for a more definitive statement.
(1) | vowels | Laru | English | Laru | English |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>i – e</td>
<td>g-ìl</td>
<td>‘horn’</td>
<td>d-èl</td>
<td>‘well’</td>
</tr>
<tr>
<td></td>
<td>ìl</td>
<td>‘to filter’</td>
<td>ìlé</td>
<td>‘to go’</td>
</tr>
<tr>
<td>e – a</td>
<td>j-èn</td>
<td>‘mountains’</td>
<td>j-àn</td>
<td>‘milk’</td>
</tr>
<tr>
<td></td>
<td>mè</td>
<td>‘to make rope’</td>
<td>mà</td>
<td>‘to pile’</td>
</tr>
<tr>
<td>a – o</td>
<td>y-àn</td>
<td>‘milk’</td>
<td>y-òn</td>
<td>‘grain’</td>
</tr>
<tr>
<td></td>
<td>ãdá</td>
<td>‘to lean to’</td>
<td>ãdà</td>
<td>‘to build’</td>
</tr>
<tr>
<td>o – u</td>
<td>g-òbò</td>
<td>‘temple’</td>
<td>gòbò</td>
<td>‘compound’</td>
</tr>
<tr>
<td></td>
<td>rò</td>
<td>‘to grind’</td>
<td>rò</td>
<td>‘to be’</td>
</tr>
<tr>
<td>i – i</td>
<td>g’-nínì</td>
<td>‘cheek’</td>
<td>g’-nínì</td>
<td>‘chin’</td>
</tr>
<tr>
<td></td>
<td>m’òtì</td>
<td>‘to drop’</td>
<td>m’òtì</td>
<td>‘to strike’</td>
</tr>
<tr>
<td>a – o</td>
<td>d-ànà</td>
<td>‘locust’</td>
<td>d-òmà</td>
<td>‘wound’</td>
</tr>
<tr>
<td></td>
<td>àrì</td>
<td>‘to act’</td>
<td>ìrì</td>
<td>‘to do’</td>
</tr>
<tr>
<td>o – u</td>
<td>g’-lù</td>
<td>‘clay’</td>
<td>d’-lù</td>
<td>‘smoke’</td>
</tr>
<tr>
<td></td>
<td>ùndì</td>
<td>‘to dry’</td>
<td>ùndì</td>
<td>‘to press’</td>
</tr>
</tbody>
</table>

3.2 Vowel Phoneme Distribution

Only the vowels with the same [ATR] value can occur together in the same root word. There is a second restriction on the vowels of the [-ATR] set. The vowels /i, u/ cannot occur with /e, o/, however, /a/ occurs with all four vowels of its set. Examples of each vowel combination in noun roots are given following the charts.

<table>
<thead>
<tr>
<th>[-ATR] vowels together</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
</tr>
<tr>
<td>i</td>
</tr>
<tr>
<td>o</td>
</tr>
<tr>
<td>a</td>
</tr>
<tr>
<td>e</td>
</tr>
<tr>
<td>o</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>[+ATR] vowels together</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
</tr>
<tr>
<td>i</td>
</tr>
<tr>
<td>o</td>
</tr>
<tr>
<td>u</td>
</tr>
<tr>
<td>Vowels</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>-ATR</td>
</tr>
<tr>
<td>ɪ – ɪ</td>
</tr>
<tr>
<td>ɪ – a</td>
</tr>
<tr>
<td>ɪ – ʊ</td>
</tr>
<tr>
<td>ɛ – ɛ</td>
</tr>
<tr>
<td>ɛ – a</td>
</tr>
<tr>
<td>ɛ – ɔ</td>
</tr>
<tr>
<td>a – ɪ</td>
</tr>
<tr>
<td>a – a</td>
</tr>
<tr>
<td>a – ʊ</td>
</tr>
<tr>
<td>ɔ – ɛ</td>
</tr>
<tr>
<td>ɔ – a</td>
</tr>
<tr>
<td>ɔ – ɔ</td>
</tr>
<tr>
<td>ʊ – ɪ</td>
</tr>
<tr>
<td>ʊ – a</td>
</tr>
<tr>
<td>ʊ – ʊ</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vowels</th>
<th>Laru</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ATR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ɪ – ɪ</td>
<td>g-ɪnì</td>
<td>‘hare’</td>
</tr>
<tr>
<td>ɪ – ɔ</td>
<td>d-ɪnàd</td>
<td>‘slave’</td>
</tr>
<tr>
<td>ɪ – u</td>
<td>g-ɪlù</td>
<td>‘storage’</td>
</tr>
<tr>
<td>ə – ɪ</td>
<td>d-ɔrì</td>
<td>‘oil container’</td>
</tr>
<tr>
<td>ə – ə</td>
<td>l-ɔrɔ̀</td>
<td>‘shield’</td>
</tr>
<tr>
<td>ə – u</td>
<td>l-ɔrù</td>
<td>‘hair’</td>
</tr>
<tr>
<td>u – ɪ</td>
<td>g-ʊrì</td>
<td>‘wood’</td>
</tr>
<tr>
<td>u – ə</td>
<td>d-ʊwɔ̀</td>
<td>‘moon’</td>
</tr>
<tr>
<td>u – u</td>
<td>d-ʊrú</td>
<td>‘dung of animal’</td>
</tr>
</tbody>
</table>
4. Tone

There are two level tones (High and Low) and two contour tones (High-Low and Low-High).

(3) \( \text{H} \) dúŋə́ 'snake' \quad \text{HL} \text{ láy} 'liver'
\( \text{L} \) dúŋə̀ 'soot' \quad \text{LH} \text{ láy} 'eye'

At most, two tones may be assigned to any one vowel of one and two syllable words. Only one tone may be assigned per vowel in words of three syllables or longer, such as \( dɔ̀ŋɔ̀rɔ́ 'lizard' \) and \( lə̀blə́ⁿdí 'rifle' \). Grammatical tone is present, but more study is needed to provide an authoritative statement.

5. Syllable Structure

5.1 Syllable Patterns

In noun roots, the syllable is made up of a single consonant onset, a vowel nucleus, and a single consonant coda, where both the onset and coda are optional.

(4) Syllable structure of noun roots

\[(C)V(C)\]

As a result of this structure, the five syllable patterns of (5) occur. Both the root and word syllable forms are given in (5), with the hyphen separating the prefix in the root form. The raised insertion vowel \( [ɪ] \) is explained in the next section. The syllable type CCV occurs in roots but is not allowed in words, and is therefore not considered a true syllable type.

(5) monosyllabic patterns

<table>
<thead>
<tr>
<th>root</th>
<th>word</th>
</tr>
</thead>
<tbody>
<tr>
<td>V a</td>
<td>V a</td>
</tr>
<tr>
<td>VC d-ám</td>
<td>CVC dám</td>
</tr>
<tr>
<td>CV g-dɔ̀</td>
<td>CV.CV g'dɔ̀</td>
</tr>
<tr>
<td>CVC g-bɛ́l</td>
<td>CV.CVC g'bɛ́l</td>
</tr>
<tr>
<td>*CCV d-lgɛ́</td>
<td>CVC.CV d'lgɛ́</td>
</tr>
</tbody>
</table>

5.2 Vowel Insertion Rule

Noun roots may be vowel or consonant initial. The language does not allow complex consonant onsets to the syllable. Therefore, when a consonant-only prefix joins a consonant-initial root, since the resulting CCV or CCVC syllable types are forbidden in words, a short /ɪ/ vowel is inserted between the adjacent consonants as stated in (6).

(6) Vowel insertion rule (VIR)

\[ \emptyset \rightarrow [ɪ] / C + _ _ C V \]
In (7) the epenthetic short vowel /ɪ/ is inserted in (a)-(h) between the consonant prefixes and the consonant-initial roots, whereas no vowel is inserted in (i)-(k) between the consonant prefix and the vowel-initial root.

(7) Vowel CM + Root Result of VIR
(a) /ɪ/ g-rɪ̀ná g'ɪná 'CM-rope'
(b) /ɛ/ g-ɲɛ̀n g'ɲɛ̀n 'CM-dog'
(c) /a/ g-ˈrān g'ˈrān 'CM-chapter'
(d) /ɔ/ d-mɔ̀ɽà d'mɔ̀ɽà 'CM-snaɪl'
(e) /ʊ/ d-mɔ̀ɽà d'mɔ̀ɽà 'CM-stool'
(f) /i/ g-jì g'jì 'CM-child'
(g) /ə/ g-bə̀ɽù g'bə̀ɽù 'CM-cloud'
(h) /u/ d-múd d'múd 'CM-lynx'
(i) g-ɛ̀n g-ɛ̀n 'CM-mountain'
(j) d-ɔ̀tɔ̀ dɔ̀tɔ̀ 'CM-lizard'
(k) l-ɔ́ɽù lɔ́ɽù 'CM-hair'

5.3 Vowel Elision

Since the language does not allow vowel sequences, when two vowels are joined through affixation, the first of the two vowels is elided to prevent a sequence from occurring, as stated in the rule of (8).

(8) Vowel elision rule (VER)

\[
V \rightarrow \emptyset / \_ \_  + V
\]

In the examples in (9), the locative suffix -ala 'on' is attached to nouns ending in each of the eight vowels. In each resulting inflection, the final vowel of the noun is elided with the initial vowel of the suffix. In the inflections of each of the nouns with a [+ATR] feature value, there is an * to indicate that a vowel harmony rule has not yet been applied. The vowel harmony rule will be explained in the next section.

(9) vowel noun + suffix VER English

| [-ATR] | /i/ | daɾi - ala | daɾala | ‘on the tree’ |
| /ɛ/ | d'ɗɛ̀ - ala | d'ɗala | ‘on the deer’ |
| /a/ | dama - ala | damala | ‘on the locust’ |
| /ɔ/ | dɔnɔ - ala | dɔnala | ‘on the k.o.tree’ |
| /u/ | gʊlʊ - ala | gʊlala | ‘on the fence’ |
| [+ATR] | /i/ | gini - ala | ginala * | ‘on the hare’ |
| /ə/ | dɔmɔ - ala | damala * | ‘on the wound’ |
| /u/ | g'mu - ala | g'mala * | ‘on the hedgehog’ |
6. Morphologic Vowel Harmony

The [+ATR] feature value is dominant in Laru. Rather than the root or any affix controlling the vowel harmony, the [+ATR] feature value controls the harmony. There are examples of vowel harmony in both noun and verb morphology. In nouns, [+ATR] spreads from the root to locative suffixes. There is also evidence for [+ATR] spreading from roots to class marker prefixes with vowels. In verbs, there are some cases where [+ATR] quality spreads from root to suffix and others where the suffix affects the root.

First, rightward spreading onto locative suffixes of nouns is presented, then leftward spreading onto noun class prefixes and verb prefixes, followed by leftward spreading onto verb roots, and finally rightward spreading onto verb suffixes. Vowel harmony rules are presented for each type of spreading in order to specify which morphemes are involved with each process; however, each rule is considered to be a subcase of a general vowel harmony rule which spreads [+ATR] vowel quality in either direction.

6.1 Rightward Spreading onto Locative Suffixes of Nouns

The dominant vowel quality of [+ATR] noun root spreads rightward onto the locative suffixes -ala ‘on’, -alʊ ‘on the level ground’, and -anʊ ‘in’, as specified by the rule of (10). The suffixes remain [-ATR] when suffixed to nouns with the feature value [-ATR]. The VER deletes the first of the two vowels when two vowels are joined by adding these suffixes.

(10) Vowel Harmony Rule for LOC (VHR)

\[ V \rightarrow [+ATR] / [C V]_{N\text{Root}} + [___ C ___]_{LOC} [+ATR] \]

(11) | Vowel | Noun | English | -ala | -alʊ | -anʊ |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[-ATR]</td>
<td>/i/</td>
<td>ɗɪŋud ‘insect’</td>
<td>ɗɪŋudala</td>
<td>ɗɪŋudalʊ</td>
<td>ɗɪŋudanʊ</td>
</tr>
<tr>
<td>/ɛ/</td>
<td>ɗʈɛben ‘f. stone’</td>
<td>ɗʈɛbenala</td>
<td>ɗʈɛbenalʊ</td>
<td>ɗʈɛbenanʊ</td>
<td></td>
</tr>
<tr>
<td>/a/</td>
<td>daⁿdaŋ ‘cave lizard’</td>
<td>daⁿdaŋala</td>
<td>daⁿdaŋalʊ</td>
<td>daⁿdaŋanʊ</td>
<td></td>
</tr>
<tr>
<td>/ɔ/</td>
<td>ɗɔgɔr ‘k.o.tree’</td>
<td>ɗɔgɔrala</td>
<td>ɗɔgɔralʊ</td>
<td>ɗɔgɔranʊ</td>
<td></td>
</tr>
<tr>
<td>/u/</td>
<td>dʊrtʊn ‘tablet’</td>
<td>dʊrtʊnalala</td>
<td>dʊrtʊnulʊ</td>
<td>dʊrtʊnunʊ</td>
<td></td>
</tr>
<tr>
<td>[+ATR]</td>
<td>/i/</td>
<td>gidin ‘chicken’s house’</td>
<td>gidinələ</td>
<td>gidinəlu</td>
<td>gidinənu</td>
</tr>
<tr>
<td>/ə/</td>
<td>ɗəⁿdaŋ ‘knife’</td>
<td>ɗəⁿdaŋələ</td>
<td>ɗəⁿdaŋəlu</td>
<td>ɗəⁿdaŋənu</td>
<td></td>
</tr>
<tr>
<td>/u/</td>
<td>gugun ‘hare’s house’</td>
<td>gugunələ</td>
<td>gugunəlu</td>
<td>gugunənu</td>
<td></td>
</tr>
</tbody>
</table>

6.2 Leftward Spreading onto Noun Class Prefixes

[+ATR] spreads leftward onto the plural noun class and subject marker prefixes ɲu-, gu- as seen from the examples of (13a) and (13b) respectively. However the
[+ATR] quality of the prefix is less complete than when a [+ATR] feature is spread to a suffix or root.

(12) Vowel Harmony Rule of noun class prefix (VHR)

\[
V \rightarrow [+ATR] / [ C ____ ]CM + [ V C ]N Root
\]

\[
[+ATR]
\]

(13a) vowel n. Root English ŋʊ-

[-ATR] /ɪ/ -tɪlɪ ‘hoofs’ ŋórlɪ

/ɛ/ -rɛɛŋ ‘lazy persons’ ŋʊrɛɛŋ

/a/ -má ‘healers’ ɲʊmá

/o/ -jó ‘lame persons’ ɲʊjó

/u/ -m’ùn ‘orphan’ ɲʊm’ùn

[+ATR] /i/ -dí ‘meats’ ɲʊdí

/o/ -rɔŋ ‘seals’ ɲʊrɔŋ

/u/ -jʊr ‘priests’ ɲʊjʊr

(13b) vowel v. root English gʊ-

[-ATR] /ɪ/ dɛ̃tɪ ‘to tear’ gudɛ̃tʊ ‘he tore’

/ɛ/ rɛbɛnɛ ‘to get weak’ gurɛbɛnɛ ‘he is weak’

/a/ dɛ̃mɪ ‘to defeat’ gudɛ̃mʊ ‘he defeated’

/o/ gʊnɛ ‘to spit’ gʊɡʊnɛ ‘he spat’

/u/ dʊdɪ ‘lost’ gʊdʊdʊ ‘he lost’

[+ATR] /i/ diɾɪ ‘to raise’ gudɪɾʊ ‘he raised’

/o/ ɬɛlɪ ‘to get drunk’ guɬɛɬʊ ‘he got drunk’

/u/ gʊɾɪ ‘farm’ gugʊɾʊ ‘he farmed’

6.3 Leftward Spreading onto Verb Prefixes

The [+ATR] feature value of the infinitive passive/reflexive suffix -ni, imperative -di, dative -ji, and imperative passive/reflexive -na spreads leftward onto the verb root as specified by the rule of (14). Because the [+ATR] vowels /e/ and /o/ do not exist as phonemes in the language, root vowels /ɛ/ and /ɔ/ become /i/ and /u/ respectively.

(14) Vowel Harmony Rule of PASS/REFL, IMP, and BEN (VHR)

\[
\]

\[
[+ATR]
\]
(15) vowel verb English -ni -di -ji -nə
[-ATR] /i/ dagɽi ‘to chew’ dagɽini dagɽidi dagɽiji7 dagɽinə
/e/ dɛdɛ ‘to cut’ didini didi8 didiji didina
/a/ ɲaŋa ‘to rub’ ɲaŋəni ɲaŋədi ɲaŋəji ɲaŋənə
/o/ rɔ ‘to grind’ rudini rudi rudiji rudinə
/u/ ru ‘to change/be’ rudini rudi rudiji rudinə

[+ATR] /i/ pi ‘to beat’ pini pidi pidiji pina
/o/ pə ‘to nail’ pəni pədi pədiji pənə
/u/ dru ‘to sip’ drudini drudi drudiji drudina

6.4 Rightward Spreading onto Verb Suffixes

The [+ATR] feature value of verb roots spreads rightward onto the causative suffix –ɨyi, parallel action suffix –acɪ, simultaneous action suffix –atɪ, and benefactive suffix –cɪ, as specified by the rule of (16). The suffixes remain [-ATR] when suffixed to verbs with [-ATR] value.

(16) Vowel Harmony Rule for CAUSE, PAR, SIM, DAT (VHR)

\[ V \rightarrow [+ATR] / [ \text{C V} ] \text{Verb Root} + [ \_ \_ \_ \_ ] \text{CAUSE, PAR, SIM, DAT} \]

[ + ATR ]

(17) vowel verb English -yɪ -acɪ -atɪ -cɪ
[-ATR] /i/ dirti ‘to tear’ dirtiyɪ dirtacɪ dirtatɪ
e/ ele ‘to go’ eleyɪ elaci elati elaci
/o/ mɛ ‘to braid’ mɛyɪ macɪ matɪ mecɪ9
/a/ mani ‘to cook’ mani’yɪ manaci manati manacɪ
/o/ rɛ ‘to return’ rɛyɪ rɛaci rɛati rɛaci
/u/ ru10 ‘to change/be’ rudiyɪ11 racɪ ratɪ ruci

7 Some verbs (such as dagɽi) can derive benefactive forms from either the infinitive or imperative form (dagɽi or dagɽidii), and some verbs (such as rɔ ‘to grind’) can only derive the benefactive from the imperative (rudiji).
8 The final de of dɛdɛ ‘to cut’ gets “swallowed up” by the -di in the imperative forms.
9 Dative forms are similar to benefactives, but differ in meaning and vowel harmony of the suffix. With the dative, the subject assumes responsibility on behalf of the other; whereas with the benefactive, the action is done for the sake of the other person. The dative is [-ATR], whereas the benefactive is [+ATR]. The dative form is not as common and does not occur with all verb forms. The verb mɛ ‘braid’ can take the dative suffix alone (mɛcɪ ‘braid to someone’) or the dative and benefactive together (mɛcɪjɪ ‘braid for someone’).
10 The final /u/ of ru ‘to be’ and /u/ of dru ‘to sip’ get swallowed up by the -acɪ, -atɪ in the verb forms of parallel and simultaneous action.
11 Some verbs (such as rɔ ‘grind’) derive the causative (ru-di-yi) from the imperative with heavy suffix –di, whereas some verbs (such as ru ‘change’) derive the causative (ru-di-yi) from the reciprocal with light suffix –di. It may be that the causative suffix has no [ATR] assignment, but takes the [-ATR] vowel quality from the root by default when the root is [-ATR].
7. Language Name Change

Stevenson (1956, 1984) and Lewis (2009) document the name of this language as “Laro”. According to the vowel analysis in this paper, it cannot be /laro/ because the [+ATR] vowel /o/ does not occur at all in this language. Also, not a single example exists to show that the vowel /a/ occurs in a word followed by the vowel /ɔ/ though they can occur in reverse order. For example:

(18) g-ɔ̀ɾà    ‘foot’
    d-ɔ̀ɾà    ‘shepherd’
    g-ɔ̀là    ‘livestock’

However, there are many examples that show the vowel /a/ occurs with the vowel /ʊ/ in a word. For example:

(19) g-àɾó    ‘gum’
    l-àbró    ‘sugar cane’
    d-àɲó    ‘witch’
    d-àɡró    ‘hen’
    d-àlò    ‘fly’

Hence the name “Laro” which has been in used in many documents that exist in the language is not correct according to the above evidence. Instead the correct name is “Laru” /laɾʊ/. This word is [-ATR] and when various affixes are added, they obey the vowel harmony pattern of the language:

(20) laru    ‘Laru homeland’
    dɪ-laru    ‘person of Laru’
    ɲʷu-laru    ‘people of Laru’
    yɪ-laru    ‘language of Laru’
    ɲa ɔ’daja yɪ-laru-ɲ-alu    ‘You speak the language spread on ground level (randomly).’

This change of language name is already put in place in on-going production of literacy and translation materials, and the native speakers of the language are already aware of this change.

8. Conclusion

This paper has presented the vowel harmony occurring in the Laru language. The [+ATR] feature value is dominant in the vowel harmony in this language.
Abbreviations
CM  Class marker
IMP  Imperative
PASS  Passive
REFL  Reflexive
BEN  Benefactive
k.o.  kind of
LOC  Locative
N  Noun

References
APPENDIX: DATA LISTS

Noun Roots

Laru has 8 vowels in noun roots, evidenced by the following minimal and contrastive pairs. The class marker prefix is separated from the root by a hyphen.

<table>
<thead>
<tr>
<th>vowels</th>
<th>Laru</th>
<th>English</th>
<th>Laru</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɪ – ɛ</td>
<td>d-ɪł</td>
<td>‘horn’</td>
<td>d-ɛł</td>
<td>‘well’</td>
</tr>
<tr>
<td></td>
<td>d-ɪrɛ́</td>
<td>‘k.o. stick’</td>
<td>g-ɛ́rɛ́</td>
<td>‘k.o. tree’</td>
</tr>
<tr>
<td></td>
<td>d-ɪrά</td>
<td>‘lion’</td>
<td>g-ɛ́rά</td>
<td>‘girl’</td>
</tr>
<tr>
<td></td>
<td>g-ɪlίɲ</td>
<td>‘k.o. mushroom’</td>
<td>d-ɛ́lɛ́ɲ</td>
<td>‘chief’</td>
</tr>
<tr>
<td></td>
<td>d-l-ɪ́</td>
<td>‘shoulder’</td>
<td>l-ɪ́lɛ́</td>
<td>‘grinding stone’</td>
</tr>
<tr>
<td>ɛ – a</td>
<td>j-ɛ́n</td>
<td>‘mountains’</td>
<td>j-蒽</td>
<td>‘milk’</td>
</tr>
<tr>
<td></td>
<td>g-ɛ́rɛ́</td>
<td>‘tree’</td>
<td>g-ɛ́rά</td>
<td>‘head’</td>
</tr>
<tr>
<td></td>
<td>g-ɛ́rά́</td>
<td>‘girl’</td>
<td>g-ɛ́rɛ́</td>
<td>‘sky’</td>
</tr>
<tr>
<td></td>
<td>d-ɔ́rɛ́</td>
<td>‘basket’</td>
<td>d-ɔ́rά</td>
<td>‘anus’</td>
</tr>
<tr>
<td></td>
<td>g-ɔ́rɛ́</td>
<td>‘shelter’</td>
<td>g-ɔ́rά</td>
<td>‘k.o. wood’</td>
</tr>
<tr>
<td>a – ɔ</td>
<td>j-蒽</td>
<td>‘milk’</td>
<td>j-蒽</td>
<td>‘grain’</td>
</tr>
<tr>
<td>ɔ – u</td>
<td>d-ɔ́rά́</td>
<td>‘thresher’</td>
<td>d-ɔ́rά</td>
<td>‘winder’</td>
</tr>
<tr>
<td></td>
<td>d-ɔ́rά́</td>
<td>‘anus’</td>
<td>d-ɔ́rά</td>
<td>‘magic stick’</td>
</tr>
<tr>
<td></td>
<td>g-ɔ́bò</td>
<td>‘temple’</td>
<td>g-ɔ́bʊ́</td>
<td>‘compound’</td>
</tr>
<tr>
<td></td>
<td>g-ɔ́tά́</td>
<td>‘k.o. fruit’</td>
<td>g-ɔ́dά́</td>
<td>‘k.o. fruit’</td>
</tr>
<tr>
<td></td>
<td>g-ɔ́n</td>
<td>‘thing’</td>
<td>g-ɔ́n</td>
<td>‘veranda’</td>
</tr>
<tr>
<td>ɪ – i</td>
<td>d-ɪ́rίɲ</td>
<td>‘waist’</td>
<td>d-ɪ́rίɲ</td>
<td>‘boar’</td>
</tr>
<tr>
<td>a – ə</td>
<td>d-əmά́</td>
<td>‘locust’</td>
<td>d-əmά́</td>
<td>‘wound’</td>
</tr>
<tr>
<td></td>
<td>d-άδάɲ</td>
<td>‘knife’</td>
<td>d-όδάɲ</td>
<td>‘cave lizard’</td>
</tr>
<tr>
<td></td>
<td>g-άɲά́</td>
<td>‘grass’</td>
<td>d-άɲά́</td>
<td>‘vegetables’</td>
</tr>
<tr>
<td></td>
<td>d-ɪ́rά́</td>
<td>‘k.o. grass’</td>
<td>d-ɪ́rά́</td>
<td>‘seal of bee’</td>
</tr>
<tr>
<td></td>
<td>g-ɛ́rά́</td>
<td>‘head’</td>
<td>g-ɛ́rά́</td>
<td>‘bird’</td>
</tr>
<tr>
<td>o – u</td>
<td>g-ɛ́lù</td>
<td>‘clay’</td>
<td>d-ɛ́lù</td>
<td>‘smoke’</td>
</tr>
<tr>
<td></td>
<td>g-ɛ́jʊ́r</td>
<td>‘stream’</td>
<td>d-ɛ́jʊ́r</td>
<td>‘rock’</td>
</tr>
<tr>
<td></td>
<td>g-ɛ́bʊ́ɲ</td>
<td>‘hole in tree’</td>
<td>g-ɛ́bʊ́ɲ</td>
<td>‘pool’</td>
</tr>
<tr>
<td></td>
<td>d-ʊ́wά́</td>
<td>‘buffalo’</td>
<td>d-ʊ́wά́</td>
<td>‘moon’</td>
</tr>
<tr>
<td></td>
<td>g-ʊ́wά́</td>
<td>‘root’</td>
<td>g-ʊ́wά́</td>
<td>‘he-goat’</td>
</tr>
</tbody>
</table>

The following are examples of one, two, and three syllable noun roots. The two syllable noun roots are the most common.
### One syllable noun roots

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Laru</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>[-ATR]</td>
<td>i</td>
<td>g-il</td>
</tr>
<tr>
<td></td>
<td>ɛ</td>
<td>d-ɛl</td>
</tr>
<tr>
<td></td>
<td>a</td>
<td>j-àn</td>
</tr>
<tr>
<td></td>
<td>ɔ</td>
<td>j-ɔn</td>
</tr>
<tr>
<td></td>
<td>u</td>
<td>d-ʊm</td>
</tr>
<tr>
<td>[+ATR]</td>
<td>i</td>
<td>d-in</td>
</tr>
<tr>
<td></td>
<td>ə</td>
<td>l-əŋ</td>
</tr>
<tr>
<td></td>
<td>u</td>
<td>dù</td>
</tr>
</tbody>
</table>

### Two syllable noun roots

<table>
<thead>
<tr>
<th>Vowel</th>
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<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>[-ATR]</td>
<td>i</td>
<td>d'-lìŋìð</td>
</tr>
<tr>
<td></td>
<td>ɛ</td>
<td>d'-tɛbɛ̀n</td>
</tr>
<tr>
<td></td>
<td>a</td>
<td>d-àmà</td>
</tr>
<tr>
<td></td>
<td>ɔ</td>
<td>d-ɔŋɔ́r</td>
</tr>
<tr>
<td></td>
<td>u</td>
<td>d-öl:ʊ̩</td>
</tr>
<tr>
<td>[+ATR]</td>
<td>i</td>
<td>g-íní</td>
</tr>
<tr>
<td></td>
<td>ə</td>
<td>d-ɔmò</td>
</tr>
<tr>
<td></td>
<td>u</td>
<td>d-ùrú</td>
</tr>
</tbody>
</table>

### Three syllable noun roots

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Laru</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>[-ATR]</td>
<td>i</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>ɛ</td>
<td>d'-bɛtɛdê</td>
</tr>
<tr>
<td></td>
<td>a</td>
<td>bàtàrà</td>
</tr>
<tr>
<td></td>
<td>ɔ</td>
<td>l-ŋɔrɔ́</td>
</tr>
<tr>
<td></td>
<td>u</td>
<td>d-ŋɔrʊ́</td>
</tr>
<tr>
<td>[+ATR]</td>
<td>i</td>
<td>d'-mìnìtí</td>
</tr>
<tr>
<td></td>
<td>ə</td>
<td>d-ɔmbɔrɔ́</td>
</tr>
<tr>
<td></td>
<td>u</td>
<td>d'-lùkùrú</td>
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</table>
Verb Roots
Laru has 8 vowels in verb roots, evidenced by the following minimal and contrastive pairs:

<table>
<thead>
<tr>
<th>vowels</th>
<th>Laru</th>
<th>English</th>
<th>Laru</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>i – e</td>
<td>ìlì</td>
<td>‘to filter’</td>
<td>èlè</td>
<td>‘to go’</td>
</tr>
<tr>
<td>e – a</td>
<td>mé</td>
<td>‘to make rope’</td>
<td>má</td>
<td>‘to pile’</td>
</tr>
<tr>
<td>a – ò</td>
<td>àdá</td>
<td>‘to lean to’</td>
<td>òda</td>
<td>‘to build’</td>
</tr>
<tr>
<td>ò – õ</td>
<td>ró</td>
<td>‘to grind’</td>
<td>ró</td>
<td>‘to be’</td>
</tr>
<tr>
<td>òřè</td>
<td>‘to return’</td>
<td>òrì</td>
<td>‘to thresh’</td>
<td></td>
</tr>
<tr>
<td>ɪ – ɛ́l̀ɪ́</td>
<td>‘to filter’</td>
<td>ɛ̀lɛ́</td>
<td>‘to go’</td>
<td></td>
</tr>
<tr>
<td>n ɪ́</td>
<td>‘to sprout’</td>
<td>nɛ́</td>
<td>‘to rain’</td>
<td></td>
</tr>
<tr>
<td>ɛ – a</td>
<td>mɛ́</td>
<td>‘to make rope’</td>
<td>má</td>
<td>‘to pile’</td>
</tr>
<tr>
<td>a – ò</td>
<td>àdá</td>
<td>‘to lean to’</td>
<td>òda</td>
<td>‘to build’</td>
</tr>
<tr>
<td>ò – õ</td>
<td>ró</td>
<td>‘to grind’</td>
<td>ró</td>
<td>‘to be’</td>
</tr>
<tr>
<td>òřè</td>
<td>‘to return’</td>
<td>òrì</td>
<td>‘to thresh’</td>
<td></td>
</tr>
<tr>
<td>ɪ – ɛ́l̀ɪ́</td>
<td>‘to filter’</td>
<td>ɛ̀lɛ́</td>
<td>‘to go’</td>
<td></td>
</tr>
<tr>
<td>n ɪ́</td>
<td>‘to sprout’</td>
<td>nɛ́</td>
<td>‘to rain’</td>
<td></td>
</tr>
<tr>
<td>c ɪ́</td>
<td>‘to say’</td>
<td>cì́</td>
<td>‘to water’</td>
<td></td>
</tr>
<tr>
<td>ñɪː́lːɪ́</td>
<td>‘to glance’</td>
<td>ñìlːí</td>
<td>‘to murmur’</td>
<td></td>
</tr>
<tr>
<td>ɪ – i</td>
<td>mɪ́</td>
<td>‘to drop’</td>
<td>mɪ́</td>
<td>‘to strike’</td>
</tr>
<tr>
<td>iɪ́</td>
<td>‘to suck’</td>
<td>ií́</td>
<td>‘to bleed’</td>
<td></td>
</tr>
<tr>
<td>ní</td>
<td>‘to sprout’</td>
<td>ní</td>
<td>‘to heavy’</td>
<td></td>
</tr>
<tr>
<td>cí</td>
<td>‘to say’</td>
<td>cí</td>
<td>‘to water’</td>
<td></td>
</tr>
<tr>
<td>ñɪː́lːɪ́</td>
<td>‘to glance’</td>
<td>ñìlːí</td>
<td>‘to murmur’</td>
<td></td>
</tr>
<tr>
<td>a – ò</td>
<td>àrɪ́</td>
<td>‘to act’</td>
<td>ñrì́</td>
<td>‘to do’</td>
</tr>
<tr>
<td>àří́</td>
<td>‘to cry’</td>
<td>ñří́</td>
<td>‘to blow’</td>
<td></td>
</tr>
<tr>
<td>ànːí́</td>
<td>‘to refuse’</td>
<td>ñnːí́</td>
<td>‘to take in’</td>
<td></td>
</tr>
<tr>
<td>ànːí́</td>
<td>‘to refuse’</td>
<td>ñnːí́</td>
<td>‘to take in’</td>
<td></td>
</tr>
<tr>
<td>àní́</td>
<td>‘to name’</td>
<td>ñní́</td>
<td>‘to enter’</td>
<td></td>
</tr>
<tr>
<td>àbrí́</td>
<td>‘to run’</td>
<td>ñbrí́</td>
<td>‘to select’</td>
<td></td>
</tr>
<tr>
<td>õ – u</td>
<td>ðlːí́</td>
<td>‘to write’</td>
<td>ðlːí́</td>
<td>‘to descend’</td>
</tr>
<tr>
<td>ðrí́</td>
<td>‘to pray’</td>
<td>ðrí́</td>
<td>‘to collect’</td>
<td></td>
</tr>
<tr>
<td>ðʊ́dːí́</td>
<td>‘to dry’</td>
<td>ðʊ́dːí́</td>
<td>‘to press’</td>
<td></td>
</tr>
<tr>
<td>kʊ́dːí́</td>
<td>‘to wrestle’</td>
<td>kʊ́dːí́</td>
<td>‘to farm’</td>
<td></td>
</tr>
<tr>
<td>ðù́ŕ</td>
<td>‘to thresh’</td>
<td>ðù́ŕ</td>
<td>‘to collect wood’</td>
<td></td>
</tr>
</tbody>
</table>

The following are examples of one, two, and three syllable verbs. The two syllable verbs are the most common.

One syllable verbs

<table>
<thead>
<tr>
<th>vowel</th>
<th>Laru</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>[⁻ＡＴＲ⁻]</td>
<td>i</td>
<td>jí</td>
</tr>
<tr>
<td>e</td>
<td>ké</td>
<td>‘to break’</td>
</tr>
<tr>
<td>a</td>
<td>má</td>
<td>‘to pile’</td>
</tr>
<tr>
<td>o</td>
<td>ñó</td>
<td>‘to grind’</td>
</tr>
</tbody>
</table>
### Two syllable verbs

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Laru</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>[-ATR]</td>
<td>i</td>
<td>miři</td>
</tr>
<tr>
<td></td>
<td>e</td>
<td>ělé</td>
</tr>
<tr>
<td></td>
<td>a</td>
<td>nàlá</td>
</tr>
<tr>
<td></td>
<td>o</td>
<td>ọlf</td>
</tr>
<tr>
<td>[+ATR]</td>
<td>i</td>
<td>ìní</td>
</tr>
<tr>
<td></td>
<td>e</td>
<td>ẹtá</td>
</tr>
<tr>
<td></td>
<td>u</td>
<td>ùtó</td>
</tr>
</tbody>
</table>

### Three syllable verbs

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Laru</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>[-ATR]</td>
<td>i</td>
<td>ìtìmì</td>
</tr>
<tr>
<td></td>
<td>e</td>
<td>ělẹ̀ẹ́</td>
</tr>
<tr>
<td></td>
<td>a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>òc</td>
<td>ìjèmè</td>
</tr>
<tr>
<td></td>
<td>o</td>
<td></td>
</tr>
<tr>
<td>[+ATR]</td>
<td>i</td>
<td>ìgìtì</td>
</tr>
<tr>
<td></td>
<td>e</td>
<td>gàbicí</td>
</tr>
<tr>
<td></td>
<td>u</td>
<td></td>
</tr>
</tbody>
</table>

### Static Vowel Harmony

#### Two syllable noun roots

The following are examples of vowel combinations in two syllable noun roots:

<table>
<thead>
<tr>
<th>Vowels</th>
<th>Laru</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>[-ATR]</td>
<td>I – i</td>
<td>d’-linjìd</td>
</tr>
<tr>
<td></td>
<td>I – a</td>
<td>d-irà</td>
</tr>
<tr>
<td></td>
<td>I - o</td>
<td>g-iró</td>
</tr>
</tbody>
</table>
ɛ – ɛ  g'-bélbél  ‘k.o. bird’
ɛ – a  g-ɛrà  ‘girl’
ɛ – ɔ  d'-řĕbôŋ  ‘armpit’

a – ɪ  d-ârî  ‘tree’
a – a  l-âcâl  ‘whip’
a – ʊ  l-ârò  ‘home’

ɔ – ɛ  d-ôrê  ‘basket’
ɔ – a  g-ôrà  ‘foot’
ɔ – ɔ  d-ônô  ‘k.o. tree’

ʊ – ɪ  g-ʊřřî  ‘axe’
ʊ – a  d-ôdâ  ‘sycamore tree’
ʊ – ʊ  g-ôlô  ‘fence’

<table>
<thead>
<tr>
<th>Vowels</th>
<th>Laru</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>[+ATR]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ɪ – ɪ</td>
<td>g-inî</td>
<td>‘hare’</td>
</tr>
<tr>
<td>ɪ – ə</td>
<td>d-inâd</td>
<td>‘slave’</td>
</tr>
<tr>
<td>ɪ – u</td>
<td>g-ilû</td>
<td>‘storage’</td>
</tr>
<tr>
<td>ə – i</td>
<td>d-ârî</td>
<td>‘oil container’</td>
</tr>
<tr>
<td>ə – ə</td>
<td>l-ârô</td>
<td>‘shield’</td>
</tr>
<tr>
<td>ə – u</td>
<td>l-ârú</td>
<td>‘hair’</td>
</tr>
<tr>
<td>u – i</td>
<td>g-ùřřî</td>
<td>‘wood’</td>
</tr>
<tr>
<td>u – ə</td>
<td>d-úwô</td>
<td>‘moon’</td>
</tr>
<tr>
<td>u – u</td>
<td>d-ùrû</td>
<td>‘dung of animal’</td>
</tr>
</tbody>
</table>

Three syllable noun roots

The following are examples of vowel combinations in three syllable noun roots:

<table>
<thead>
<tr>
<th>Vowels</th>
<th>Laru</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>[-ATR]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ɪ – ɪ</td>
<td>ribibî</td>
<td>‘dancing k.o. of bird’</td>
</tr>
<tr>
<td>ɪ – a</td>
<td>g-idî gidá</td>
<td>‘k.o. insect’</td>
</tr>
<tr>
<td>ɪ – ʊ</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

32
<table>
<thead>
<tr>
<th>Vowels</th>
<th>Laru</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ATR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i – i</td>
<td>d’-minítí</td>
<td>‘olive-like tree’</td>
</tr>
<tr>
<td>i – ə</td>
<td>g-ìlèlè</td>
<td>‘mate’</td>
</tr>
<tr>
<td>i – u</td>
<td>d-idibú</td>
<td>‘k.o. tree’</td>
</tr>
<tr>
<td>ə – i</td>
<td>d-òdòbì</td>
<td>‘k.o. bird’</td>
</tr>
<tr>
<td>ə – ə</td>
<td>g-òbòbò</td>
<td>‘bear’</td>
</tr>
<tr>
<td>ə – u</td>
<td>d- əkò́rú</td>
<td>‘k.o. bird’</td>
</tr>
<tr>
<td>u – i</td>
<td>g-ùjí gují</td>
<td>‘k.o. insect’</td>
</tr>
<tr>
<td>u – ə</td>
<td>g-ùwàdó</td>
<td>‘log of wood’</td>
</tr>
<tr>
<td>u – u</td>
<td>g-ùrùkú</td>
<td>‘k.o. bird’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vowels</th>
<th>Laru</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ATR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i – i</td>
<td>iří</td>
<td>‘to suck’</td>
</tr>
<tr>
<td>i – a</td>
<td>diná</td>
<td>‘to hunt’</td>
</tr>
<tr>
<td>i – u</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
ɛ – ɛ  dèdè  ‘to cut’
ɛ – a  ëláŋ  ‘to buy/sell’
ɛ – ɔ   -   -

a – ɪ  ìɾí  ‘to bleed’
a – e  -   -
a – a  ìná  ‘to pity’
a – ʊ  -   -
a – u  ùlːí  ‘to descend’

[ + ATR]  i – i  ìɾí  ‘to bleed’
i – ə  ìná  ‘to pity’
i – u  -   -

ɔ – ɪ  ɔ̀rɪ ‘to act’
ɔ – ə  òtò  ‘to give’
ɔ – u  -   -

u – i  ùlːí  ‘to descend’
u – ə  ùtò  ‘to make sourer’
u – u  ùrù  ‘to have diarrhoea’

vowels  Laru  English

ɛ – ɛ  dèdè  ‘to cut’
ɛ – a  ëláŋ  ‘to buy/sell’
ɛ – ɔ   -   -
a – ɪ  ìɾí  ‘to bleed’
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a – a  ìná  ‘to pity’
a – ʊ  -   -
a – u  ùlːí  ‘to descend’
ɔ – ɪ  ɔ̀rɪ ‘to act’
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ɔ – u  -   -

u – i  ùlːí  ‘to descend’
u – ə  ùtò  ‘to make sourer’
u – u  ùrù  ‘to have diarrhoea’
Lexical and Postlexical Vowel Harmony in Fur
Constance Kutsch Lojenga

1 Introduction

1.1 The language

FUR is a Nilo-Saharan language spoken in the Dar Fur province in Western Sudan, bordering on Chad. The speakers call their language [pɔɔr], and they call themselves [pɔɔra], Fur people.

Fur is listed by Greenberg (1966:130) as an isolate, one of the six main branches of Nilo-Saharan. Among the more recent attempts at classifying the Nilo-Saharan language phylum, Bender (1996, 2000) and Ehret (2001) place the language deeper in the Nilo-Saharan tree, though they differ in where they place the language.

Bender (1983) estimates the population at 500,000. The speakers themselves give an estimate of 900,000. Over 20 years later, this estimate seems plausible.

1.2 This paper

The vowel inventory of Fur contains more contrastive vowels than has been assumed by most authors so far. There is also a functioning ATR vowel-harmony system, not mentioned by any of the previous authors. Compared to other languages with ATR vowel harmony, Fur has a special cooccurrence restriction and a special way to deal with mid vowels in [+ATR] environment across morpheme boundaries.

In this paper, I investigate two aspects of vowel harmony in Fur: postlexical vowel harmony and lexical vowel harmony. Postlexical vowel harmony is realised as gradient ATR assimilation, shown in the the citation forms of nouns in their singular and plural forms. Lexical vowel harmony is categorical ATR assimilation and employs a different strategy. It is exemplified first of all in a set of nominalised adjectives, and then in a number of inflected verb forms.

2 The Vowel System

Various authors have quoted different vowel inventories for Fur.

Meinhof (1917/18:119) presents nine vowels for Kondjara (an alternative name for Fur), though he expresses his doubts as to whether contrast can be proved.

Jakobi (1990:43) analyses the language as having a five-vowel system.

Beaton (1968:1) transcribes the language with eight vowels. Tucker (1966:219) quotes Beaton’s eight vowels \( i, e, \varepsilon, a, \varepsilon, o, u \) and a central vowel \( a \).

Our analysis has confirmed a system of eight contrastive vowels (Kutsch Lojenga and Waag 2004). This system is symmetrical and has ATR harmony. In contrast to Beaton’s transcription, I posit \(+\text{ATR}\) and \(-\text{ATR}\) variants of the \(+\text{high}\) vowels, mutually
exclusive in root morphemes, which interact with the other vowels in a system of ATR vowel harmony. In addition, there is a [+ATR] central vowel, like Beaton’s /ə/, which has been attested unambiguously in a limited number of words so far. There is also contrast between short and long vowels, though this is beyond the scope of this paper. It is noteworthy that the two [-high][+ATR] vowels [e] and [ɔ] do not exist contrastively.

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ + high]</td>
<td>[ + ATR]</td>
<td>i</td>
<td>u</td>
</tr>
<tr>
<td>[-ATR]</td>
<td>i</td>
<td>u</td>
<td></td>
</tr>
<tr>
<td>[-low]</td>
<td>[ + ATR]</td>
<td>i</td>
<td>u</td>
</tr>
<tr>
<td>[-ATR]</td>
<td>i</td>
<td>u</td>
<td></td>
</tr>
<tr>
<td>[ + low]</td>
<td>[ + ATR]</td>
<td>e</td>
<td>ɔ</td>
</tr>
<tr>
<td>[-ATR]</td>
<td>e</td>
<td>ɔ</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ + ATR]</td>
<td>a</td>
<td>ʌ</td>
</tr>
<tr>
<td></td>
<td>[-ATR]</td>
<td>a</td>
<td>ʌ</td>
</tr>
</tbody>
</table>

Table: the Fur vowel system

The inventory of contrastive vowels can be divided into two sets: five [-ATR] vowels: /ɪ/, /ɛ/, /a/, /ɔ/, and /ʊ/, and three [+ATR] vowels: /i/, /u/, and /ə/. Fur, therefore, is an 8-vowel language with ATR contrast in the high and low vowels, but not in the mid vowels.

Lexical morphemes normally contain vowels belonging to one of these ATR sets only. Across morpheme boundaries, ATR vowel-harmony rules apply, in which [+ATR] is dominant. The following sections treat first postlexical vowel harmony and then lexical vowel harmony.

3 Postlexical Vowel Harmony

Postlexical vowel harmony in Fur must be seen as a surface assimilatory process which is gradient and which also depends to a certain extent on the speed of speech. The following two sections treat postlexical vowel harmony with the low vowel /a/ and the mid vowels /ɛ/ and /ɔ/ respectively.

In other languages with upper-height vowel harmony, [+ATR] assimilation is most strongly realised when the [-ATR] vowel precedes the dominant [+ATR] vowel, and less so when it follows it, i.e. the influence is stronger from right to left than from left to right. It will be seen here, that anticipatory right-to-left cases are absent morpheme-internally in Fur.

3.1 The Vowel /a/ in [+ATR] Environment

Within a morpheme, only the underlyingly contrastive [+ATR] counterpart of /a/, namely /ə/, is attested preceding a [+ATR] vowel in V₂ position.

(1) ərí forehead  bəɾu  country
tə́ə́rí funeral place  məəɲu  buffalo
When the vowel /a/ follows a [+ATR] vowel /i/ or /u/, the ATR assimilation is only gradient and partial. I therefore transcribe this [+ATR] realisation of /a/ in the examples below as /a/ with the IPA subscript symbol for tongue-root advancement. When in turn followed by the plural suffix –ŋa, the preceding /a/ no longer shows any sign of gradient ATR assimilation. Only a limited number of examples have been found.

(2)  siwa  [siwa]  pl. siwa-ŋa  woman's hairstyle
     áŋgûrna  [áŋgûrna]  pl. áŋgûrna-ŋa  tree, sp.
     kúlíkulíisa  [kúlíkulíisa]  pl. kúlíkulíisa-ŋa  eagle, sp.

3.2 The Vowels /ɛ/ and /ɔ/ in [+ATR] Environment

There is a particular cooccurrence restriction in Fur in that, within a polysyllabic morpheme, the vowels /ɛ/ and /ɔ/ never occur preceding the high [+ATR] vowels /i/ or /u/.

In other languages which have an underlying ATR contrast in the high vowels only, [-ATR] /ɛ/ and /ɔ/ preceding [+ATR] /i/ or /u/ would be realised as [e] and [o], as follows:

(3)  /ɛ - i/ → [e – i]
     /ɛ - u/ → [e – u]
     /ɔ - i/ → [o – i]
     /ɔ - u/ → [o – u]

In Fur, these sequences are lacking entirely within roots, so these realisations do not occur.

The reverse, however, is easily attested: both /ɛ/ and /ɔ/ can follow the [+ATR] vowels /i/ and /u/. All four combinations, /i - ɛ/, /u - ɛ/, /i – ɔ/, /u – ɔ/ are found. The vowels /ɛ/ and /ɔ/ in this position undergo gradient ATR-assimilation to the [+ATR] /i/ or /u/ especially in fast speech, but this left-to-right assimilation is not very strong. When, in turn, the underlyingly [-ATR] vowels /ɛ/ and /ɔ/ are followed by the [-ATR] vowel /a/, in their plural forms, there is no assimilation noticeable between the [+ATR] vowel and the [-ATR] vowel /ɛ/ or /ɔ/.

(4)  /i - ɛ/

    ŋíre  [ŋíře]  pl. ŋíre-ŋa  cotton
    zílmɛ  [zílmɛ]  pl. zílmɛ-ŋa  fish, sp.

(5)  /u - ɛ/

    umɛ́  [umɛ́]  pl. umɛ́-ŋá  fog, mist
    gurbɛ̂t  [gurbɛ̂t]  pl. gurbɛ́t-a  wild cat, sp.
There is just a handful of words where the [+ATR] vowel /ə/ appears in the first syllable of a word, followed by /ɛ/ or /ɔ/. In each of these cases, the first syllable ends in a semivowel /y/ or /w/, which could be seen as a [+ATR] vocalic element [i] or [u] at a phonetic level, functioning as syllable margin. The vowel /ɛ/ or /ɔ/ of the second syllable assimilates partly in fast speech to the [+ATR] quality of the first syllable.

(8) /ə - ɛ/

bəwtɛ̂n [bəwtɛn] hoe
dəwrɛ [dəwrɛ] woman's hairstyle
wəyyɛ [wəyyɛ] ten
də̌yyɛ [də̌yyɛ] Zo Al-Hajja, 12th month; proper name masc.

(9) /ə - ɔ/

kəwlɔ [kəwlɔ] wind
kəwlɔ́ [kəwlɔ́] dry cow dung

4 Lexical Vowel Harmony

The language also contains examples of lexical vowel harmony, which is categorical. Nouns can be derived from adjectives by a [+ATR] suffix –iŋ, which is dominant. Any preceding [-ATR] vowel changes into [+ATR]. The most interesting is what happens to the [-ATR] vowels /ɛ/ and /ɔ/, which do not have a [+ATR] counterpart in the underlying system of contrastive sounds, and which do not choose the allophonic realisations [e] and [o] or [ɛ] and [ɔ] as exemplified above in the postlexical gradient description of vowel harmony. Following the nominalised adjectives, I treat a number of inflected verb forms, first of all those with a suffix –l plus floating feature [ + ATR], and finally, some instances of inflected verb forms with a [ + ATR] suffix –i.

4.1 Nominalisation of Adjectives

Fur has a considerable number of adjectives, which show agreement with the nouns in that they take a plural suffix –a (following a consonant) or –ŋa (following a vowel) when the noun is in the plural. The word order in the following examples is Noun – Adjective.
There is a productive process of abstract nominal derivation from these adjectives by adding a suffix \(-iŋ\) [+ATR] to the adjective root after deletion of the final vowel. The feature [+ATR] spreads to the left, and all vowels to the left become [+ATR]. The first set of examples contains those vowels which do have [+ATR] counterparts which are contrastive vowels in the language: ɪ/i, ʊ/u, and a/ə.

\[(11) \ ɪ > i\]

\[
\begin{array}{llll}
\text{sikk-ā} & \text{sharp} & \text{sikk-iŋ} & \text{sharpness} \\
\text{bīrɲ-ā} & \text{smooth} & \text{bīrɲ-iŋ} & \text{smoothness}
\end{array}
\]

\[
\begin{array}{llll}
\text{o} > \ u & \\
\text{kurr-ā} & \text{tall} & \text{kurr-iŋ} & \text{tallness} \\
\text{tull-ɛ} & \text{good} & \text{tull-iŋ} & \text{goodness}
\end{array}
\]

\[
\begin{array}{llll}
\text{a} > \ ə & \\
\text{app-ā} & \text{big} & \text{əpp-iŋ} & \text{bigness} \\
\text{bayy-ā} & \text{narrow} & \text{bayy-iŋ} & \text{narrowness}
\end{array}
\]

It was shown in the previous section that the mid vowels /ɛ/ and /ɔ/ never precede a [+ATR] vowel in a root morpheme. This is also true in these cases of derivation and inflection (4.2). There is, therefore, a special strategy to solve the cases in which /ɛ/ and /ɔ/ are followed by a [+ATR] vowel across a morpheme boundary which, to my knowledge, has not yet been attested in any other language. It is categorical in that every vowel to the left of the nominalising [+ATR] suffix \(-iŋ\) is changed into a [+ATR] vowel which exists in the underlying system of the language. This means that, since [e] and [o] are not eligible, the vowels /i/ and /u/ are chosen as the [+ATR] counterparts of /ɛ/ and /ɔ/.

\[(12) \ ɛ > i\]

\[
\begin{array}{llll}
\text{tɛyy-ā} & \text{clean} & \text{tiiy-iŋ} & \text{cleanness} \\
\text{lɛpp-ɛ} & \text{thin, flat} & \text{lipp-iŋ} & \text{thinness, flatness} \\
\text{mers-ɔ} & \text{limping (adj.)} & \text{mirs-iŋ} & \text{limp (n.)}
\end{array}
\]
The same process of lexical vowel harmony is exemplified by inflected verb forms. Most examples given are third person plural past tense. The suffix for third person plural in the past tense consists of a consonant –l. Because of vowel-harmony changes on the preceding [-ATR] vowel, we must assume that the consonantal suffix –l is accompanied by a floating feature [+ATR], whereby all the vowels in the inflected verb form become [+ATR]. Usually, there is an alternative form with [-ATR] vowels, i.e. without the floating feature [+ATR].

The vowel-harmony changes are the same as exemplified in the section on nominalisation of adjectives.

(13) ɪ, ɛ > i
      a > ø
      ʊ, ɔ > u

The following are examples of verbs with [-ATR] root vowels, given first in their Imperative forms. Following that, I present the forms of the first, second, and third person plural [+human], and, if different, [-human], preceded by the pronouns kí, bí, and yɛɛŋ respectively.

(14) j-áłɔ  wash!
      kí k-álɔ́ we washed
      bí b-álɔ́ you washed
      yɛɛŋ  k-ə́lu-l ∼ k-álɔ-l they washed

(15) j-aldɔ́  beat!
      kí k-aldo we beat
      bí b-aldo you beat
      yɛɛŋ  k-əldu-l they beat [+ human]
      yɛɛŋ  l-əddu-l they beat [-human]

(16) j-ááłɔ  dance!
      kí k-áálɔ́ we danced
      bí b-áálɔ́ you danced
      yɛɛŋ  k-ə́əlu-l ∼ k-áálɔ-l they danced [+ human]
      yɛɛŋ  p-əəlu-l ∼ p-aalɔ-l they danced [-human]

(17) j-ɔ̂ŋ  sit!
      kí k-ɔ́ɔŋɔ́ we sat
      bí b-ɔ́ɔŋɔ́ you sat
yɛɛŋ $k$-úŋu-l ~ k-źńu-l they sat [+human]

yɛɛŋ $uuŋu$-l ~ cęśu-l they sat [-human]

(18) j-elló
  kí k-ellɔ we pulled
  bí b-ellɔ you pulled
  yɛɛŋ $k$-illu-l ~ k-ɛllɔ-l they pulled [+human][-human]

(19) j-ápʊ́ŋɔ jump!
  kí k-ápʊ́ŋɔ we jumped
  bí b-ápʊ́ŋɔ you jumped
  yɛɛŋ $k$-ápʊ́ŋu-l ~ k-ápʊ́ŋɔ-l they jumped [+human]
  yɛɛŋ $b$-aəŋu-l ~ b-aaŋɔ-l they jumped [-human]

In addition, a third-person plural [+ATR] suffix -i occasionally turns up in inflected verb forms. All vowels to its left change from [-ATR] to [+ATR], according to the scheme presented above.

(20) kí kɪrrɔ́-ŋa níŋ k-ɛɛŋ we will be green
    we green-pl FUT 1pl-be

  bí kɪrrɔ́-ŋa níŋ b-ɛɛŋ you (pl) will be green
  yɛɛŋ kɪrrɔ́-ŋa níŋ $k$-iŋ-i they [+human] will be green
  yɛɛŋ kɪrrɔ́-ŋa níŋ iŋ-i they [-human] will be green

(21) j-aba drink!
  kí k-ába we drank
  bí b-ába you drank
  yɛɛŋ $k$-áb-í they drank [+human]
  yɛɛŋ $b$-á-í they drank [-human]

(22) j-aldɔ́ beat!
  ká ása aldɔ́ I beat the dog
  I dog beat
  jí ása j-aldɔ́ you beat the dog
  yɛ́ ása l-addɔ́ he beat the dog
  yɛ́ ása ní $ald$-i I will beat the dog
  I dog Fut beat
  jí ása ní j-$ald$-i you will beat the dog
  yɛ́ ása ní l-$ádd$-i he will beat the dog

Future:

5 Conclusion and Reflections

5.1 Fur

Fur has eight contrastive vowels with ATR distinctions in the high vowels i/i and u/u and the low vowel a/ə. There is no ATR distinction in the mid vowels.
Mid vowels are never followed by [+ATR] high vowels; therefore, there are no allophonic realisations [e] and [o] attested.

Mid vowels can follow [+ATR] high or low vowels. In that case, there is gradient and partial ATR assimilation, to some extent also depending on the speed of speech.

When a suffix containing a [+ATR] high vowel follows the mid vowels /ɛ/ or /ɔ/, the latter change into the closest [+ATR] vowels which exist underlingly, namely /i/ and /u/.

The gradient ATR assimilation is from left to right; the categorical ATR-assimilation is anticipatory, namely from right to left.

5.2 Fur and Other Languages with ATR Vowel Harmony

ATR vowel harmony is a frequent phenomenon in Niger-Kordofanian and in Nilo-Saharan languages. The inventory of underlingly contrastive vowels participating in ATR vowel harmony and the way in which ATR vowel harmony manifests itself varies between languages.

Typologically, Fur most closely resembles the languages which have an ATR distinction in the high vowels only. Most of these languages have 7 vowels underlingly. Languages that have this upper-height vowel-harmony system are found in various subfamilies, both within Niger-Kordofanian and in Nilo-Saharan1.

However, Fur also differs slightly from those languages in that it does not only have underling ATR distinctions in high vowels, but also in the low vowel. Laru (Kordofanian) is another language which has ATR distinctions in the high and low vowels.2

In most if not all other languages with an upper-height ATR vowel-harmony system with 7 underlying vowels, the mid vowels /ɛ/ and /ɔ/ have clear allophonic realisations [e] and [o] preceding a [+ATR] vowel. Fur and Laru3 don't.

In Fur, there is a co-occurrence restriction in that mid vowels cannot precede a [+ATR] high vowel, neither morpheme-internally nor across morpheme boundaries. In this, it is the same as Laru.4

Typologically, this means that languages with upper-height ATR vowel harmony can be subdivided into the following subgroups:

---

1 Within Niger-Kordofanian, upper-height ATR vowel-harmony systems are attested in three subgroups: Kordofanian: Laru, Lumun, Tira; Bantu: Malila, LuGungu, LuBwisi/Talinga, Nande, Rangi; Ubangi: Mayogo. Within Nilo-Saharan, they occur in the following subgroups: Central-Sudanic: Lese, Mvuba, Mangbutu, Ndo-Okebu; Saharan: Teda, Daza.
2 See Abdallah (this volume) (Ed.)
3 See Abdallah (this volume) (Ed.)
4 See Abdallah (this volume) (Ed.)
1. 7/9-vowel systems: 7 underlying vowels /i, ɪ, ɛ, ə, ɔ, ʊ, u/ and 9 on the surface, the two extra being [e] and [o] (some Bantu, Central-Sudanic, and Saharan languages).

2. 8-vowel systems: 8 underlying vowels /i, ɪ, ɛ, a, ə, ɔ, ʊ, u/ and no allophonic [e] and [o] realisations (Fur, Laru). These languages both have a constraint against mid vowels preceding [+ATR] high vowels. In these languages, /ɛ/ and /ɔ/ change to /i/ and /u/ when followed by a [+ATR] suffix.

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Tennet Verb Paradigms
Christine Waag and Eileen Kilpatrick

1. Standard Form
The Tennet verb is marked for aspect (progressive and completive) and subject reference. The subject reference distinguishes seven forms, 1, 2 and 3 singular, 1 plural exclusive and inclusive, 2 plural and 3 plural. The object may also be marked on the verb, though the object reference is not used often. This paper only shows the subject reference. In addition to the reference markers, overt subject and object pronouns are commonly used, though they are not obligatory. They comprise six forms each, 1, 2 and 3 singular and 1, 2 and 3 plural.

This paper deals with the progressive and completive paradigms of verbs. There are other verb forms which are not discussed here but left to further investigation. Only some of the derivational suffixes are briefly introduced in section 2.

Prefixes and suffixes are used to differentiate aspect and person. The following table gives an overview of the affixes. Furthermore, the subject pronouns are listed.

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
<th>Pronouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>first root vowel</td>
<td>meaning in paradigm</td>
<td></td>
</tr>
<tr>
<td>k-à- -i</td>
<td>k-V- -à</td>
<td>'I' ànːà</td>
</tr>
<tr>
<td>à- -i</td>
<td>V- -ú</td>
<td>'you(sg)' ìnːɔ</td>
</tr>
<tr>
<td>á- -Ø</td>
<td>V- -Ø</td>
<td>'(s)he' ènːè</td>
</tr>
<tr>
<td>k-à- -C1-à</td>
<td>k-V- -C1-à</td>
<td>'we (excl)' nàɡà</td>
</tr>
<tr>
<td>k-á- -Ø</td>
<td>k-V- -Ø</td>
<td>'we (incl)' nàɡà</td>
</tr>
<tr>
<td>à- -C1-ù</td>
<td>V- -C1-ù</td>
<td>'you(pl)' nìɡà</td>
</tr>
<tr>
<td>á- -Ø</td>
<td>V- -Ø</td>
<td>'they' nèɡè</td>
</tr>
</tbody>
</table>

Table 1: Regular affixes in progressive and completive verb forms

1a. Prefixes
The prefix in the progressive and completive verb paradigms consists of a vowel that is preceded by k- for first person forms. The prefix vowel in the completive copies the first root vowel. In the progressive forms the prefix vowel is a- except for the verbs with a mid root vowel. If the first root vowel is e/ɛ or o/ɔ, the prefix vowel copies this first root vowel. The following tables show example paradigms of verbs with the different vowels, the high vowels i/ɪ and u/ʊ (víɾ, tʃɪ́n, ɾúk and nːʊ́), the mid vowels ɛ and ɔ (gɛl and tɔ́d), and the low vowels ø/a (gːə́m and ɲak).

The tone on the prefix vowel a– in the progressive often is as indicated in Table 1, which is high in 3 singular or plural and in 1 plural inclusive and low in the other forms. The same tone patterns can be found with other first root vowels in the progressive. With other verbs the prefix vowels carry either all low tone or all high
tone in one paradigm. In the completive, more tone patterns are possible for the first root vowel.

<table>
<thead>
<tr>
<th>vîr – ‘run!’</th>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kóvîrì ànːà</td>
<td>I am running</td>
<td>kívîrò ànːà</td>
</tr>
<tr>
<td>óvîr iːnːò</td>
<td>you(sg) are running</td>
<td>ívîrù iːnːò</td>
</tr>
<tr>
<td>óvîr ènːè</td>
<td>s/he is running</td>
<td>ívîr ènːè</td>
</tr>
<tr>
<td>kávírjːò nàgà</td>
<td>we(excl) are running</td>
<td>kívîrtːò nàgà</td>
</tr>
<tr>
<td>kávír nàgà</td>
<td>we(incl) are running</td>
<td>kívîrèt nàgà</td>
</tr>
<tr>
<td>óvîrjːù nìgà</td>
<td>you(pl) are running</td>
<td>ívîrtːù nìgà</td>
</tr>
<tr>
<td>óvîr nège</td>
<td>they are running</td>
<td>ívîrèt nège</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>tʃìn – ‘see!’</th>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kótıʃìnì ànːà</td>
<td>I am seeing</td>
<td>kîtíʃìnà ànːà</td>
</tr>
<tr>
<td>ə́tıʃìnì iːnːò</td>
<td>you(sg) are seeing</td>
<td>ítıʃítnù iːnːò</td>
</tr>
<tr>
<td>ə́tıʃìn ènːè</td>
<td>s/he is seeing</td>
<td>ítıʃítn ènːè</td>
</tr>
<tr>
<td>kátıʃínːà nàgà</td>
<td>we(excl) are seeing</td>
<td>kîtíʃíntːà nàgà</td>
</tr>
<tr>
<td>kátıʃìn nàgà</td>
<td>we(incl) are seeing</td>
<td>kîtíʃínt nàgà</td>
</tr>
<tr>
<td>ə́tıʃínːù nìgà</td>
<td>you(pl) are seeing</td>
<td>ítıʃíntːù nìgà</td>
</tr>
<tr>
<td>ə́tıʃín nège</td>
<td>they are seeing</td>
<td>ítıʃínt nège</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>rúk – ‘beat!’</th>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kóırùì ànːà</td>
<td>I am beating</td>
<td>kúrúwò ànːà</td>
</tr>
<tr>
<td>ə́ırùì iːnːò</td>
<td>you(sg) are beating</td>
<td>ùrúwú iːnːò</td>
</tr>
<tr>
<td>ə́rirú ènːè</td>
<td>s/he is beating</td>
<td>ùrúk èmːè</td>
</tr>
<tr>
<td>kárírúkːò nàgà</td>
<td>we(excl) are beating</td>
<td>kúrúktːò nàgà</td>
</tr>
<tr>
<td>kárírúk nàgà</td>
<td>we(incl) are beating</td>
<td>kúrúwèt nàgà</td>
</tr>
<tr>
<td>ə́rirúkːù nìgà</td>
<td>you(pl) are beating</td>
<td>ùríktːù nìgà</td>
</tr>
<tr>
<td>ə́rirúk nège</td>
<td>they are beating</td>
<td>ùríwèt nège</td>
</tr>
</tbody>
</table>
### nːʊ́ – ‘follow!’

<table>
<thead>
<tr>
<th></th>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kànːʊ́ ànːà</td>
<td>I am following</td>
<td>kónːówà ànːà</td>
</tr>
<tr>
<td>ànːó inːɔː</td>
<td>you(sg) are following</td>
<td>ʊnːuwú inːɔː</td>
</tr>
<tr>
<td>ánːó ɛnːɛ</td>
<td>s/he is following</td>
<td>ʊnːɛnːɛ</td>
</tr>
<tr>
<td>kànːʊjːà nàɡà</td>
<td>we(excl) are following</td>
<td>kónːówɛt nàɡà</td>
</tr>
<tr>
<td>ànːújːú nàɡà</td>
<td>you(pl) are following</td>
<td>ʊnːút nàɡà</td>
</tr>
<tr>
<td>ánːʊ́ nɛkɛ̀</td>
<td>they are following</td>
<td>ʊnːówɛt nɛkɛ̀</td>
</tr>
</tbody>
</table>

### ɡɛ̀l – ‘separate!’

<table>
<thead>
<tr>
<th></th>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kèɡélì ànːà</td>
<td>I am separating</td>
<td>kèɡélì / kètèɡélì ànːà</td>
</tr>
<tr>
<td>èɡélì inːɔː</td>
<td>you(sg) are separating</td>
<td>èɡélì / ètèɡélì inːɔː</td>
</tr>
<tr>
<td>ɛ́ɡɛ̀l ɛnːɛ</td>
<td>s/he is separating</td>
<td>ëtèɡélì ɛnːɛ</td>
</tr>
<tr>
<td>kèɡélì nàɡà</td>
<td>we(excl) are separating</td>
<td>kètèɡélìt nàɡà</td>
</tr>
<tr>
<td>kèɡél nàɡà</td>
<td>we(incl) are separating</td>
<td>kètèɡélìt nàɡà</td>
</tr>
<tr>
<td>èɡélìt nàɡà</td>
<td>you(pl) are separating</td>
<td>ètèɡélìt nàɡà</td>
</tr>
<tr>
<td>éɡélì nɛkɛ̀</td>
<td>they are separating</td>
<td>ëtèɡélìt nɛkɛ̀</td>
</tr>
</tbody>
</table>

### tɔ́ɗ – ‘climb!’

<table>
<thead>
<tr>
<th></th>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kótóɗì ànːà</td>
<td>I am climbing</td>
<td>kótóɗì ànːà</td>
</tr>
<tr>
<td>òtóɗì inːɔː</td>
<td>you(sg) are climbing</td>
<td>òtóɗì inːɔː</td>
</tr>
<tr>
<td>òtɔ́ɗ ɛnːɛ</td>
<td>s/he is climbing</td>
<td>òtɔ́ɗ ɛnːɛ</td>
</tr>
<tr>
<td>kótóɗì nàɡà</td>
<td>we(excl) are climbing</td>
<td>kótóɗìt nàɡà</td>
</tr>
<tr>
<td>kótóɗ nàɡà</td>
<td>we(incl) are climbing</td>
<td>kótóɗit nàɡà</td>
</tr>
<tr>
<td>òtóɗìt nàɡà</td>
<td>you(pl) are climbing</td>
<td>òtóɗìt nàɡà</td>
</tr>
<tr>
<td>òtɔ́ɗ nɛkɛ̀</td>
<td>they are climbing</td>
<td>òtɔ́ɗit nɛkɛ̀</td>
</tr>
</tbody>
</table>
### gːm – ‘catch!’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kɔːgmì ànːà</td>
<td>I am catching</td>
</tr>
<tr>
<td>ãːgmì inːò</td>
<td>you(sg) are catching</td>
</tr>
<tr>
<td>ãːgm ënːè</td>
<td>s/he is catching</td>
</tr>
<tr>
<td>kɔːgmnɔ̀ nàɡà</td>
<td>we(excl) are catching</td>
</tr>
<tr>
<td>kɔːgm nàɡà</td>
<td>we(incl) are catching</td>
</tr>
<tr>
<td>ãːgmnù ñìgà</td>
<td>you(pl) are catching</td>
</tr>
<tr>
<td>ãːgm nɛ̀ɡɛ̀</td>
<td>they are catching</td>
</tr>
</tbody>
</table>

### ñák – ‘have!’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kɔnɔ̀i ànːà</td>
<td>I am having</td>
</tr>
<tr>
<td>ãːnɔ̀i inːò</td>
<td>you(sg) are having</td>
</tr>
<tr>
<td>ãpɔ̀k ënːè</td>
<td>s/he is having</td>
</tr>
<tr>
<td>kɔnɔ́kːà nàɡà</td>
<td>we(excl) are having</td>
</tr>
<tr>
<td>kɔnɔ́k nàɡà</td>
<td>we(incl) are having</td>
</tr>
<tr>
<td>ãnɔ́kù ñìgà</td>
<td>you(pl) are having</td>
</tr>
<tr>
<td>ãnɔ́k nɛ̀ɡɛ̀</td>
<td>they are having</td>
</tr>
</tbody>
</table>

### 1b. Suffixes

Table 1, that showed the regular affixes in verb paradigms, is repeated here for convenience.

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
<th>Pronouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>first root vowel</td>
<td>meaning in paradigm</td>
<td></td>
</tr>
<tr>
<td>k-à- -i</td>
<td>k-V- -i</td>
<td>k-V- -à</td>
</tr>
<tr>
<td>à- -i</td>
<td>V- -i</td>
<td>V- -ú</td>
</tr>
<tr>
<td>á- -Ø</td>
<td>V- -Ø</td>
<td>V- -Ø</td>
</tr>
<tr>
<td>k-à- -C₁-à</td>
<td>k-V- -C₁-à</td>
<td>k-V- -C₂-à (~-ì-à)</td>
</tr>
<tr>
<td>k-á- -Ø</td>
<td>k-V- -Ø</td>
<td>k-V- -ët-ìt</td>
</tr>
<tr>
<td>à- -C₁-ù</td>
<td>V- -C₁-ù</td>
<td>V- -C₂-ù (~-ù-ù)</td>
</tr>
<tr>
<td>á- -Ø</td>
<td>V- -Ø</td>
<td>V- -ët-ìt</td>
</tr>
</tbody>
</table>

Table 1: Regular affixes in progressive and completive verb forms
The suffix vowels /–i/ for first and second person singular in the progressive and /–u/ for second person in the progressive plural and the completive forms are [+ATR]. They cause the relevant verb forms to become [+ATR]. For all other verb forms the [+/-ATR] vowel quality depends on the verb stem – the suffix vowels become [+ATR] with a [+ATR] stem.

The choice of the suffix vowel in first person plural incl and third person plural of the completive paradigm follows a dissimilation rule. The suffix is /–ɛt/, if the last root vowel is a close vowel, and /–ɪt/, if the root vowel is mid or open.

In the first plural exclusive and second plural forms a consonant is added after the stem. The quality of this consonant depends on the last root consonant and may differ between the progressive and completive forms. Some verbs have more than one possibility for this consonant (see, for example, the different verbs with /l/ as the last root consonant). Also in the other forms the last consonant before the suffix may change from progressive to completive (especially verbs with /k/ as the last root consonant – as example, for the verbs with /k/ the representation of the last root consonant in the first singular forms is given in brackets in the following table). The following table shows the variation of suffixes with differing last root consonants, followed by the full paradigms of the same verbs (only the paradigms of the verbs marked with + can be found in 1a above). Additionally, three verbs are given that have a root ending in a vowel. For these verbs the additional consonant in the first plural exclusive and second plural forms is /jː/.
Changes when first plural exclusive suffix –Ca – ‘we (excl)’ is added to progressive and completive verbs with various root-final consonants. – The last two verbs are examples with roots ending with a vowel.

<table>
<thead>
<tr>
<th>root-final consonant</th>
<th>C₁</th>
<th>example</th>
<th>C₂</th>
<th>example</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>j</td>
<td>k-è-gén-jà</td>
<td>tʃ</td>
<td>k-è-gén-tʃà</td>
<td>‘be clever’</td>
</tr>
<tr>
<td>ṅ</td>
<td>j</td>
<td>k-è-póŋ-nà</td>
<td>t</td>
<td>k-è-póŋ-tà</td>
<td>‘be cold’</td>
</tr>
<tr>
<td>m</td>
<td>n</td>
<td>k-è-lèm-nà</td>
<td>t</td>
<td>k-è-lèm-tà</td>
<td>‘be cold’</td>
</tr>
<tr>
<td>n</td>
<td>n</td>
<td>k-à-tʃín-nà</td>
<td>t</td>
<td>k-à-tʃín-tà</td>
<td>‘be cold’</td>
</tr>
<tr>
<td>l</td>
<td>l</td>
<td>k-è-gél-là</td>
<td>t</td>
<td>k-è-tègél-tà</td>
<td>‘be cold’</td>
</tr>
<tr>
<td>j</td>
<td>j</td>
<td>k-à-tivíl-jà</td>
<td>t</td>
<td>k-à-tivíl-tà</td>
<td>‘be cold’</td>
</tr>
<tr>
<td>r</td>
<td>j</td>
<td>k-à-vír-jà</td>
<td>t</td>
<td>k-à-vír-tà</td>
<td>‘be cold’</td>
</tr>
</tbody>
</table>

| d                    | ḍ  | k-ɔ-ðɔ̄ð-ðà  | t  | k-ɔ-ðɔ̄ð-tà  | ‘talk, answer’     |
| tf                   | tʃ | k-ɔ-ːtʃ-tʃà   | 1/ə² | k-ɔ-ːtʃ-ɪ̄à | ‘kick’             |
| t                    | t  | k-à-dút-tà  | i/ə | k-ù-dút-tà  | ‘pour’             |
| ḍ                    | d  | k-è-tɛ́d-dà  | 1/ə | k-è-tɛ́d-ià | ‘cut, cross’       |
| d                    | d  | k-à-tʃúd-dà | d  | k-ù-tʃúd-dà | ‘finish’           |
| b                    | j  | k-à-líf-jà  | t  | k-í-líf-tà | ‘break’            |
| g                    | dʒ | k-à-núg-dʒà | t  | k-à-núg-tà | ‘shut’             |

| k (Ø/w)³ | k  | k-3-òk-kà | t  | k-3-òk-tà | ‘fight’ |
| k (Ø/γ)  | k  | k-á-ŋak-kà| t  | k-á-ŋak-tà | ‘have’  |
| k (Ø/j)  | k  | k-à-tik-kà| t  | k-ì-tik-tà | ‘marry’ |
| k (k/k)   | k  | k-à-dʒuk-kà| t  | k-ù-dʒuk-tà | ‘throw’ |

| ɛ                   | j: | k-è-ré-jà | jːw | k-è-ré-jːwà | ‘wait’          |
| u                   | j: | k-ù-nú-jà | j  | k-ù-nú-jà  | ‘follow’        |
| ə                   | j: | k-á-gɔ́-jà | j  | k-á-gɔ́-jà  | ‘know’          |

Table 2

1 Here the completive form adds a prefix /tV/- to the root to form a verb stem before the inflectional affixes are added. The vowel copies the first root vowel.
2 The inserted vowel is the close vowel /i/ before the open suffix vowel /-a/ (first plural exclusive) and the open vowel /ə/ before the close suffix vowel /-u/ (second plural).
3 The consonants in brackets with the root-final consonant /k/ occur in the first singular forms of these verbs (see paradigms below).
### gɛ̂ɲ – ‘be clever!’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completeive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kɛ̀ɡɛ́ɲì ànːà</td>
<td>I am clever</td>
</tr>
<tr>
<td>èɡɛ́ɲì inːà</td>
<td>you(sg) are clever</td>
</tr>
<tr>
<td>ɛ́ɡɛ̂ɲ ɛ̀nːɛ̀</td>
<td>s/he is clever</td>
</tr>
<tr>
<td>kègeɲjà nàgà</td>
<td>we(excl) are clever</td>
</tr>
<tr>
<td>kɛ̀ɡɛ́ɲ nàɡà</td>
<td>we(incl) are clever</td>
</tr>
<tr>
<td>èɡɛ́ɲù nìɡà</td>
<td>you(pl) are clever</td>
</tr>
<tr>
<td>ɛ́ɡɛ̂ɲ ɛ̀nːɛ̀</td>
<td>they are clever</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Compleateive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kègeɲì ànːà</td>
<td>I was clever</td>
</tr>
<tr>
<td>èɡɛ̀ɡɛ́ɲà ànːà</td>
<td>you(sg) were clever</td>
</tr>
<tr>
<td>ɛ́ɡɛ̂ɲ ɛ̀nːɛ̀</td>
<td>s/he was clever</td>
</tr>
<tr>
<td>kègeɲtjà nàgà</td>
<td>we(excl) were clever</td>
</tr>
<tr>
<td>kègeɲt nàgà</td>
<td>we(incl) were clever</td>
</tr>
<tr>
<td>èɡɛ́ɲtù nìɡà</td>
<td>you(pl) were clever</td>
</tr>
<tr>
<td>ɛ́ɡɛ̂ɲ nìɡè</td>
<td>they were clever</td>
</tr>
</tbody>
</table>

### ɾɔ̂ŋ – ‘want!’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Compleative</th>
</tr>
</thead>
<tbody>
<tr>
<td>kɔ̀ɾɔ́ŋì ànːà</td>
<td>I am wanting</td>
</tr>
<tr>
<td>èɾɔ̂ŋì ɛ̀nːɛ̀</td>
<td>s/he is wanting</td>
</tr>
<tr>
<td>kɛ̀ɡɛ́ɲ ànːà</td>
<td>I wanted</td>
</tr>
<tr>
<td>èɾɔ̂ŋ ɛ̀nːɛ̀</td>
<td>s/he wanted</td>
</tr>
<tr>
<td>kɔ̀ɾɔ́ŋjà nàɡà</td>
<td>we(excl) are wanting</td>
</tr>
<tr>
<td>kɔ̀ɾɔ̂ŋtʃà nàɡà</td>
<td>we(excl) wanted</td>
</tr>
<tr>
<td>kɔ̀ɾɔ̂ŋ tʃà nàɡà</td>
<td>we(incl) are wanting</td>
</tr>
<tr>
<td>kɔ̀ɾɔ̂ŋtʃù nàɡà</td>
<td>we(incl) wanted</td>
</tr>
<tr>
<td>èɾɔ̂ŋjù nìɡà</td>
<td>you(pl) are wanting</td>
</tr>
<tr>
<td>ɛ́ɡɛ̂ɲɪ̀t nìɡè</td>
<td>they are wanting</td>
</tr>
</tbody>
</table>

### lɛ́m – ‘accept!’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Compleative</th>
</tr>
</thead>
<tbody>
<tr>
<td>kélémì ànːà</td>
<td>I am accepting</td>
</tr>
<tr>
<td>élémì inːà</td>
<td>you(sg) are accepting</td>
</tr>
<tr>
<td>kɛ́lɛ́mì ànːà</td>
<td>I accepted</td>
</tr>
<tr>
<td>èlém(a) ɛ̀nːɛ̀</td>
<td>s/he is accepting</td>
</tr>
<tr>
<td>èlém(à) ɛ̀nːɛ̀</td>
<td>s/he accepted</td>
</tr>
<tr>
<td>kɛ́lɛ́m ɛ̀nːɛ̀</td>
<td>they are accepting</td>
</tr>
<tr>
<td>kɛ́lɛ́mtʃà nàɡà</td>
<td>we(excl) are accepting</td>
</tr>
<tr>
<td>kɛ́lɛ́mtù nìɡà</td>
<td>you(pl) are accepting</td>
</tr>
<tr>
<td>kɛ́lɛ́mt nàɡà</td>
<td>we(excl) accepted</td>
</tr>
<tr>
<td>ɛ́lɛ́m(à) ɛ̀nːɛ̀</td>
<td>s/he accepted</td>
</tr>
<tr>
<td>ɛ́lɛ́m(ɪ̀) ɛ̀nːɛ̀</td>
<td>they accepted</td>
</tr>
<tr>
<td>ɛ́lɛ́m(ɪ̀) nìɡà</td>
<td>you(pl) accepted</td>
</tr>
</tbody>
</table>
### tʃín – ‘see!’ – repeated from 1a

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kátʃínì ànːà</td>
<td>I am seeing</td>
</tr>
<tr>
<td>átʃínì ìnːà</td>
<td>you(sg) are seeing</td>
</tr>
<tr>
<td>átʃín ènːè</td>
<td>s/he is seeing</td>
</tr>
<tr>
<td>kátʃíñà nàgà</td>
<td>we(excl) are seeing</td>
</tr>
<tr>
<td>kátʃín nàgà</td>
<td>we(incl) are seeing</td>
</tr>
<tr>
<td>átʃínù nìgà</td>
<td>you(pl) are seeing</td>
</tr>
<tr>
<td>átʃín nègè</td>
<td>they are seeing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I saw</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ítʃínù ìnːà</td>
<td>you(sg) saw</td>
</tr>
<tr>
<td>ítʃín ènːè</td>
<td>s/he saw</td>
</tr>
<tr>
<td>kítʃíntà nàgà</td>
<td>we(excl) saw</td>
</tr>
<tr>
<td>kítʃínt nàgà</td>
<td>we(incl) saw</td>
</tr>
<tr>
<td>ítʃíntù nìgà</td>
<td>you(pl) saw</td>
</tr>
<tr>
<td>ítʃíntèt nègè</td>
<td>they saw</td>
</tr>
</tbody>
</table>

### lál – ‘be cold!’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kólə́lì ànːà</td>
<td>I am cold</td>
</tr>
<tr>
<td>álólì ìnːà</td>
<td>you(sg) are cold</td>
</tr>
<tr>
<td>álál ènːè</td>
<td>s/he is cold</td>
</tr>
<tr>
<td>kálálnà nàgà</td>
<td>we(excl) are cold</td>
</tr>
<tr>
<td>kálál(i) nàgà</td>
<td>we(incl) are cold</td>
</tr>
<tr>
<td>álólù nìgà</td>
<td>you(pl) are cold</td>
</tr>
<tr>
<td>álál(i) nègè</td>
<td>they are cold</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I was cold</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>kálálà ànːà</td>
<td>you(sg) were cold</td>
</tr>
<tr>
<td>álólù ìnːà</td>
<td>you(sg) separated</td>
</tr>
<tr>
<td>álál ènːè</td>
<td>s/he was cold</td>
</tr>
<tr>
<td>káláltà nàgà</td>
<td>we(excl) were cold</td>
</tr>
<tr>
<td>kálálìt nàgà</td>
<td>we(incl) were cold</td>
</tr>
<tr>
<td>álólìt nìgà</td>
<td>you(pl) were cold</td>
</tr>
<tr>
<td>álálìt nègè</td>
<td>they were cold</td>
</tr>
</tbody>
</table>

### ɡɛ́l – ‘separate!’ – repeated from 1a

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kèɡélì ànːà</td>
<td>I am separating</td>
</tr>
<tr>
<td>èɡélì ìnːà</td>
<td>you(sg) are separating</td>
</tr>
<tr>
<td>èɡél ènːè</td>
<td>s/he is separating</td>
</tr>
<tr>
<td>kèɡél nàgà</td>
<td>we(excl) are separating</td>
</tr>
<tr>
<td>kèɡél nàgà</td>
<td>we(incl) are separating</td>
</tr>
<tr>
<td>èɡélù nìgà</td>
<td>you(pl) are separating</td>
</tr>
<tr>
<td>èɡèl nègè</td>
<td>they are separating</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I separated</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>kèɡèlà / kêtèɡèlì ànːà</td>
<td>you(sg) separated</td>
</tr>
<tr>
<td>kêtèɡèlìt ìnːà</td>
<td>you(sg) separated</td>
</tr>
<tr>
<td>ètèɡél ènːè</td>
<td>s/he separated</td>
</tr>
<tr>
<td>kêtèɡèltà nàgà</td>
<td>we(excl) separated</td>
</tr>
<tr>
<td>kêtèɡèlt nàgà</td>
<td>we(incl) separated</td>
</tr>
<tr>
<td>ètèɡèltìt nìgà</td>
<td>you(pl) separated</td>
</tr>
<tr>
<td>ètèɡèltèt nègè</td>
<td>they separated</td>
</tr>
</tbody>
</table>
## tìvìl – ‘clean upǃ’, ‘gatherǃ’, ‘sweepǃ’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kòvìli ànːà</td>
<td>I am cleaning up</td>
</tr>
<tr>
<td>òvìli ìnːò</td>
<td>you(sg) are cleaning up</td>
</tr>
<tr>
<td>òvìl ënːë</td>
<td>s/he is cleaning up</td>
</tr>
<tr>
<td>kòviljò nàgà</td>
<td>we(excl) are cleaning up</td>
</tr>
<tr>
<td>kòvil nàgà</td>
<td>we(incl) are cleaning up</td>
</tr>
<tr>
<td>òvìljù nìgà</td>
<td>you(pl) are cleaning up</td>
</tr>
<tr>
<td>òvìl nègè</td>
<td>they are cleaning up</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progessive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kòvìlì ànːà</td>
<td>I cleaned up</td>
</tr>
<tr>
<td>òvìlì ìnːò</td>
<td>you(sg) cleaned up</td>
</tr>
<tr>
<td>òvìlì ënːë</td>
<td>s/he cleaned up</td>
</tr>
<tr>
<td>kòvìlì tògà</td>
<td>we(excl) cleaned up</td>
</tr>
<tr>
<td>kòvìlì tìgà</td>
<td>we(incl) cleaned up</td>
</tr>
<tr>
<td>òvìljù tìgà</td>
<td>you(pl) cleaned up</td>
</tr>
<tr>
<td>òvìl nègë</td>
<td>they cleaned up</td>
</tr>
</tbody>
</table>

## vír – ‘runǃ’ – repeated from 1a

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kòvìri ànːà</td>
<td>I am running</td>
</tr>
<tr>
<td>òvìri ìnːò</td>
<td>you(sg) are running</td>
</tr>
<tr>
<td>òvìr ënːë</td>
<td>s/he is running</td>
</tr>
<tr>
<td>kòvìrjò nàgà</td>
<td>we(excl) are running</td>
</tr>
<tr>
<td>kòvìr nàgà</td>
<td>we(incl) are running</td>
</tr>
<tr>
<td>òvìrjù nìgà</td>
<td>you(pl) are running</td>
</tr>
<tr>
<td>òvìr nègè</td>
<td>they are running</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progessive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kòvìrà ànːà</td>
<td>I ran</td>
</tr>
<tr>
<td>òvìrà ìnːò</td>
<td>you(sg) ran</td>
</tr>
<tr>
<td>òvìrà ënːë</td>
<td>s/he ran</td>
</tr>
<tr>
<td>kòvìr tògà</td>
<td>we(excl) ran</td>
</tr>
<tr>
<td>kòvìr tìgà</td>
<td>we(incl) ran</td>
</tr>
<tr>
<td>òvìrtù tìgà</td>
<td>you(pl) ran</td>
</tr>
<tr>
<td>òvìr nègë</td>
<td>they ran</td>
</tr>
</tbody>
</table>

## ðòð – ‘talkǃ’, ‘answerǃ’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kòðòðì ànːà</td>
<td>I am talking</td>
</tr>
<tr>
<td>òðòðì ìnːò</td>
<td>you(sg) are talking</td>
</tr>
<tr>
<td>òðòð ënːë</td>
<td>s/he is talking</td>
</tr>
<tr>
<td>kòðòðjò nàgà</td>
<td>we(excl) are talking</td>
</tr>
<tr>
<td>kòðòð nàgà</td>
<td>we(incl) are talking</td>
</tr>
<tr>
<td>òðòðjù nìgà</td>
<td>you(pl) are talking</td>
</tr>
<tr>
<td>òðòð nègè</td>
<td>they are talking</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Progessive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kòðòðà ànːà</td>
<td>I talked</td>
</tr>
<tr>
<td>òðòðù ìnːò</td>
<td>you(sg) talked</td>
</tr>
<tr>
<td>òðòð ënːë</td>
<td>s/he talked</td>
</tr>
<tr>
<td>kòðòðtògà</td>
<td>we(excl) talked</td>
</tr>
<tr>
<td>kòðòðtìgà</td>
<td>we(incl) talked</td>
</tr>
<tr>
<td>òðòðtìgà</td>
<td>you(pl) talked</td>
</tr>
<tr>
<td>òðòð tìgè</td>
<td>they talked</td>
</tr>
</tbody>
</table>
vːtʃ – ‘kick’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kóvːótiə̀ ànːà</td>
<td>I am kicking</td>
</tr>
<tr>
<td>óvːóti inːà</td>
<td>you(sg) are kicking</td>
</tr>
<tr>
<td>óvːóti inːè</td>
<td>s/he is kicking</td>
</tr>
<tr>
<td>kóvːóti nàgà</td>
<td>we(excl) are kicking</td>
</tr>
<tr>
<td>óvːóti nàgà</td>
<td>we(incl) are kicking</td>
</tr>
<tr>
<td>óvːóti nègè</td>
<td>they are kicking</td>
</tr>
<tr>
<td>kóvːóti ànːà</td>
<td>I kicked</td>
</tr>
<tr>
<td>óvːóti inːà</td>
<td>you(sg) kicked</td>
</tr>
<tr>
<td>óvːóti inːè</td>
<td>s/he kicked</td>
</tr>
<tr>
<td>kóvːóti nàgà</td>
<td>we(excl) kicked</td>
</tr>
<tr>
<td>óvːóti nàgà</td>
<td>we(incl) kicked</td>
</tr>
<tr>
<td>óvːóti nègè</td>
<td>they kicked</td>
</tr>
</tbody>
</table>

dút – ‘pour’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kóɗúti ànːà</td>
<td>I am pouring</td>
</tr>
<tr>
<td>òɗúti inːà</td>
<td>you(sg) are pouring</td>
</tr>
<tr>
<td>òɗúti inːè</td>
<td>s/he is pouring</td>
</tr>
<tr>
<td>kóɗúti nàgà</td>
<td>we(excl) are pouring</td>
</tr>
<tr>
<td>kóɗúti nàgà</td>
<td>we(incl) are pouring</td>
</tr>
<tr>
<td>òɗúti nègè</td>
<td>they are pouring</td>
</tr>
<tr>
<td>kóɗúti ànːà</td>
<td>I poured</td>
</tr>
<tr>
<td>òɗúti inːà</td>
<td>you(sg) poured</td>
</tr>
<tr>
<td>òɗúti inːè</td>
<td>s/he poured</td>
</tr>
<tr>
<td>kóɗúti nàgà</td>
<td>we(excl) poured</td>
</tr>
<tr>
<td>kóɗúti nàgà</td>
<td>we(incl) poured</td>
</tr>
<tr>
<td>òɗúti nègè</td>
<td>they poured</td>
</tr>
</tbody>
</table>

tːɛ́ɗ – ‘cut!’, ‘cross!’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>këtːéɗi ànːà</td>
<td>I am cutting</td>
</tr>
<tr>
<td>êtːéɗi inːà</td>
<td>you(sg) are cutting</td>
</tr>
<tr>
<td>êtːéɗi inːè</td>
<td>s/he is cutting</td>
</tr>
<tr>
<td>këtːéɗ ànːà</td>
<td>I cut</td>
</tr>
<tr>
<td>êtːéɗi inːà</td>
<td>you(sg) cut</td>
</tr>
<tr>
<td>êtːéɗi inːè</td>
<td>s/he cut</td>
</tr>
<tr>
<td>këtːéɗi nàtːà</td>
<td>we(excl) are cutting</td>
</tr>
<tr>
<td>këtːéɗi nàtːà</td>
<td>we(excl) cut</td>
</tr>
<tr>
<td>êtːéɗi nàtːà</td>
<td>you(pl) are cutting</td>
</tr>
<tr>
<td>êtːéɗi nàtːà</td>
<td>you(pl) cut</td>
</tr>
<tr>
<td>êtːéɗi nètːè</td>
<td>they are cutting</td>
</tr>
<tr>
<td>êtːéɗi nètːè</td>
<td>they cut</td>
</tr>
</tbody>
</table>
### tʃʊ̀ɗ – ‘finish!’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kə̀tʃúɗì  ànːà</td>
<td>kʊ̀tʃʊ̀ɗà  ànːà</td>
</tr>
<tr>
<td>àtʃúɗì  inːà</td>
<td>ùtʃúɗú  inːà</td>
</tr>
<tr>
<td>átʃʊ̀ɗ  ènːè</td>
<td>s/he is finishing</td>
</tr>
<tr>
<td>kə̀tʃúɗːà  nàɡà</td>
<td>kʊ̀tʃúɗːà  nàɡà</td>
</tr>
<tr>
<td>kə̀tʃúɗ  nàɡà</td>
<td>kʊ̀tʃʊ̀ɗɛ̀t  nàɡà</td>
</tr>
<tr>
<td>àtʃúɗːù  nìɡà</td>
<td>ùtʃúɗːù  nìɡà</td>
</tr>
<tr>
<td>átʃʊ̀ɗ  nɛ̀ɡɛ̀</td>
<td>s/he finished</td>
</tr>
</tbody>
</table>

### líp – ‘break!’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kə́líɓì  ànːà</td>
<td>kília  ànːà</td>
</tr>
<tr>
<td>ə́líɓì  inːà</td>
<td>àsibú  inːà</td>
</tr>
<tr>
<td>ə́líɓ  ènːè</td>
<td>s/he is breaking</td>
</tr>
<tr>
<td>kə́líɓːà  nàɡà</td>
<td>kíliaːà  nàɡà</td>
</tr>
<tr>
<td>kə́líɓ  nàɡà</td>
<td>kíliaːt  nàɡà</td>
</tr>
<tr>
<td>ə́líɓːù  nìɡà</td>
<td>àsibtːù  nìɡà</td>
</tr>
<tr>
<td>ə́líɓ  nɛ̀ɡɛ̀</td>
<td>s/he broke</td>
</tr>
</tbody>
</table>

### ñʊ́ɡ – ‘shut!’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kə̀ɲúɡì  ànːà</td>
<td>künde  ànːà</td>
</tr>
<tr>
<td>ə̀ɲúɡì  inːà</td>
<td>ùɲúɡú  inːà</td>
</tr>
<tr>
<td>ə̀ɲúɡ  ènːè</td>
<td>s/he is shutting</td>
</tr>
<tr>
<td>kə̀ɲúɡːà  nàɡà</td>
<td>kündeːà  nàɡà</td>
</tr>
<tr>
<td>kə̀ɲúɡ  nàɡà</td>
<td>kündeːt  nàɡà</td>
</tr>
<tr>
<td>ə̀ɲúɡːù  nìɡà</td>
<td>ùɲúɡtːù  nìɡà</td>
</tr>
<tr>
<td>ə̀ɲúɡ  nɛ̀ɡɛ̀</td>
<td>s/he shut</td>
</tr>
</tbody>
</table>

---

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td></td>
</tr>
</tbody>
</table>
### jòk – ‘fight!’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kòjòì ànːà</td>
<td>I am fighting</td>
</tr>
<tr>
<td>òjòì inːà</td>
<td>you(sg) are fighting</td>
</tr>
<tr>
<td>òjòk ènːè</td>
<td>s/he is fighting</td>
</tr>
<tr>
<td>kòjòkːà nàgà</td>
<td>we(excl) are fighting</td>
</tr>
<tr>
<td>kòjòk nàgà</td>
<td>we(incl) are fighting</td>
</tr>
<tr>
<td>òjòkù nìgà</td>
<td>you(pl) are fighting</td>
</tr>
<tr>
<td>òjòk nègè</td>
<td>they are fighting</td>
</tr>
<tr>
<td>kòjèwà ànːà</td>
<td>I fought</td>
</tr>
<tr>
<td>òjòwù inːà</td>
<td>you(sg) fought</td>
</tr>
<tr>
<td>òjòk ènːè</td>
<td>s/he fought</td>
</tr>
<tr>
<td>kòjòktà nàgà</td>
<td>we(excl) fought</td>
</tr>
<tr>
<td>kòjít nàgà</td>
<td>we(incl) fought</td>
</tr>
<tr>
<td>òjòktù nìgà</td>
<td>you(pl) fought</td>
</tr>
<tr>
<td>òjòit nègè</td>
<td>they fought</td>
</tr>
</tbody>
</table>

### ğák – ‘have!’ – repeated from 1a

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>káŋåì ànːà</td>
<td>I am having</td>
</tr>
<tr>
<td>áŋåì inːà</td>
<td>you(sg) are having</td>
</tr>
<tr>
<td>áŋák ènːè</td>
<td>s/he is having</td>
</tr>
<tr>
<td>káŋákːà nàgà</td>
<td>we(excl) are having</td>
</tr>
<tr>
<td>káŋák nàgà</td>
<td>we(incl) are having</td>
</tr>
<tr>
<td>áŋákù nìgà</td>
<td>you(pl) are having</td>
</tr>
<tr>
<td>áŋák nègè</td>
<td>they are having</td>
</tr>
<tr>
<td>káŋáyà ànːà</td>
<td>I had</td>
</tr>
<tr>
<td>áŋåu inːà</td>
<td>you(sg) had</td>
</tr>
<tr>
<td>áŋák ènːè</td>
<td>s/he had</td>
</tr>
<tr>
<td>káŋåktà nàgà</td>
<td>we(excl) had</td>
</tr>
<tr>
<td>káŋätt nàgà</td>
<td>we(incl) had</td>
</tr>
<tr>
<td>áŋåktù nìgà</td>
<td>you(pl) had</td>
</tr>
<tr>
<td>áŋåit nègè</td>
<td>they had</td>
</tr>
</tbody>
</table>

### tík – ‘marry!’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kòtíì ànːà</td>
<td>I am marrying</td>
</tr>
<tr>
<td>òtíì inːà</td>
<td>you(sg) are marrying</td>
</tr>
<tr>
<td>òtík ènːè</td>
<td>s/he is marrying</td>
</tr>
<tr>
<td>kòtíkːà nàgà</td>
<td>we(excl) are marrying</td>
</tr>
<tr>
<td>kòtík nàgà</td>
<td>we(incl) are marrying</td>
</tr>
<tr>
<td>òtíkù nìgà</td>
<td>you(pl) are marrying</td>
</tr>
<tr>
<td>òtík nègè</td>
<td>they are marrying</td>
</tr>
<tr>
<td>kítjìì ànːà</td>
<td>I married</td>
</tr>
<tr>
<td>ítìì inːà</td>
<td>you(sg) married</td>
</tr>
<tr>
<td>ítìk ènːè</td>
<td>s/he married</td>
</tr>
<tr>
<td>kítjtì nàgà</td>
<td>we(excl) married</td>
</tr>
<tr>
<td>kítjté nàgà</td>
<td>we(incl) married</td>
</tr>
<tr>
<td>ítítù nìgà</td>
<td>you(pl) married</td>
</tr>
<tr>
<td>ítíté nègè</td>
<td>they married</td>
</tr>
</tbody>
</table>
### dʒúk – ‘throw!’

<table>
<thead>
<tr>
<th></th>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kəɗdʒúkí</td>
<td>I am throwing</td>
<td>kùɗdʒúkó</td>
</tr>
<tr>
<td>əɗdʒúkí</td>
<td>you(sg) are throwing</td>
<td>əɗdʒúkú</td>
</tr>
<tr>
<td>òɗdʒúk</td>
<td>s/he is throwing</td>
<td>òɗdʒúk</td>
</tr>
<tr>
<td>kəɗdʒúk:ó</td>
<td>we(excl) are throwing</td>
<td>kùɗdʒúktó</td>
</tr>
<tr>
<td>òɗdʒúk:ù</td>
<td>you(pl) are throwing</td>
<td>òɗdʒúktú</td>
</tr>
<tr>
<td>òɗdʒúk</td>
<td>they are throwing</td>
<td>òɗdʒúkét</td>
</tr>
</tbody>
</table>

### ë́ – ‘wait!’

<table>
<thead>
<tr>
<th></th>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kérë̀</td>
<td>I am waiting</td>
<td>kérë́wà</td>
</tr>
<tr>
<td>ɜ́rë́</td>
<td>you(sg) are waiting</td>
<td>ɜ́rë́ú</td>
</tr>
<tr>
<td>ɛ́rë́</td>
<td>s/he is waiting</td>
<td>ɛ́rë́wò</td>
</tr>
<tr>
<td>kérë́j:à</td>
<td>we(excl) are waiting</td>
<td>kérë́j:wá</td>
</tr>
<tr>
<td>kérë́</td>
<td>we(incl) are waiting</td>
<td>kérë́tʃ</td>
</tr>
<tr>
<td>ɜ́rë́j:ù</td>
<td>you(pl) are waiting</td>
<td>ɜ́rë́j:wù</td>
</tr>
<tr>
<td>ɜ́rë́</td>
<td>they are waiting</td>
<td>ɜ́rë́tʃ</td>
</tr>
</tbody>
</table>

### nːʊ́ – ‘followǃ’ – repeated from 1a

<table>
<thead>
<tr>
<th></th>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kánɔ́</td>
<td>I am following</td>
<td>kònɔ́wà</td>
</tr>
<tr>
<td>ànɔ́</td>
<td>you(sg) are following</td>
<td>ànɔ́wú</td>
</tr>
<tr>
<td>ánɔ́</td>
<td>s/he is following</td>
<td>ánɔ́</td>
</tr>
<tr>
<td>kánɔ́j:à</td>
<td>we(excl) are following</td>
<td>kònɔ́j:wá</td>
</tr>
<tr>
<td>kánɔ́</td>
<td>we(incl) are following</td>
<td>kònɔ́wɛ́t</td>
</tr>
<tr>
<td>ànɔ́j:ù</td>
<td>you(pl) are following</td>
<td>ànɔ́j:wù</td>
</tr>
<tr>
<td>ànɔ́</td>
<td>they are following</td>
<td>ànɔ́wɛ́t</td>
</tr>
</tbody>
</table>

---
### 2. Derivations

The paradigms are different with derivational affixes. As example, a verb with applicative and a verb with reciprocal suffix are given. The segmental differences for distinguishing person and number are often neutralized in the derived forms. Thus, for differentiating these forms tone becomes more important than in the basic forms.

Applicative: There are different applicative suffixes. One of them marks accompaniment. This suffix /–ɛ/ changes the verb vír – ‘run’ into vîrè – ‘run with’. The paradigm of vír is repeated for convenience.

<table>
<thead>
<tr>
<th>g:á – ‘know!’</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Progressive</strong></td>
<td><strong>Completive</strong></td>
<td></td>
</tr>
<tr>
<td>kògːá ànːà</td>
<td>I am knowing</td>
<td>kògːwɔ̀ ànːà</td>
</tr>
<tr>
<td>ãgːá inːà</td>
<td>you(sg) are knowing</td>
<td>ãgːù inːà</td>
</tr>
<tr>
<td>ţgːé ènːè</td>
<td>s/he is knowing</td>
<td>ţgːè ènːè</td>
</tr>
<tr>
<td>kògːjɜ̀ nàgà</td>
<td>we(excl) are knowing</td>
<td>kògːjɜ̀ nàgà</td>
</tr>
<tr>
<td>kògːá nàgà</td>
<td>we(incl) are knowing</td>
<td>kògːató nàgà</td>
</tr>
<tr>
<td>ãgːjù nìgà</td>
<td>you(pl) are knowing</td>
<td>ãgːjù nìgà</td>
</tr>
<tr>
<td>ãgː nègè</td>
<td>they are knowing</td>
<td>ãgːató nègè</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>vîr – ‘run!’</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Progressive</strong></td>
<td><strong>Completive</strong></td>
<td></td>
</tr>
<tr>
<td>kávîrì ànːà</td>
<td>I am running</td>
<td>kávîrè ànːà</td>
</tr>
<tr>
<td>ãvîrì inːà</td>
<td>you(sg) are running</td>
<td>ãvîrú inːà</td>
</tr>
<tr>
<td>ãvîrì ènːè</td>
<td>s/he is running</td>
<td>ãvîrè ènːè</td>
</tr>
<tr>
<td>kávîrí jɜ̀ nàgà</td>
<td>we(excl) are running</td>
<td>kávîrè tɜ̀ nàgà</td>
</tr>
<tr>
<td>kávîrí nàgà</td>
<td>we(incl) are running</td>
<td>kávîrè tó nàgà</td>
</tr>
<tr>
<td>ãvîrì:jù nìgà</td>
<td>you(pl) are running</td>
<td>ãvîrú:tù nìgà</td>
</tr>
<tr>
<td>ãvîrì nègè</td>
<td>they are running</td>
<td>ãvîrè:tè nègè</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>vîrè – ‘run with …!’</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Progressive</strong></td>
<td><strong>Completive</strong></td>
<td></td>
</tr>
<tr>
<td>ãvîrè ànːà</td>
<td>I am running with …</td>
<td>ãvîrè ànːà</td>
</tr>
<tr>
<td>ãvîrè inːà</td>
<td>you(sg) are running with …</td>
<td>ãvîrú inːà</td>
</tr>
<tr>
<td>ãvîrè ènːè</td>
<td>s/he is running with …</td>
<td>ãvîrè ènːè</td>
</tr>
<tr>
<td>ãvîró nàgà</td>
<td>we(excl) are running with …</td>
<td>ãvîrè tɜ̀ nàgà</td>
</tr>
<tr>
<td>ãvîrè nàgà</td>
<td>we(incl) are running with …</td>
<td>ãvîrè tó nàgà</td>
</tr>
<tr>
<td>ãvîrú nìgà</td>
<td>you(pl) are running with …</td>
<td>ãvîrú:tù nìgà</td>
</tr>
<tr>
<td>ãvîrè nègè</td>
<td>they are running with …</td>
<td>ãvîrè:tè nègè</td>
</tr>
</tbody>
</table>
The reciprocal suffix is used if the action is done to each other – then only plural forms are used. Reciprocal forms can also be used with an accompanying participant introduced by the preposition _DF ‘with’. With singular forms an accompanying participant has to be mentioned. The verbs  jylland ‘fight’ and ɡːɔ́ ‘know’ are used as examples. The paradigm of the underived forms are, again, repeated for convenience.

<table>
<thead>
<tr>
<th></th>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>jɔ̀k – ‘fight!’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kɔ̀jɔ̀  anːà</td>
<td>I am fighting</td>
<td>kɔ̀jɔ̀wù anːà</td>
</tr>
<tr>
<td>ọjɔ̀ inːà</td>
<td>you(sg) are fighting</td>
<td>ọjɔ̀wù inːà</td>
</tr>
<tr>
<td>ọjɔ́k  enːɛ́</td>
<td>s/he is fighting</td>
<td>ọjɔ́ktɔ́  enːɛ́</td>
</tr>
<tr>
<td>kɔ̀jɔ́k  nàɡà</td>
<td>we(excl) are fighting</td>
<td>kɔ̀jɔ́ktɔ́ nàɡà</td>
</tr>
<tr>
<td>kɔ̀jɔ́k  nàɡà</td>
<td>we(incl) are fighting</td>
<td>kɔ̀jɔ́ktɔ́ nàɡà</td>
</tr>
<tr>
<td>ọjɔ́kù níɡà</td>
<td>you(pl) are fighting</td>
<td>ọjɔ́ktɔ́̀ níɡà</td>
</tr>
<tr>
<td>ọjɔ́k  nɛ̀ɡɛ̀</td>
<td>they are fighting</td>
<td>ọjɔ́ktɔ́̀ nɛ̀ɡɛ̀</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘fight each other’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kɔ̀jɔ́yɔ́nà  anːà kí dʒɔ́n</td>
<td>I am fighting with John</td>
<td>kɔ̀jɔ́kτɔ́wà anːà kí dʒɔ́n</td>
</tr>
<tr>
<td>ọjɔ́yɔ́nú inːà kí dʒɔ́n</td>
<td>you(sg) are fighting with John</td>
<td>ọjɔ́ktɔ́ú inːà kí dʒɔ́n</td>
</tr>
<tr>
<td>ọjɔ́yɔ́  enːɛ́ kí dʒɔ́n</td>
<td>s/he is fighting with John</td>
<td>ọjɔ́ktɔ́  enːɛ́ kí dʒɔ́n</td>
</tr>
<tr>
<td>kɔ̀jɔ́yɔ́nà nàɡà</td>
<td>we(excl) are fighting each other</td>
<td>kɔ̀jɔ́kτɔ́wá nàɡà</td>
</tr>
<tr>
<td>kɔ̀jɔ́yɔ́ nàɡà</td>
<td>we(incl) are fighting each other</td>
<td>kɔ̀jɔ́ktɔ́ nàɡà</td>
</tr>
<tr>
<td>ọjɔ́yɔ́nú níɡà</td>
<td>you(pl) are fighting each other</td>
<td>ọjɔ́ktɔ́̀ níɡà</td>
</tr>
<tr>
<td>ọjɔ́yɔ́ nɛ̀ɡɛ̀</td>
<td>they are fighting each other</td>
<td>ọjɔ́ktɔ́̀ nɛ̀ɡɛ̀</td>
</tr>
</tbody>
</table>
### gːá – ‘know!’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kə̀ɡːə́ ǻnːà</td>
<td>I am knowing</td>
</tr>
<tr>
<td>ėɡːə́ inːà</td>
<td>you(sg) are knowing</td>
</tr>
<tr>
<td>ėɡːə́ ě̀nːè</td>
<td>s/he is knowing</td>
</tr>
<tr>
<td>kə̀ɡːə́jːà nàɡà</td>
<td>we(excl) are knowing</td>
</tr>
<tr>
<td>kə̀ɡːə́ nàɡà</td>
<td>we(incl) are knowing</td>
</tr>
<tr>
<td>ėɡːə́jːù nìɡà</td>
<td>you(pl) are knowing</td>
</tr>
<tr>
<td>ėɡːə́ nèɡè</td>
<td>they are knowing</td>
</tr>
</tbody>
</table>

### ‘have relationship to …’

<table>
<thead>
<tr>
<th>Progressive</th>
<th>Completive</th>
</tr>
</thead>
<tbody>
<tr>
<td>kə̀ɡːə́wónà ǻnːà kɪ́ ...</td>
<td>I am having rel. to ...</td>
</tr>
<tr>
<td>ėɡːə́wónù inːà kɪ́ ...</td>
<td>you(sg) are ...</td>
</tr>
<tr>
<td>ėɡːə́wó ě̀nːè kɪ́ ...</td>
<td>s/he is ...</td>
</tr>
<tr>
<td>kə̀ɡːə́jːóò nàɡà</td>
<td>we(excl) are ...</td>
</tr>
<tr>
<td>kə̀ɡːə́jːó nàɡà</td>
<td>we(incl) are ...</td>
</tr>
<tr>
<td>ėɡːə́jːóù nìɡà</td>
<td>you(pl) are ...</td>
</tr>
<tr>
<td>ėɡːə́jːó nèɡè</td>
<td>they are ...</td>
</tr>
</tbody>
</table>

### 3. Conclusion

Prefixes and suffixes contribute to the Tennet verb paradigms. The prefix vowel depends on the first root vowel and on the aspect. In the progressive and completive aspect forms, the prefix consonant /k–/ marks first person.

Whether the verb root begins with a consonant or vowel affects whether the vowel in the prefix elides. The prefix vowel elides for disyllabic vowel-initial verb roots. For most monosyllabic vowel-initial verb roots, the prefix vowel does not elide.

In the first and second person plural forms, the suffix consonant depends on the final sound of the root or derived stem. It is /-jː-/ for vowel-final roots/stems. In all forms of vowel-final roots/stems, usually the last root/stem vowel remains. The suffix /-i/ for first and second person singular in the progressive, for example, is dropped after vowel-final roots/stems, not even leaving the feature [+ATR] as a trace.

The number of syllables in the verb root/stem does not greatly affect the paradigms. The behaviour of tone in the verbs needs further investigation as how the tone patterns are influenced by the number of syllables. Long consonants in the verb root/stem do not affect the paradigms. These long consonants remain long throughout the paradigm.
Negation Strategies in Tima
Suzan Alamin Mubarak, University of Khartoum

0. Introduction
This paper describes and analyses the different strategies in the expression of negation in Tima. Firstly, Tima uses two negative particles *kV-* and *-Vŋ* in a single clause especially in negating imperative and declarative clauses in addition to the negation of constituents. This is the most common strategy of negation marking in Tima (see section 1). Secondly, Tima uses the negative word *kɛ́yɛ̀* for negated indirect command (see section 2). Thirdly, it uses an inherently negative expression *āmāŋ(âŋ)*, 'it is nothing / it does not exist'). This is used mainly in the negation of locational or existential clauses, as an answer to yes-or-no questions and question-word questions (see section 3). Fourthly, Tima uses the word *kaáràk* as another strategy for negating relative clauses only (see section 4). Fifthly, the negative form *ɔ̀ʔɔɔ́ŋ* is used mainly as an answer to ‘yes/no questions’ (see section 5).

A number of morphophonological processes take place with regard to the forms of the two negative particles (*kV-* and *-Vŋ*). They will be described and discussed where necessary. The following paragraphs discuss the different strategies of negation in detail. According to Bashir (2010), the phonemic transcriptions of Tima use 12 vowels which are divided into two groups: six [+ATR] and six [-ATR] vowels as follows:

<table>
<thead>
<tr>
<th>[+ATR] Vowel Set</th>
<th>[-ATR] Vowel Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>ɨ</td>
</tr>
<tr>
<td>e</td>
<td>o</td>
</tr>
<tr>
<td>a</td>
<td></td>
</tr>
</tbody>
</table>

1. The *kV-* and *-Vŋ* particles
This strategy marks negation for the whole clause, which is described as clausal/sentential negation. In addition, it also negates some of the constituents of the clause such as nouns, adjectives, adverbs, quantifiers and prepositions. This type is described as constituent negation.

This strategy includes negation of the imperative (see 1.1), negation of declarative clauses in Tima (see 1.2) and negation of stative clauses (see 1.3). This clause negation type is also referred to as a standard negation by Payne (1985). He points out that standard negation applies to minimal and basic clauses apart from the complex sentence constructions that include clauses with adverbs, quantifiers and preposition phrases.

---

1 Tima is a language spoken in the Nuba Mountains in central Sudan. It is classified by Greenberg (1966) as Kordofanian language belonging to the Katla group, which is one of the four subgroups of Kordofanian branch (Williamson and Blench 2000). Tima is a tonal language. It has two tone levels, High (H) and Low (L). For more details about the Tima tonal system see Bashir (2010).

2 In Tima transcription, the symbol ‘Ø’ is not used as a vowel but refers to the zero morpheme.
1.1 Negative imperative and subjunctive
In most cases, imperative clauses in Tima are negated by using the two negative particles \( kV^- \) and \( -Vŋ \). On one hand, the proclitic negative marker \( kV^- \) marks negation in clause-initial position. On the other hand, the enclitic negative particle \( -Vŋ \) marks negation in clause-final position. The former negative strategy is less common in Africa, whereas the latter is widely attested in African languages (Heine and Zelealem, 2008). Accordingly, Tima has double negation marking in a clause.

The examples in 1a and 1b show how imperative negation is being applied to 2sg, 2pl, and the subjunctive weak form in the case of 1pl inclusive. The negative particles are underlined in the examples below. Concerning the negative particle \( kV^- \), here they are variable with regard to person and number and they change according to vowel harmony with the verb root (Bashir, 2010).

\[
\begin{array}{|l|l|l|l|}
\hline
\text{Positive IMP} & \text{NEG IMP 2sg} & \text{NEG IMP 2pl} & \text{NEG SUBJ 1pl incl} \\
\hline
\text{a) hündɔ́nɔ́ 'sit down'} & \text{ká-à-hìdáná-àŋ} & \text{kì-nà-hìdáná-àŋ} & \text{kì-i-hìdáná-àŋ} \\
\text{b) mòɔk 'drink'} & \text{ká-à-mòɔk-ɔ̂ŋ} & \text{kì-nà-mòɔk-ɔ̂ŋ} & \text{kì-i-mòɔk-ɔ̂ŋ} \\
\hline
\end{array}
\]

Notice that the negative form has a longer vowel length. The lengthened /\( kV^- \) is the result of the combination of the negative proclitic vowel and the person marker in the case of 2\(^{nd}\) sg and 1pl incl, which are usually represented by the vowels \( a^- \) and \( i^- \) respectively (see Alamin, 2009).

If the imperative verb stem takes a direct object (i.e. if it is a transitive verb), the second enclitic negative marker is encliticized to the end of the clause; so that it negates the whole clause as in (2).

\[
\begin{array}{|l|l|}
\hline
\text{a) ká-à-y-álúk} & \text{ká-bôh-ŋ} \\
\text{NEG-2sg.IMP-Epen-eat} & \text{NC.sg-meat-NEG} \\
\text{'Do not eat meat.' (2sg IMP, hortative)} & \\
\hline
\text{b) kì-nà-y-álúk} & \text{ká-bôh-ŋ} \\
\text{NEG-2plIMP-Epen-eat} & \text{NC.sg-meat-NEG} \\
\text{'Do not eat meat.' (2pl.)} & \\
\hline
\text{c) kì-i-y-álúk} & \text{ká-bôh-ŋ} \\
\text{NEG-1plSUBJ-Epen-eat} & \text{NC.sg-eat-NEG} \\
\text{'Let us not eat.' (1pl incl, subjunctive)} & \\
\hline
\end{array}
\]

\( ^3 \) The imperative form in Tima is considered to be the simplest verb form. It is unmarked morphologically in 2\(^{nd}\) person singular, whereas it is marked by the prefix \( na^- \) in 2\(^{nd}\) person plural. The Tima verbal system is very complicated as is the case in many other African languages (e.g. Bantu languages (Givon, 1971)). The Tima verb word consists of 12 slots including all the inflectional morphemes such as person, TAM and plurality and derivational morphemes (e.g. transitivity, antipassive, passive, applicative, causative, etc.). For the linear order of verb word structure, see Alamin, 2009).

\( ^4 \) In his article "Tima", Dimmendaal (2009) stated that the negative enclitic marker \( -Vŋ \) is absent in the imperative clause. Recent study shows that this negative enclitic marker \( -Vŋ \) occurs in all recent data and the negative imperative forms cannot stand without it.
The structure of the negative imperative and subjunctive forms is as follows:

NEG + IMP/SUBJ (DO) + NEG

1.2 Negative declarative
The negation of declarative clauses involves a denial of intransitive, transitive and ditransitive clauses or predications. All of these declarative types (whether they refer to future or non-future tense\(^5\)) are negated by the two negative particles in the clause: the negative particle \(kV\)-, which is procliticised to a verb and the negative particle \(-Vŋ\) which is encliticised to a verb or verb phrase in order to negate the whole clause. The proclitic negative marker \(kV\)- always fuses with the pronominal markers which immediately follow it (for more details about the structure of the Tima verb word/phrase, see Alamin 2009). The following examples illustrate negation with a negative verb, contrasting positive verb forms with negative ones.

(5) Intransitive clause
   a) án-diýáná-dà  
      ASP.1sg-laugh-1sg  
      'I laughed.'
   b) kí-n-diýáná-dá-ʌŋ  
      NEG.1sg-PM-laugh-1sg-NEG  
      'I did not laugh.'

(6) Transitive clause
   a) án-ñ-kámáh-dà  
      ASP.1sg-eat-1sg  
      porridge  
      'I ate porridge.'
   b) kí-ñ-kámáh-dà  
      NEG-PM-eat-1sg  
      porridge-NEG  
      'I did not eat porridge.'
   c) có-ñ-ñ-kámáh-dà  
      ASP-FUT-PM-eat-1sg  
      porridge  
      'I will eat porridge.'
   d) kí-ñ-ñ-támáh-dà  
      NEG-FUT-PM-eat-dà  
      porridge-NEG  
      'I won't eat porridge.'

(7) Ditransitive clause
   a) Hámið  dûdu-íi-ðà  tâmaá  d-ùmûrîk  
      Hamid  show-APPL-1sg  speech  NC-Tima  
      'Hamid teaches me Tima.'

\(^5\) Tima has a binary tense system. The tense is divided into future and/or non-future. The future is marked by the morpheme \(dV\)-, whereas the non-future (including the past and present) is unmarked morphologically (Alamin, 2009).
In the above examples, it is not possible to omit either of the two negative particles in a clause; otherwise the clause would be ungrammatical. Compare example (8a and b) with the example in (7b) above.

\[(8) \quad \text{a) } \text{Hamid} \quad \text{NEG-show-APPL-1sg speech NC-Tima} \quad \text{'Hamid does not teach me Tima.'} \]

\[(8) \quad \text{b) } \text{Hamid} \quad \text{show-APPL-1sg speech NC-Tima-NEG} \quad \text{'Hamid does not teach me Tima.'} \]

The examples in (7) show that the basic word order in Tima is SVO (Dimmendaal, 2009). Although, there is a change in the order of sentence constituents when they are negated. Likewise, many other African languages (especially Niger-Congo languages, e.g. in Kru) there are a number of word order changes that take place because of negation patterns (Creissels, et al 2008).

The formula of negated intransitive, transitive and ditransitive clauses is as follows:

\[
\text{NEG + VP includes V + (DO + IO) + NEG}
\]

Tima also has VSO as well as OVS word-order (Dimmendaal, 2009) due to focus marking and discourse structure. These different word orders are negated by different negative particles. In the case of VO both negative markers are used so that the negation applies to the whole clause as in (9). On the other hand, the negation of OV order is applied only to the part of the verb phrase as in (10)\(^6\).

\[(9) \quad \text{Hamid} \quad \text{NEG-know-1sg speech NC-Tima-NEG} \quad \text{'I do not know Tima.'} \]

\[(10) \quad \text{Speech NC-Tima-FOC NEG-know-1sg.ERG-NEG} \quad \text{'I do not know Tima.'} \]

It is noticeable in all the examples above that the proclitic negative particle \(kV\)- usually harmonizes with the verb root with regard to the feature of ±ATR and to the quality of the vowel in terms of frontness, height, or backness (Bashir, 2010).

\(^{6}\) The (S)ubject in examples (9) and (10) is expressed by a dependent pronoun indexing on the verb.

\(^{7}\) Tima has a system of split ergativity. It has a distinct set of pronominal markers in the ergative case. This takes place when the object (O) of a transitive clause is focused, then the agent (A) of the clause is preceded by a nasal element N. In such case the nasal element fuses with the enclitic pronominal subject markers, e.g. the 1st person singular -dʌ becomes -nʌ in the ergative case (Dimmendaal, 2009).
With regard to aspect, Tima differentiates between perfective and imperfective aspect. The perfective aspect is marked by the stative aspect marker a- for singular subject reference, and i-/i- for plural subject reference which precedes the verb, and by the aspect marker -ataŋ which indicates both perfectivity and completion of an action. The imperfective aspect includes progressive and habitual aspects. Both are marked morphologically by the proclitic ca-.

Concerning the negation of perfective and imperfective aspect clauses, Tima uses the two negative strategies mentioned above i.e. the use of the two negative particles and the negative expression à-máŋ. In the case of the perfective, the most common negative strategy (kV- and -Vŋ particles) is used as in (11). Alternatively, in the case of imperfective situations the negative expression à-máŋ is used as in (12). In many cases, the enclitic negative particle -Vŋ is added to the negative expression àmáŋ to make a double negation marking on the clause. The resultant form is àmáŋ-(ʌ̂ŋ) (see section 3 below).

(11) pɨ́nʌ́́ ku-mɔ́ɔ̀k ɪ̀hɪ̀-y-ʌ̂ŋ
3sg NEG-drink milk-Epen-NEG
'He did not drink milk.'

(12) pɨ́nʌ́́ à-máŋ ù-mɔ́ɔ̀k-átáŋ ɪ̀hɪ̀-y-ʌ̂ŋ
3sg SAM-nothing 3sg-drink-COMP milk-Epen-NEG
'He has not finished drinking milk yet.'

Examples (11) and (12) show a glide insertion between the nominal root and the enclitic negative particle -Vŋ. This process takes place when the root which precedes the negative particle ends in a vowel. Thus, this insertion process occurs when the two vowels are of different quality. The palatal glide 'y' is inserted above because the root ends in a front vowel, e.g. 'i/i'. Alternatively, the labiovelar glide 'w' is inserted when the root ends with back vowel, e.g. 'u/u' as in (13). This process takes place in order to avoid unacceptable sequences of vowels i.e. the occurrence of VVV sequence is unacceptable in Tima.

(13) ká-à-náhák à-lɔ́ɔ́kɔ́ɔ̀-w-ɔ̂ŋ
NEG-2sg-watch SOUR-behind-Epen-NEG
'Don't look/watch behind.' (lit: don't watch from behind)

1.3 Negative stative clauses
According to Comrie (1976), stative situations involve no change (states) and/or a dynamic situation. They can be described by a noun or an adjective\(^8\) in a predicative function with or without a copula functioning as a dummy head of the predicate phrase (Dahl, 1985).

In Tima, the nouns in predicate function are not marked by the overt stative aspect marker a- (Alamin, 2009). Therefore, when these stative clauses are negated, the two common negative particles kV- and -Vŋ are applied to the whole clause. Compare the positive clauses with their negative counterparts below.

---

\(^8\) For negated adjective see section 1.4.2 on constituent negation below.
(14) a) kídà-wá ká-bândì
   1sg-FOC NC.sg-teacher
   'I am a teacher.'

   b) kí-kídà-wá ká-bândì-y-ʌŋ
   NEG-1sg-FOC NC.sg-teacher-Epen-NEG
   'I am not a teacher.'

(15) a) pínì-wá kú-mùrik
   3sg.FOC NC.sg-Tima
   'He is a Tima person.'

   b) kí-pínì-wá kú-mùrik-ʌŋ
   NEG-3sg-FOC NC.sg-Tima-NEG
   'He is not a Tima person.'

When the verbal nouns function as predicates, the predicate part is only negated by the common negative particles including the stative aspect marker a- which precede them. An example is shown in 16.

(16) a) kídà à-tòlàwò
   1sg SAM.sg-hunger
   'I am hungry.'

   b) kídà ká-à-tòlàwó-ʌŋ
   1pl.incl NEG-SAM-hunger-NEG
   'I am not hungry.'

1.4 Constituent negation
Negation, as it occurs in combination with certain constituents of a clause such as nouns, adjectives, adverbs, quantifiers (especially in answering questions) and prepositions, is referred to as constituent negation. This is also referred to as non-sentential negation (Payne, 1985). This type of negation does not affect the remaining clause constituents.

1.4.1 Negated nouns
The negation of a noun as a clause constituent takes place when two nouns of the same clause are compared by way of a gapping strategy (Dimmendaal, 2009) as in (17) or a non-verbal predication, as in the case of answering a question as in (18). In this case, one of the nouns is negated by the same particles that negate the whole clause i.e. the particles kV- and -Vŋ. Thus, the formula of negated nouns is:

\[
\text{NEG + NC + NR + (FOC) + NEG}
\]

(17) cé-ŋ-k-álúk-dá y-ábùh kí-i-mòŋ-ɛ-ɛŋ
   Asp-1sg-Epen-eat-1sg NC.pl-meat NEG-NC.pl-fish-FOC.pl-NEG
   'I eat meat not fish.'
Examples (17) and (18) show a process of vowel lengthening between the last vowel of the plural focus marker -ɛ/-e in example (17) and the singular focus marker -li/-li in example (18) and the vowel of the negative enclitic marker -Vŋ. Both vowels are assimilated and they yield the form ɛ-ɛŋ and lɪ-ɪŋ respectively.

The negation of nouns can also be applied to the nouns that are inflected with instrumental, source or locative case markers (See Alamin, 2009). Therefore, the negative particle kV- occurs initially as a proclitic before the instrumental prefix marker (V)ŋ-, the source marker a- or the locative marker i-/ɪ-, while the negative enclitic particle -Vŋ occurs at the end of the noun. This can be seen in example (19), (20) and (21) below. The formula for such examples is:

REG + (INST/SOUR/LOC) + N + (DEM) + REG

(19) ŋ̀-k-ʌ̀húnɘ̀n-ná kɘ ́-ŋ-wártímádɘ̀h-ʌŋ
INST-NC.sg-woman-DEM NEG-INST-man(Supp)-NEG
‘by this woman not by that man’

(20) á-k-ʌ̀húnɘ́n-nʌ́ ká-á-wártímádah-ʌ ̂ŋ
SOUR-NC.sg-woman-DEM NEG-SOUR-man(Supp)-NEG
‘from this woman not from the man’

(21) í-k-aráŋ-ʌ́ k ú - l - ɔ ́ɔ̀-ŋ
LOC-NC.sg-field-FOC NEG-LOC-home-NEG
’in the field not at home’

There is a morphophonological process takes place in example (21) with regard to the negative enclitic particle -Vŋ; that is, a deletion of the vowel of negative marker -Vŋ. This occurs when the root or the element that precedes it ends in a long vowel.

1.4.2 Negated adjectives

The negation of adjectives is formed by adding the proclitic negative particle kV- and the enclitic negative particle -Vŋ to the basic adjectives. The adjectives are mainly negated when they function as predicates. The examples are in (22).

---

9 Tima, like Katla, a closely related language (Birgit Hellwig forthcoming), has a distinct class of adjectives which are not derived from any other word class. The adjectival roots are considered as bound roots. The adjective in the attributive function takes one of the agreement markers of the noun precedes it in the noun phrase (NP), and in the predicate function it takes the aspect marker a- before the adjective root and pronominal markers after the root. Moreover, the verbal nouns can be derived from the adjectival root too. Tima adjectives are analyzed as being both noun-like and verb-like (For more details see Alamin (forthcoming), "Adjectives in Tima" a paper presented at the Nuba Mountains Langugaes Conference, at Leiden, 2-4 September 2011.)
(22) a) ká-à-màl-ʌ̂ŋ  
NEG-SAM.sg-good-NEG  
'It is not good.'

b) tàmaá d-ùmùrík ká-à-hèl-ʌ̂ŋ  
speech NC-Tima NEG-SAM.sg-easy-NEG  
'The Tima language is difficult/not easy.'

c) îhàám kí-i-hlèhlèm-ʌ̂ŋ  
honey NEG-SAM.pl-sweet-NEG  
'Honey is sour/not sweet.'

d) Ø-ídʌ̀ kí-i-màl-y-èèŋ-ʌ̂ŋ  
NC:pl-body NEG-SAM.pl-good-LOC-1pl.incl-NEG  
'We are not well.' ('lit. our bodies are not good')

It is clear from the examples in (22) that the negative proclitic marker is either ka- or ki-/kɪ-. That is, its form is variable due to the fact that the vowel of the negative proclitic particle kV- is influenced by or associated with the vowel of the stative aspect marker or predicator which follows it. Therefore, the negative particle is ka- appears when the adjective predicate function is a singular with the predicator a-. The particle is ki- when its function is plural with the predicator i-/ɨ- (Alamin, 2009). Moreover, there is a long vowel which results from the combination of these two vowels (the negative particle vowel and the stative aspect marker vowel). The negated adjectives formula is:

NEG + SAM (a-/i-/ɨ-) + AdjR + NEG

1.4.3 Negated adverbs and quantifiers

Adverbs and quantifiers in Tima can also be negated as non-sentential elements i.e., as constituents of a sentence. Adverbs can be negated as a sentence constituent in a reply to a question. They are negated by the two common negative particles in the language as in (23) and (24).

(23) Q: cá-dén-díyʌ̀ŋ kàhàdánà?  
Asp-FUT-come Adv.today?  
'Will you come today?'

A: kí-kàhàdáná-w-ʌ̂ŋ áŋáháŋá-wá  
NEG-Adv.today-Epen-NEG Adv.tomorrow-FOC  
'Not today, tomorrow.'

(24) Q: pînà yày-èŋ-táŋ tôttôk?  
3sg come:PLUR-VENT-2sg Adv.always?  
'Does he always visit (come to) you?'

---

10 Tima has a closed set of non-derived adverbs. The majority of the adverbs are derived from nouns that are used adverbially in the clause.
It is found that the quantifiers in Tima can also be negated, thereby rendering negative quantifiers when they are used as a reply to a question. This structure again is expressed by adding the negative particles $kV$- and $-Vŋ$ to the quantifiers, as in example (25).

(25) Q: íkwèèr àwì-tàà(ŋ)?
   Sugar have-2sg.POSS?
   'Do you have sugar?'

A: kí-hàwùk-ʌŋ
   NEG-Quan.much-NEG
   'Not much.'

The formula of negated adverbs and quantifier is:

NEG + Adv/Quan + NEG

It is found that when the adverbs and quantifiers occur in a basic clause with subject and object, the negation affects the whole clause as in (26) and (27).

(26) pínà kí-yáy-ŋ-táŋ tòttòk-ŋ
    3sg NEG-come:PLUR-VENT-3sg Adv.always-NEG
    'He does not usually come to him.'

(27) kú-ŋ-kɔ̀yɔ́-dʌ̀ kùŋkwáŋ-ʊ̂ŋ
    NEG-PM-make-1sg Quan.(a)thing-NEG
    'I did not do anything.'

Likewise, the prepositions in Tima are negated as a constituent of a sentence by the two common negative particles, see the examples below.

The formula of negated prepositions is:

NEG + PREP + NEG

(28) tàmaá-leéñi-ná ká-lúh-ŋ
    speech-1sg.POSS-DEM NEG-inside-NEG
    'My words are not from inside.'

(29) iídí-ná ká-à-tù?ùŋ-ŋ
    water-DEM NEG-SOUR-above-NEG
    'This water is not from above (it is not rain water).'

(30) lú-múrík ká-mɛ̀tɛ̀n-ʊ̂ŋ
    NC-Tima NEG-near-NEG
    'Tima is not near.'
2. The negative pronoun *kɛ́yɛ̀*

Tima has a distinct strategy for negating indirect commands/orders, unlike the negation strategy which is used for negating the direct commands mentioned in (1.1). The form used is the negative pronoun11 *kɛ́yɛ̀*, which means ‘you shouldn’t do’. It is usually used in giving an indirect order or command to someone else i.e., the command does not come from the speaker to the hearer directly but the speaker just conveys it from another person to the hearer. This negative pronoun combines with the Tima negative enclitic particle *-Vŋ*. Therefore, such cases are marked by double negative markers. Compare the negative direct command in (31a) with its indirect negative counterpart as in (31b) below.

(31) a) ká-nà-dìyʌ̀ŋ-ʌ̂ŋ
    NEG-2pl.IMP-come-NEG
    'Do not come!'

    b) cɘ́-dàh-í Hámíd kɛ́yɛ̀ nà-dìyʌ̂ŋ áŋáhɘ́ŋ-ʌ̂ŋ
    ASP-say-Tr Hamid 2pl.NEG 2pl.IMP-come Adv.tomorrow-NEG
    'Hamid said not to come tomorrow.'

3. The negative expression *àmáŋ(âŋ)*

The negative expression *àmáŋ(âŋ)* is used as another strategy mainly for negating locational and existential clauses in Tima. In addition, it is used as a reply for questions relating to existential and locational clauses. The expression *àmáŋ(âŋ)* means ‘it does not exist / it is absent’.

This expression has a more verbal nature. It can be divided into *a*- which is the stative aspect marker in the language, *-máŋ* as a negative root, and the common negative particle *-Vŋ*. The latter two constituents can be separated by other sentence constituents. It is clear that this negative form does not involve the proclitic negative particle *kV*-.

The use of the enclitic negative particle *-Vŋ* in clause-final position is optional. Therefore, the negative expression *àmáŋ* by itself still has a negative meaning. Consider the examples below.

It is widespread in African languages to have inherently negative existential/locational verbs whose lexical meaning includes negation apart from any other morphosyntactic negative markers (Payne, 1985).

(32) a) wáyèn-leñí ıñkìyà ı-nt-ɔɔ́
   Father-1sg.Poss exist Loc-Loc-home
    'My father is at home.'

    b) wáyèn-leñí à-máŋ ı-nt-ɔɔ́-ŋ
    father-1sg.Poss SAM-nothing Loc-Loc-home-NEG
    'My father is absent' (lit: my father is not at home)

---

11 According to Creissels et al (2008), the use of the negative pronoun is one of the negation types that is found throughout Africa. Sometimes, it combines with a negative particle.
Q: àwì-tʌ̀ŋ ò-ʈóòr?
'Is there water in the waterpot?'

A: à-máŋ-tʌ̀ŋ-ʌ̂ŋ
'SAM-nothing-3sg-NEG'
'There is nothing/there isn’t any (water).'

The alternative answer to the above question is:

A: à-máŋ-âŋ
'SAM-nothing-NEG'
'There is nothing.'

The negative expression ìmáŋâŋ can be inflected for person see the paradigm in example (34).

<table>
<thead>
<tr>
<th>Person</th>
<th>Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
<td>àmáŋ-teèn-ʌ̂ŋ</td>
<td>'I do not have'</td>
</tr>
<tr>
<td>2sg</td>
<td>àmáŋ-taàŋ-ʌ̂ŋ</td>
<td>'you do not have'</td>
</tr>
<tr>
<td>3sg</td>
<td>àmáŋ-tʌ̀ŋ-ʌ̂ŋ</td>
<td>'he/she does not have'</td>
</tr>
<tr>
<td>1pl incl</td>
<td>àmáŋ-teèy-ʌ̂ŋ</td>
<td>'we do not have'</td>
</tr>
<tr>
<td>1pl excl</td>
<td>àmáŋ-tiìn-ʌ̂ŋ</td>
<td>'we do not have'</td>
</tr>
<tr>
<td>2pl</td>
<td>àmáŋ-taàn-ʌ̂ŋ</td>
<td>'you do not have'</td>
</tr>
<tr>
<td>3pl</td>
<td>àmáŋ-tʌ̀ŋ-ʌ̂ŋ</td>
<td>'they do not have'</td>
</tr>
</tbody>
</table>

The negative expression ìmáŋâŋ has another form àlmýâŋ, 'does not exist' with the same meaning. The examples of this form have been taken from Adlaan Misiria, a mythical story. The examples are:

(35) ʈàmaá ì-diìk-aá twàrtwàr àlmýâŋ-ʌ̂ŋ
'Speech 1pl.incl-go-INST different SAM-nothing-NEG
'We did not leave the matter differently.'

(36) í-dàhì ɲ-ìhìnʌ́ tàmaá-ná còkwéyè àlmýâŋ-ʌ̂ŋ
3pl-say INST-3pl speech-DEM nonsense SAM-nothing-NEG
'They said this story is senseless.'

4. The negative word kaárâk
Tima has another strategy for negating relative clauses. The negative word kaárâk, 'not exist/be absent' is used in relative clauses and never occurs in main clauses. It has essentially the same meaning as the negative expression ìmáŋ(âŋ). In such cases, there is only single negation marking. Consider the following examples.

(37) cíyaà kaárâk kùnkwán-í pìnlà yày-ɪn-τάŋ
DEM:that nothing (a)thing-FOC 3sg come:PLUR-VENT-3sg
'That one who does not have any thing comes repeatedly.'
The examples in (39) and (40) show how both words àmáŋ(âŋ) and kaáràk are used in a main clause and relative clause respectively.

5. The negative form ɔ̀ʔɔɔ́ŋ
Another negation strategy which is found in Tima is the use of the short negative form ɔ̀ʔɔɔ́ŋ. It is used in answering yes/no questions negatively. It is commonly used by women. The example is shown in (41).

(41) Q: nà-kúmùn-ʌ̀k-nàn Ø-ídʌ̀ n à-hámd kùlʌ̀?
   2pl-meet-REC-2pl NC.pl-body ASS-Hamid Adv.yesterday?
   'Did you meet with Hamid yesterday?'

   A: ɔ̀ʔɔɔ́ŋ
   'No.'

This negative form ɔ̀ʔɔɔ́ŋ is also found in negating imperative clauses. It is associated with the other two negative particles kV- and -Vŋ. This means that there are three negative markers in the imperative clause. The form ɔ̀ʔɔɔ́ŋ occurs in the initial position of a clause in order to focus on negating an exact situation. Consider the example in (42).

(42) ɔ̀ʔɔɔ́ŋ ká-à-daàk-ɘ̀-dʌ́-ʌ̀ŋ
   No  NEG-2sg.IMP-Epen-1sg-NEG
   'No, do not touch me!'
Abbreviations
A Answer
AdjR Adjective Root
Adv. Adverb
APPL Applicative
ASP Aspect
ASS Associative
COMP Completive
DEM Demonstrative
DO Direct Object
Epen Epenthetic
ERG Ergative
excl Exclusive
FOC Focus
FUT Future
IO Indirect Object
IMP Imperative
incl Inclusive
INST Instrumental
LOC Locative
NR Nominal Root
NC Noun Class
NEG Negative
PLUR Pluraotional
PM Person Marker
POSS Possessive
PREP Preposition
Q Question
QP Question Particle
Quan Quantifier
REC Reciprocal
SAM Stative Aspect Marker
SOUR Source
SUBJ Subjunctive
Supp Suppletive form
Tr Transitive
VENT Ventive
VP Verb Phrase

References


Number in Ama Verbs
Russell Norton

Ama (also known as Nyimang) is an Nilo-Saharan, Eastern Sudanic language with around 70,000 speakers, spoken primarily in an area northwest of Dilling in the Nuba Mountains region of Sudan. Ama expresses number in typologically unusual ways. Ama nouns are entirely lacking in singular/plural morphology (unlike many other Nilo-Saharan languages – Dimmendaal 2000), whereas Ama verbs have been repeatedly documented as having dual and plural forms (Stevenson 1938, 1956-57, Stevenson, Rottland & Jakobi 1992, Kingston 1996, Stirtz, Waag & Baagi 2005). The present paper gives a revised description of the expression of number in Ama verbs, adopting a typological approach based on the study of number in grammar by Corbett (2000).1

The “plural” of Ama verbs is re-analysed as a distributive, because in transitive clauses it is shown to denote not an event that occurs more than once, but an event that is divided into sub-events. This distributive may be expressed by suppletion or by a suffix /-ɪ́d̪/ that has several variants depending on morphophonological processes. There is no verbal plural in Ama.

The Ama verbal dual is almost unique in documented linguistics. Verbal duals are reported in some languages of North America, but only for some verbs of each language (Corbett 2000:250). In Ama, however, all verbs can take the dual suffix /-ɛ̄n/ or /-n/. The dual occurs in clauses with dual arguments and in dual reciprocal constructions.

Differences in behaviour between the distributive and the dual mean that, contrary to the implicit assumption of the previous accounts mentioned above, Ama does not employ a linear number scale singular-dual-plural, at least for transitive verbs.

We begin by briefly reviewing the limited options for expressing number in noun phrases in section 1 before turning to verbs. In section 2, the function and form of distributive marking is described and compared with other verbal marking that expresses plurality. In section 3, the function and form of the dual suffix is described. A conclusion follows in section 4.

1 Plurality in Noun Phrases
There is no plural morphology on Ama nouns. Plural is marked either by a lexical distinction, or by a specifier particle. The lexical distinction between singular and plural exists only for personal pronouns and two general nouns denoting persons:2

(1) \(ì\) ‘I’ \(ènì\) ‘we’
   \(ì\) ‘you (sg)’ \(ènì\) ‘you (pl)’
   \(ìn\) ‘he/she’ \(ènì\) ‘they’

---

1 Thanks to Ama speakers Mahmud Said, Kamal Eldo, Omar Arif, Abdu Baagi Faireen, Jafar Elias for examples cited from the language, thanks also to the Episcopal Church of Sudan translation department for hosting this work.

2 The Ama phoneme inventory consists of plosives /bджdzʃk/, fricatives /ʃh/, nasals /mɛn/, liquids /ъ/ and approximants /wj/, [-ATR] “brassy” vowels /iɛəʊ/, [+ATR] “breathy” vowels /iɛəʊ/, and high (ˊ), mid (ˉ), and low (ˋ) tone.
Plural specifier particles ṃ or ḡ can occur in noun phrases. Ama speakers consulted feel that plural specifiers are marginal to the language and not used much. They can only be used with nouns that refer to persons, including kinship terms, names, and folk-tale animal characters:

(3) ābā ṃ ‘fathers’ (Kingston 1996:9)
ābā dià ṃ ‘grandfathers’ (dià = ‘big’) (Kingston 1996:9)
āmōr ḡ ‘friends’ (Kingston 1996:9)
sālāḥ ṃ ‘those of Salah, Salah and his group’ (Kingston 1996:9)
sūdān ṃ ‘those of Sudan, the Sudanese’
fūrāŋ ḡ ‘the Rabbits’
mōgūr ṃ ‘the Monkeys’

Apart from lexical distinctions and the specifier particles, plurality may be implied in the noun phrase by numerals or quantifiers (Kingston 1996:10). For entities that are not persons, these are the only ways to express plurality in the noun phrase:

(4) dāmī ‘egg’
   bīdī ‘well’
   dāmī ārbā ‘two eggs’
   bīdī ārbā ‘two wells’
   dā-dāmī ‘all the eggs’
   bī-bīdī ‘all the wells’

2 Plurality in Verbs

Verbs provide other ways of expressing plurality. In this section we describe the function and form of distributive marking, and compare it with three other ways of expressing plurality in verbs. We begin by examining the distributive in transitive verbs.

2.1 Distributive in Transitive Verbs

Ama has unmarked verb-final word order SOV. In the following transitive clauses, the object number is not marked, but is inferred from the use of different verb roots:

(5)
   i. àì bā nūrdō ŋān ‘I carried the book’
      1SG VER4 book carry
   ii. àì bā nūrdō tī ‘I carried the books’
   iii. ānjī bā wècī ŋān ‘We carried the gazelle’
   iv. ānjī bā wècī tī ‘We carried the gazelles’

3 /-ī/ provides the stable marker of plurality across the two particles. Kingston (1996:9) claims that the plosive /g-/ is used after a liquid consonant, but that does not fit the data in (2). Nominal specifier particles in Ama can inflect for case /ŋ-ā/ (nominative), /ŋ-ɔ̀/ (accusative), etc. (Kingston 1996:24) and plurality may be combined with case inflection in a specifier as in /fūrāŋ g-ī-ī/ (SPEC-PL-DAT) ‘with the Rabbits’.

4 The particle bā typically occurs after the subject in elicited clauses, asserting the reality of the event reported.
In (5), the verb forms ɲɔ́n and tɪ́ɛ̄ both mean “carry”, but ɲɔ́n implies a singular object (5i,iii) and tɪ́ɛ̄ implies a plural object (5ii,iv). The subject number is immaterial: both verb roots can be used with either singular or plural subjects. Likewise in (6), the verb roots tɪ́ and bùò both mean “catch”, but tɪ́ implies a singular object and bùò implies a plural object.

For most verbs, there is no suppletive root to express plurality of the object; instead a suffix appears on the verb. This suffix /-ɪ́d̪/ appears inside the final stem vowel:5

The suffix is used when the object is lexically plural, as with dɔ̄rɛ̄ŋ ‘children’ in (7iv). However, when the object noun phrase contains a numeral, the unmarked verb is used:

If the suffix (or suppletive verb root) is used in clauses where the object has a numeral, it adds the meaning that the event happens over a series of instances until it is accomplished, as shown on the equivalent sentences in (9):

---

5 The position of the distributive suffix is further analysed in 2.3.
iv. àì bā fōōrɔ́ tār mōl jōg-ǔd-5 ‘I ground until I had ground 100 basket(ful)s’
   1SG VER basket 20x 5 grind-DISTR-TH
v. àì bā dślār tār mōl bùò ‘I took until I had taken 100 dollars’
   1SG VER dollar 20x 5 take:DISTR

The semantics of the examples in (9) is not plural in the normal sense, and this now
leads us to abandon the term “plural” used in previous documentation of Ama verbs
(Stevenson 1938, 1956-57, Stevenson, Rottland & Jakobi 1992, Kingston 1996, Stirtz,
Waag & Baagi 2005). A verbal plural would encode an event that occurs in more than
one instance with the same subject and object (event number, Corbett 2000:246), or
with different referents for subject or object (participant number, Corbett 2000:247).
The clauses in (9) do not express such repetitions, so for example in (9i) five children
are not hit and hit again, nor are further sets of five children hit. Rather, the event
described by the clause occurs once, but is distributed in time over a series of sub-
events. Hence the Ama category is not a true plural, but a distributive (Corbett
2000:111). The series of sub-events do not necessarily correspond one-to-one to the
object referents, so for example (9v) does not mean that 100 dollars was taken one
dollar at a time, it just means that money was taken in instalments until the total 100
dollars was paid.

While distribution over time is revealed by examples in (9) in which the object
contains a numeral, previous examples (5,6,7) show that the other effect of the
distributive is to imply the plurality of a bare object noun. This can be understood as
distributing the event over different object referents, rather than over sub-events in
time. The two options of distribution over object referents or distribution over time
may combine in the same clause, or produce alternate readings of the same clause:

(10)
i. àì bā tāřī bùò
   1SG VER gift take:DISTR
   ‘I took each gift (on one occasion, over a series of occasions)’

ii. àì bā kīdō mōd-ǔd-ā-r
   1SG VER thing tie-DISTR-TH-DISTR6
   ‘I tied until I tied something up’; ‘I tied each thing up’; ‘I tied until I had tied
each thing up’

iii. àì bā nōrdō nā mōl mōd-ǔd-ā-r
   1SG VER book time 5 tie-DISTR-TH-DISTR
   ‘I tied the books until I had tied them 5 times’

2.2 Distributive in Intransitive Verbs
In intransitive verbs, the event may be distributed over three or more subject referents:

(11)
i. àì bā tūrè ‘I cried’

ii. ãñǐ bā tūr-ēn ‘We (dual) cried’

iii. ãñǐ bā tūr-íd-ē ‘We (three or more) each cried’

6 See 2.3 for analysis of the second distributive suffix /-r/. 
The following intransitive motion verbs use suppletion for this purpose:

(12) | Gloss | Singular Subject | Dual Subject | Plural Subject (≥3 referents) |
--- | --- | --- | --- |
'went' | àì bā táì | ònjí bā táf-ën | ònjí bā tïlàì |
'is going’ imperfective | àì bā koā | ònjí bā kū-ën | ònjí bā kwëël |
'came' | àì bā twɔr | ònjí bā twɔr-ën | ònjí bā sɔør |
'is coming’ imperfective | àì bā kùdɔ | ònjí bā kùd-ën | ònjí bā kɔøl |
'walked' | àì bā ládɔ | ònjí bā lád-ën | ònjí bā lájɔ |
'is walking’ imperfective | àì bā ládɛ̄ | ònjí bā lád-ën | ònjí bā láŋ |

With subjects of two referents, only the unmarked verb stem is used (taking the dual suffix /-ën/), and with subjects of three or more referents, only the distributive is used:

(13) i. àì bā ládɔ  ‘I walked’
ii. ònjí bā lád-ën, *ònjí bā láj-ën  ‘We (dual) walked’
iii. ònjí bā lájɔ, *ònjí bā ládɔ  ‘We (three or more) each walked’

The non-use of the distributive with two referents in (13ii) is often characteristic of grammatical distributives (Corbett 2000:115-116), as distribution may be conceptualised in a language as a relation of some complexity such that “distribution” over just two is insufficient to satisfy it. However, the distributive is obligatory in (13iii) with subjects of three or more, therefore it marks a plural subject of intransitive verbs, where plural is understood in succession to dual. In this way, intransitive verb paradigms conform to the linear number scale of singular-dual-plural assumed in previous documentation (Stevenson 1938, 1956-57, Stevenson, Rottland & Jakobi 1992, Kingston 1996, Stirtz, Waag & Baagi 2005). Transitive verbs do not fit this scale, because distribution is not obligatory with three or more object referents (see 8), and because when a transitive event is distributed over time, the distributive may appear with just one or two object referents (see 9iii,10ii). We shall see further ways in which the distributive fails to pattern as a successor to the dual in transitive verbs when we come to describe the dual suffix in section 3.

The behaviour of the distributive across transitive and intransitive verbs can be understood in terms of the ergative/absolutive dimension. There is distribution over the subject referents of an intransitive verb and over the object referents of a transitive verb. The subject of an intransitive verb or the object of a transitive verb is the absolutive argument of the verb, the argument most directly affected by the verb (Corbett 2000:253), so in Ama we can say there is distribution over absolutive referents. Nevertheless, there is a difference between transitive verbs, for which there may be distribution either over object referents or over time, and intransitive verbs, for which we do not find distribution over time and distribution over subject referents is obligatory.

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7 That the absolutive should be highlighted in Ama grammar is novel, because in terms of both case marking and word order, Ama is an accusative language (Stevenson 1938, König 2008) and does not distinguish the absolutive. But the distributive, as a category, does distinguish the absolutive.
Also, the absolutive pattern is exceeded by some speakers for whom the use of distributive to mark plural subject participants of intransitive verbs can be extended to plural subject participants of at least some transitive verbs:

(14)

i. ə̀ŋí bā wècí ɲɔ́n  ‘We carried the gazelle’
ii. ?ə̀ŋí bā wècí ɲɔ̀n-d̪-ʊ́  ‘We each carried the gazelle’
iii. ə̀ŋí bā wècí tìɛ̄  ‘We carried the gazelles’
iv. *ə̀ŋí bā wècí tì-ɗ-ɛ̄

In (14i) the non-distributive verb root ɲɔ́n implies a singular object. Adding the distributive suffix in (14ii) distributes the event over multiple subject referents. However, it is not acceptable to do this with the suppletive distributive transitive verb root (14iv).

2.3 Distributive Morphophonology

Distributive suffixation is productive except on verb stems that are already lexically distributive, like (14iv). The distributive suffix appears inside a theme vowel which is required by perfective stems:

(15)  Distributive  Gloss

cì-ɛ̄  ci-ɪ́d̪-ɛ̄  ‘do’
bālɟɪ̄ŋ-ɛ̄  b ā l ɟ ī ŋ - ɪ́d̪-ɛ̄  ‘love’
tísɪ́b-ɛ̄  tísɪ́b-ɪ́d̪-ɛ̄  ‘fill in’
jég-ɛ̄  jég-ɪ́d̪-ɛ̄  ‘leave’
jég-ɛ̄  jég-ɪ́d̪-ɛ̄  ‘dress up’

The theme vowel can have a different tone from the rest of the stem, and retains its own tone in distributive forms. When the final theme vowel is round, the penultimate suffix vowel also becomes round:

(16)  sāŋ-ɔ̄  s ā ŋ - ʊ́d̪-ɔ̄ ( ~ s ā ŋ - ɪ́d̪-ɔ̄)  ‘search’
bālɟɪ̄ŋ-ɔ̄  b ā l ɟ ɪ̄ŋ-ʊ́d̪-ɔ̄ ( ~ b ā l ɟ ɪ̄ŋ-ɪ́d̪-ɔ̄)  ‘love’
fɪ̄ɟāɪ̄d̪-ɔ̄  f ɪ ̄ɟāɪ̄d̪-ʊ́d̪-ɔ̄ ( ~ f ɪ̄ɟāɪ̄d̪-ɪ́d̪-ɔ̄)  ‘ask God’
fɔ̀ɡ-ɔ̀  f ɔ ̀ɡ-ʊ́d̪-ɔ̀  ‘return’
fʊ̄ɽʊ̄d̪-ɔ̄  f ʊ ̄ɽʊ̄d̪-ʊ́d̪-ɔ̄  ‘vomit’

The suffix vowel may also become round following a rounded vowel or labial consonant in the stem:

(17)  làf-à  làf-ʊ́d̪-à-r  ‘swear’
tām tām-ʊ́d̪-ɪ̄ ( ~ t ā m - ɪ́d̪-ɪ̄)  ‘eat (imperfective)’
tū-ī tū-úd̪-ɪ̄  ‘plant’
mūd-ə̄ m ū d - úd̪-ə̄-r  ‘tie up’

8 These speakers are from Tundia in the western part of the Ama language area. Not all Ama speakers accept (14ii).
9 Perfective stems take one of the theme vowels /iʊ̆ɛ̄ɛ̀ɔ̄ɔ̀āà/ (or their +ATR variants with an +ATR verb root). There is some variation, e.g. cì-ɛ̄ ~ cì-ɛ̄ ‘do’, bālɟɪ̄ŋ-ɛ̄ ~ bālɟɪ̄ŋ-ɛ̄ ‘love’. In imperfective aspect, the theme vowels reduce to zero or /i/ in my data, but Stevenson, Rottland & Jakobi (1992) document various partial vowel reductions on different verbs.
If the verb root is [+ATR], suffix vowels also become [+ATR]. Moreover if the verb root is [+ATR], the high tone of the suffix lowers to mid:

(18) nìf-èg nìf-ìd̪-èg (~nìf-ìd̪-èg) ‘fall’
    tūc-è tūc-ìd̪-è (~tūc-ìd̪-è) ‘light (a fire)’
    tūr-è tūr-ìd̪-è (~tūr-ìd̪-è) ‘cry’
    tì-ò tì-ìd̪-ò (~tì-ìd̪-ò) ‘sleep’
    tīlm-ò tīlm-ùd̪-ò ‘milk’

The high tone of the distributive suffix may be realised on the root if the suffix vowel is deleted. Vowels are deleted between a coronal sonorant and a coronal plosive (19). The high suffix tone attaches to the previous vowel to create a mid-high or low-high contour (20):

(19) wʊ́l-ɛ̄ wʊ́r-d̪-ɛ̀ (~wʊ́r-ì́d̪-ɛ̀) ‘get out’
    kɪ̄r-ɛ̄ kɪ̄ɪ́r-d̪-ɛ̄ ‘cut’
    tɪ̄jɔ́r-ɔ́ tɪ̄jɔ́r-ì́d̪-ɔ́ ‘care for’
    t̪àl t̪àáld̪ɛ̄ (~t̪àl-ì́d̪-ɛ́) ‘eat’
    jègin jègin-ì́ ‘leave something (imperfective)’

(20) L H M L H M
    | | | /       |
    t̪àl - í́d̪ - ɛ́ → t̪àl - d̪ - ɛ́ [t̪àáld̪ɛ̄]

The suffix /-ì́d̪/ is one of two distributive suffixes. The productive suffix /-ì́d̪/ occurs before theme vowels, but if the theme vowel is /a/ a second distributive suffix /-r/ appears after it:

(21) Distributive Gloss
    wāg-ā wāg-ì́d̪-ā-r ‘keep’
    tār-ā tār-ì́d̪-ā-r ‘sell’
    làf-ā làf-ù́d̪-ā-r ‘take an oath’
    mūd-ā mūd-ù́d̪-ā-r ‘tie up’
    tì-ò tì-ì́d̪-ò ‘sleep’ (compare tì-è , tì-ì́d̪-è ‘pass’)

The placement of the distributive suffix /-ì́d̪/ before the theme vowel is an instance of the fact that /d̪/ does not usually occur word-finally in Ama – only sonorants or /ɡ/. Some Ama verbs even have latent theme vowels that are not pronounced in the unmarked stem but still appear in the distributive form of the verb after the /-ì́d̪/ suffix:

(22) Distributive Gloss
    ámëég ámëég-ì́ ‘recognise’
    kël kël-ì́ ‘hear’
    t̪àl t̪àáld̪-è ‘eat’
    nòn nòn-ùd̪-ó ‘carry (non-distributive)’
    dèém dèm-ùd̪-ú ‘break’
Likewise, in imperfective aspect a reduced theme vowel appears after the distributive suffix:

(23) Imperfective  Distributive  Gloss
    bālɟɪ̄ŋ  bālɟɪ̄ŋ-ɪ́d̪  ‘love (imperfective)’
    jōɡ  jōɡ-ɪ́d̪  ‘grind (imperfective)’
    tām  tām-ʊ́d̪-ɪ̄  ‘eat (imperfective)’
    jēɡɪn  jēɡɪn-ɬ-ɪ  ‘leave something (imperfective)’
    fījāɪ̄d̪-ɪ̄  fījāɪ̄d̪-ɪ̄  ‘ask God (imperfective)’

In summary, the productive distributive suffix /-ɪ́d̪/ occurs between the root and a theme vowel, and in this position it has several possible realisations due to regular morphophonological processes.

### 2.4 Other Verb Markers that Express Plurality

There is a verbal prefix /à-/ for plural subject in Ama, but it is only used on imperative verbs, when addressing a plural subject. This prefix may co-occur with the distributive suffix:

(24)

i. ə̀-m-úd̪-ē-ì  ‘you (pl.) each get up!’

ii. à-ɟɛ̀ɡ-ɪ́d̪-ɛ̄-ɪ̀  ‘you (pl.) get (those people)!’

iii. à-tɪ́ɡɛ̄l-d̪-ɛ̄-ɪ̀  ‘you (pl.) wash (those things)!’

The distributive suffix may occur without a plural subject prefix when a singular subject is commanded to do something distributed over multiple object referents (25i). The plural subject prefix may occur without the distributive suffix if the command addresses a dual subject (25ii), or if the command is not distributed over subject referents but is given to a group as a whole (25iii), or if the command is not distributed over object referents implying a singular object (25iv). If there is a series of imperatives, the plural subject prefix only occurs on the first one (25v).

(25)

i. tɪ́ɡɛ̄l-d̪-ɛ̄-ɪ̀  ‘you (sing.) wash (those things)!’

ii. à-ɟɛ̀ɡ-ɛ̄-ɪ̀  ‘you (pl.) go and get (someone)!’

Another expression of plurality is found on verbs whose subject is in an experiencer role. Middle voice suffixes appear when the subject has three or more referents: /-ɛ́ɪ́/ in the perfective or /-àɡ/ in the imperfective. In the verbs ‘live’ and ‘die’ (26i), the middle suffixes are obligatory and attach to a suppletive stem, but middle marking of plural subjects may also occur on other verbs (26ii):
The addition of middle voice marking when the experiencer subject is plural with three referents or more highlights a group experience of the process described by the verb – a collective marker.

Finally, a post-verbal particle /gài/ may occur in clauses with plural participants:

(27)

i. òŋí bá kwečɛl gài ‘they are going’

ii. òŋí bá sɔɔr gài ‘they are coming’

The particle may have two referents as well as more, so it expresses plurality in the sense of ‘more than one’, not plural in series with singular and dual:

(28) fʊ ̄rā dū mɔɡûr-ʊŋ bɛ n-ɛn gài
    rabbit TOP monkey-GEN enemy be-DU plural
    ‘Rabbit and Monkey were each other’s enemies’

In transitive clauses, the particle may refer to plural subjects (29i) or plural objects (29ii), but by default it refers to plural subjects (29iii). Thus, unlike the distributive suffix it does not refer to the absolutive:

(29)

i. dɔrɛŋ bá wùdɛŋ têl-ɛ gài ‘the children saw the child’

ii. wùdɛŋ bá dɔrɛŋ têl-íd-ɛ gài ‘the child saw each of the children’

iii. dɔrɛŋ bá dɔrɛŋ têl-íd-ɛ gài ‘the children saw each of the children’

The particle is not obligatory. Hence it patterns as a quantifier. Plural participants are not marked regularly in the language but speakers may use the quantifier to highlight plural participants.

Thus, there are several expressions of plurality on or with verbs in Ama. In addition to the distributive suffix, an /à-/ prefix is used for a plural subject addressed in an imperative, middle suffixes are used to express a collective experiencer subject, and there is a plural participant quantifier /gài/. None of these expressions of plurality is a true verbal plural, which would mark events that occur more than once or with more than one subject referent or object referent. However, although Ama lacks a verbal plural, it does have a verbal dual, as we shall now see.
3 The Dual

Ama offers a rare opportunity to study dual verbal number.\textsuperscript{10} We shall see that the Ama dual suffix is not just a dual subject marker, nor a dual object marker, but has a breadth of uses in the clause that make it a category of verbal number. Within verbal number, Corbett (2000:246,247) distinguishes event number and participant number. The Ama dual does not denote events repeated twice (event number), but it does mark various clauses with two paired participants (participant number).

3.1 Dual Subjects and Objects

The Ama dual suffix may mark either subjects or objects of the verb as dual. In a folktale text about two characters “Elephant and Rabbit”, Lion addresses Elephant and Rabbit together using the dual suffix to specify that the pronouns have exactly two referents:

\begin{enumerate}
\item \(\text{ɛ ̄ ɲā ɲʊ ŋā sàrī́ kō nē, ài ni á-ci-ēn}\)
\item \(\text{ɛ ̄ ɲí dū tā kēérn-ēi kō twōr-ēn}\)
\end{enumerate}

“Only what was (decided by) your court, I am making happen to you two.” (dual object)

“You two from now on must only come in peace.” (dual subject)

Other examples show the dual suffix with subjects or objects consisting of two nouns as in (31). The second noun appears with dative case marker /-ɪ̀/, which here has a comitative function marking an accompanying participant to create a complex subject or object. Dative case is also used for indirect objects, as seen in other sentences below.

\begin{enumerate}
\item \(\text{ɪ̄rān bā õrāk-ì bē n-ēn}\)
\item \(\text{förān-ō mûr bā Ĭr gīl-ì n-ēn}\)
\end{enumerate}

‘Iran and Iraq were enemies’

‘the friends of Rabbit were Elephant and Dog’

The dual suffix also agrees with subject or object noun phrases containing the numeral ‘two’:

\begin{enumerate}
\item \(\text{nōrdō ārbā bā wōùŋ n-ēn}\)
\item \(\text{nōrdō ārbā bā wōùŋ n-ēn}\)
\end{enumerate}

‘the two books are mine’

\textsuperscript{10} Verbal dual marking is reported in Athabaskan and Muskogean languages of North America, but only for some verbs of each language (Corbett 2000:250). Other rare reports of verbal dual marking are for the comitative prefix in Amazonian language Jayawara (Dixon 2004), and in Papuan language Amele (J. Roberts, personal communication).
ii. àì bà wècì ārbā tí
   àì bà wècì ārbā tī-n  ‘I caught two gazelles’
   1SG VER gazelle two  catch(-DU)

Agreement is obligatory with the subject (32i) but optional with the object (32ii). As well as agreeing with noun phrases containing the numeral ‘two’, the dual suffix can also function as a pronominal substitute for such a noun phrase as in (33i). The clause in (33ii) has a plural subject pronoun, in which case dual reference shifts from the object to the subject.

(33)
   i. àì bā kūcīn-ēn  ‘I am lighting two (fires)’
      1SG VER light:IMPF-DU
   ii. àŋí bā kūcīn-ēn  ‘we two are lighting (a fire)’
      1PL VER light:IMPF-DU

Implying duality of the subject rather than the object in (33ii) contrasts with the distributive, which implies plurality of the object and not the subject (see 5,6). More generally, the distributive implies plurality of the absolutive, but the dual does not pattern along the ergative/absolutive dimension since it can refer to either subject or object of a transitive verb and preferentially the subject in (32,33).

The use of the dual suffix for agreement with, or pronominal substitution for, a noun phrase containing the numeral ‘two’ is not restricted as to the animacy of the referents in (32,33). But when the dual suffix is given a different usage, to specify bare pronouns or nouns as having two referents, this is restricted to rational participants (humans and folktale animal characters). Thus in (34), it is not acceptable to use the dual suffix to specify two referents for ‘chicken’ or ‘spoon’. With no available rational referent for the dual suffix in (34i), the sentence is unacceptable. Or, with a plural subject pronoun in (34ii), the dual suffix specifies the pronoun as having two referents and not the noun ‘chicken’. Similarly for ‘spoon’ in (34iii,iv).11

(34)
   i. *àì bā kōr-ɔ̀  tāl-ēn  ‘we two ate a chicken’
      1SG VER chicken-ACC eat-DU
   ii. àŋí bā kōr-ɔ̀ tāl-ēn  ‘we two ate a chicken’
      1PL VER chicken-ACC eat-DU
   iii. *àì bā kōr-ɔ̀ görō  tāl-īn-ēn  ‘we two ate a chicken with spoons’
      1SG VER chicken-ACC spoon eat-APP-DU
   iv. àŋí bā kōr-ɔ̀ görō  tāl-īn-ēn  ‘we two ate a chicken with spoons’
      1PL VER chicken-ACC spoon eat-APP-DU

This restriction on dual marking of bare nouns again contrasts with the distributive, which freely implies the plurality of bare object nouns that are inanimate or non-rational animals (see 5,6).

The restriction to rational participants when specifying that a noun has two referents determines the reference of the dual suffix in the ambivalent clauses in (35).

11 The failure to imply duality of non-rational nouns that are applied objects in (34iii) contrasts with the duality of human applied objects in (35ii).
The dual suffix does not specify the inanimate direct object noun as dual, but the human indirect object:

\[(35)\]

i. \(\text{àì bā ámör-ì ámĩer ampire fé̂nì} \) ‘I gave a pen to two friends’
   1SG VER friend-DAT pen give-DU

ii. \(\text{àì bā d̚rēŋ-ì wàdà átĩnās3-n-ēn} \) ‘I told a story to two children’
   1SG VER children-DAT story tell-APP-DU

But reference in ambivalent clauses is swayed by the agreement function of the dual suffix. When the numeral ‘two’ is added to the direct object noun, the dual suffix is now interpreted as agreeing with the direct object, and the indirect object is no longer interpreted as having two referents:

\[(36)\]

i. \(\text{àì bā ámör-ì ámĩer ārba fé̂nì} \) ‘I gave two pens to a friend’
   1SG VER friend-DAT pen two give-DU

ii. \(\text{àì bā w̚d̚ēŋ-ì wàdà ārba átĩnās3-n-ēn} \) ‘I told two stories to a child’
   1SG VER child-DAT story two tell-APP-DU

The agreement of the dual suffix with object noun phrases containing ‘two’ further distinguishes the dual from the distributive, because the distributive does not agree with object noun phrases containing numerals, but rather distributes such an event over time (see 8,9).

In general, the data indicates that the Ama dual is a variety of participant number. It can mark dual participants in either subject, direct object, or indirect object position. The Ama dual may be used to specify that an argument of the verb with a rational noun has exactly two referents (see 30,31,34,35), or it may be used to agree with or stand pronominally for a noun phrase containing the numeral ‘two’ (see 32,33,36). We have also confirmed that there is divergence in behaviour from the distributive. The distributive does not succeed the dual on a linear number scale because it does not match the properties of the dual – it does not agree with noun phrases containing numerals as the dual does, it implies plurality of bare nouns irrespective of animacy whereas the dual only does this for a rational referent, and it implies the plurality of absolutive referents whereas the dual favours subject reference over object reference.

### 3.2 Dual Reciprocal Clauses

Still other cases of dual marking are found in reciprocal clauses. The reciprocal construction for transitive verbs in Ama has participants in subject and object positions. When there is one subject participant and one object participant, the verb is marked as dual (37ii). When there are more than two participants in the reciprocal event, there is no number marking (37iii).

\[(37)\]

i. \(\text{k̚r bā kwāi-ʒ kā b̚l̚j̚n̚ \) ‘the woman really loves the man’
   woman VER man-ACC VFOC love

ii. \(\text{k̚r bā kwāi-ʒ kā b̚l̚j̚n̚-ēn-āg} \) ‘the woman and the man really love each other’
   woman VER man-ACC VFOC love-DU-RECP
iii. əŋí bā bèct-ɔ̃ kā bàlịn-àg ‘our people really love each other’  
   1PL VER people-ACC VFOC love-RECP
iv. əŋí bā bèct-ɔ̃ kā bàlịn-id-àg ‘our people each really love one another’  
   1PL VER people-ACC VFOC love-DISTR-RECP

The distributive suffix may be added (37iv), in order to distribute the reciprocal event into many sub-events among the participants, but this is not obligatory. Thus in reciprocal clauses too, the distributive and dual do not fall on a linear scale but have their own particular functions.

Dual reciprocality is also expressed in stative clauses. This happens in the folktale text “Elephant and Rabbit” (38i,ii) including the opening sentence. Although the reciprocal suffix /-àg/ is absent, these clauses are understood by Ama speakers as being reciprocal, so that not only is the subject the friend or enemy of Rabbit, but also Rabbit is a friend or enemy of the subject.

(38)
i. tà cī ē ik dū fūrāń-ʊ mūr n-ēn  
   now say and elephant TOP rabbit-GEN friend be-DU  
   “They say Elephant and Rabbit were friends of each other”
ii. ē fūrāń-ʊ bè n-ēn  
   and rabbit-GEN enemy be-DU  
   “and (he) and Rabbit were enemies of each other”

The dual marking on the verb is notable because the syntactic subject is singular: Rabbit is included in the count even though it modifies the complement. The dual suffix marks not only the number of participants in the stative clause, but also the reciprocality between them. This is demonstrated in (39). Clause (39i) with no dual suffix expresses a unidirectional relationship as expected from the syntax of the clause. In the syntactically identical clause in (39ii), the addition of the dual suffix reciprocals the relationship between the two clause participants:

(39)
i. jōn bā săbāj-ʊ mūr nē ‘John was friend of Sabai’  
   John VER Sabai-GEN friend be
ii. jōn bā săbāj-ʊ mūr n-ēn ‘John and Sabai were friends of each other’  
   John VER Sabai-GEN friend be-DU

The reciprocalising function of the dual suffix in stative clauses is confirmed by the fact that the dual suffix cannot be added in clauses where reciprocalisation is not possible. In the syntactically analogous clauses in (40i,ii), the dual suffix cannot be added because it is semantically impossible for two people to be each others’ fathers.12 The inverted clause in (40iii) is identificational in function, which also does not lend itself to reciprocalisation (40iv):

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12 The denominative suffix /-ʊ̄ŋ/ is used on intimate nouns in Ama in the accusative, dative, genitive, or ablative cases. In (40ii), săbāj-ʊ̄ŋ is interpreted as a modifier in genitive case. But if it is re-interpreted as an accompanying subject in dative case (like example (31)), then it is now grammatical with a dual subject: ‘John and Sabai are fathers’.
Thus, the dual suffix not only appears in transitive reciprocal clauses involving two participants, but also can reciprocalise a stative clause involving two participants.

In general, the Ama dual marks two participants which are paired in the clause either because they stand in the same argument relation to the verb (dual argument), or because they stand in a reciprocal relationship across the clause (dual reciprocal).

### 3.3 Dual Morphophonology

When verbal dual marking is reported in some languages of North America, it is only for some verbs of each language (Corbett 2000:250). In Ama, however, the dual suffix is productive without exception on over 100 verbs tested. The only stems found not to take the Ama dual suffix are suppletive distributive stems used for ‘go’, ‘come’, ‘walk’ (12,13), and suppletive collective stems for ‘live’, ‘die’, ‘wrestle’ (26), but even for these verbs the suffix simply adds instead to the unmarked stem. Hence, the Ama dual suffix may be used with any verb.

Ama verbs fall into two classes for the allomorphs /-ɛ̄n/ and /-n/ of the dual suffix.13 The first class of verbs take the full suffix /-ɛ̄n/ (or its ATR-harmonised variant /-ēn/) in the perfective, and the theme vowel is left out:

<table>
<thead>
<tr>
<th>Perfective</th>
<th>Perfective Dual</th>
<th>Imperfective</th>
<th>Imperfective Dual</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>tāl</td>
<td>tāl-ɛ̄n</td>
<td>tām</td>
<td>tām-ɛ̄n</td>
<td>‘eat’</td>
</tr>
<tr>
<td>twīl</td>
<td>twīl-ɛ̄n</td>
<td>lī</td>
<td>lī-ɛ̄n</td>
<td>‘drink’</td>
</tr>
<tr>
<td>tōq-ē</td>
<td>tōq-ɛ̄n</td>
<td>kōg</td>
<td>kōg-ɛ̄n</td>
<td>‘build’</td>
</tr>
<tr>
<td>tiw-ō</td>
<td>tiw-ɛ̄n</td>
<td>kīw</td>
<td>kīw-ɛ̄n</td>
<td>‘dig’</td>
</tr>
<tr>
<td>tīlm-ō</td>
<td>tīlm-ɛ̄n</td>
<td>īlm</td>
<td>īlm-ɛ̄n</td>
<td>‘milk’</td>
</tr>
<tr>
<td>tīfil-ē</td>
<td>tīfil-ɛ̄n</td>
<td>fil</td>
<td>fil-ɛ̄n</td>
<td>‘dance’</td>
</tr>
<tr>
<td>tōmōs-ō</td>
<td>tōmōs-ɛ̄n</td>
<td>mōsēg</td>
<td>mōsēg-ɛ̄n</td>
<td>‘run’</td>
</tr>
<tr>
<td>tīnān-ō</td>
<td>tīnān-ɛ̄n</td>
<td>kān</td>
<td>kān-ɛ̄n</td>
<td>‘sing’</td>
</tr>
</tbody>
</table>

These are verbs which have other differences between perfective and imperfective stems apart from the perfective theme vowel, so when the theme vowel is left out in the perfective dual, the distinction between perfective dual and imperfective dual is still expressed in the stem.

The second class of verbs retain the theme vowel in the perfective dual, exhibiting a reduced allomorph /-n/ after the theme vowel. In appearing after the theme vowel, the dual suffix contrasts with the distributive suffix, which appeared before the theme vowel:

13 Ama verbs may become [+ATR] when the dual or other mid-/low-tone suffixes are added: wāgā ‘keep’→ wə̄ɡə̄-n, tī ‘catch’→ tī-i-ŋ, īlm ‘milk IMPF 1/2’→ īlm-ɛ̄n. But since this process is not consistent among speakers, I have not transcribed dual verbs as [+ATR] in this paper (except when the verb stems themselves are also [+ATR]).
In some verbs in (42), perfective and imperfective is distinguished solely by the theme vowel, so that the retention of the theme vowel in the perfective dual distinguishes it from the imperfective dual. In other cases, the theme vowel does not distinguish perfective from imperfective, but distinguishes the verb from other verbs: \( wʊ̄l-ā \) ‘get out’ contrasts with \( wʊ̄l-ɛ̄ \) ‘get in’, and \( t̪ī-ə̀ \) ‘sleep’ contrasts with \( t̪ī-è \) ‘pass’, with distinct perfective dual forms \( wʊ̄lān:wʊ̄lɛ̄n \), \( t̪īə̀n:t̪īèn \).

The remaining verbs in (42) have a high tone on their theme vowel. In these verbs, the perfective dual form is determined by phonological processes. The theme vowel is latent (see 17): it appears in the distributive form (shown in brackets), but in the bare stem form the theme vowel is not pronounced and the high theme tone appears on the root vowel. In the dual forms, the dual suffix vowel is dropped when it is in hiatus with a theme vowel with high tone. But the mid tone of the dual suffix survives, forming a contour with the high tone of the theme vowel:

\[
\text{(43) } \begin{array}{cccc}
| & | & H & M \\
| & | & H & M
\end{array}
\]

| amɛ̄ɡ-ɪ-ɛn | \( \text{ámɛ̄ɡ ī-ɛn} \) |

Thus in general, the retention of the theme vowel at the expense of the dual suffix vowel is partly morphologically conditioned and partly phonologically conditioned. The theme vowel will be retained at the expense of the suffix vowel if the tone of the theme vowel is high. The theme vowel will also be retained at the expense of the suffix vowel if the theme vowel is the only difference between that verb and another verb, or if the presence of the theme vowel is the only difference between the perfective stem and the imperfective stem.

Along with these two verb classes, based on retention vs. deletion of the theme vowel in the perfective dual, there is a third class of verbs in (44) that are ambivalent between the two. If the theme vowel is /ɛ̄/, the suffix vowel is also /ɛ̄/, so it cannot be determined which one of them has been dropped. The same is true if the theme vowel is /ɔ̄/, because regressive rounding harmony (see 19) would cause /ɔ̄/ to become unrounded, creating the same ambivalence.\(^{14}\)

\(^{14}\) We might use principles from the first two verb classes to interpret ambivalent verbs in (44). So, if other differences exist between perfective and imperfective stems, we drop the theme vowel; or if there is no other difference between perfective and imperfective stems, we retain the theme vowel at the expense of the dual suffix vowel. But such interpretations would be purely a formal exercise, not
This ambivalence creates ambiguity. If the perfective stem and imperfective stem of a verb are identical apart from a theme vowel /ɛ̄/ or /ɔ̄/, there is no way left to distinguish the perfective dual from the imperfective dual. A way to disambiguate aspect in duals is by using the imperfective mirative suffix /-ar/. Mirative expresses an event that is unexpected, but since it is inflection that is only used on imperfective verbs, it also expresses imperfective aspect when the distinction between perfective and imperfective is eliminated in stems:

(45)

<table>
<thead>
<tr>
<th>Perfective</th>
<th>Perfective Dual</th>
<th>Imperfective</th>
<th>Imperfective Dual</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-ɛ̄</td>
<td>n-ɛ̄n</td>
<td>---</td>
<td>---</td>
<td>‘be’</td>
</tr>
<tr>
<td>cɪ̀-ɛ̄</td>
<td>cɪ̀-ɛ̄n</td>
<td>ácɪ̀</td>
<td>ácɪ̀-ɛ̄n</td>
<td>‘do’</td>
</tr>
<tr>
<td>jɛ́ɡ-ɛ̄</td>
<td>jɛ́ɡ-ɛ̄n</td>
<td>jɛ́ɡɪ̀n</td>
<td>jɛ́ɡɪ̀n-ɛ̄n</td>
<td>‘leave s.th’</td>
</tr>
<tr>
<td>kɪ̄r-ɛ̄</td>
<td>kɪ̄r-ɛ̄n</td>
<td>kɪ̄r</td>
<td>kɪ̄r-ɛ̄n</td>
<td>‘cut’</td>
</tr>
<tr>
<td>bālɟɪ̄ŋ-ɛ̄</td>
<td>bālɟɪ̄ŋ-ɛ̄n</td>
<td>bālɟɪ̄ŋ</td>
<td>bālɟɪ̄ŋ-ɛ̄n</td>
<td>‘love’</td>
</tr>
<tr>
<td>sāŋ-ɔ̄</td>
<td>sāŋ-ɛ̄n</td>
<td>sāŋ</td>
<td>sāŋ-ɛ̄n</td>
<td>‘search’</td>
</tr>
<tr>
<td>jɔ̄ɡ-ɔ̄</td>
<td>jɔ̄ɡ-ɛ̄n</td>
<td>jɔ̄ɡ</td>
<td>jɔ̄ɡ-ɛ̄n</td>
<td>‘grind’</td>
</tr>
</tbody>
</table>

In summary, the dual suffix is fully productive on Ama verbs. On different verbs, the choice of allomorph /-ɛ̄n/ or /-n/ may be phonologically conditioned, morphologically conditioned, or ambivalent. This morphophonology is shaped by the placement of the dual suffix after the perfective theme vowel. This is different from the distributive suffix /-ɪ́d̪/, whose morphophonology is shaped by its placement before the perfective theme vowel.

3.4 Combined Distributive-Dual Marking

Having demonstrated the productivity of the dual suffix on Ama verbs by describing the verb classes that take different allomorphs of the suffix, we may consider the productivity of the dual suffix further by examining how it combines with distributive marking.

It is technically possible to combine dual with distributive, in that the distributive and dual are in different slots in the order of affixes. As noted above, the distributive is placed before the theme vowel, whereas the dual suffix is placed after it. There are several other verb suffixes that pattern with the theme vowel in this respect:

representing any audible communicative distinction. I have chosen instead to simply transcribe all the perfective duals in (44) with /-ɛ̄n/ to highlight the very real communicative ambiguity between perfective dual and imperfective dual.
(46) | Distributive /-ið/ | Dual /-ěn/ |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfective Theme Vowel</td>
<td>kīl-đ-ī</td>
</tr>
<tr>
<td>Imperfective Mirative /-ar/</td>
<td>sāŋ-īd-ār</td>
</tr>
<tr>
<td>Imperfective Past /-áw/</td>
<td>sāŋ-īd-āó</td>
</tr>
<tr>
<td>Perfective Passive /-āj/</td>
<td>āsīdā-īd-āí</td>
</tr>
<tr>
<td>Perfective Middle /-ěj/</td>
<td>ţīgĕl-d-ěj</td>
</tr>
<tr>
<td>Directional /-ěg/</td>
<td>niř-īd-ěg</td>
</tr>
<tr>
<td>Applicative /-n/</td>
<td>tāl-īd-ī</td>
</tr>
<tr>
<td>Perfective Ventive /-ń/</td>
<td>dij-īd-ř-g</td>
</tr>
</tbody>
</table>

Thus, the distributive suffix occupies an early slot in the verb before these other suffixes, and the dual suffix occupies a more peripheral slot after these other suffixes.

Nevertheless, examples containing both suffixes are not easily forthcoming. We do find the dual suffix on suppletive distributive stems, to mark a dual subject when the event is distributed over object referents (47i), although it cannot mark a dual object in this construction (46ii – compare 32ii):

(47) i. ə̀ŋí bā wècī bū-ěn ‘We (dual) caught gazelles’
ii. àɪ̀ bā wècī ārbā būo (*bū-ěn) ‘I caught until I caught two gazelles’

However, with other verbs that use the distributive suffix instead of a suppletive stem, we do not see the dual suffix combined with the distributive suffix to express the combination of a dual subject and distribution over the object. I have no explanation for this, especially when we know from (47i) that these two functions are indeed expressible in one construction.

Instead, verbs with both suffixes are only possible for those speakers who allow the distributive suffix to have the plural subject participant function on transitive verbs (see 14):

(48) i. à-dě-ř-ñ-ī ‘You (two) hit (him/her)’
   PL-hit-TH-DU-DIR
ii. à-tīgěł-ěn-ī ‘You (two) wash (it)’
   PL-wash-DIR
iii. ?à-dě-įd-į-ń ‘You (three or more) hit (those two)!
   PL-hit-DISTR-TH-DU-DIR
iv. ?à- tīgěł-d-ěn-ī ‘You (three or more) wash (those two things)!
   PL-wash-DISTR-DIR

In imperatives with a plural subject prefix, a dual suffix further specifies the plural subject as having exactly two referents (48i,ii). But when distributive and dual suffixes are both present (48iii,iv), the distributive further specifies the plural subject as having three or more subject referents, while dual reference switches to the object.

15 These speakers are from Tundia in the western part of the Ama language area. Likewise, Stevenson, Rottland and Jakobi (1992) report that only some speakers find verbs with both suffixes acceptable.
4 Conclusion
Ama verb morphology includes the categories of distributive and dual, the latter being particularly rare in the world’s languages. Furthermore, Ama has these two categories in the verb when they are lacking in nouns, which have only a limited singular/plural distinction (section 1).

In place of earlier accounts of Ama verbs that present dual and “plural” verbs in a scale of increasing number, this paper identified numerous ways in which dual participant marking and distributive marking diverge away from a common linear scale, at least for transitive verbs:

<table>
<thead>
<tr>
<th>Dual</th>
<th>Distributive</th>
</tr>
</thead>
<tbody>
<tr>
<td>does not structure events in time</td>
<td>distributes events over time</td>
</tr>
<tr>
<td>agrees with arguments containing ‘two’</td>
<td>doesn’t agree with arguments containing numerals</td>
</tr>
<tr>
<td>subject or object reference (preference for subject)</td>
<td>distributes over absolutive referents</td>
</tr>
<tr>
<td>implies duality of bare rational nouns or pronouns</td>
<td>implies plurality of any bare object noun</td>
</tr>
<tr>
<td>reciprocalises a stative clause of two participants</td>
<td>does not reciprocalise</td>
</tr>
<tr>
<td>marked by suffix only</td>
<td>marked by suppletion or by up to 2 suffixes</td>
</tr>
<tr>
<td>suffix not used on intransitive distributive verb roots</td>
<td>suffix not used on any distributive verb roots</td>
</tr>
<tr>
<td>suffix after the theme vowel &amp; other suffixes</td>
<td>suffix before the theme vowel &amp; other suffixes</td>
</tr>
<tr>
<td>allomorphs phonologically &amp; morphologically conditioned</td>
<td>allomorphs phonologically conditioned</td>
</tr>
</tbody>
</table>

The term “plural” used by previous accounts (for what we have called distributive) has some partial justification, however: on intransitive verbs, the distributive is obligatory for subjects of three or more referents, and so for this class of verbs it patterns as a successor to the dual.

Joseph Greenberg’s universal 34 states that “no language has a dual unless it has a plural”, and this appears to be true for nouns in the world’s languages (Corbett 2000:38). In contrast, the Ama verb system has a productive dual without a regular plural counterpart. There are various ways of expressing plurality on verbs, but none is a verbal plural. With a verbal dual but no verbal plural, Ama is a counter-example to the generalisation that no language has a dual unless it also has a plural.
Abbreviations

ACC Accusative  DIR Directive  GEN Genitive  SG Singular
APP Applicative  DISTR Distributive  IMPF Imperfective  SPEC Specifier
CAUS Causative  DU Dual  PL Plural  TH Theme
DAT Dative  CFOC Contrastive Focus  POS Possessive  TOP Topic
DEO Deontic  VFOC Verb Focus  RECP Reciprocal  VER Veridical

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Stirtz, Timothy, Christine Waag & Abdu Baagi, (2005), Ama verb system. Unpublished manuscript.
The prefix /ɔ́-/ in Lumun kinship terms and personal names
Heleen Smits

1 Introduction
Lumun is a Kordofanian language spoken in the Nuba Mountains of Sudan. Within
Kordofanian it belongs to the subgroup of Talodi languages (Schadeberg 1981).
Lumun has a noun class system not unlike the system of the Bantu languages. Many
nouns have a singular and a plural form which differ only as to the noun class prefix.
Singular nouns denoting persons relatively often occur in the p-class, with a plural in
the Ø class, but nouns denoting persons are found in several other noun classes as well
(see the overview in section 4).

There is also a group of nouns denoting people, predominantly kinship terms and
personal names, which have an initial prefix /ɔ́-/ which is not a noun class prefix (see
sections 3 and 5). The full subject pronouns have this ɔ́-prefix as well. On the 3rd person
plural subject clitic and in certain verbs with a 3rd person singular subject clitic, a tonal
trace of the prefix can be observed (see section 7).

In this paper, I present the nouns denoting persons as far as they occur in my database:
those which lack the ɔ́-prefix (the "common nouns") and those which have the ɔ́-
prefix (the "ɔ́-prefix nouns"). Notably, in vocative forms of the ɔ́-prefix nouns, the prefix is
absent (section 6).

Whereas common nouns can refer in both a specific and a non-specific way, ɔ́-prefix
nouns, including the pronouns, always refer to specific persons. Phonological aspects of
attachment of the prefix and plural formation of ɔ́-prefix nouns are addressed in
sections 5.1 and 5.2. Section 5.4 deals with the use of the prefix as a productive tool to
create (nick)names. A short summary is given in section 8.

The ɔ́-prefix is glossed as "PERS" (< Latin persona 'mask, especially as worn by actors'),
reflecting that the prefix crucially denotes specific persons. I have glossed it earlier as
"REF" (referentiality marker) (Smits, 2007), whereas Norton (2000) glossed the
comparable morpheme in Asheron as "FAM" (familiarity).

Persona-marking (PERS) needs to be distinguished from the long-established
grammatical category person, which distinguishes the discourse roles of speaker,
addressee and third party (Siewierska, 2004). In the Lumun subject pronouns (see
section 7) persona marking co-occurs with all three discourse roles.

Person is glossed in the Lumun pronouns and pronoun clitics with 1, 2 and 3. The
plural pronouns are glossed with an additional "A" standing for Latin et alii 'and others'.

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1 I wish to thank my consultants John Shakir, Lukka Kamsur, Lotti Tager, Markos Lalu, Nimeri Alamin,
Nafisa Abdullah and Risala Abdullah. I thank the members of the Episcopal Church of Sudan Translation
Department for making many Lumun materials available to me, including translated Bible portions and
other texts. Thanks also to the Department of Linguistics of the University of Khartoum for help in many
ways, and to Maarten Kossmann, Victoria Nyst and Thilo Schadeberg for suggestions and comments.
Thanks also to Russell Norton for his valuable remarks. The fieldwork was carried as part of my PhD
project A Grammar of Lumun (work in progress) at the Leiden University Centre for Linguistics (LUCL)
and sponsored by the Leiden University Fund (LUF). All errors are entirely mine.
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This gives: 1 'I', 2 'you (singular)', 12 'I and you (singular)' 3 'he, she', 1Λ 'we (exclusive)', i.e. I and other(s), 12Λ 'we (inclusive)', i.e. I, you and other(s), 2Λ 'you (plural), i.e. you and other(s)' and 3Λ 'they', i.e. he or she and other(s). For pronoun clitics in object position the gloss "O" (object) is added. The possessor pronouns are glossed as 1POSS 'my', 2POSS 'your (singular)', etc. Other glosses I have used are: c (concord), NEG (negation), PL (plural) and REL (relativizer). TAM-inflection of verbs has not been glossed.

For a better understanding of the examples, the phonemes of Lumun and the basic principles of agreement of nouns with modifiers and verbs are presented first (sections 2 and 3).

2 Phonology
Lumun is a tone language and is analyzed as having two underlying tones H (high) and L (low). At the surface there are also two contour tonesː HL (falling) and LH (rising). Absence of a tone mark indicates a L-tone. A H-tone mark which follows a word (e.g. tɔk' 'dog') indicates a non-attached H-tone (cf. Kutsch Lojenga 2004, unpublished notes).

As far as we know now, Lumun has eight vowel phonemes: i, u, i, u, e, æ, a and ø. The consonant phonemes p, t, t, c, k and kw have several allophones: voiceless stops, unreleased voiceless stops, voiced stops and voiced fricatives / approximants (including [r] for the alveolar place of articulation). In isolated words these phonemes are realized as voiceless stops in word initial position e.g. kua ~ [kua] 'hair', as unreleased voiceless stops in final position, e.g. kʊmmʊk ~ [kʊmmʊk˺] 'pot', as voiced stops after nasals, e.g. campâl ~ [cambâl] 'walking stick' and as voiced fricatives or approximants between vowels, e.g. ɔpá ~ [ɔßá] 'piece of meat'. Between vowels there is neutralization of the phonemes t and r to [r], e.g. i + tʊɛ́ 'in + river' > [ɪrʊɛ́] 'in the river'. Voiceless stops between vowels are analyzed as geminations underlingly. Such geminations prevent lenition to a voiced fricative or approximant between vowels, but are not pronounced long, e.g. akka ~ [aka] 'because'.

3 Agreement with common nouns and ɔ́-prefix nouns
Common nouns consist of a noun class prefix and a stem. In common nouns which have an initial consonant, the initial consonant is the noun class prefix. Nouns can also have a Ø class prefix, in which case the noun is vowel-initial. In Lumun there is agreement between nouns and their modifiers and there can be agreement between subject nouns and verbs. Agreement is expressed through concord and controlled by the class of the noun. The concords of common nouns have the same shape as the noun class prefixes, except for nouns with a Ø class prefix: in such cases the concord is w-. Noun classes can actually be defined on the basis of the shape of their concord, though we will speak of the Ø class, not of the w-class. Animacy and singular or plural reference of the noun do not play a role in the choice of concord.

| man        | m-ɔ́ kapik   |
| house      | c-of rain    |
| the church |              |
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<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>maṭṭak</td>
<td>m-erá</td>
<td>bowls</td>
<td>two bowls</td>
</tr>
<tr>
<td>w-aát</td>
<td>lizards</td>
<td>the lizards</td>
<td>have come</td>
</tr>
<tr>
<td>p-aát</td>
<td>person</td>
<td>the man</td>
<td>has come</td>
</tr>
<tr>
<td>ɲukul</td>
<td>eɲɲi</td>
<td>children</td>
<td>these</td>
</tr>
<tr>
<td>ɲ-ɔpɔrɔt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ɔ-ɪáia</td>
<td>p-aát</td>
<td>my mother</td>
<td>has come</td>
</tr>
<tr>
<td>ɔ-cecccé</td>
<td>p-aát / c-aát</td>
<td>Cecce</td>
<td>has come</td>
</tr>
<tr>
<td>ɔ-kəllán</td>
<td>k-aát</td>
<td>the old woman</td>
<td>/ my wife has come</td>
</tr>
<tr>
<td>ɔ-kərɔ́l</td>
<td>p-aát</td>
<td>Tortoise</td>
<td>has come</td>
</tr>
<tr>
<td>ɔ-lɔ́ttɪ</td>
<td>l-ɔ́-mat̪arɪ</td>
<td>Lotti of</td>
<td>Mathari</td>
</tr>
</tbody>
</table>

ɔ-prefix nouns induce concord on the same categories as common nouns, but their concord patterns are different. Singular ɔ-prefix nouns typically, but not always, take p-concord. In the second example below, c-concord, which corresponds with the noun without ɔ-prefix, is possible as well, though somewhat unusual. The third example below, ɔ-kəllán k-aát ‘the old woman / my wife has come’, does not get p-concord because the prefix is attached to a common noun which itself already denotes a human being. In the other cases, only p-concord is possible on the verb.

In possessor constructions on the other hand, the concord that matches the class of the noun without ɔ-prefix must be used:

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɔ-cecccé</td>
<td>c-m</td>
<td>(*ɔcecccé pin)</td>
<td>my Cecce</td>
</tr>
<tr>
<td>ɔ-kərɔ́l</td>
<td>k-m</td>
<td>(*ɔkərɔ́l pin)</td>
<td>my Tortoise</td>
</tr>
<tr>
<td>ɔ-kəllán</td>
<td>k-m</td>
<td>(*ɔkəllán pin)</td>
<td>my old woman, my wife</td>
</tr>
<tr>
<td>ɔ-lɔ́ttɪ</td>
<td>l-ʃ-ɔ́-mat̪arɪ</td>
<td>(*ɔlɔ́ttɪ pɔ́mat̪arɪ)</td>
<td>Lotti of Mathari</td>
</tr>
</tbody>
</table>

Certain kinship terms form an exception to this rule: they can only get p-concord, though there is no p following the ɔ-prefix. Since noun class prefixes in Lumun can be defined on the basis of the shape of their corresponding concord, these nouns arguably lack a noun class prefix. Some examples are given below (there are more cases):

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɔ-ɪáia</td>
<td>p-m</td>
<td>PERS-my_mother</td>
<td>C-IPOSS</td>
</tr>
<tr>
<td>ɔ-nnán</td>
<td>p-ɔ-mɛt̪tɪmɛ́t̪ɪ</td>
<td>PERS-mother</td>
<td>C-of:PERS-Meththimeththi</td>
</tr>
</tbody>
</table>
\[\textit{ɔ-ŋŋappá} \quad \textit{p-ɔnɔ́n}\]
\textit{PERS-my\_father} \quad \textit{C-12APOSS}
our father

\[\textit{ɔ-ɽín} \quad \textit{p-in}\]
\textit{PERS-sibling\_in\_law} \quad \textit{C-1POSS}
my brother-in-law

\textit{ʒ}-prefix nouns which contain the associative plural suffix /ŋɔ̂n/ (see 5.2) always have \textit{t}-concord.\(^2\)

\[\textit{ɔ-kukkó-ʒn} \quad \textit{t-ɔpɔrɔ́t}\]
\textit{PERS-Kukku-PL} \quad \textit{C-good}
Kukku and his group are fine

Interestingly, the full subject pronouns also have the \textit{ʒ}-prefix, while a suffixing process, involving a final -\textit{n}, can be recognized in their plural forms. Like the \textit{ʒ}-prefix nouns, the singular pronouns induce \textit{p}-concord on verbs and the plural pronouns induce \textit{t}-concord (see section 7).

4 Common nouns which denote persons

Nouns typically, but not necessarily, occur in two classes: in one class the noun has singular reference, in the other plural. In Lumun, like in other Kordofanian languages (see e.g. Stevenson 1956-1957, Norton 2000, Gibbard e.a. 2009, Schadeberg 2009), clusters of meaning can be found in (most of) the noun classes. Several singular nouns denoting persons are found in the \textit{p}-class, with plurals most often in the \textit{Ø} class, but nouns denoting persons are found in several other classes as well. Singular – plural combinations of nouns which denote persons and which consist of just a noun class prefix and a stem are listed below. The list is based on a database of ca. 850 nouns.

| \textit{p-} / \textit{Ø} | pol / ol | person
|-------------------------|---------|--------------------------------------|
| parró / arró | Lumun person
| pappó / appó | Tocho person
| parɛmɛ́ / arɛmɛ́ | Asheron person
| pamít / amít | traditional healer
| parí / arí | wife
| parɛ / ərɛ | husband
| parɛtán / arɛtán | rich person
| pənán / ənán | adult woman without children
| pɪaŋ / ıaŋ | adoptee, orphan, slave
| pənít / ınt | composer, singer
| pít / ? it\(^3\) | servant, master (esp. master – dog relationship, but also between people)
| pucuś́ / ʊcuș́́ | barren woman
| purít / urít | young man

\(^2\) The full subject pronouns also have the \textit{ʒ}-prefix, and a suffixing process, involving a final -\textit{n}, can be recognized in their plural forms. Like the \textit{ʒ}-prefix nouns, the singular pronouns induce \textit{p}-concord and the plural pronouns induce \textit{t}-concord. See section 7.

\(^3\) The plural form \textit{ít} ‘servants, masters’ was considered doubtful.
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A handful of plural nouns which occur in the /-class and which lack a common singular counterpart have been left out here. They are instead mentioned in the second table in section 5.3, because they have an ɔ́-prefix noun as their singular counterpart.

The number of common nouns denoting persons appears to be fairly limited, but terms which denote persons can also be compounds of pul 'person' or ukol 'child' and a connexive construction (c-ɔ 'of'), or a construction with the relative morpheme ɪ́-. Agent nouns can productively be formed with the relative ɪ- and a verb, as in the last four examples below.

Common Lumun nouns can have specific (individuated) reference but also non-specific (generic) reference (Payne, 1997, p. 263-265. Payne uses the term objective referentiality instead of specificity). In the sentence below, pul ɪ-ɒŋkɛnɛ 'teacher' can refer to a specific teacher (translated in English as 'the teacher'), but it can have non-specific reference, i.e. to any person who is a teacher (translated in English with 'a teacher').

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4 The concord w- of nouns with a Ø class prefix (such nouns are vowel-initial) is deleted between vowels.
The prefix /ɔ́-/ in Lumun kinship terms and personal names

Kakka said that she will marry the / a teacher

The same goes for plural common nouns, e.g.,

ɲʊkʊl ɲ-aɪk ɲ-ɔ́ɔ cânnán
children c-be c-cry very
the children cry a lot (specific) / children cry a lot (non-specific)

5 The prefix /ɔ́/-
5.1 Attachment of the prefix

The /ɔ́/-prefix, in principle, attaches before the noun class prefix. Recall however, that for some kinship terms, a noun class prefix cannot be established (see section 3). In such cases, we can merely say that the prefix attaches to the vocative form, which is the noun without the /ɔ́/-prefix. An example is the term for 'my mother' in the table below.

When the prefix attaches to an entirely low (L) noun, the high (H) tone of the prefix shifts one mora to the right. If the noun to which the prefix attaches is a monosyllabic L-word, the H-shift from the prefix results in a falling tone. When the noun to which the prefix attaches has a high tone itself, whether attached or non-attached or as part of a falling tone, the H-tone of the prefix will, in most cases (not all), be deleted. Shift and deletion of the H-tone of the prefix are illustrated in the table below. The corresponding noun without the prefix is given in the third column.

| /ɔ́-kɪɲcɛ | the Nose (nick name) | kɪɲcɛ | nose |
| /ɔ́-cɔ̂n | John | cɔ̂n | John! (only as vocative) |
| /ɔ́-cɔɽɔŋ́ | the Mountain (nick name) | cɔɽɔŋ́ | mountain |
| /ɔ́-pɪkí | the grandfather, grandmother, grandson, granddaughter | pɪkí | ancestor, descendant |
| /ɔ́-ɪáɪa | my mother | ɪáɪa | (my) mother! (only as vocative) |
| /ɔ́-kʊkkʊ̂ | Kukku | kʊkkʊ̂ | Kukku! (only as vocative) |

In line with general phonological processes in the language, attachment of the prefix before a voiceless plosive causes lenition of the plosive to a voiced fricative or approximant, or in the case of /t/ a change to /r/. Occasionally however, the voiceless plosive remains a voiceless plosive upon attachment of the prefix. Such items are written with double /pp, tt/, etc. E.g.,:
The ɔ-prefix is not always present as a segment on the surface since there is coalescence in some vowel sequences: ɔ + ɛ > ɛ, ɔ + ɔ > ɔ, and ɔ + a > a. E.g.,

- ɔ́ + ɛlɪmɛ́lɪk > ɛlɪmɛ́lɪk Elimelech
- ɔ́ - + amra > ámra Amra (cow's name: Red < Sudanese Arabic حمرة )

In some items, the (historical) morpho-phonological process is somewhat different and may not be entirely transparent. This is in particular the case when the prefix form and the vocative form are the same, as in the second example below.5

- ɔllɛ  the husband (reference to a specific person)  <  ɔ́ + pəɽɛ
- ɔɽîn  the brother-in-law, the sister-in-law (reference to a specific person)  <  ɔ́ + ?

5.2 Plural formation of nouns with the ɔ-prefix: the associative plural morpheme /-ŋɔ̂n/  
ɔ-prefix nouns form plurals through attachment of the associative plural morpheme /-ŋɔ̂n/ to the singular noun. The morpheme can take the segmental shapes -ŋɔ̂n, -ɔ̂n or -n̂, depending on the final vowel or consonant of the preceding noun. The morpheme has the meaning 'X and his, her group'. The groups can be of different kinds: family members, friends, colleagues, etc. Which group is referred to is established in the context of the speech act.

- ɔkəllân / ɔkəlláŋ-ŋɔ  the Old Woman / the Old Woman and her group
- ɔkʊkkʊ / ɔkʊkkʊ́-ɔ̂n Kukku / Kukku and his group
- ɔkakkâ / ɔkakkâ-n Kakka / Kakka and her group

If a possessor pronoun is involved, this possessor comes before the associative plural morpheme, and takes the concord matching with the singular noun. The morpheme -ŋɔ̂n comes only at the end. The noun phrase as a whole now induces the plural concord ƶ:

- ɔ-kakká k-ɪŋ-ŋɔ ́n  t̪-áɪ́k karət  PERS-Kakka C-1POSS-PL C-be where

Where are my Kakka and her friends?

Depending on the context, -ŋɔ̂n can also be translated as a "normal" plural (X’s). A man whose wife and daughter are both called  kakkâ  could use the sentence above in the sense of 'where are my Kakka’s?' .

The example below involves the plural of 'my sibling', ɔpaŋkɪŋŋɔ̂n. ɔpaŋkɪŋŋɔ̂n is translated here as the normal plural 'my brothers', but in other contexts the same form can also refer to 'my brother and his family', or 'my brother and his friends', etc. The (singular) p-concord on the possessor pronoun has changed into k- due to assimilation to the preceding velar nasal. The noun phrase as a whole has ƶ-concord.

5 Lumun words cannot be rhotic-initial. A possibility is that the underlying noun is itself ɔ-initial (ɔ + ɔ > ɔ), but this is not necessarily the case.
I have two brothers (lit: my brothers are two)

-ŋɔ̀n attaches to ő-prefix nouns or to a pronominal possessor following an ő-prefix noun. -ŋɔ̀n also attaches to vocative forms of ő-prefix nouns, which do not have the prefix. The second example below normally means 'mother and father!'. Alternatively, the plural of father can be used.

\[\text{pìkì} \quad \text{p-ŋ-ŋón} \]
\[\begin{array}{l}
\text{grandchild} \quad \text{C-1POSS-PL} \\
\text{my grandchildren!}
\end{array}\]

\[\text{ɪáá-n} \quad \text{mother-PL} \]
\[\text{mother and father!}\]

5.3 Kinship and relational terms

Kinship and relational terms, i.e. the terms that refer to specific, identifiable people, not to the (kinship) relation as such, have the ő-prefix, unless used as vocatives.

The names which are given to each Lumun child after the number of its birth — and which can therefore be considered kinship terms — are presented in the first table below. Some names are especially for girls, others especially for boys and some can be used for both. After the 5th child, name giving starts again from the beginning.

Established variants of these names exist, but are mainly used in the inner family circle and are not listed here. The vocative forms are given first, since they constitute the basic forms (see also section 6). These forms without the ő-prefix are only attested as vocatives. The numbers in the table denote first born, second born, etc.

<table>
<thead>
<tr>
<th>boys</th>
<th>girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>vocative</td>
<td>ő-prefix noun</td>
</tr>
<tr>
<td>vocative</td>
<td>ő-prefix noun</td>
</tr>
<tr>
<td>1. kokkò</td>
<td>őkókkò</td>
</tr>
<tr>
<td>2. látì</td>
<td>őlátì⁹</td>
</tr>
<tr>
<td>3. lałó</td>
<td>őlałó</td>
</tr>
<tr>
<td>4. tútù</td>
<td>őtùtù</td>
</tr>
<tr>
<td>5. kumàñ</td>
<td>őkumàñ</td>
</tr>
<tr>
<td>5. őłccò⁷</td>
<td>őłccè</td>
</tr>
</tbody>
</table>

The other kinship terms and relational terms with ő in my database are listed below. Kinship terms and relational terms with ő refer to specific people and function very much like personal names. They typically co-occur with a possessor, so that the listener can easily identify the referent. The possessor can sometimes be left out, especially in the third person, but it should then be clear from the context who the possessor is. In the terms for 'father', 'mother' and 'maternal uncle', a possessor is already inherently

⁹ The H-tone of the prefix is not deleted here, but realized one mora to the right.
⁷ As footnote 6.
present. Several terms refer to either side of a (kin) relation irrespective of the
generation, e.g., to both the grandparent and the grandchild.

Some of the items, not all, have counterparts, other than vocatives, which lack the ɔ-
prefix. Such common nouns, which are found in the ɔ-, Ø and t-class, and which are
listed in the fourth column of the table below, tend to refer to the "species", or to the
type of (kinship) relation, instead of to a specific person. The common nouns pari / arí
‘wife / wives’ however, can refer both to a wife as a kind of person and as a specific
individual. The nouns in the t-class may have abstract reference, e.g., tókí can denote
‘ancestors’ but also ‘ancestry’ and tukɔtɔ refers to ‘friendship’. The common noun páŋ
‘thing(s) of the same kind’ can only refer to things (singular or plural), not to persons.

In the table below, the vocatives are given with a possessor construction C-m 'my', or C-
ɔ X 'of X'. A possessor cannot normally be left out, unless the possessor is inherently
part of the word. An exception is ñma 'friend!', which easily occurs without possessive.
The vocatives between parentheses exist, but are not normally used. Note that some
vocative forms have an initial vowel ɔ. In these forms, the ɔ precedes a rhotic sound,
which cannot occur word-initially. The underlying form without prefix cannot easily be
established (see also footnote 6).

<table>
<thead>
<tr>
<th>vocative (with possessor C-m 'my', or C-ɔ X 'of X')</th>
<th>ɔ-prefix noun</th>
<th>common noun based on the same stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>my father, paternal uncle Ńappâ ɔŋŋappâ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>my father, paternal uncle (informal) Páppa ɔpáppa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>your father, paternal uncle Êtté</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| (his, her) father, paternal uncle ]+
<p>| Ńan pɔ X ɔt̪t̪ân                               |               |                                   |
| my mother, aunt Ǹáía ɔŋŋáía                      |               |                                   |
| my mother, aunt (informal) Iáía ɔiáia             |               |                                   |
| your mother, aunt UNKNOWN                      |               |                                   |
| (his her) mother, aunt nan pɔ X ɔnnân               |               |                                   |
| son, daughter Pëi pîn ɔréï                    |               |                                   |
| sibling, brother, sister, cousin Paŋ pîn, Paŋkîn  |               |                                   |
| ancestor, descendant Piki pîn ɔpiki             |               |                                   |
| my maternal uncle, nephew, niece of a maternal uncle ɔréïn ɔréïn |               |                                   |
| your maternal uncle, nephew, niece of a maternal uncle ɔgréë |               |                                   |
| (his, her) maternal uncle, nephew, niece of a maternal uncle ɔréïn pɔ X, ɔréë pɔ X ɔréë ɔréë ɔgréë ɔgréë ɔgréë |               |                                   |</p>
<table>
<thead>
<tr>
<th>Role</th>
<th>Stem</th>
<th>Possessor</th>
<th>Possessor Form</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>husband</td>
<td>(paɾe pín)</td>
<td>əllɛ</td>
<td>paɾe / əɾe</td>
<td></td>
</tr>
<tr>
<td>wife</td>
<td>(paɾí pín)</td>
<td>əparí</td>
<td>paɾí / əɾí</td>
<td></td>
</tr>
<tr>
<td>co-wife</td>
<td>(pʊɾʊkʊ́n pín)</td>
<td>əpʊɾʊkʊ́n</td>
<td>pʊɾʊkʊ́n / ʊɾʊkʊ́n</td>
<td></td>
</tr>
<tr>
<td>in-law (different generation)</td>
<td>pɪ̃t̪ɛ pín</td>
<td>əpɪ̃t̪ɛ</td>
<td>t̪ɪt̪ɛ</td>
<td></td>
</tr>
<tr>
<td>in-law (same generation)</td>
<td>əɾɪ̃n pín</td>
<td>əɾɪ̃n</td>
<td>t̪ɪɾɪ̃n</td>
<td></td>
</tr>
<tr>
<td>master, servant</td>
<td>əpɪ̃t̪ pín</td>
<td>əpɪ̃t̪</td>
<td>pɪ̃t̪ / pɪ̃t̪</td>
<td></td>
</tr>
<tr>
<td>friend</td>
<td>əpʊɾʊkʊ́n pín</td>
<td>əpʊɾʊkʊ́n</td>
<td>pʊɾʊkʊ́n / ʊɾʊkʊ́n</td>
<td></td>
</tr>
<tr>
<td>my friend</td>
<td>karrəkɪ́n</td>
<td>əkarrəkɪ́n</td>
<td></td>
<td></td>
</tr>
<tr>
<td>friend (especially in stories)</td>
<td>t̪ʊmə</td>
<td>ʊt̪ʊmə</td>
<td></td>
<td></td>
</tr>
<tr>
<td>friend</td>
<td>cáap cɪn</td>
<td>əcáap (&lt; Sudanese Arabic صاحب.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Some sentences are given below in order to illustrate the difference between same-stem ɔ́-prefix nouns and common nouns which lack the prefix. The ɔ́-prefix nouns denote specific persons and need a possessor: this possessor is usually explicitly mentioned and must otherwise be understood from the context. The common nouns on the other hand usually lack a possessor and refer to the kind of person rather than to individuals. Note that the use of the ɔ́-prefix noun versus the common noun does not match with definiteness versus indefiniteness in the English translation. In most examples below, the relevant noun is based on the stem urʊkʊ́.

<table>
<thead>
<tr>
<th>Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɔ́-un ɔ́-pʊɾʊkʊ́ p-aŋ</td>
</tr>
<tr>
<td>PERS-1 PERS-friend C-2POSS</td>
</tr>
<tr>
<td>I am your friend</td>
</tr>
<tr>
<td>m-p-ɔŋo ɔ́-pʊɾʊkʊ́ p-in / ɔ́-pʊɾʊkʊ́</td>
</tr>
<tr>
<td>1-C-have PERS-friend C-1POSS / PERS-friend (lit: I have my friend)</td>
</tr>
<tr>
<td>I have a friend</td>
</tr>
<tr>
<td>ul w-əɾ̃ck w-ɔ́-ŋʊ́ ɔ́-pʊɾʊkʊ́-n t̪-əpʊ́t</td>
</tr>
<tr>
<td>people C-other C-have PERS-friend-PL C-many</td>
</tr>
<tr>
<td>some people have many friends</td>
</tr>
</tbody>
</table>

The following example can go with the ɔ́-prefix noun as well as with the common noun. Note that the combination common noun + possessor pronoun is also possible:

<table>
<thead>
<tr>
<th>Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>m-p-ɔ̃ŋt̪ɛ ɪtɪ m-p-ana pʊɾʊkʊ́ / pʊɾʊkʊ́ p-in / ɔ́-pʊɾʊkʊ́ / ɔ́-pʊɾʊkʊ́ p-in</td>
</tr>
<tr>
<td>1-C-want that 1-C-bring friend / friend C-1POSS / PERS-friend / PERS-friend C-1POSS</td>
</tr>
<tr>
<td>I want to have a friend</td>
</tr>
</tbody>
</table>

In the first example below, the person is denoted as a friend like a member of a species, not as somebody's friend. The common noun does not imply a relationship with somebody specific. In the second example on the other hand, the use of the ɔ́-prefix implies that it is clear from the context to whose group of friends the referent belongs.
purʊkɔ́ p-əɛ̄k p-aát
friend C-other C-come
some friend has come

ɔ-|-purʊkɔ́ p-əɛ̄k p-aát
PERS-friend C-other C-come
one of the friends has come (i.e. one of the friends of somebody specific)

In the first example below which features the plural of the ɔ-prefix noun, it has to be clear from the context whose friends are being referred to. The elicited generic expression presented as the second sentence below on the other hand, was given with the plural common noun ɪ́t ‘servants’, even though the consultant was not sure if ɪ́t actually exists.

ɔ-pʊrʊkɔ́-n t-ɔnò nɔɛ̄
PERS-friend-PL C-have laziness
the friends are lazy (i.e. the friends of somebody specific)

? ɪ́t w-ɔnò nɔɛ̄
servants C-have laziness
servants are lazy

The statements below, which feature the plural common noun urʊkɔ́ ‘friends’ do not refer to the friends of somebody specific but to friends as a kind of person:

l-ɔpɔrɔ́t ᵇtǐ ɳ-kw-ana urʊkɔ́ w-ɔppɔ́t
C-good that 2-C-bring friends C-many
it is good to have many friends

urʊkɔ́ l-ɔpɔrɔ́t w-ɔpɔ́rt
friends REL-good C-good
good friends are important

The noun referring to the relationship as such has the t-class prefix.

tʊrʊkɔ́ t-ɔpɔ́t
friendship C-good
friendship is good

The t-nouns do not always denote abstract notions. In the second example below, the t-noun must be used because a specific possessor cannot be established (the relation is reciprocal).

ɔřin p-ɪ-ŋ-ɔ́n ɔ́-kakkǎ ana ɔ-nenì
PERS:sibling_in_law C-1POSS-PL PERS-Kakka and PERS-Neni
my sisters-in-law are Kakka and Neni

ɔ́-kíŋ ɔřin
PERS-3 in_laws
they are sisters-in-law (to each other)
Two sentences from the Bible are given for further illustration of the use of ɔ́-prefix and common nouns based on the same stem. The lines below are from Ruth 1: 8-9. They contrast the plural ɔ́-prefix noun ɔllɛ́ paŋŋɔ́n 'your husbands' with the plural common noun əɽɛ 'husbands':

ɔ̀n-təkkɪnt̪-ɪ́n lɔ́n ɪ́-l-ɔpɔ́rɔ́t ana ɔ́-llɛ́ p-an-ŋɔ́n ɪ́-t̪-ɪ̊ll̪ɛ́t cakurɔ́k
2A-C-do_for-10 things REL-C-good and PERS-husband C-2POSS-PL REL-C-die also
you have done good things for me and for your husbands, who died, as well

á-kápɪ́k ɛ́t̪-nɔ́n ɔ́ře w-ɔ́řek ɪ́-t̪-ɔpɔ́rɔ́t
so_that-rain give-2AO husbands C-other REL-(C.)good
may God give you other good husbands

The next sentence is from Galatians 3:16 and contrast the ɔ́-prefix ɔ-pɪkɪ́ 'descendant' with t̪ɪkɪ́ 'descendants, off-spring' and pɪkɪ́ 'descendant':

kapɪ́k k-ɔ́llekkɛ́nt̪ɛ́t áprɛ́m lɔ́n ɔ́-pɪkɪ́ p-ʊ́ŋ
rain C-promise_to PERS:Abraham words place and PERS-descendant C-3POSS
God made a promise to Abraham and his descendant

ana a t̪am w-ɔ́-kápɪ́k w-ǎnn-ɔ́ře ɪ́t̪ɪ
and book C-of-rain C-NEG-say that
and the Scripture does not say

t̪ɪkɪ́ ɪ́-l-ʊ́ŋo ɪ́t̪ɪ ʊ́kʊl p-ʊ́ŋpɔ́t ana-rrʊ́k w-ɪ̊pɛ́t ɪ́t̪ɪ
descendants which-C-have that children C-many and-but C-say that
descendants, which means many children, but it says

pɪkɪ́ ɪ́-l-ʊ́ŋo ɪ́t̪ɪ ʊ́kʊl w-ulʊkkʊ́ ana ɔ́-ʊ́k ɔ́-mɛ́cɪ́ɛ
descendant which-C-have that child C-one and PERS-3 PERS-Messiah
descendant, which means one child, and that is the Messiah

5.3.1 Words for child
For 'child' there is a kinship term ɔpɛ́, which has the ɔ́-prefix, and there are common noun class nouns: ʊkʊl / ɲʊkʊl. In this case, the terms are not based on the same stem. ʊkʊl and ɲʊkʊl are much more commonly used than ɔpɛ́. They can be used as general terms referring to young people, including baby's, but also as kinship terms:

ɲʊkʊl ɲ-ɛ́k ɲ-ər̪əkɔ́ 5
children C-be C-eat
the children are eating

ɲʊkʊl ɲ-ɪ́n ɲ-ɛ́k ɲ-ər̪əkɔ́ 5
children C-1POSS C-be C-eat
my children are eating

8 The English translations of Bible verses are back-translations of the Lumun text and will be slightly different from existing English Bible translations.
The word \textit{ọpẹ́} has a much more limited use. It can identify a child as the child of somebody, e.g. in the story of \textit{ọlọ́ta bọ́mafroun ana ọtítān} 'Lotti of Mathari and his father', the story teller repeatedly refers to Lotti with \textit{ọpẹ́} 'the child (of his father)'

The vocative \textit{péi pí́m} 'my child', can be used by relatives of a child, but not the parents.

A rare case of attachment of the ọ-prefix to a plural noun is \textit{ọ́nkọ́lọ́n} 'the children', which also has the associative plural morpheme. The word can only be used if the speaker knows the children, which is reflected in the translation by the definite article. A vocative \textit{jukọ́lọ́n} 'children!' is also attested.

\begin{verbatim}
awọpu enni w-júkọ́l-ọ'
things these:C C-of:PERS-children-PL
these things belong to the children
\end{verbatim}

5.3.2 \textit{The word páŋ 'thing of the same kind'}

Interestingly, the word for sibling (brother, sister, cousin), \textit{ọ́páŋ}, is found without the prefix not only as a vocative, but also as a common noun denoting a thing of the same kind. Without the prefix, and not used as a vocative, it cannot refer to a person:

\begin{verbatim}
m-p-ọ́kerọ́t pàŋ ém péřík
1-C-trade thing_of_same_kind that:C
I have bought that same thing
\end{verbatim}

5.4 \textit{The ọ-prefix as a productive derivational tool}

Personal names other than those indicating the number of birth of the child, and nick names are productively formed through addition of the ọ-prefix to a foreign name or to a common noun. Nick names are often based on body parts or animal terms, particularly bird names.

\begin{verbatim}
ọc̀n John < cón (John)
ọrisálà Risala < risála (Risala)
ọcọ́n the Mountain < cọ́n
ọkị́ncẹ the Nose < kị́ncẹ
ọkẹ́rọ́ the Bold Patch < kẹ́rọ́
ọcítínlay the Cittin-Bird < cítínlay (bird sp. which makes a lot of noise)
ọrálẹ́ the Big Bird of Prey (sp.) < ?
ọtɔ́n òrùtùtùrùk the Mouth of Pig < ọ́n òrùtùtùrùk
\end{verbatim}

Domestic animals such as bulls, cows and dogs can have personal names. Such names have the ọ-prefix as well (unless in vocative use). Animal names are often based on Arabic words. Bulls are sometimes named after towns. Names of towns do not have the ọ-prefix, but when used as personal (animal) names, the prefix is added:

\begin{verbatim}
ọ-kaátókɔ́lì Kitu (bull's name) < kaátókɔ́lì (name of a town in the region)
ọ-kópɔ́rì Bridge (dog's name) < Sudanese Arabic كبرى (kubrī)
\end{verbatim}

\textsuperscript{9} In this case, the H-tone of the prefix is not deleted, but has shifted to the right, creating a falling tone.
The prefix is occasionally found on an animal term denoting an animal character in a story. Such cases however, seem to be quite rare, though it must be noted that it can often not be decided from the surface if the prefix would be underlyingly present or not. The frequently used conjunction particle á 'and' will merge with the ɔ̲-prefix to á (if the latter is there in the first place), while concord on the verb, which could reveal the presence of the prefix, is absent in such constructions.

Common nouns denoting persons are not normally sources for nicknames, like body parts and animal terms are. Still, they can occasionally take the ɔ̲-prefix and have a name-like reference. In such cases, the prefix expresses a sense of familiarity with regard to the referent.

\[
\begin{align*}
\text{kəllán} & \quad \text{old woman} & \quad \text{ɔ̲-kəllán} & \quad \text{the Old Woman} \\
\text{t̪ɔmɔccɔ} & \quad \text{old man} & \quad \text{ɔ̲-t̪ɔmɔccɔ} & \quad \text{the Old Man} \\
\text{cʊrʊmâ} & \quad \text{bachelor} & \quad \text{ɔ̲-cʊrʊmâ} & \quad \text{the Bachelor}
\end{align*}
\]

For a husband and wife, it is in fact perfectly acceptable to talk about each other, or to address each other, with kəllán and t̪ɔmɔccɔ. When talking about each other, they may, but certainly need not add the ɔ̲-prefix:

\[
\begin{align*}
kəllán & \quad \text{k-m} & \quad \text{k-aīk} & \quad \text{karət̪a} & \quad \text{where is my wife?} \\
\text{old woman} & \quad \text{C-1POSS} & \quad \text{C-be} & \quad \text{where}
\end{align*}
\]

\[
\begin{align*}
\text{ɔ̲-kəllán} & \quad \text{k-m} & \quad \text{k-aīk}^{10} & \quad \text{karət̪a} & \quad \text{where is my wife?} \\
\text{PERS-old woman} & \quad \text{C-1POSS} & \quad \text{C-be} & \quad \text{where}
\end{align*}
\]

The earlier mentioned term ɲʊkʊ́lɔ̲́n 'the children' (see 5.3.1), though irregular since the prefix attaches to a plural noun, falls into this category as well: the form expresses that the children are not just any children, but children who are known to the speaker.

### 5.5 Two nouns which are sometimes translatable as indefinite pronouns

The ɔ̲-prefix nouns, ɔpat̪t̪ɪ́ and ɔpɪllɪń, both often translatable with 'somebody' or 'someone', are interesting cases. They lack common noun counterparts without the ɔ̲-prefix. They form plurals with the suffix ɲɔ̂n, and ɔpat̪t̪ɪ́, but not ɔpɪllɪń, can be used without the prefix as a vocative. They can function as a replacement name if a person cannot be precisely identified. The expressions below are appropriate if you see somebody coming from far, but cannot make out who the person is:

\[
\begin{align*}
\text{ɔ̲-pət̪t̪ɪ́} & \quad \text{p-aīk} & \quad \text{p-ənant̪án} & \quad \text{somebody is coming} \\
\text{PERS-somebody} & \quad \text{C-be} & \quad \text{C-come}
\end{align*}
\]

\[
\begin{align*}
\text{ɔ̲-pɪllɪn} & \quad \text{p-aīk} & \quad \text{p-ənant̪án} & \quad \text{somebody is coming} \\
\text{PERS-somebody} & \quad \text{C-be} & \quad \text{C-come}
\end{align*}
\]

---

10 See footnote 2 for the concord on the verb here.
ɔpat̪t̪ɪ́ is also used in order to avoid a proper name. The use in the example below is perfectly appropriate, also if everybody knows the name of the person.

ɪkkɪ cɪ́ k cɪ́ k ɔ-pat̪t̪ɪ́ ɛ́mpí
sit place near C-of:PERS-somebody this:C
sit next to this person!

ɔpillɪ́ is sometimes translatable as 'companion', which is again a relational term. Two examples with its plural form are given below:

ɔ - l a lʊ́ ana ɔ-pɪllɪ́ŋ-ŋɔ́n
PERS-Lalu and PERS-somebody-PL
Lalu and his companions

ɔ - l a lʊ́ ana ɔ-pɪllɪ́ŋ-ŋɔ́n t̪-ərɛk
PERS-Lalu and PERS-somebody-PL C-other
Lalu and some of his companions / Lalu and some other people

In the following sentence, ɔpillɪ́ expresses 'one of you':

lɔttɪ́ a l-a lʊ́kka á-pɪllɪ́ ɑnt̪án
Lotti or PERS-Lukka so_that:PERS-somebody come
Lotti or Lukka, let one of you come!

The terms cannot be used generically. Neither ɔpillɪ́ nor ɔpat̪t̪ɪ́ is translatable as 'anybody' or 'anyone'. They share with the other ɔ-prefix nouns that they refer to specific people, even though their referents may not be precisely identifiable.

6 Vocatives and the ɔ-prefix
The prefix is absent when an ɔ-prefix noun functions as a vocative: both the vowel and the H-tone of the vowel are not there. This can be seen from a few kinship terms, e.g. ɔlɔ́ttɪ́ versus lɔttɪ́ (vocatives of the kinship terms are given in the tables in 5.3). It can also be seen from personal names based on all-L common nouns, e.g. ɔkɪ́ɲcɛ 'the Nose' versus the vocative form kɪɲcɛ 'Nose!', which is the same form as the common noun kɪɲcɛ 'nose' (see the table in 5.4).

The assumption can safely be made that the vocative forms of the kinship terms are the primary forms. The ɔ-prefix is added to the vocative in order to mark that a specific person is spoken about, not spoken to. Also if nick names (e.g. ɔkɪ́ɲcɛ 'the Nose') and nouns expressing familiarity with a person (e.g. ɔkəllάn 'the Old Woman') are used as vocatives, the prefix is absent: it is just the common noun that is used.

Some sentences illustrating the use of vocatives are given below. In the following lines, a mother sings about her son who has killed a bird. The ɔ-prefix is first present, then absent, expressing that she first thinks about her son and then addresses him in her mind.
The prefix /ɔ/- in Lumun kinship terms and personal names

Kumang, my Kumang, a'ró̱thhak ceken amumo ceken,\footnote{The phrase a'ró̱thhak ceken amumo ceken is a formula for which a translation could not be provided. In the gloss, the Lumun spelling is used.} 

p-ɔkkwɔt ̪ɛ́ pʊɽʊpɛ́, pʊɽʊpɛ́ p-ɔ kapik
he killed the bird, the bird from the sky

The prefix is absent from all addressees if no conjunction word is used (first example below). However, when there is more than one addressee in a construction involving the conjunction words ana ‘and’ or ala ‘or’, it is only the first addressee that lacks the prefix (second example below).

lottí, lókka, n-ântán
Lotti Lukka 2A-come
Lotti, Lukka, come!

kukkó ana ɔ-lóttí, m-p-ɔŋŋɔt ̪ɛ́ ɪttí n-t-éren-ɪn 1-múpáil m-ɪn
Kukku and PERS-Lotti 1-c-want that 2A-c-talk_to-1O in-mobile_phone C-1POSS
Kukku and Lotti, I want you to talk to me through my mobile phone

When an effort is made to attract a person's attention over a distance, the prefix can sometimes be present, though not in the initial effort to reach the person. The change from the vocative to the non-vocative form reflects the feeling that the person has not (yet) been reached.

ceccɛ́, ceccɛ́, ɔ-ceccɛ́
cece cecce REF-cece
Cecce! Cecce! Cecce!

Plurals can be used as vocatives as well. An earlier given example is repeated here:

ɪáɪâ-n
mother-PL
mother and father!

The noun spillum ‘somebody, someone’, is not used as a vocative, but ɔpattí ‘somebody, someone’ and its (irregular) plural ɔ-pattín ‘some people’ do have a vocative form:

ɔ-pattín people (way of announcing yourself upon entering a compound)
pattín people! (way of greeting a group of people)

7 Pronouns
The full subject pronouns all have the /ɔ/-prefix. Segmentally and tonally, all forms are consistent with an analysis of the initial vowel as the prefix. In the first and second person pronouns, as well as in the 12 form (‘I and you’), the pronominal part to which the prefix attaches has itself a H-tone (an unattached H-tone in the case of 12). In
accordance with general tone rules of the language, the H-tone of the prefix is deleted in these cases: \( \delta + \ddot{\text{o}}n > \ddot{\text{o}}n, \delta + \ddot{n}n > \ddot{n}n, \delta + \ddot{r}t > \ddot{r}t \), etc.). In the third person pronouns, the falling contour is most easily explained through shift of the H-tone of the prefix onto the part expressing person and number, which itself has a L-tone (\( \delta + \ddot{\text{o}}k \) and \( \delta + \ddot{k}n > \ddot{k}n \)). This analysis is also consistent with the tones on the object pronouns (see below), which lack the prefix.

The morpheme \(-\ddot{\text{n}}n\) cannot easily be recognized, still it is notable that the associative plurals in the second column all have an added final -\( n \) compared to their counterparts in the first column.

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>we (exclusive: I and other(s))</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>( \ddot{\text{o}}n )</td>
<td>( \ddot{\text{o}}n )</td>
</tr>
<tr>
<td>12</td>
<td>( \ddot{\text{r}}t )</td>
<td>we (inclusive: I, you and other(s))</td>
</tr>
<tr>
<td>2</td>
<td>( \ddot{\text{\text{o}}}n )</td>
<td>you (plural: you and other(s))</td>
</tr>
<tr>
<td>3</td>
<td>( \ddot{\text{\text{o}}}k )</td>
<td>they (he, she and other(s))</td>
</tr>
</tbody>
</table>

The cliticized subject pronouns are shortened forms of the full pronouns. The prefix is segmentally absent in the clitics, but a tonal trace is found on the 3rd person plural subject clitic \( n \) (realized as \( n \)), and in certain verbs with a 3rd person singular subject clitic. This is shown in the paradigms below, which contrast the full subject pronouns with forms which have a subject clitic. In the full 3rd person pronouns, the H-tone shifts from the prefix onto the part of the full pronoun which expresses person and number (\( \delta + \ddot{\text{o}}k \) and \( \delta + \ddot{k}n > \ddot{k}n \)), resulting in a falling tone on the pronoun in isolation and a H-tone on the pronoun in non-final position. The H-tone on the initial \( a \) of the verb is due to H-tone filling between the H-tone of the pronoun and the H-tone of the verb. The forms with a 3rd person pronoun clitic in the second column also have a H-tone on the initial \( a \) of the verb, due to the tonal presence of the prefix. In the other pronouns, the parts which express person and number themselves have a H-tone, either attached or unattached (e.g. \( \delta + \ddot{\text{o}}n > \ddot{\text{o}}n \)). In line with general tone rules of the language, this H-tone is deleted before a H-tone of a following verb. It can therefore not be seen from the surface if, in the underlying structure, a H-tone of the prefix would be present or not.

Note further that the concord is \( p \) for the singular pronouns and pronoun clitics, and \( t \) for the plurals, which is consistent with agreement patterns of the \( \ddot{\text{o}}- \)prefix nouns. The verb is \( \ddot{\text{o}}\text{k\-a} \text{t\-a} \) 'to look'.

\[
\begin{align*}
\text{\( \ddot{\text{o}}n\) p-\text{a-k\-a} \text{t\-a}\)} & \quad \text{m-p-\text{a-k\-a} \text{t\-a}} \quad \text{I will look} \\
\text{\( \ddot{\text{\text{o}}}n\) p-\text{a-k\-a} \text{t\-a}\)} & \quad \text{\( \ddot{n}\)-\text{k\-w-\text{a-k\-a} \text{t\-a}} \quad \text{you (singular) will look} \\
\text{\( \ddot{\text{o}}\text{k\-a} \text{t\-a}\)} & \quad \text{\( \text{k\-w-\text{a-k\-a} \text{t\-a}} \quad \text{s/he will look} \\
\text{\( \ddot{\text{r}}t\) t-\text{a-k\-a} \text{t\-a}\)} & \quad \text{\( \text{t\-t-\text{a-k\-a} \text{t\-a}} \quad \text{you and I will look} \\
\text{\( \text{\ddot{\text{o}}n}\) \text{t\-a-k\-a} \text{t\-a}\)} & \quad \text{\( \text{i-n-\text{t-\text{a-k\-a} \text{t\-a}} \quad \text{we (exclusive) will look} \\
\text{\( \ddot{\text{\text{o}}}n\) \text{t\-a-k\-a} \text{t\-a}\)} & \quad \text{\( \text{\text{u-n-\text{t-\text{a-k\-a} \text{t\-a}} \quad \text{we (inclusive) will look} \\
\text{\( \text{\ddot{\text{o}}}n\) \text{t\-a-k\-a} \text{t\-a}\)} & \quad \text{\( \text{n-\text{t-\text{a-k\-a} \text{t\-a}} \quad \text{you (plural) will look} \\
\text{\( \ddot{\text{\text{o}}}k\in\) \text{t\-\text{a-k\-a} \text{t\-a}} \)} & \quad \text{\( \text{\ddot{n}-\text{t-\text{a-k\-a} \text{t\-a}} \quad \text{they will look} \\
\end{align*}
\]

The prefix is however absent from the object pronouns, which occur as post-verbal clitics: segmentally it is not present, nor is there a tonal trace. The distribution of the
prefix on pronouns is thus different from its distribution on nouns. With nouns it occurs on subjects and objects alike.

The singular Imperative *ɔpakkɛ* 'help bathe' in the paradigm below does not generate a H-tone on a following constituent, as can be seen from the first example with the all-L object *ʊkʊl* 'child'. The examples with the 3rd singular and the 3rd plural pronoun show that there are no tonal traces of the ɔ́-prefix in the object pronouns. The H-tone in the second example and the one on *nín* 'we (exclusive)' belong to the pronoun itself.

*ɔpakkɛ* ʊkʊl help the child to bathe!
*ɔpakkɛ-ɛ* help me to bathe!
*ɔpakkɛ-k* help him / her to bathe!
*ɔpakkɛ-nɛ* help us to bathe!
*ɔpakkɛ-kɛn* help them to bathe!
*ɔpakkɛ ɔ-cɛccɛ̂* help Cecce to bathe!

Pronouns, subjects as well as objects, refer to persons. They cannot refer to non-animate things, which is consistent with the use of the prefix on nouns. Moreover, like ɔ́-prefix nouns, pronouns always have specific reference. E.g. English "they" can be used generically, but not Lumun *škɪ̂n* or *n̂* 'they'. Such expressions are construed in Lumun with a passive verb, leaving out the agent, or with *ol* 'people'. In the sentence below *ol* could be drunken people or outsiders or anybody: its reference is non-specific. If *škɪ̂n* or *n̂* 'they' had been used, reference would have been to a specific group of people.

m-p-ɔŋŋɔt̪ ɛ́ ɪttɪ ʊ́l w-ǎnn-ɔkɪ́ttɪnɛ-nin kɛ́ccʊ́k k-ɪ́n
1-C-want that people C-NEG-destroy_for-1AO market C-1APOSS
I don’t want people to destroy our market for us

8 Summary
Common nouns (i.e. noun class nouns) can refer to humans and non-humans in both a specific and a non-specific way. ɔ́-prefix nouns on the other hand, always denote specific persons (and sometimes animals) and cannot refer generically. The same goes for the pronouns. The full subject pronouns have the prefix as well, whereas in (verb forms with) the 3rd person subject clitics a tonal trace of the prefix can be recognized. ɔ́-prefix nouns and pronouns induce agreement and form plurals differently than common nouns.

The core ɔ́-prefix nouns are kinship terms, including a set of terms which function as personal names. Kinship terms and relational terms which have the prefix are closely associated with a possessor which allows for identification of the referent. Vocatives of ɔ́-prefix nouns lack the prefix and are in fact the basic forms, which is unsurprising since ɔ́-prefix nouns typically refer to people in somebody’s environment: family members and people known by their personal name. Addition of the ɔ́-prefix marks that the kinship term, relational term or personal name is not used in order to address a person, but in order to speak about him or her. The prefix thus grammaticalizes the contrast vocative – non-vocative for a group of nouns for which this contrast is particularly relevant.
The prefix is productively used for the creation of nick names from common nouns, particularly nouns denoting body parts and animals. When combined with a common noun which itself already denotes a human being, the prefix expresses familiarity with the individual rather than constituting a nick name.

Two ɔ́-prefix nouns are somewhat unusual: they can often be translated as 'somebody' or 'someone' and can be used for specific, yet not identifiable people. One of these words can also be used as a replacement term in order to avoid somebody's personal name.

9 References


Introduction

Lumun is a Niger-Congo, Kordofanian language in the Talodi group, located immediately adjacent to two other Talodi languages, Acheron and Tocho. There are about 30,000 speakers, most of which live in the Lumun hills, east of Kadugli in the Nuba Mountains of Sudan.
Lumun has a noun class system and makes use of this system for participant reference. The language can reference activated participants with a verb concord, as well as with a pronoun, noun phrase, or no overt reference. Lumun discourse gives status to participants using adjectives, pronouns, and concords. Pronouns and concords distinguish human participants from non-human participants, or distinguish two human participants, or distinguish one participant as the very important participant (VIP). The definite modifier can also be used to distinguish one participant as the VIP.

Lumun discourse also commonly references its participants by certain rules and occasionally does not follow its rules for certain discourse-pragmatic reasons. Precise rules for default encoding of participant reference can be defined for subjects and non-subjects in any clause. Because object pronouns are only used for animate referents, the rules for object participants differ from those for object props. More encoding than required by the default rules, such as a noun phrase instead of a pronoun or concord, is used to introduce new narrative units, give prominence to certain events involving major participants, or to promote one participant as the VIP. Less encoding than expected is used to contrast major participants with the VIP, highlight prominent episodes, or to highlight significant speeches.

After presenting a few aspects of syntax, this paper begins by describing how participants are activated. We then examine the different options for making further reference to activated participants and discuss how participants are distinguished and given status. Then, we discuss default encoding rules of participant reference. Lastly, we discuss marked encodings, where the usual system of reference is intentionally not used, and the reasons why.\(^1\)\(^2\)

All data is written in the orthography since the texts used were transcribed in the orthography by members of the project to develop the language. Consonant and vowel phonemes are presented in tables 1 and 2. IPA symbols are shown in brackets where they differ from the orthography. For further discussion of phonology and orthography, see Spronk (2004).

### Table 1: Consonant phonemes

<table>
<thead>
<tr>
<th></th>
<th>labial</th>
<th>dental</th>
<th>alveolar</th>
<th>palatal</th>
<th>velar</th>
<th>labial-velar</th>
</tr>
</thead>
<tbody>
<tr>
<td>plosives</td>
<td></td>
<td>th [t]</td>
<td>t [t]</td>
<td>c</td>
<td>k</td>
<td>kw [kʷ]</td>
</tr>
<tr>
<td>nasals</td>
<td>m</td>
<td>n</td>
<td>ny [ɲ]</td>
<td>ng [ŋ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>trill</td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>flap</td>
<td>ꞌr [ɽ]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>approximants</td>
<td>l</td>
<td></td>
<td>w</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 2: Vowel phonemes

<table>
<thead>
<tr>
<th></th>
<th>[+ ATR]</th>
<th>[-ATR]</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɨ [i]</td>
<td>ü [u]</td>
<td>i [ɪ]</td>
</tr>
<tr>
<td>e [ɛ]</td>
<td>o [ɔ]</td>
<td></td>
</tr>
</tbody>
</table>

---

\(^1\) I am very grateful to Heleen Smits for making available her MA dissertation on Lumun noun phrases (2007) which provides a solid analysis of noun classes and phrase level grammar.

\(^2\) Although speakers living in Khartoum have been developing literacy materials in the language for more than a decade and some elements of the grammar have been documented, little grammar has been published. This paper is a result of work with speakers of the language who are in the process of translating the Bible into their language, and is an attempt to contribute to the naturalness of that work. Special thanks to language developers and resource persons John Shakir, Luka Kamsur, Lotti Tager, and Thomas Kuku, names used by permission.
This analysis is based on the grammar of four texts: ‘Boy and Goat’ (B), a true, third-person narrative; ‘Arrantheli’ (A), a historical narrative; ‘Hedgehog and Rabbit’ (H) and ‘Dog and Pig’ (D), two animal folk tales. Text references using the associated letters follow examples throughout the paper, and the full text of the first narrative is listed in Appendix A. No major difference in participant reference is noted between fiction and non-fiction, except that in folk tales, animals can be personified with the use of pronoun reference. Discourse terminology used in the paper follows that of Levinsohn (2009).

A majority of examples are taken from the ‘Boy and Goat’ text, which is about a boy named Loti who experiences a fright while taking care of his family's animals. One evening, after going home and receiving food from his mother, Loti returns to herd the animals in the forest. After dark, he sees something that looked like a leopard and shouts at it in order to scare it away. The only one that reacts is an old man nearby. When the creature doesn't move, Loti becomes afraid and runs to a nearby village. A young man in the village accompanies Loti back to the grazing grounds where he had been frightened. There they find some goats and realize that Loti had mistaken one of them for a leopard!

1 Relevant elements of syntax

Lumun is an SVO language, taking up to two objects, with adverbs and adjuncts following the objects. In this noun class language, most modifiers as well as verbs take a concord (C) to agree with nouns.

(1) a-Lotti erekanthet pu'rit p-en lon i-l-okat cik.
   F-Lotti told young.man C-that story which-C-was there
   Loti told the young man everything that had happened. (B26-27)

The foreground clitic (F) a-'and, then' (1, 2i, 2iii) nearly always introduces nuclear clauses that describe foreground events. Often, more than one verb is present in a nuclear clause, and each verb may take the foreground clitic, a subject pronoun, or concord. Prepositional phrases, verb phrases, and relative clauses may function as modifiers (2ii). Therefore, embedded clauses (EMB) are common in nuclear clauses. Post-nuclear clauses are commonly adjuncts introduced by conjunctions (2iii).

(2i) ana [ciki i-tho'rikit tho kathar]_PoD, a-kw-imakat pape'rek
   and exactly in-middle of road F-3S-saw something
   In the exact middle of the road, he saw something

(2ii) i-kathar [p-otheret]_EMB ana [p-ungkot papokira]_EMB, [anakka kw-imat]_T-H,
   in-road C-spotted and C-looks.like thing.of.trees when 3S-saw
   coloured that looked like a leopard. When he saw (it),

(2iii) a-kw-oco'rat a-kw-ekat po're cittan [othakka itti a-p-ollo]_ADJT
   F-3S-stood F-3S-shouted voice loud in.order.to so.that F-C-run
   he stopped and shouted with a loud voice so that it would run away. (B14-15)

\(^3\) 3S indicates third singular
2 Activation of participants

“Notionally, major participants are those which are active for a large part of the narrative and play leading roles; minor participants are activated briefly and lapse into deactivation” (Dooley & Levinsohn 2001:119). By these definitions, we can say that Loti/boy is a major participant because he is active for the entire story, young man is a major participant because he plays the leading role in the second part of the story, and the creature/goat is a minor participant because it is only briefly activated.

In Lumun, activation of participants is straightforward and not unusual. Both major and minor participants can be marked by certain discourse grammatical features and are not treated differently by the grammar. Thus, this section is organized according to various ways of introducing participants rather than according to the types of participants. Participants can be introduced in clauses with presentational focus, as objects in topic-comment articulations, or as topics.

Presentational focus occurs when the verb phrase -okat cik ‘was there’ is used. The clauses in both (3) and (4) have presentational focus and establish new mental representations involving participants.

(3) Ukkul w-'rek w-okat cik w-occot k'ran itti Olotti
   boy C-certain C-was there C-given name that Lotti
   A certain boy was given the name Loti (B3a)

(4) Ca'ri c-'rek c-okat cik catherepe ana ciminteri
    Time C-certain C-was there rabbit and hedgehog
    At a certain time there was a rabbit and a hedgehog (H1a)

The word -'rek ‘certain’ is used in (3) to indicate that ukkul ‘boy’ is thematically salient and will be the topic in following clauses. It is used in (4) to indicate that ca'ri ‘the time of the story’ is salient.

Major and minor participants can both be introduced to existing mental representations as objects in the comment portion of topic-comment articulated sentences. Such participants are new information added to a schema already in the mind of the audience.

(5) Topic Comment
    okin th-aththonat ukul w-e-'rek i-opari w-oporththere
    they C-were.having young lady C-certain who-female C-beautiful
    They were courting a certain beautiful young lady. (H1b)

Points of departure can be used immediately before the introduction of participants to highlight them as being significant for the development of the narrative. The participants in (6-7) are introduced as objects of perception verbs. The point of departure in the exact middle of the road precedes the introduction of the minor participant in (6) and is used to highlight it as being significant in the climax of the narrative when it scares Loti. The tail-head linkage when Loti arrived back in the village precedes the introduction of the major participant in (9) in order to highlight him as significant to the outcome of the narrative, since the young man helps Loti discover the true identity of the supposed ‘leopard’.
(6) a-kw-imakat pape'rek i-kathar p-otheret ana p-ungkot papokira
F-3S-saw something in-road C-spotted and C-looks.like thing.of.trees
(In the exact middle of the road,³) he saw something spotted that looked like a leopard
(B14b-15a)

(7) a-kw-othiat pu'rit p-rek p-okat cik a-p-okuccekot cik itti p-aeo teththuk
F-3S-found young.man C-sure C-was there F-C-preparing there that C-go animal.place
(When Loti arrived back in the village,) he found a certain young man preparing to go to
the animal grazing grounds (B24-25)

Major and minor participants can also both be introduced as topics. At times, participants are
assumed to be old information and therefore are not activated in the normal way. For example,
in the 'Boy and the Goat' text, Loti is assumed to have a family who are the real owners of the
animals. The only mention of his family is in the sentence of (8), where they are referred to by
an independent pronoun okin ‘they’ as the topic of a topic-comment articulated clause. In this
way, they are assumed to be already activated before this reference as any other old
information articulated by a topic.

(8) ana okin th-onat kuthuk k-en no ka'ran i-koccot k'ran itti Thoicang
and they C-had animal-pens C-theirs at place which-given name that Toijang
and they had animals at the place named Toijang (B3)

In the folk story ‘Dog and Pig’, as well as in the historical narrative ‘Arrantheli’, well-know
characters, individuals, and ethnic groups assumed to be known to the audience are also
activated as topics of topic-comment articulation, even though they are major participants. Pig
in (9) and Arrantheli in (10) are major participants in the respective narratives. Pig is a famous
character of many folk tales, and Arrantheli is a historical hero.

(9) A-r-thüthürük oingkat itti tathkkwo ngi'ri
F-C-Pig went that to.fetch water
Pig went to collect water (D4)

(10) Ana ca'ri cen Arrantheli p-okat cik n-thik tha'ra i-co'rong Thliran,
and time C-that Arrantheli C-was there with-gun gun fire Thliran
At that time, Arandele had a gun—Thliran (A6)

In (11i), four ethnic groups are mentioned in the opening words of the historical narrative in
tail-head linkage, almost as if the story continues from another narrative that the audience has
already heard. Since the function of tail-head linkage is to renew following communication to
a previous context by first restating what is already known, the four people groups are
obviously assumed to be known to the audience. Although they are treated as already activated
(old) information, the Lumun and Tocho are major participants in the narrative.

(11i) Mo'rot akka Arru orro i-Appo ana E'reme ana Luththu'ru,
In.past when Lumun fought in-Tocho and Aceron and Othoro
In the past when Lumun were fighting with Tocho and Aceron and Othoro.

---

³ The entire text of all ‘B’ examples is included in appendix A.
Further reference to activated participants

Here we discuss degrees of encoding for participant reference (3.1), discourse functions of definite and indefinite noun phrases (3.2), and participants distinguished and given status by pronouns and concords (3.5). A discussion of pronouns and concords (3.3) and person concords (3.4) is needed to introduce the last topic.

3.1 Degrees of encoding for participant reference

Once a participant has been activated in a narrative, Lumun has three degrees of encoding for its reference: noun phrase reference, pronoun reference, and no overt reference. In section 4 we see that the language follows default encoding rules which distinguish these three degrees of encoding. Noun phrase reference is used for a switch to a new participant as the subject. Noun phrases are used for non-subject participants when a participant is being reactivated. Pronoun reference, including independent subject pronouns and concord prefixes, is used for the same subject as a previous clause, or for non-subject participants that are still activated. No overt reference is used for non-subject reference of activated props. Otherwise, no overt reference is used only for marked encoding with discourse-pragmatic motivations such as to highlight prominent episodes, as discussed further in 5.4. In Table 1, the three degrees are summarized and compared.

Table 1: Encoding scale for third person subject participant reference

<table>
<thead>
<tr>
<th>Degree of encoding</th>
<th>Example</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun phrase reference</td>
<td>ukul w-'rek w-okat cik w-occot</td>
<td>boy C-certain C-was C-given (B3)</td>
</tr>
<tr>
<td>Pronoun or concord</td>
<td>okin th-onat, a-p-'rakat cik</td>
<td>they C-had (B3), F-C-refused (B17)</td>
</tr>
<tr>
<td>No overt reference</td>
<td>okinyakat</td>
<td>was.tired (B32)</td>
</tr>
</tbody>
</table>

In the following sections, noun phrase and pronoun reference are further described. The definite and indefinite adjectives of noun phrases are described in 3.2 and the specific pronouns and concord prefixes are described in 3.3 and 3.4. In these sections, it will be shown how these morphemes function in participant reference as individual morphemes. In section 4, it will be shown how the morphemes collectively function in participant reference through default encoding rules.

3.2 Discourse use of definite and indefinite noun phrases

In the ‘Boy and Goat’ text, there are discourse functions of demonstrative adjectives in noun phrases, which table 2 helps to illustrate. A noun phrase can be distinguished as indefinite by the adjective -'rek ‘certain, other’ or definite by the adjective -en ‘that’. A noun phrase without a modifier is the unmarked or most common noun phrase reference. Therefore, when a noun phrase has one such adjective, it is marked as either definite or indefinite. Table 2 demonstrates that the indefinite adjective -'rek is only used for the first mention of a noun phrase, and only for participants, or for nouns used in points of departure.
Table 2: Definite, indefinite, and unmarked noun phrases

<table>
<thead>
<tr>
<th>First mention (indefinite)</th>
<th>Repeated (definite)</th>
<th>line #</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>pape-'rek</td>
<td>papu p-en</td>
<td>14, 16, 23</td>
<td>thing 'leopard'</td>
</tr>
<tr>
<td>thomocco th-'rek</td>
<td>thomocco th-en</td>
<td>18, 19</td>
<td>old man</td>
</tr>
<tr>
<td>pu'rit p-'rek</td>
<td>pu'rit p-en</td>
<td>25, 26, 27, 28, 29, 31</td>
<td>young man</td>
</tr>
<tr>
<td>ukul w-'rek</td>
<td>-----</td>
<td>3</td>
<td>boy</td>
</tr>
<tr>
<td>ca'ri c-'rek</td>
<td>ca'ri c-en</td>
<td>1</td>
<td>time</td>
</tr>
<tr>
<td>ca'ri c-'rek c-ipin</td>
<td>-----</td>
<td>5</td>
<td>evening</td>
</tr>
<tr>
<td>ka'ran</td>
<td>-----</td>
<td>4</td>
<td>place</td>
</tr>
<tr>
<td>a'rupu wotua</td>
<td>a'rupu wotua</td>
<td>8</td>
<td>animals</td>
</tr>
<tr>
<td>papokira</td>
<td>papokira</td>
<td>15, 31</td>
<td>leopard</td>
</tr>
<tr>
<td>onnan</td>
<td>onnan</td>
<td>9</td>
<td>mother</td>
</tr>
</tbody>
</table>

As shown in section 2, the language uses the indefinite adjective -rek ‘certain’ to give thematic salience to participants—it indicates that they will be topics of following clauses. The language uses the definite adjective -en in the noun phrase ka'ran k-en ‘place C-that’ to indicate salience—that the noun phrase is significant. The place where Loti was grazing the animals, where he saw the ‘leopard’, and to where he returned with the young man is central to the development of the narrative.

As seen in table 2, the definite adjective -en is used with participant noun phrases, but never on participant noun phrases describing the boy, Loti. In this way, Loti is distinguished from all other participants as the very important participant (VIP). Therefore, the definite adjective can also function as a less salient marker of participants.

As also shown in table 2, there is one other way that Loti is encoded as the VIP. Whereas Loti is only referred to by a pronoun and by name after the first mention, the second most important participant is never mentioned by pronoun or by name, but by the noun phrase pu'rit p-en ‘that young man’ (the greatest possible encoding). In this case, Lumun is similar to other languages that mark VIPs, in that less information is used to reference the most significant participant (Levinsohn, 2009). In general however, Lumun uses more encoding to distinguish VIPs, rather than less. Some texts or some authors employ different methods to distinguish the VIP than other texts or authors.

3.3 Personal pronouns and concords

Lumun is a noun class language which uses concords on most adjectives and finite verbs to agree with head nouns. Verbs do not have concords agreeing with objects, but only concords agreeing with subjects. Concords agree in number with the noun, so that most classes are grouped into pairs—one concord for the singular class of the pair, and one concord for the plural class (p-/k, c-/m-, etc). In most cases, the concord (C) has the same form as the class marker prefix (CM). A few examples of singular concords from texts are given in table 3. The concord w- is used for a noun class with initial vowel.

Table 3: Noun class marker and concord examples

<table>
<thead>
<tr>
<th>Concord</th>
<th>Class marker (CM) and concord (C)</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>th-</td>
<td>th-omocco th-'rek th-okat cik th-occot</td>
<td>CM-old.man C-certain C-was there C-given (B18)</td>
</tr>
<tr>
<td>p-</td>
<td>p-u'rit p-'rek p-okat cik a-p-okucekot cik</td>
<td>CM-young.man C-certain C-was there F-C-preparing (B24)</td>
</tr>
<tr>
<td>w-</td>
<td>ukul w-'rek w-okat cik w-occot</td>
<td>boy C-other C-was there C-given (B3)</td>
</tr>
</tbody>
</table>
Lumun pronouns distinguish person and number, but not gender. In general, pronouns reference human nouns, and in folk tales can reference animals, whereas concords reference any noun. The data in Table 4 is taken from Smits (2007:23-25) which accurately describes the personal pronouns and other aspects of the Lumun noun system. Since only third person narratives are dealt with in this paper, other personal pronouns are not listed in the table. A referential marker o- is prefixed to independent pronouns. Verb concords agree in number with personal pronouns. However, the independent pronoun and concord can be combined into a single pronoun attached to the verb. The singular p- concord is assimilated to the velar plosive k- of the preceding independent pronoun to become the prefix kw-.

<table>
<thead>
<tr>
<th>Person</th>
<th>Indep. pron.</th>
<th>Bound pron.</th>
<th>Pronoun &amp; concord</th>
<th>Pron.&amp; con. combined</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third singular (3S)</td>
<td>o-ok</td>
<td>k-</td>
<td>ook p-immat</td>
<td>kw-immat</td>
<td>'he, she saw'</td>
</tr>
<tr>
<td>Third plural (3P)</td>
<td>o-kin</td>
<td>(i)n-</td>
<td>okin th-immat</td>
<td>(i)nth-immat</td>
<td>'they saw'</td>
</tr>
</tbody>
</table>

Although the combined and separated forms of both plural and singular pronouns are possible in elicitation, only the singular combined form kw- (12; 3S = third singular) and the plural separated form okin th- (13) were found in the texts analyzed. The only occurrence of either of the bound pronouns k- or (i)n- in the texts is the third plural (3P) pronoun in (14), indicating that these are also rare in narratives.

(12) a-Lotti p-aat nti ithu'rit tho kie a-kw-okkat ngere appik ngo teththuk, F-Lotti C-came from shepherding of cows F-3S-did all work of place
Lotti came from tending the cows and did all the work in the forest. (B5)

(13) ana okin th-onat kuthuk k-en
and they PC-had animal-pens C-theirs
and they had their animal pens (B3b)

(14) akka Appo w-occikthe thïpïl, a-n-akkat [itti w-allot . . . ]EMB
when Tocho C-heard horn F-3P-tried that C-run
When the Tocho heard the horn, they tried to run where they had come from (A25)

In (14), the bound pronoun may be used at the beginning of the climax to highlight a turning point for the Tocho (ethnic group) in the historical narrative text. Until this point, they have dominated the Lumun in battle, but afterwards, the Lumun dominate the Tocho.

Only animate objects are referenced by pronouns; inanimate objects are either referenced by noun phrase, indefinite pronoun, or by no reference. Table 5 shows bound third person object pronouns and possessive pronouns. Possessive pronouns take concord agreement with the possessed noun they follow. In (13), the third plural possessive pronoun takes the concord k- to agree with the noun kuthuk 'animal pens'.

<table>
<thead>
<tr>
<th>Person</th>
<th>Bound object</th>
<th>Possessive</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third singular (3S)</td>
<td>V-ok</td>
<td>Noun</td>
<td>C-ung 'him, her; his, her'</td>
</tr>
<tr>
<td>Third plural (3P)</td>
<td>V-kin</td>
<td>Noun</td>
<td>C-en 'them, their'</td>
</tr>
</tbody>
</table>
The following examples from the texts demonstrate object pronouns. Object pronouns are suffixed to verb stems, although in the orthography, plural object pronouns may be separated.5

(15) A-pu'rit p-en omekath-ok  
   F-young.man C-that told-3S  
   The young man told him . . . (B27)

(16) Arru opakkekat kin appik no thampang  
   Lumun returned 3P all on ground  
   The Lumun pushed them down to the valley. (A28)

3.4 Person concords

Besides agreement with singular independent pronouns, Lumun also uses the pronoun concord p- for agreement with kinship terms and personal names. Because it agrees with more than just pronouns, the concord p- is referred to as the singular person concord (PC) in this paper. Smits (2007:22-23) demonstrates how th- is the plural person concord, agreeing with plural kinship terms and names. In (17) the main participant of the ‘Boy and Goat’ text is shown to be referenced by a common noun and its concord (a), a personal name and the person concord (b), and the third singular incorporated pronoun (c).

(17) (a) ukul w-rek w-okat cik w-occot  boy C-other C-was there C-given (B3)  
   (b) oLotti p-oingkathe  Loti PC-went (B9)  
   (c) a-kw-oingkat  F-3S-went (B6)

In (18), the person concord is used to agree with the kinship term 'mother'.

(18) onnan p-aat  mother PC-came (B11)

3.5 Participants distinguished and given status by personal pronouns and concords

Lumun uses personal pronoun and common noun concord reference to distinguish human and animal participants, two acting human participants, or to distinguish one participant as the VIP.

Human and non-human participants can be distinguished with personal pronouns and concords. In (19) where there is an interaction between Loti and a creature (at this point unknown, but later shown to be a goat), the pronoun kw- refers to Loti and the concord p- refers to pape'rek ‘something’. In spite of the double switch reference between participants, there is no ambiguity of reference.

(19i) A-kw-apekat po're cittan othakka itti a-p-ollo,  
       F-3S-shouted voice loud in.order that F-C-run  
       He shouted loudly with a loud voice so that it would run (B16b)

---

5 The current spelling rules state, "Write singular object pronouns attached to verbs. Write plural object pronouns attached to verbs only when the verb ends in a vowel." (2010)
Unlike concords for common nouns, person concords cannot reference independent pronouns, kinship terms, or personal names other than those they are in agreement with in the same clause. In other words, when a participant that was previously referred to by name or kinship term is not referenced by noun phrase or by name, a pronoun or common noun concord is used. The concord th- of the second clause of (20) refers to the noun thomocco ‘old man’ in the first clause. However, when the personal name Loti is not repeated in the second clause of (21), the participant is referred to by the incorporated pronoun kw- instead of by the person concord p-.

(20) Thomocco th-'rek th-okat cik th-occot k'ran itti oKarththumb, th-onat kaman
old.man C-certain C-was there C-given name that Khartoum C-had house
A certain old man named Khartoum, he had a house (B18)

(21) Anakka oLotti p-opakkothe icarak co man a-kw-othiat pu'rit p-'rek
When Lotti PC-returned.back inside of village F-3S-found man C-certain
When Lotti arrived back in the village, he found a certain young man. (B24)

Two active human participants can be easily distinguished by the two options for reference—a pronoun or common noun concord. In (22) where Loti interacts with the non-kinship term participant thomocco ‘old man’, the pronoun kw- refers to Loti and the concord th- refers to thomocco.

(22i) Anakka thomocco th-en th-occikothe, a-th-othangkat,
When old.man C-that C-heard F-C-answered
When the old man heard (the voice calling for him), he grunted a reply, (B19)

(ii) anaruk akka oLotti p-onat ne're, a-kw-onnoccikat
but because Lotti C-had fear F-3S-did.not.hear
but because Lotti was afraid, he did not hear. (B20)

It should be noted that in the text, the old man (thomocco) and the boy (ukul) are both non-kinship terms and are both referenced by name (Kartoum, Lotti), but only Loti is referred to by a pronoun. Pronoun reference kw- is used to distinguish Loti as the VIP in contrast to Khartoum who is referenced by the common noun concord th-. Thus, the pronoun and concord encoding system can be used to signal participant status. These two options for participant reference enable the language to promote one participant above another.

Another use of the pronoun system for participant status is by using pronouns and common noun concords for non-VIPs and only a noun phrase for the VIP. In the ‘Hedgehog and Rabbit’ text, two animals try to win the affections of a girl by courting her. Although both animals, after being activated, are initially referenced by common noun concords, they are later in turn referenced by the third person singular incorporated pronoun, as a way of personifying them. In fact, the pronoun is used for an animal in relation to the affection that the girl has for the animal at certain episodes in the narrative.
In episode 1, Rabbit is courting the girl in her house when Hedgehog comes to visit and Rabbit chases him away. In this episode, only Rabbit is referenced by the pronoun. In (23), ngatherepe ‘Rabbit’ is first referenced by the concord ng- but then by the pronoun kw-, whereas cïmïnteri ‘Hedgehog’ is only referred to by the concord c-. Therefore the pronoun reference kw- in (23iii) would be ambiguous even with the participant reference rules explained in section 4, except for the fact that the only previous singular pronoun reference is to Rabbit. Since it was previously used to refer to Rabbit, the audience assumes that kw- in (23iii) again refers to Rabbit.

(23i) A-ngatherepe . . . a-ng-othopakkat kicce . . . a-kw-akurat tho pithen
   F-rabbit F-C-wash.himself well F-3S-went to in-laws
   Rabbit stayed one evening, and washed himself well, combed his hair, sprayed himself with perfume, and went to the house of the girl. (H3-4a)

(ii) A-cïmïnteri a-c-at n-teththuk a-c-okurakot m-pi’ru kicce,
   F-hedgehog F-C-came from-cattle.place F-C-decorated with-butter nicely
   The hedgehog also came from the cattle place decorated with cow’s butter, (H4b-5a)

(iii) a-ukul onekkekanth-ok . . . Akka kw-imat cïmïnteri, a-kw-okkwat to m-ikit,
   F-girl brought-3S When 3S-saw hedgehog F-3S-hit to with-chest
   and the girl brought him a bed, water, and cup for his front. When he saw the hedgehog, he hit his chest . . . (H5b-6a)

In episode 2, Hedgehog visits the girl secretly and warms her heart. Beginning in this episode and for the rest of the narrative, only Hedgehog is referred to by the pronoun and only Rabbit is referred to by a concord. The girl is never referred to by the subject pronoun or by a concord in the entire text, and is only referred to by the object pronoun in 3 out of 12 non-subject references. In this way, the participant reference system is used to promote the girl as the VIP and shows the status of other major participants by kw- in relation to the VIP. In section 5.3, it is discussed how more reference encoding than required by the participant reference rules is used to promote the status of the girl, and less encoding than required by the rules is used to give the animals less salience.

Because there is no gender distinction in pronouns, there is no distinction between Loti and the kinship participant onnan ‘mother’ except in noun phrases. In (24), where the pronoun kw-refers to both Loti and onnan, only the rules for encoding participant reference distinguish the participants, as will be explained in section 4.1—see (27), and 4.3—see (40).

(24i) Olotti p-oingkathe ci tuan a-kw-othiat onnan [p-ellat
   Lotti C-went to house F-3S-found mother C-not.present
   Lotti went to the house and found that his mother had not yet arrived (B9)

(ii) n-topon]EMB a-kw-ikkanth-ok cik [a-kw-anthan]ADJUNCT.
   From-field F-3S-waited.for-3S there F-3S-come
   From the field, and he waited for her to come. (B10)

Having discussed how various morphemes in noun phrase and pronoun reference are used individually in participant reference, we now discuss how morphemes are used collectively in default encoding rules for participant reference.
4 Default encoding rules for participant reference

The most common ways of referring to third person participants can be specified by a few specific rules. The first set of rules applies to subjects of nuclear and pre-nuclear clauses (4.1). A slightly modified set of rules applies to subjects of post-nuclear and embedded clauses (4.2), and another modified set applies to non-subject participants (4.3). A final set applies to non-subject props (4.4), where the term prop is defined as an inanimate object. In the texts analyzed, no props were subjects.

At least in the four texts analyzed, the language groups pre-nuclear and nuclear clauses together to the exclusion of other clauses when applying encoding rules for subjects. Therefore, there are only two sets of encoding rules for subjects instead of three. Rules for encoding non-subjects are not distinguished according to clause types, but are distinguished according to referents: animate vs. inanimate, that is non-subject participant vs. non-subject prop. In tracking of participants, as in activation of participants, major and minor participants are not distinguished.

Each set of rules will be stated followed by examples from the texts. Each rule groups one or more contexts, which are similar to Levinsohn's standard contexts for participant reference (S1, S2, etc.) (Levinsohn, 2009:123). In the examples, brackets and labels mark pre-nuclear clauses (PRE), post-nuclear clauses (POST) and embedded clauses (EMB). The gloss is given without the Lumun text in order to simplify the example and save space. However, Appendix A has the entire text for all 'Boy and Goat' text examples and appendix B charts all participant references in various clauses of the 'Boy and Goat' text.

4.1 Subjects of nuclear or pre-nuclear clauses (S)

In general terms, the Lumun language divides subject participant reference into noun phrase and into pronoun reference. The latter option is used for the same subject participant as in the previous clause, and the first is used for different subject participants. The rules for subject contexts in nuclear or pre-nuclear clauses (context S) are more precisely stated in (25).

(25) Default encoding rules for third person subjects in nuclear or pre-nuclear clauses (context S):

1. If the subject is the same as in the previous nuclear or pre-nuclear clause (context S1), or if the subject was the addressee of an immediately preceding speech (context S2), a pronoun reference is used.
2. If the subject had some non-subject role in the previous nuclear or pre-nuclear clause (context S3) or if the subject was not involved in the previous nuclear or pre-nuclear clause (context S4), a noun phrase (including personal names, but excluding independent pronouns) is used.

The S contexts and rules are illustrated in (26-29). Each of the contexts refers to the previous nuclear or pre-nuclear clause, whichever is most recent. In (26), the pronoun 3S- ‘he’ is used following a nuclear clause with the same referent (Loti). In (27), the pronoun 3S- ‘she’ is used following a pre-nuclear clause with the same referent (mother). The previous nuclear clause with a different referent as subject (he = Loti) is ignored in applying the encoding rule. In (28), the pronoun 3S- ‘he’ in a pre-nuclear clause is used following a nuclear clause with the same referent (3S = Loti). The intervening modifying clause C-looked like a leopard, with a different referent as the subject (something), is ignored. In (29), the pronoun 3S- ‘he’ is used following a nuclear clause with the same referent (3S = Loti). The intervening post-nuclear
clause *while darkness C-was there* with a different subject is ignored. All four of these examples illustrate an S1 context.  

(26) *Loti* came from shepherding cows and 3S*(he)-did all the work of the place. (B5)  
(27) 3S*(he)-waited-for-3S*(mother) [to 3S*(she)-come]_POST_. [When *mother* came]_PRE_, 3S*(she)-cooked.for-him (B10-11)  
(28) 3S*(Loti)-saw something C-spotted in the road and [C-looked like a leopard]_EMB_. [When 3S*(he)-saw]_PRE_ (B14-15)  
(29) *Loti* moved from the house [while darkness C-was there]_POST_, 3S-went (B12-13)  

In (30), the pronoun *they* is used in a pre-nuclear clause to refer to the addressee (them = Lumun young men) of the previous speech, as specified by the rule for context S2.  

(30) Their big man said to *them*, " . . . " [When *they* went to the place]_PRE_ (A19-23)  

As stated by rule 2 for context S3, the noun phrase *mother* in (27) is used following a nuclear clause where the same referent is an object -3S ‘her’. Because the referent is referred to in a different role as in the previous clause (object instead of subject), the noun phrase is used. In (31), *Loti* as an individual referent was not involved in the previous nuclear clause, and is therefore referred to by noun phrase (context S4).  

(31) *they* (*Loti's family*) had their animal pens at the place [which is called Toijan going down to the country of Aceron]_EMB_. And in evening time, *Loti* came (B4-5)  

Context S1 in encoding rule 1 extends to situations in which the subject and non-subject of the previous sentence combine to form a single, plural subject. In (32), the subject *Loti* is combined along with the object *young man* to form the plural subject *they*.  

(32) *Loti* showed the *young man* the place.  [When *they* went]_PRE_ they found (B29)  

Similarly, context S2 extends to situations in which the addressee and speaker of a preceding speech combine to form a single, plural subject.  

4.2 Subjects of post-nuclear or embedded clauses (SP)  

Whereas each of the S contexts of (25) refers to the subject of a previous nuclear or pre-nuclear clause, the contexts for subjects of post-nuclear or embedded clauses (context SP) in (33) each refer only to the previous clause, regardless of the clause type. Context SP3 differs from S3 in that context SP3 involves a subject that is the same referent as a non-subject in the previous clause, and is encoded as a pronoun or concord rather than as a noun phrase. In the data, there is no context SP2 involving addressees of speeches, since speeches do not occur in post-nuclear or embedded clauses.  

(33) Default encoding rules for third person subjects in post-nuclear or embedded clauses (context SP):  
1. If the subject is the same as in the previous clause (context SP1), or if the subject is the same referent as a non-subject of the previous clause (context SP3), a pronoun reference is used.  
2. If the subject was not involved in the previous clause (context SP4), a noun phrase is used.
In (34i), the pronoun 3S- ‘he’ is used for the subject of the post-nuclear clause since it is the same referent (3S = Loti) as the subject of the previous clause (context SP1). In (34ii), the pronoun 3S- ‘she’ is used for the subject in the post-nuclear clause since it is the same referent as the object (her = mother) in the preceding clause (context SP3).

(34i) 3S(Loti)-start.going to the house [in order to 3S(he)-look.for food] \text{POST (B8)}

(ii) 3S(Loti)-found mother not present from field and 3S(he)-waited.for-3S(her) [to 3S(she)-come]\text{POST (B9-10)}

Example (35) illustrates contexts SP1, SP3 and SP4. The concords of the modifying clause \text{C-was C-preparing} are used since the subject of this clause is the same referent as the object (certain young man) in the preceding clause (context SP3). The concord in the compliment of the modifying clause \text{that C-go to the animal grounds} is used because the subject is the same referent as the subject of the preceding clause (context SP1). However, the noun phrase \text{Loti} in the deeply embedded relative clause \text{where Loti is with his animals} is used for the subject since its referent was not involved in the preceding clause (context SP4). Similarly in (36), the noun phrase \text{Khartoum} of the post-nuclear clause is used since its referent was not involved in the preceding clause (context SP4).

(35) When Loti returned to the village, he-found a certain young man \{\text{C-was C-preparing}[\text{that C-go to the animal grounds (where Loti is with his animals)}]_{\text{REL.CL} V\text{.COMP} \text{MOD.CL}}\} \text{V\text{.COMP} \text{MOD.CL} (B24-26)}

(36) but because Loti was afraid, 3S(he)-not.hear [when \text{Khartoum} answered] \text{POST (B20)}

4.3 Non-subject participants (N)

Although subject encoding rules are more or less the same for both participants and props, non-subject encoding rules differ for participants and props. Rules for non-subject participants (context N) are discussed in this sub-section, followed by rules for non-subject props (context NP) in the next.

In comparing rules for non-subject and subject participants, context N1 is similar to S1, N2 is the approximant converse of S2, but N3 is significantly different than other contexts in that it applies to any recent mention of the participant. The encoding rules of (37) apply to non-subject participants in any clause type.

(37) Default encoding rules for third person non-subject participants (context N):

1. If the referent is also the subject of the same clause (context N1), if the addressee of a reported speech was the subject (speaker) of a speech reported in the previous clause (context N2), or if the referent is one of only two activated participants (mentioned in any recent clause) (context N3), a pronoun reference is used.

2. For other non-subject references (context N4), a noun phrase is used.

In (38), the possessive pronoun \text{C-their} refers to the same referent as the subject of the clause (they = Loti’s family) (N1). In (39), the object pronoun -3S ‘him’ is used to reference the same participant (Loti) that spoke the implied speech of the previous nuclear clause (context N2). In (40), the pronoun -3S ‘her’ is used since this object is the same referent as the object \text{mother} in the previous nuclear clause, and is one of only two active participants (context N3). In the final clause of (40), the object pronoun -3S ‘him’ is used since the referent (he = Loti) is referred to three clauses previous, and is one of two active participants (context N3). Similarly,
in the final clause of (41), the object pronoun \(-3S\) ‘him’ is used since the referent (Loti) is mentioned four clauses previous, and is one of only two active participants (context N3). In (42), the noun phrase \textit{that thing} is used since the referent is not still active, the last mention being 14 clauses previous in line 17 (context N4).

(38) they\(\text{(Loti's family)}\) had animal pens \textbf{C-their} at the place called Toijang (B3b)
(39) Loti told the young man the story that happened.
   The young man told-\textbf{3S(him)} (B26-27)
(40) he\(\text{(Loti)}\)-found mother \[\text{not.present from field}\] \textbf{EMB}, \textbf{3S(he)}-waited for-\textbf{3S(her)} [to she-come] \[\text{POST}\], [When mother came] \[\text{PRE}\], \textbf{3S(she)}-cooked for-\textbf{3S(him)} quickly. (B9b-11)
(41) Loti showed the young man the place. [When they went] \[\text{PRE}\], they found goats on stones \[\text{lying down}\] \textbf{EMB}. The young man told-\textbf{3S(him)} (B29-30)
(42) That thing refused (B16) . . . \textbf{C-refused} (B17) . . . he-left \textbf{that thing} (B23)

4.4 Non-subject props \(\text{(N}_p\text{)}\)

The encoding rules of (43) for non-subject props (context \text{N}_p) differ from those of non-subject participants in the amount of encoding, as well as in the specifics of the relevant contexts. Since only animate objects are referred to by object pronouns (see 3.2), the choice for referring to inanimate props is either a noun phrase or no overt reference. In the texts analyzed, non-subject references to props are limited to verb objects, and no object was the same referent as the subject of the clause. Therefore, \text{N}_p1 for props differs from \text{N}1 for participants, making reference to the same semantic role as in the previous clause. Since props are not involved in speeches, there is no applicable \text{N}_p2 context. Context \text{N}_p3 is similar to \text{N}3, but restricted to only one active prop.

(43) Default encoding rules for non-subject props (context \text{N}_p):
   1. If the referent has the same semantic role as in the previous clause (context \text{N}_p1), or if the referent is the only activated prop (context \text{N}_p3), no overt reference is used.
   2. For other non-subject references to props (context \text{N}_p4), a noun phrase is used.

In (44), no overt reference is made to the prop (sorghum) in the subordinate clause since it has the same semantic role (a patient) as in the previous clause (context \text{N}1). The same is true in the following main clause with a different subject. In the pre-nuclear clause of (45), no overt reference is made to the prop \textit{something} which is the object of the verb \textit{saw} since it is the only activated prop (context \text{N}_p3). Here, the creature imagined to be a leopard, although animate is treated as a prop since it does not move or make any sound. In (46), a sentence is repeated three times for emphasis. Nearly the exact wording is used each time. The first two sentences contrast the prop \textit{sorghum} with the prop \textit{meat}. Since both props are activated, each is referenced by a noun phrase (context \text{N}_p4). However, in the final clause where the prop \textit{sorghum} has the same semantic role as in the previous clause (a patient), it receives no overt reference (context \text{N}_p1).

(44) \[\text{While dog collected sorghum in order to C(he)-put o(it) out}] \[\text{POST}\], \textbf{PRE}, pig went and put \textbf{o(it)} in his storehouse (D11)
(45) \textbf{3S(he)}-saw \textit{something} C-spotted in the road and \[\text{C-looked like a leopard}] \[\text{EMB}\], [When \textbf{3S(he)}-saw o(it)] \[\text{PRE}\], \textbf{3S(he)}-stood . . . (B14b-15)
(46) Dog went and collected all \textbf{sorghum} from the storehouse \[in order to \textbf{3S(he)}-put.in meat instead\] \[\text{POST}\], \textbf{C(dog)}-collected all \textbf{sorghum} from the storehouse \[in order to \textbf{C(dog)}-put.in meat instead\] \[\text{POST}\], \textbf{C(dog)}-collected \textbf{sorghum} \[\text{in.order to \textbf{C-put o(it) out}] \[\text{POST}\} (D9-10)
5 Marked encoding of participant reference with discourse-pragmatic motivations

Having determined the default (unmarked) encoding of participant reference in the previous section, we are now in a position to recognize when such rules are not followed and the language's reasons for not following them. More encoding than required by the rules, such as a noun phrase instead of a pronoun or concord, is used to mark a new narrative unit (paragraph) (5.1), to give thematic salience (5.2), or to distinguish one participant as the VIP (5.3). Less encoding than required by the rules is used to contrast a participant with the VIP (5.3), highlight an episode of the narrative (5.4), or to highlight a key speech (5.5).

5.1 New narrative units

Narrative units (paragraphs), which are most commonly introduced by tail-head linkage and other points of departure, can be strengthened with a noun phrase reference when less encoding is required by the rules, or the narrative unit can be introduced by the noun phrase alone.

In both (47) and (48), the same subject as in the previous nuclear clause is encoded by a noun phrase instead of by a pronoun or concord as stated by context S1 of (25). In each example, a new narrative unit is indicated by the pre-nuclear clause used as a tail-head linkage point of departure. The noun phrase participant reference in pre-nuclear clause emphasizes discontinuity with the preceding clause. Although a noun phrase is not required for participant reference in a tail-head linkage point of departure as seen in (28), a stronger break is indicated when there is a noun phrase reference.

(47) he(Loti)-turned he-ran returned to the village. [When Loti returned]PRE, . . (B23-24)
(48) A certain old man was given the name Khartoum and C-had a house near that place. [When that old man heard]PRE, . . . (B18-19)

In (49), two new narrative units are marked by full noun phrases when only a pronoun or concord is required. The noun phrase Pig again does not follow the encoding rule for context S1, the same subject as in the previous nuclear clause. This noun phrase alone is enough to mark the new narrative unit without the addition of tail-head linkage or any other point of departure. The noun phrase Dog is used instead of a concord as normally found in context S2 where the referent is the addressee of the previous speech, and also marks a new narrative unit. In (50), a new narrative unit is marked by tail-head linkage and by subject and object noun phrases which are both more encoding than expected. The noun phrase Dog could have been a concord reference according to the rule for S1, and the noun phrase sorghum could have been no overt reference since it has the same non-subject role as in the previous clause (context N1).

(49) C(Pig)-found domestic and wild animals [C-dead everywhere in the lake]EMB. Then Pig returned home, C-told Dog, " . . . " Dog went and collected (D4b-9a)
(50) C(Dog)-collected sorghum [in order to C-put ø(it) out]POST. [While Dog collected sorghum [in order to C-put ø(it) out]POST] PRE, . . . (D10b-11a)

5.2 Thematic salience

Another reason for more reference encoding than required by the rules is to highlight events in which major participants or thematic props are involved. In this way, major participants or props are marked as being significant for the development of the narrative. In (51), a noun phrase is used for the same subject reference (context S1) in order to highlight the event. Since
Loti (the VIP in the narrative) put the animals in an enclosure before going to his house, it is even more unexpected that any of them would get out of the enclosure and fool him into thinking one was a leopard when he returned.

(51) 3S(Loti)-found no more flour or porridge. F-Loti closed the animals well (B7-8)

In the ‘Dog and Pig’ text, there is an overabundance of dead animals left by a flood, and Dog and Pig gather, cut, and store the meat. Pig, being the more clever of the two, stores the meat so that it doesn't spoil and tricks Dog out of his sorghum in the process. Meat is a theme of the narrative, and is referenced by a noun phrase three times when it could have had no overt reference according to the rule for Np3. Two of these instances are illustrated in (52), where the referent meat is the only active prop. By using the noun phrase meat instead of no overt reference, the actions of Pig concerning the meat are highlighted and contrasted with the actions of Dog. By this highlight device, the audience is being prepared for the result later in the story of Dog's meat spoiling and Pig's meat lasting.

(52) Dog filled his storehouse (with) much meat, C-took the remainder ø(of it), C-cut ø(it) on the roof [in order to C(meat)-dry]POST. But Pig only cut meat, C-put ø(it) on the roof [in order to C(meat)-dry]POST, C-ate meat [which C(meat)-was on the roof]EMB and [which C(meat)-was cut]EMB (D13b-16a).

In the ‘Arrantheli’ text, the story is told of how the Lumun and Tocho came to have peace after being at war with each other. Both the Lumun and Tocho are major participants and their status is emphasized by extra reference encoding along with significant action verbs. In (53), the opening sentence of the setting states the brutal intent of the Tocho—to kill the Lumun. Although the referent Lumun is one of only two active participants (context N3), the noun phrase is used to show that the Lumun and the intent of killing them are important to the development of the story. In (54), a final sentence of the climax states that nearly all the Tocho were killed in the battle. Although the Tocho are one of two active participants (context N3), the noun phrase is again used to give thematic salience.

(53) [In the past when Lumun fought in the land of Tocho]PRE, Tocho men and women with baskets came [in order that they kill Lumun]POST. (A1-3a)

(54) [When they(Tocco) went [so that they crossed the stream]POST]PRE, they started rolling going down to the valley. The Lumun kill all the Tocho [(until) only two ran away]POST. (A30b-32a)

5.3 Distinguishing one participant as the VIP

A third reason for using more reference encoding is to promote one participant as the VIP and give less salience to a participant interacting with the VIP. In the conclusion and closure of the 'Boy and Goat' text (lines 24-32), there are six instances where a noun phrase is used when only a pronoun reference is required. With so many departures from the default rules in so few lines, a switch to different reference rules is obvious. As discussed in section 3.1, the second most important participant (young man) is never referred to by name or by pronoun in order to contrast with the VIP (Loti) who is only referred to by name or by pronoun after being introduced in the setting. Further, Loti is only referred to by name in the conclusion and closure when interacting with the young man, as a way of highlighting him as the VIP. The only exceptions are the two tail-head linkage clauses in line 29 where both participants are combined into the pronoun 'they'.

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In (55i), the noun phrase *Loti* is used to reference the same subject as in the previous nuclear clause instead of only a pronoun required by the rule for S1. *That young man* is used to reference one of two active participants instead of only a pronoun required by the rule for N3. In (55ii), *that young man* is used to reference the addressee of the preceding implied speech instead of only a concord required by the rule for S2. In (55iii) with the same S2 context, *Loti and that young man* is used instead of a pronoun which is allowed to combine those in a preceding dialogue. In (55iv), *that young man* is used to reference one of two active participants instead of a pronoun required by the rule for N3. In (56) with the same N3 context, Loti is used instead of a pronoun.

(55i) [When Loti returned to the village]PRE, 3S-found a certain young man [preparing to go to the place where Loti had his animals]EMB, Loti told *that young man* the story (B24-27a)
(ii) *That young man* told-3S, " . . ." (B27b)
(iii) *Loti and that young man* went together (B28)
(iv) [When they arrived to that place]PRE, Loti showed *that young man* the place (B29)

(56) From that time, they named *Loti* 'friend of goats' (B32b)

In all, there are three instances where the name *Loti* is used to give more salience to the VIP, and three instances where the noun phrase *that young man* is used for less salience to contrast the young man with the VIP.

Similarly, in the ‘Hedgehog and Rabbit’ text, more encoding than expected is given to the VIP—the girl—whom both animals are trying to win in marriage by courting. In this narrative however, the two animals are given less encoding than expected in order to contrast them with the VIP. In (57i), the noun phrase *girl* is used when only a pronoun is required for one of two active referents in context N3. In (57ii) with the same N3 context, *girl* is again used instead of a pronoun. In (57iii), the pronoun reference (he=Hedgehog) is less than expected. Since the subject is not the addressee of the previous speech, but involved in the clause previous to the speech, context S3 applies and requires a noun phrase reference to the hedgehog. The object noun phrase *girl* is more than expected since the referent is active (context N3). In (57iv), a pronoun reference is expected instead of the noun phrase *girl* since she is the addressee of the previous speech (context S2). The subject pronoun reference (he=Hedgehog) is less than expected since he had a non-subject role in the previous clause (context S3).

(57i) ø(girl)-gave-3S(hedgehog) water, 3S(he)-cleaned.mouth, 3S(he)-said.to *girl*, " . . ."
(ii) [When 3S(he)-spoke.to *girl* these words]PRE, they heard the whistle of Rabbit, " . . "
(iii) Hedgehog said.to *girl*, " . . " 3S(he)-said.to *girl*, " . . ."
(iv) *Girl* colored-3S(him) well, 3S(he)-was.being.colored (H16-24)

In these few lines, there are four instances where the noun phrase *girl* is used to give more salience to the VIP, and two instances where the third singular pronoun *kw-* is used for less salience to contrast the hedgehog with the VIP. In addition, both phenomena also occur in other lines of the text.

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7 Six clauses previous in the same narrative unit, the noun phrase *girl* is used for the subject. Besides the initial clause of (57i), *girl* is also the subject by no overt reference in the fourth clause previous to the final clause of (57i). As discussed in section 5.4, the no overt reference is used to highlight this prominent episode of the narrative—the inciting incident. As discussed in 3.5, although there are multiple switches in subject from one clause to the next, no overt reference to *girl* is not ambiguous because the girl is only interacting with Hedgehog who is always referenced by the pronoun *kw-* in this narrative unit.
5.4 Highlighting an episode

In addition to contrasting a participant with the VIP, less encoding than expected can highlight an episode of the narrative. Pronouns, concords, or no overt reference when more encoding is expected often occurs a high percentage of times in consecutive clauses of prominent episodes, such as the inciting incident, climax, or conclusion. This use of minimal encoding is therefore analyzed as highlighting of episodes, rather than as highlighting of individual clauses or sentences.

In the climax of the ‘Boy and Goat’ text, there are five instances where the subject is not involved in the previous clause and a pronoun or concord reference is used instead of the usual noun phrase (contexts S4, SP4). In this case, a human participant Loti is interacting with a non-human participant thing. As mentioned in 3.4, since a pronoun reference is only used for Loti, there is no ambiguity in having a change of subject indicated by something less than a noun phrase.

In (58i), a concord is used instead of a noun phrase to reference the subject thing of the post-nuclear clause which is not involved in the previous clause (context SP4). In (58ii), a pronoun he is used to reference a subject Loti of a nuclear clause which is not involved in the previous nuclear clause (context S4). In (58iii), there is a SP4 context where a concord is used to reference the change of subject. In (58iv), there are two further S4 contexts where a concord and a pronoun are used to reference a subject not involved in the previous nuclear clause. All five of these instances should have a noun phrase reference according to the default rules, but instead less information is encoded in order to ‘speed up’ the pace and mark this episode as the climax.

(58i) [When 3S(Loti)-saw] PRE, 3S-stood 3S-shouted a loud voice [so that C(thing)-run] POST,  
(ii) that thing refused, C(it)-was standing quietly, he(Loti)-shouted a loud voice  
(iii) [so that C(it)-run] POST  
(iv) C(it)-refused, he(Loti)-started he-calling (B15-17)

In the second inciting incident of the ‘Hedgehog and Rabbit’ text, there are five subject changes in consecutive nuclear clauses without a noun phrase reference, two of which are with no overt reference. Hedgehog, who in several previous clauses was referred to with the pronoun kw-, is interacting with the girl, who is not referenced by a pronoun anywhere in the text. Therefore, there is no ambiguity even when the girl is twice given no overt reference. In this narrative unit, less participant encoding than expected by the rules highlights the relationship developing between the girl and the hedgehog, which eventually leads to marriage.

(59) 3S(Hedgehog)-said.to-3S(girl), . . . Then the girl went and brought-3S(him) water,  
3S(him)-drank ø(it), ø(she)-roasted.for-3S(him) ground nuts, 3S(him)-ate ø(them), ø(she)-gave-3S(him) water, 3S(him)-washed.mouth, (H13b-16)

5.5 Highlighting a key speech

Less encoding than expected by the rules can also indicate an important speech. In all but one reference to young man as an individual in the ‘Boy and Goat’ text, the noun phrase includes either the definite or indefinite adjective. The one exception is to introduce the key reported speech of the conclusion (60), where only the noun pu‘rit ‘young.man’ is used to encode the referent. In this way, the language uses less encoding than expected to highlight the important
speech of the conclusion. The speech reveals the identity of the creature that frightened Loti in the climax.

(60) a young man told-him, "It was not a leopard that chased you; it seems you saw goats" (B 30-31)

In (61), there are four consecutive transitive verbs that encode objects. However, the fifth verb omekat ‘told’, which included the object pronoun –ok ‘him, her’ in line 6 of the same narrative, does not use the object pronoun here. The object pronoun is missing in order to highlight the following speech where the girl gives her promise that she is a good person. Afterwards, Hedgehog pursues her and eventually wins her in marriage. The speech marks the turning point where the affections of the girl begin to change from Rabbit to Hedgehog.

(61) 3S(Hedgehog)-found girl in shelter, 3S(he)-called-3S(her), 3S(he)-greeted-3S(her), 3S(he)-said.to-3S(her), "I really hope you are a good person." Girl told-o(boo), "Yes, I am." (H13-14)

6 Conclusion

We have seen that Lumun uses morphemes both individually and collectively in participant reference. It uses pronouns, concords, or adjectives as individual morphemes to distinguish various types of participants, and to give certain participants the status of VIPs, although major and minor participants are not distinguished. Noun phrase reference and less than noun phrase reference are two degrees of subject encoding; in addition, no overt reference is sometimes used to refer to object props and is used for discourse purposes when referring to subjects.

Lumun used morphemes collectively to reference participants according to prescribed rules and intentionally does not follow its rules for certain discourse-pragmatic reasons. More encoding than expected by rules is commonly used to introduce narrative units, give thematic salience, and in some texts to distinguish the VIP. Less encoding than expected by the rules can be used to contrast major participants with the VIP, highlight prominent episodes, and highlight significant speeches.

7 References


Appendix A

Ukul ana İmït
A Boy and a Goat
By John Shakir, 2007

1. Ca'ri c'-rek c-okat cik cukku Torru, ana amma cukku c-aat ul i-onu a'rupu wo tuwa
   Time C-other C-was there autumn Lumun and when autumn C-comes people who-has things of wool
   A story took place in Lumun land in Autumn; In Autumn, people who have animals

2. w-urukot i-pira thuput nti icarak co man.
   C-move in-tree forest from inside of area.
   move them into the forest further inside the home area.

3. Ukkul w'-rek w-okat cik w-occot k'rani itti Olotti ana okin th-onat kuthuk k-en
   boy C-other C-was there C-given name that Lotti and they PC-had animal-pens C-theirs
   A certain boy named Lotti had animals

4. no ka'ran i-koccot k'ran itti Thoicang uwo oingkanhet noththok po E'reme.
   at place which-given name that Toijang going going.down country of Aceron.
   at the place named Toijang, which is down towards the country of the Aceron.

5. Ana ca'ri c'-rek cipin a-Lotti p-aat nti ithu'rit tho kie a-kw-okkat ngere appik ngo teththuk,
   And time C-other evening F-Lotti PC-came from shepherding of cows F-3S-did all work of place
   One evening, Lotti came from tending the cows and all other work in the forest;

6. a-kw-oingkat itti kw-ath-okkot kapi, a-kw-othiat itti
   F-3S-went that 3S-INF-cook pot F-3S-found that
   He went in order to gathering things to cook; he found that

7. me're m-ela ana mana ngu'ru ng-ellat.
   flour C-not.exist and even Asida C-not.exist.
   there was no flour or even any asida (sorghum flour).

8. A-Lotti ullukkat a'rupu woruwa kicce a-kw-urukat uwo tuan a-kw-othokwancot thu'rit.
   F-Lotti closed animals well F-3S-start.moved going house F-3S-inorder.to.look.for food.
   Lotti locked up the animals and went down to the house to look for food.

9. O'Lotti p-oingkathe ci tuan a-kw-othiat onnan p-ellat
   Lotti PC-went to house F-3S-found mother PC-not.present
   Lotti went to the house and found that his mother had not arrived

---

8 ‘intending to’ same pronunciation as later in line 6, but with different meaning.
10. n-topon a-kw-ikkanth-ok cik a-kw-anthan.  
from-field F-3S-waited-for-3S there F-3S-come  
from the field, and he waited for her to come.

11. Akka onnan p-aat a-kw-ithakanth-ok cokot cokot.  
When mother PC-came F-3S-cooked-for-3S quickly quickly.  
When his mother arrived, she quickly cooked for him.

12. Ca'ri cen a-kirkkir k-okkwot cik, a-Lotti urukat nci tuan a-kirikkir k-okkwot cik  
Time that F-darkness C-was there F-Lotti moved from house F-dark C-was there  
At the time of darkness, Lotti left the house while it was dark,

13. a-kw-oingkat puccuk anakka a-kw-okko ci i-thupu'ru i-thuwo Thoicang  
F-3S-went until when F-3S-arrived to in-valley which-goes.down Toijang  
and traveled until he arrived in the valley which goes down to Toijang;

14. ana ciki i-tho'rikit tho kathar a-kw-imakat pape'rek i-kathar p-otheret ana  
and exactly in-middle of road F-3S-saw something in-road C-spotted and  
In the exact middle of the road, he saw something coloured that

15. p-ungkot papokira. Anakka kw-imat a-kw-o'c'or a-kw-ekat po're cittan othakka  
C-looks.like thing.of.trees when 3S-saw F-3S-stood F-3S-shouted voice loud in.order.to  
looked like a leopard. When he saw (it), he stopped and shouted with a loud voice

16.itti a-p-ollo, a-papu p-en p-'rat a-p-o'cro icci, a-kw-apekat po're cittan  
so.that F-C-run F-thing C-that F-refuse F-C-was.standing quiet F-3S-shouted voice loud  
so that it would run away; The thing remained standing quietly; Then he shouted loudly

17. othakkaitti a-p-ollo, a-p-'rakat cik a-kw-ikkat cik a-kw-akkakkaro. Thomocco th-'rek  
in.order that F-C-run F-C-refused F-3S-started there F-3S-calling old man C-certain  
so that it would run, but it refused and he began calling out. A certain old man

18. th-okat cik th-occot k'ran itti Okarththum th-onat kaman iccik ko ka'ran k-en.  
C-was C-given name that Khartoum C-had house near of place C-that.  
named Khartoum had a house nearby.

19. Anakka thomocco th-en th-occikothe a-th-othangkat,  
When old.man C-that C-heard F-C-answered  
When the old man heard (the voice calling for him) he grunted a reply,

20. anaruk akka oLotti p-onat ne're a-kw-onnoccikat akka oKarththum p-othongkothe.  
but because Lotti PC-had fear F-3S-did.not.hear when Khartoum PC-answered.  
but because Lotti was afraid, he did not hear when Khartoum answered him.
21. Oloti acakuruk p-okat cik a-kw-opakkot n-cu're akka kw-okat cik a-kw-akkakkaro, 
   Loti also PC-was there F-3S-returning with-back when 3S-was there F-3S-calling 
   Lotti was running backwards as he called,

22. a-kw-opakkot n-cu're puuccuk a-kw-othiat kakung a-kkw-aik pellek, 
   F-3S-returns with-back until F-3S-found himself F-3S-was alone 
   going back to a place where he was alone,

23. a-kw-oththet no papu p-en na p-okat cik a-p-oc'ro, a-kw-oparattakat a-kw-ollat opakkot i-carak co man. 
   F-3S-left at thing C-that where C-was there F-C-standing. F-3S-turned F-3S-ran go.back in-stomach of house. 
   leaving the thing were it was standing; He turned and ran back to the village.

24. Anakka oLotti p-opakkothe icarak co 
   When Lotti PC-returned.back inside of 
   When Lotti arrived back in the village,

25. man a-kw-othiat pu'rit p-rek p-okat cik a-p-okuccekot cik itti p-aeo teththuk 
   house F-3S-found young.man C-other C-was F-C-preparing that C-go place (of animals) 
   he found a certain young man preparing to go to the animal grazing grounds

26. no ka'ran na oLotti p-aik ng-kuthuk k-ung, a-Lotti erekanthet pu'rit 
   at place where Lotti PC-is with-animals C-his, F-Lotti told young.man 
   where Lotti had been with his cows; Lotti told 

27. p-en lon i-l-okat cik. A-pu'rit p-en omekath-ok itti “O'rikoth-in i-reo i-raththe'ra.” 
   C-that story which-C-was there F-young.man C-that told-him that “Wait.for-us(ex) in-so which-go.together.” 
   the young man everything that had happened. The young man told him, “Wait so that we may go together.”

28. A-lotti ana pu'rit p-en oingkat i-thun. Anakka okin okko ciki no ka'ran k-en 
   F-Lotti and young.man C-that went in-together. When they arrived to of place C-that 
   Lotti and the young man went together. When they arrived to the place,

29. a-Lotti okenekat pu'rit p-en no ka'ran. Anakka okin theot, a-kin othiat 
   F-Lotti showed young.man C-that of place When they went F-they found 
   Lotti showed the young man the spot (where he had seen the leopard). When they arrived, they found

30. licok no mu'rol a-l-icat cik. A-pu'rit i'rekath-ok itti, “okoronnoka papokira a-kkokiccer-ung, 
   goats on stones F-C-laying.down there F-young.man told-him that, “not leopard F-chased-you, 
   goats lying down on stones. The young man told him, “It was not a leopard that chased you;

31. ikkere licok akka ngkw-imat.” A-pu'rit p-en occirat 
   seems goats when you-saw.” F-young.man C-that laughed 
   It seems you saw goats.” The young man laughed
32. puccuk mono okinyakat. Nci cinang a-kin occiekat oLotti k’ran itti ‘Opuruko po īmït’

until still was.tired. From that F-they named Lotti name that ‘friend of goat.’

until he was exhausted. From this event Lotti received the name ‘a friend of goats’.

Appendix B

The following chart list subjects of nuclear and pre-nuclear clauses in one column, non-subjects of nuclear clauses in another column, and subjects of post-nuclear and embedded clauses in a third column. Each column for the respective referents has a corresponding column to indicate the participant reference context of the clause (S1, N3, SP4, etc.), as well as which clauses encode more (M) or less (L) information for reference than required by the context. Numbers are assigned to participants as follows: 1 = Loti, 2 = mother, 3 = something ('leopard'), 4 = Khartoum (old man), 5 = young man. Each new line indicates a break between narrative units (paragraphs).

Boy & Goat Narrative

<table>
<thead>
<tr>
<th>Line #</th>
<th>Conjunction</th>
<th>Subjects in nuclear &amp; pre-nuclear clauses</th>
<th>Context</th>
<th>Non-subjects of nuclear &amp; pre-nuclear clauses</th>
<th>Context</th>
<th>Subjects and non-subjects in post-nuclear and embedded clauses</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>time C-certain C-was</td>
<td>autumn in Lumun land</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1b-2</td>
<td>and PoD people REL.CL C-move</td>
<td>into the forest in the home area</td>
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<tr>
<td>3a</td>
<td>boy C-certain C-given [1] Intro</td>
<td>name Loti [1] Intro</td>
<td></td>
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<tr>
<td>3b-4</td>
<td>and they PC-had [1+] S1</td>
<td>animal.pens C-theirs [1+] at place N1</td>
<td>which is given the name Toijang going down to the country of the Aceron</td>
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<tr>
<td>5a</td>
<td>and PoD F-Loti PC-came [1] S4</td>
<td>from shepherding cows</td>
<td></td>
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<tr>
<td>5b</td>
<td>F-3S-did [1]</td>
<td>S1</td>
<td>all work of place</td>
<td></td>
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<tr>
<td>6a</td>
<td>F-3S-went [1]</td>
<td>S1</td>
<td>in order that 3S-cook [1] food</td>
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<td>6b-7</td>
<td>F-3S-found [1]</td>
<td>S1</td>
<td>that flour &amp; porridge not present</td>
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<tr>
<td>8a</td>
<td>F-Loti ø-closed [1] S1; M animal pens well</td>
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<tr>
<td>8b</td>
<td>F-3S-start.moving ø-goes [1] S1</td>
<td>to house</td>
<td>in order to F-3S-look.for [1] food SP1</td>
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<tr>
<td>9a</td>
<td>Loti PC-went [1] S1; M to house</td>
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<tr>
<td>12a</td>
<td>PoD F-darkness C-was there</td>
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<tr>
<td>12b</td>
<td>F-Loti ø-moved [1] S4</td>
<td>from house F-darkness C-was there</td>
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<tr>
<td>13-14a</td>
<td>F-3S-went [1]</td>
<td>S1 until when F-3S-arrived [1] to a valley which goes down to Toijang SP1</td>
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<td>16a</td>
<td>F-thing C-that C-refused F-was.standing [3]</td>
<td>S3 quietly</td>
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<tr>
<td>16b</td>
<td>F-3S-shouted [1]</td>
<td>S4, L loud voice in order that F-C-run [3] SP4; L</td>
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<tr>
<td>17a</td>
<td>F-C-refused [3]</td>
<td>S4L</td>
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<tr>
<td>17b</td>
<td>F-3S-started [1] F-3S-calling [1]</td>
<td>S4L</td>
<td></td>
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<tr>
<td>18a</td>
<td>Old.man C-certain C-was C-given [4] Intro name Khartoum [4] Intro</td>
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<tr>
<td>18b</td>
<td>C-had [4] Intro name Khartoum [4] Intro</td>
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<tr>
<td>19a</td>
<td>[when old.man C-that C-heard [4] ]</td>
<td>S1; L</td>
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<tr>
<td>19b</td>
<td>F-C-answered [4]</td>
<td>S1</td>
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<tr>
<td>20a</td>
<td>[but because Loti PC-had [1] ]</td>
<td>S4 fear</td>
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<tr>
<td>20b</td>
<td>F-3S-did.not.hear [1]</td>
<td>S1 when Khartoum PC-answered [4] SP4</td>
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<tr>
<td>21</td>
<td>Loti also PC-was F-3S-returning [1]</td>
<td>S1; M back when 3S-was F-3S-calling [1] SP1</td>
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<td>22</td>
<td>F-3S-returns [1]</td>
<td>S1 back until F-3S-found himself [1] F-3S-was alone [1] SP1</td>
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<td>23a</td>
<td>F-3S-left [1]</td>
<td>S1 thing C-that [4] N4 where C-was F-C-standing [4] SP3</td>
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<td>23b</td>
<td>F-3S-returns [1] F-3S-ran [1]</td>
<td>S1; L to village</td>
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<td>24</td>
<td>[when Loti PC-returned.back [1] ]</td>
<td>S1; M to village</td>
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<td>25-26a</td>
<td>F-3S-found [1]</td>
<td>S1 young.man C-certain [5] Intro found; C-was C-preparing [5] to C-go [5] place of animals at Loti PC-was [1] with animals his [1] SP3, SP1, SP4, N1</td>
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<td>26b-27a</td>
<td>F-Loti ø-told [1]</td>
<td>S1; M young.man C-that [5] story N3; M which happened.</td>
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<td>27b</td>
<td>F-young.man C-that ø-told [5]</td>
<td>S2; M -3S [1] &quot;wait for us so that we can go together&quot; N2</td>
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<td>28</td>
<td>F-Loti and young.man C-that ø-went [1 + 5]</td>
<td>S4 together</td>
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<td>29a</td>
<td>[when they ø-arrived [1 + 5] ]</td>
<td>S1; L to place C-that</td>
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<td>29b</td>
<td>F-Loti ø-showed [1]</td>
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<tr>
<td>29c-30a</td>
<td>[when they PC-went [1 + 5] ]</td>
<td>S1</td>
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<tr>
<td>29c-30a</td>
<td>F-they ø-found [1 + 5]</td>
<td>S1 goats on stone N4 F-C-lying down SP3</td>
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<td>30b-31a</td>
<td>F-young.man ø-told [5]</td>
<td>S4; L -3S [1] &quot;not leopard F-chased-you, it seems it was goats you saw&quot; N3</td>
<td></td>
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<tr>
<td>31b-32a</td>
<td>F-young.man C-that ø-laughed [5]</td>
<td>S4 until still ø-was.tired [5] SP1; L</td>
<td></td>
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<tr>
<td>32b</td>
<td>PoD F-they ø-named [5 +]</td>
<td>S1 Loti [1] N3; M 'friend of goats'</td>
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Third Person Identification and Reference in Mündü Narrative
Dorothea Jeffrey

0. Introduction

Mündü is a Niger-Kordofanian language, belonging to the Ndogo-Sere group of the Adamawa Eastern division of Niger-Congo. It is spoken by a group of about 20,000, about two thirds of whom live in western South Sudan between Maridi and Yei, and the other half across the border in north-eastern Zaire.

For this paper I have analysed twenty-seven Mündü texts, which were recorded in the Maridi area between July 1978 and September 1982. All but two of these are third person narratives — folk stories, hunting stories and moral tales. The remaining two are in fact first person narratives although the narrator takes little part in the action.

As shown in the title, my purpose in this paper is to describe the methods of identifying and referring to third person participants in Mündü narrative discourse.

1. Identification

By «identification» I mean background information about a participant generally given at the beginning of the story or at the point of his first appearance on the event-line. By event-line I mean the sequence of events which goes to make up the main thread or backbone of a story.

Participants may be roughly divided into four categories according to their importance in the plot:

(a) Protagonist, who is the most important character, the initiator, the one from whose point of view the story is told. There is usually only one protagonist.

(b) Antagonist, with whom the protagonist interacts. He is not necessarily in opposition to the protagonist. There may be more than one antagonist.

(c) Props, who may be companions or assistants of (a) or (b), or other characters or inanimate objects brought into the narrative for a paragraph or two. They are usually of very little importance to the plot.

(d) Spectators, who have no part in the action at all, but occasionally make a short appearance to comment on the events of the narrative or listen to the comments of others.

Examples of these four categories can be seen in the attached texts. In the story of Tümberere and Ndölö (Appendix i), the protagonist is Tümberere. For most of the story, the antagonist is Ndölö, the beautiful girl he is trying to seduce. This seems quite logical as their interests are in opposition, and she succeeds in doing him quite a lot of harm. However, at page 160, line 2, Ndölö disappears from the story, and at page 160, line 5, Nza, the magician, is introduced and becomes the new antagonist. He is considered to be the antagonist because he intereacts with Tümberere, although in fact their interests are the same, and he succeeds in repairing the damage done by Ndölö. Tümberere's mother, wife, children, goats, etc. may be considered props.

In the story of the hemp smokers (Appendix iv), Ngondima is the protagonist and Kümbe is the antagonist, although they are close friends and the harm that Ngondima does to Kümbe is quite unintentional. Props are Ngondima's wife, the hemp and the tree that they sit under. At the end of the story (page 176, line 9), spectators appear to comment on the action.

As might be expected, the amount of background information given to identify a participant is generally in direct proportion to the importance of that participant in the narrative. This
identification can take different forms. There are certain forms which are used only for the protagonist, but on the other hand, there are some stories where the protagonist has no more identification than the props. Participants already known to the hearers usually have no identification at all.

I should also mention that inanimate objects are not always classed as props. For example, in the story of Gbandi's father and the frog (Appendix iii), the frog, although dead and cooked, is treated as an antagonist.

1.1 Protagonist

The background information identifying the protagonist usually appears in the title or the first sentence(s) of a narrative, or both. The first appearance of the protagonist on the event-line is usually in subject position. However, exceptions to all these rules can be found.

(a) Protagonist identified in title.
Most Mündü discourses begin with a title — that is, a sentence beginning: 'This is the word of ...' followed by a noun phrase saying what the discourse is about. In the case of a narrative, this new paragraph usually names the main participant(s), or, more rarely, the setting in time or place.

(1) (From the story of Gbandi's father and the frog, Appendix iii, page 170, line 1)

Ngü engu ne, ngü ka wüba, ka Siti-e.²
Word him this, word of my-father, of Siti-e.

This story is about my father Siti-e.

(2) (From a story not in the appendices)

Ma te          emere   cïngangü ne, cïngangü ka wü Tümbere ake gara
I (incept) make    story this, story of (pl) Tümbere with other
komoko kpala de írï ye Zombimbiri.
man there with name his Zombimbiri.

I am going to tell a (folk) story about Tümbere and a man called Zombimbiri.

However, although the protagonist is usually mentioned in the title, there are certain exceptions. For example, in a hunting story, it is usually the antagonist (the animal) who is mentioned rather than the protagonist (the hunter).

(3) (From the Lion Story, Appendix ii, page 166, line 1)

Wayi, e dene ngü ka kami te ma emala ne.
Yes it this word of lion which I speak this.

I am going to tell a story about a lion.

Sometimes none of the participants is mentioned, but instead the setting in time or place.
(4) (From a story not in the appendices)

Ma ele amala mba ngü fü yi ta te  
I want speak just word to you (past) which

mere gbü gü ta ka wü Mandukuru de wü Anyanya.  
did in war (past) of (pl) Arabs with (pl) Anyanya

I am going to tell you about something that happened during the war between the Arabs and the Anyanya.

(b) Protagonist identified in first sentence of narrative

By this I mean the first sentence following the title, if any.)

The first sentence of a narrative is typically an identificational clause using the verb ladü (or its shortened form la) meaning ‹to be present, to exist›, followed by one or more clauses or sentences giving background information about the protagonist — such as his name, his occupation, or some aspect of his character.

(5) (From the Hemp smokers, Appendix iv, page 174, line 1)

Wü komoko ta ladü de ɨrỉ wü Ngondima ake Kümba.  
(pl) man (past) exist with name their Ngondima and Kümba.

Wüh ta de wü kpara te ewü ela bangĩ efa-sü.  
They (past) were (pl) people who they smoke hemp a-lot

Once there were two men called Ngondima and Kümba. They used to smoke hemp a lot.

If the protagonist is mentioned in the title, he will not be introduced by an identificational clause with ladü. However, the first sentence or sentences after the title may still give some background information about him.

There are a few stories where the first sentence(s) identify the antagonist rather than the protagonist. For example, in the Lion Story (Appendix ii, page 166, lines 1-2 cf. example (3)) it is the lion who is mentioned in the title and the following sentence, not the hunters. However, the identification clause with ladü does seem to be confined to the protagonist.

1.2 Antagonist

Often quite a lot of background information is given to identify the antagonist. This will be the same sort of information as might be given for the protagonist — that is, name, description (as in the story of Tümbere and Ndölö, Appendix i, page 154, lines 2-4, see example (8) below), or some aspect of character. This information may be given either immediately before or immediately after the characters' first appearance on the event-line. It is usually in the form of a relative or appositional clause and/or a background sentence.

(a) Identification immediately preceding first appearance on the event-line.

This is the less common form. In example (6) below (which comes from the story of Gbandi's father and the frog, Appendix iii, page 170, lines 5-7) the frog's first appearance on the event-line is when he is killed. The background information comes immediately before this, giving a brief description and the name of the particular species of frog.
(6) (From the story of Gbandi’s father and the frog, Appendix iii, page 170, lines 5-7)

Angbe cögbörö arombo de īrī wū trītrī, de angbe
Enormous great frog with name their trītrī, with enormous
lō wū fū ēwū amōrō arombo ne ‘budu ...
lég their, then they killed frog this all ...

There is a kind of great big frog called a trītrī which has very long legs. They killed some of these frogs…

(b) Identification immediately following first appearance on the event-line. This information may be in the form of a relative or appositional clause, as in example (7) below, or one or more complete sentences as in example (8) below (which comes from the story of Tūmbere and Ndölö, Appendix i, page 154, lines 2-4) or a clause plus a sentence as in example (9) (also from the story of Tūmbere and Ndölö, Appendix i, page 160, lines 5-6).

(7) (From a story not in the appendices)

Fū kpara anū kpo, gbo! te nga gba te
Then people went (surprise!) at track buffalo which
ese gifia de ngüte.
pass dung with blood.

Then we went on and suddenly came on the tracks of a buffalo with blood in its dung.

(8) (From the story of Tūmbere and Ndölö, Appendix i, page 154, lines 2-4)

Te engu nū, fū ah anū amaka jaji wūrūse kpa etū
When he went, then he went found young woman at middle
mere yī ngū. Fū ah adiki ‘duwa-bane, de mere
big mother water. Then she was-red very-much, with big
bi su-nzö yē. Fū ah areke afa-sū.
many hair her. Then she was-good very-much.

When he got there he found a young woman in the middle of the deep water. Her skin was red (i.e. rather lighter than average) and she had a lot of hair. She was very pretty.

(9) (From the story of Tūmbere and Ndölö, Appendix i, page 160, lines 5-6)

...anū kpa-ka gara komoko de īrī ye Nza.
went to other man with name his Nza (Sunbird).
Engu de mürü yüwa bane. Fū ah anū amaka engu ...
He was owner oracle thus. Then he went found him ...

... went to see a man called Nza, who was a diviner. He went and found him and ...

1.3 Props

It is usual to give no background information at all to identify props. Occasionally, there may be a little information either in the form of a relative clause or an adjective. Props are not
usually referred to by name, unless their name is already known to the hearers. On the first appearance on the event-line, a new prop will be identified either by the word *gara* «other», as in example (10) which indicates that this is a new participant; or by a relationship to another participant, as in example (11) below; or by a noun which gives some information about his role, as in example (12) below.

(10) (From a story not in the appendices)

Fü *gara* komoko ayia aza rü, amĩ komo Sumu, asorö di.
Then other man got-up took wood, beat mouth rabbit, tore with-it.

*Then another man got up and took a stick and beat the rabbit in the mouth and cut it.*

(11) (From a story not in the appendices)

Ah aro kpiři ngüte dela, adu de kpiři ngüte etamirogo dene fü wara ye.
He collected clotted blood that, return with clotted blood in-evening this for wife his.

*He collected the clotted blood and returned with it to his wife in the evening.*

(12) (From a story not in the appendices)

Fü Sumu ayia ato woro gbü lö ye, akpe akoro amaka miri.
Then rabbit got-up gave speed in leg his, ran came found chief.

*Then the rabbit ran very fast and came and found the chief.*

1.4 Spectators

No background information is ever given to identify spectators. Even on their first appearance, they will be identified only as *wü kpara* «people», or even just as *ewü* «they», without any antecedent noun. Spectators are brought in to provide evaluation, either by commenting on the action, as in example (13) below or simply acting as an audience for the comments of others.

(13) (From the Hemp Smokers, Appendix iv, page 176 line 9 to page 177 line 2)

Wü *kpara* akoro amaka Ngondima, ga, 〈Mü ngbü sene emere ne-ene?〉
(Pl) people came found Ngondima, said, 〈You sit here do what?〉

Ngondima ga, 〈Ni ngbü ecī nga Kümba te era ara ne. Ni za Ngondima said, 〈I sit wait for Kümba who sleep sleep this. I took nzöŋzö kpah wo eyi. Te ah zükü, ah maka nzö ye? Anga his-head also hid (comp). When he wakes, will he find head his? Or ah ena awu süsï-na ya?〉 Wü *kpara* du emala fefe, ga, he will know its-place ? 〈(pl) people return say to-him, say, 〈Ye mörö kiri ye eyi de-ye?〉 Ah ga, 〈A-a! Ma mörö engu de. Ma ngbü efiti engu ...〉}

*People came and found Ngondima and said, «What are you doing?» Ngondima said, I am waiting for Kümba, who is asleep. I took his head and hid it. When he wakes up, will he find it? Will he know where it is hidden? People said, «Have you killed your friend?» He said, «Oh no! I haven't killed him. I am playing a trick on him ...»*
### 2 Reference

By reference I mean every mention of a participant, whether by pronoun or noun, after his identification at his first appearance.

One naturally expects third person participants to be referred to by third person pronouns, but in Mündü this is not always the case. There are occasions when second person pronouns are used to refer to third person participants. This is also the case with a number of other languages spoken in western South Sudan, for example Avokaya, Baka, Jur Mödö and Kresh (Gbaya) – all of which are Nilo-Saharan languages and therefore not at all related to Mündü, which is Niger-Congo. In all these languages this use of second person pronouns is an attention getter, which adds vividness to a story, but the details of use vary from language to language.

The use of pronouns versus nouns to refer to a participant depends very much on the importance of the participant on the paragraph level. I am using the term ‹paragraph topic› to mean the most important participant(s) in a paragraph. Both ‹topic› and ‹paragraph› are defined semantically. More work needs to be done on the grammatical definitions of a paragraph in Mündü. Paragraph breaks in the attached texts are tentative. Changes of topic may occur within a paragraph, but usually do not. In some cases two participants are interacting so closely within a paragraph that it may be said to have two topics. The paragraph topic will usually be either the protagonist or the antagonist of the story.

#### 2.1 Use of the third person pronouns and nouns

In Mündü there are two forms of the third person singular pronoun which can be used in subject position. These forms are {ah and engu, 〈he/ she/ it〉. In subject position engu is the marked form. But engu is also used in object position, and so could also be glossed as 〈him/ her/ it〉. See further section 2.1.5 and example (19) below.

#### 2.1.1 Use of third person pronouns to refer to paragraph topic.

Only the paragraph topic can be referred to by a pronoun. All other participants will be referred to by nouns. (That is if the participants are singular. Plural pronouns are used rather more freely, see further section 2.1.3 and example (18) below.) Therefore it may be assumed that any third person singular pronouns must refer to the paragraph topic. A noun may be used to refer to the paragraph topic, at the beginning of a paragraph, or where there is a change of paragraph topic.

In example (14) below, Bakïtï is the paragraph topic, and therefore the third person pronouns must refer to him.

(14) (From a story not in the appendices)

```plaintext
Fü Bakïtï ayia ado biki-nzö, biki-nzö ro-mö nda de, 
Then {Bakïtï got-up kicked skull, skull spoke (contraexpt) not,

adu ado, biki-nzö ro-mö nda de. Gara komoko 
returned kicked, skull spoke (contraexpt) not. Other man

ka miri ayia ade engu te ngüngürü, ade engu amörö.
of chief got-up stabbed him at neck-his, stabbed him killed.
```
Then Bakïï kicked the skull, but it didn't say anything. (He) kicked it again, but it still didn't say anything. Then one of the chief's men stabbed him (Bakïï) in the neck and killed him.

In example (15) below, the hunter is the paragraph topic. Therefore, the buffalo, though often referred to, is never referred to by a pronoun.

(15)  (From a story not in the appendices)

Then they split belly buffalo this, gave hand his in belly

Then they split belly buffalo this, gave hand his in belly

Then they split the belly of the buffalo. He put his hand into the buffalo's belly, looking for their spear which they had speared (it) with two days before yesterday. He put his hand into the buffalo's belly. When he put his hand there he found a great big spear, just like the one which they had speared the buffalo with two days ago, in the belly of the buffalo. Then he turned and said...

2.1.2 Use of nouns where there are two topics.

Either the protagonist or the antagonist can be the paragraph topic. But sometimes protagonist and antagonist are interacting so closely that they should be considered to be joint topics. In such cases nouns are used for both participants if they are singular, but if either or both are groups then plural pronouns may be used as appropriate.

In example (16a) below, the hunter is the paragraph topic, the initiator, and is therefore referred to by pronouns. However from (b) onwards the roles become somewhat confused, and as a consequence nouns are used to refer to both participants.

(16)  (From a story not in the appendices)

(a)

Fü ah ayia anü, anü, anü, anü, akoro amaka gba.
Then he got-up went, went, went, went, came found buffalo.

Gba du efü te-ye ekere kō'dō bane dene, buffalo returned turned itself behind tree-type thus this,
Dorothea Jeffrey  
Third Person Identification and Reference in Mündü Narrative

2.1.3 Use of third person plural pronouns

As mentioned above, plural pronouns are used rather more freely than singular ones. That is plural pronouns may be used instead of nouns in places where one would definitely expect a noun if the participant were singular - for example where the paragraph has two topics. In example (17) below there are two groups of participants, Kümübangirïma’s in-laws are the first group, and Kümübangirïma and the frog are the second group. Both groups are referred to by third person plural pronouns. It can also be seen from this example that the possessive form of the third person singular pronoun is used more freely than subject or object. Third person possessive pronouns are twice used in this example to refer to Kümübangirïma. He is the protagonist - that is the overall discourse topic. But he could hardly be called the paragraph topic in this case.

(17) (From a story not in the appendices)

Tïne dela fü ewü alügü nga wü adu akoro ekötï, bü ngä ewü nda ma. 
Now that then they return tracks their, return come home only

Wü gastrointestinal ye te enü kpala, ani ceka nga ewü, nga ewü ma. 
(pl) in-law his when go there, we look-at track their, track their none.

Wü gastrointestinal ga, «Wü gastrointestinal zü küzü nza eyi». Wü gastrointestinal ga, «Wü gastrointestinal yükü gömö wü». 
They say, «You ate sesame finish (Comp)» they say, «You rinse mouth your».

Fü gastrointestinal ayükü gömö wü. Wü gastrointestinal yükü gömö wü eyi zu 
Then they rinse mouth their. They rinse mouth their (comp) completely
Then they (Kümübangírîma and frog) returned home - but they had not done any work. Then his (K's) in-laws went to see the work they (K and frog) had done, but they had done nothing. They (K's in-laws) said, «You have eaten all the sesame!» They (K's in-laws) said, «Rinse out your mouths». So they (K and frog) rinsed out their mouths. They rinsed out their mouths thoroughly but there was no sesame in his (K's) mouth.

2.1.4 Use of nouns to signal a new paragraph topic.

Where there is a change of paragraph topic, the new topic is referred to by a noun for the first two or three times, and thereafter by a pronoun. In example (18) below, Tümbere and his uncle acting as a group are the topic of paragraph (a). Tümbere alone is the topic of paragraph (b), and so a noun is used to refer to him for the first three times. After that he is referred to by a pronoun.

(18) (From a story not in the appendices)

(a)
Fü ewü asötö kïmbara ne. Fü ewü amörö. Fü ewü abî so, adu di kpa ekötï.
Then they speared hippo this. Then they killed. Then they carried meat, returned with-it to home.

(b)
Tümbere awu ngü ne. Tümbere ga, «Loko ni, ni yia eyi, edu adu». Fü Tümbere ayia adu. Ah (Comp), return, return». Then Tümbere got-up returned. He returned got-back to home his not, then he...

(a) Then they speared this hippo. Then they killed (it). Then they carried the meat and returned with it home.
(b) Tümbere saw this. Tümbere said, «Uncle, I'm returning home». Then Tümbere got up to return home. But before he reached home, he...

2.1.5 Use of engu to signal a change of paragraph topic.

There is another way of handling a change of paragraph topic. This can only be used when the paragraph topic changes back to the discourse topic (protagonist). In such a case the new topic may be referred to by a pronoun right from the point of change. The engu form of the third person singular pronoun is the one used at the point of change, (see note under 2.1 above.)

In example (19) below, the discourse topic is the owner of the grain. In the first part of the example the paragraph topic is the group of neighbours who are helping to bring in the grain. In the second sentence the topic changes to the owner of the grain.

(19) (From a story not in the appendices)

Fü ewü abî ndo 'buru, akoro di kpa ekötï.
Then they carried grain all, came with-it to home.
Fü engü anü ade rü, ajï rü langba ndo.  
Then he went cut wood, built wood platform grain.

*Then they (neighbours) carried all the grain and brought it home.*  
*Then he (owner) went and cut some wood and built a platform for the grain.*

### 2.2 Use of second person pronouns

As mentioned under 2 above, second person pronouns are sometimes used in Mündü to refer to third person participants. This gives vividness and heightened dramatic effect to the narrative. Second person pronouns can be used to signal a change of paragraph topic or to draw attention to important asides. There is a definite feeling of contrast given by the use of the second person - while she was doing this, he on the other hand was doing that. It is as if the narrator suddenly starts to address one of the participants. Second person pronouns may be used to refer to either the protagonist or the antagonist, or both.

#### 2.2.1 Use of second person pronouns to signal change of topic

Instead of using a noun alone to refer to a new paragraph topic (as described in section 2.1.2 above), a noun plus a second person pronoun may be used at the point of change. Subsequent references to this participant may continue to use the second person pronoun until there is another change of topic, or may revert to the third person pronoun.

In example (20) below there are two changes of paragraph topic. The man who found the dead buffalo is the first topic, carried over from the previous paragraph. In the second clause, the lion becomes the new topic - signalled by the use of a noun plus the second person pronoun. He remains topic until the return of the man and his companions, who become the new topic — once again signalled by noun plus second person pronoun. The contrast between the point view of the men and that of the lion, and the fact that at this point their activities are unknown to one another, is highlighted by the use of second person pronouns.

(20)  *(From the Lion Story, Appendix ii, page 167, lines 5-9),*

*The man is still at home – lion, you have returned, and took its (the dead buffalo's) thigh and its whole back. You went off with them to eat. After a bit, lion, you are still there, then those men, you return. There are four of you. Then you (the men) came back and...*
introduction. This is where the excitement starts to build up, but it is not by any means the climax. Second person pronouns are not used at all in the climax of this story (Appendix ii, page 168, lines 2-6). Instead the climax is signalled by long strings of clauses with deleted subject, spoken very rapidly. The same pattern can be observed in other stories, although there are some where second person pronouns are used at the climax. Perhaps this is because the idea of contrast between the actions or viewpoint of different participants, which is conveyed by the use of the second person, is not usually appropriate to the climax.

2.2.2 Use of second person pronouns to draw attention to important asides

Second person pronouns may also be used for little asides and bits of background information inserted into the story. The use of the second person draws attention to the importance of this information, the relevance of which will be seen later - usually at the climax.

In example (21) below, the paragraph topic is Tümbere and his son, acting as a group, but it will be important when we reach the climax to know that each of them has a gourd full of water hanging in a bag under his arm. So the narrator follows the general statement that they drew water with an aside describing their separate actions. Here there is not much idea of contrast - for in fact their actions were the same - but there is an emphasis on the fact that each one separately drew his own water, not that they drew water acting as a group.

(21) (From a story not in the appendices)

Then they drew some of the water. Tümbere, you drew yours in the gourd and put it in the bag (under your arm). And then the child, you drew yours in the gourd and put it in the-bag.

Example (22) below comes from a very long story which has a secondary climax coming several paragraphs before the real climax. This example is from the secondary climax. The paragraph topic is the hunter who, with the help of his brother, is stalking the buffalo. But there is a little aside to tell us what Gamburu and Bü'da, the real heroes of the story, are doing meanwhile. Here again is the feeling of contrast between the actions of the hunter and those of Gamburu and Bü'da.

(22) (From a story not in the appendices)

Then he went just that...
Well, just as he had told his brother, his brother went over there and he himself stayed.
(Gamburu you had climbed a tree. Bü'da you had climbed a tree.) Then he went and....

Example (23) below is from a story about Rabbit and his travelling companions in which Rabbit manages to engineer the death of all his companions (except his son) and fall heir to their goods. The climax of the story describes how Rabbit killed Snake. The last sentence of the example is an aside giving a preview of the climax. Here there is a contrast revealed between what Rabbit says he will do and what he really means to do, and also a quick change of viewpoint. In effect the narrator is saying: «Look out Snake! Little do you know what Rabbit plans to do!»

(23) (From a story not in the appendices)

Fü Sumu agü, ga dene, «Kpürü deyï, te ani koro ake
Then Rabbit said, said this, «Snake (voc) if we come with
ye, wü kpara la le ani gbü kurungha ka wü de.
you, (pl) people that want us in boat of their not.
Wûh ena akpe ka-wü akpe, angü wü kpara ekpe cüri
they will run of them run, for (pl) people run fear
kpüri ka wü nda-wü akpe. Ye rí erí gbü sila
snake of them for-their-part run. You enter enter in pot
ka ni dene, fü enga ni abi gbü nzü ye.
of my this, then child my carry in head his.
Te ani koro eyi sela dela, te ani kō ngu eyi,
When we come (comp) there that, when we cross water (comp)
fü ni akusa ye. Fü ani atafa.» Kpürü ga, «Wayi.»
then I put-down you. Then we go-off.» Snake said, «Yes,»

Amba kpüri, mü le nda-mü eyi ngü kpi mü
But Snake, you agreed for-your-part word death your.

Then Rabbit said, «Snake, if we go together those people won't let us in their boat, because people are afraid of snakes. You get into this pot of mine, and my son will carry you on his head. When we have arrived, when we have crossed the river, then I will put you down and we will go off. Snake said, «Yes». But Snake, you have agreed to your death. (ie by agreeing to Rabbit's plan Snake had actually agreed to his own death.)

3 Conclusion

In conclusion, we could summarise by saying that the method of identifying a participant - that is, the amount of background information, and the form in which it is given - depends mainly on the importance of that participant on the discourse level, but the method of reference - that is, the use of pronouns as opposed to nouns - depends rather on his importance on the paragraph level.

The use of second person pronouns for third person participants, which is one of the most interesting features of Mündü pronoun reference, is not by any means confined to Mündü. It is an areal feature which can be found in other languages spoken in western South Sudan. The second person pronoun adds vividness to the story - it has the effect of transporting the hearer to the scene of the action. In Mündü it can be used to signal a change of paragraph topic, or to
draw attention to important asides, and usually carries with it a feeling of contrast between one participant and another.

**End notes**

1 Tümbere is the Mündü «trickster». The name literally means «spider», but the Mündüs do not think of him as a spider - not even in the sense that Rabbit is a rabbit.

2 All examples have been written orthographically. The eight vowel symbols used in writing Mündü represent the following phonemes:

\[
\begin{align*}
i & /i/ \\
\,i & /i/ \\
e & /e/ \\
\,e & /e/ \\
a & /a/ \\
u & /u/ \\
\,u & /u/ \\
o & /o/ \\
\,o & /o/ \\
\end{align*}
\]


3 An exception to the rule that no background information is given for props, is the dead buffalo in the Lion story (Appendix ii page 166 lines 6-7). Quite a lot of background information is given about this buffalo, which I have classed as a prop. However, on closer examination it will be seen that this information is at least as much about the lion (who is the antagonist) as it is about the buffalo.


5 “Yes, Baka has the same feature. I have not described it in a write-up, but it shows up in some vernacular publications.” Douglas Sampson (personal email communication 7/4/11)

6 “As regards the use of 2nd person for 3rd person participants, yes, Jur Modo does have instances of that happening… As I remember, we found in some narrative texts that the narrator switched to 2nd person at the climax when describing what happened to the most prominent participant or to what they did. I would agree that it’s a kind of attention-getter.” Janet Persson (personal email communication 4/4/11)

7 “This is a common feature in traditional folklore, but in that genre alone, and in reference to the main character alone. It puts the listener into the story as that character…”, “In some stories it occurs around the peak, but at others it occurs more broadly. I don’t recall, however, seeing a story that began with second-person usage; there is usually a shift as the tension increases.” Rick Brown (personal email communications 4/4/11, 6/4/11)
Appendix i
Tümbere and Ndölö
by Imanuele Matügü

Protagonist: Tümbere
Antagonist: Ndölö (page 154 line 2 - page 160 line 2)
Nza (page 160 line 5 - page 162 line 4)
Props: Tümbere's mother, wife, children, chickens, dogs and goats
Stone belonging to Nza
Spectators: None
Climax: page 159 line 5 to page 160 line 2

Second person pronoun used to indicate change of topic page 154 line 5-7, and page 158 line 7-9.

1) Ma emala cïngangü ka Tümbere ake Ndölö. Nih nga ngbi, nih je.
   I speak story of Tümbere and Ndölö. We keep-quiet quiet, we listen.

2) Fü Tümbere ayia anü, agü ngu. Te engu nü, fu ah anü amaka jaji
   Then Tümbere get-up go, throw water. When he went, then he go find young
   (fishing)

3) würüse kpa etü mere yî ngu. Fu ah adiki ’duwa bane, de mere bi
   woman at middle big mother water Then she is-red very much, with big many

4) su nzö ye. Fu ah areke afa süi.
   hair head her Then she is-good very much.

5) Tümbere, òne te mü nü teka ngu agü ne, mü gü jia mü
   Tümbere, now when you went because water to throw this, you throw eye your

6) eyi te jaji würüse ne, ngü ka ngu dürü gbü nzö mü eyi. Fü mü
   (comp.) at young woman this, word of water lost in head your (comp). Then you

7) ayia agü ba, «Angü de ye dene, ye nü akine, ye zoro kpa ni.»
   get-up say «For you this, you go here, you hold hand my.»
Ndölö adu arü akpo 'duwa ci ka ye ebï. Ci engu gü ba, Ndölö return stand begin only song of her singing. Song he say

«Ndölö, amba Ndölö nda bane? «Ndölö, but Ndölö for-her-part thus?

Ndölö, ceka Ndölö te ye reke! Ndölö, look-at Ndölö who she is-good!

Ndölö, ceka Ndölö te ye diki!» Ndölö, look-at Ndölö who she is-red!»

Fü Tümbere aza bü aje züka ci te Ndölö ebï dela. Fü Ndölö Then Tümbere take only hear good song which Ndölö singing that. Then Ndölö

areke gbü jia Tümbere za, de wü ci ka ye 'buru. Fü Tümbere adi de is-good in eye Tümbere completely with (pl) song of her all. Then Tümbere is with

endoro woro era ngu 'duwa andoro teka Ndölö. walking-about speed beside water only walk-about because-of Ndölö


akine, yi gü la züka kpa ye la gbü nda ni siti kpa ni ne.» Ndölö ga, here, you throw that good hand your that in my one bad hand my this.» Ndölö say,

«Ni nü kpala de. Te ye ele ni, ye nü kpa ka ni agbü ngu akine.» Tümbere I go there not. If you want me, you go to of me in water here.» Tümbere

yia bü ayia, aviti afi gbü ngu. Te ah tí gbü ngu, ngu ka ye got-up only get-up, jump fall in water. When he fall in water, water, of it

nda mere cu ngu, fü Tümbere afi gbo te ngürü ye. Fü cürü amere engu. contra-expectation big deep water, then Tümbere fall up-to at neck his. Then fear make him.
1) Fü ah amü de woro, akoro kpa füh gümba.
   Then he run with speed, come at on bank.

2) Fü ah adu arü, agü ba, «Angü Ndölö, würüse deyï la,
   Then he return stand say «Because Ndölö, woman (vocative) that,
   ni ele ye wara ni tete fi badi.» Ndölö adu arü agü ba, «Wayi, te ye ga, ni ele
   I want you wife my in-it forever.» Ndölö return stand say «Yes, if you say, I want

3) ni ele ye wara ni tete fi badi.» Ndölö adu arü agü ba, «Wayi, te ye ga, ni ele
   me woman in it word there-is which I want also ask you in-it.» Tümbere say,

5) «Ah nda bü gömö ye.» Gü ba, «Angü Tümbere deyï, wara ye ma ya?»
   «It (contraexp.) only mouth your.» Say «Because Tümbere (voc), wife your none ?»

6) Tümbere ga, «Wara ni ladü.» «Anga eyï?» Tümbere ga, «Ni ni kpah ladü.»
   Tümbere say, «wife my there-is «But mother-your?» Tümbere say, «Mother my also there-is.»

7) «Anga wü di ye?» Tümbere ga, «Wü di ni ladü.» «Anga ngü?»
   «But (pl) children your?» Tümbere say, «(pl) children my there-is.» «But chicken?»

8) Tümbere ga, «Ngü ladü.» «Anga bürü?» Tümbere ga, «Bürü kpah ladü.»
   Tümbere say «Chicken there-is.» «But dog?» Tümbere say, «Dog also there-is.»

9) «Anga meme?» Tümbere ga, «Meme kpah ladü.» Ga, «Ah reke palade. Te ye
   «But goat?» Tümbere say, «Goat also there-is.» say, «It good much. If you

10) ele ni, aza würüse tete na, wü e ka ye dela, ye du de ye ekpo ekiüte
    want me, take woman in-it (pl) thing of you that, you return that you begin at-body

11) eyï, de wara ye, de wü di ye, wü ngü, wü meme, wü bürü,
    mother-your with wife you, with (pl) children your (pl) chicken (pl) goat, (pl) dog,
1) 
"de ye mörö ewü 'buru. Fü ye adu aza ni." Tümbera ga, 
that you kill them all. Then you return take me." Tümbera say,

2) 
«Engu te ni ele ne, ah nda 'duwa zu dela.» 
«That which I want this, it (contraexp.) only really that.»

3) 
Tümbera yia bü ayia de woro, akpe adu akoro kpa eköfä, 
Tümbera got-up only get-up with speed, run return come to home,

4) 
amaka wü kpara ka ye dela, ati te wara ye, amï amörö, de wü di ye, 
find (pl) person of his that, fall at wife his, beat kill, with (pl) children his,

5) 
amï wü ngü, amï wü bürü, wü meme, amörö wü e nde 'buru, 
beat (pl) chicken, beat (pl) dog, (pl) goat, kill (pl) thing all all,

6) 
aza eyï, anü awo, adu alügü te ye de woro, edu teka würüse, 
take mother-his go hide return return himself with speed, returning because woman,

7) 
adu amaka Ndölö fi da ye, etü mere rudu ngu, agü ba, 
return find Ndölö still place her, middle big deep water, say

8) 
«Angü de ye Ndölö, wü kpara füne ma. Gba ni eyi 'duwa nzila, reke 
«For you Ndölö, (pl) person now none. Home my (comp) only clean, good

9) 
'duwa ba ne la teka ye. Ye nü enü akine.» Ndölö gü ba, «Angü ye esu wu! Du 
very much for you. You go go here.» Ndölö say, «For you lie! Remaining

10) 
person there-is. Mother-your there-is. You kill her (contraexp) not. You return, you

11) 
mörö te eyï feke. Amba ye te edu, fü ani adu 
kill at mother-your first. But you (inceptive) returning, then we return
1) 
ake ye agba ye.»
with you to-home your.»

2) 
Tümbere luğü bü te ye de woro, edu amï eyï amörö,
Tümbere return only himself with speed, returning to-beat mother-his to-kill

3) 
adu akoro kpa ekötï, ați te eyï, amï amörö kpah ka, alügü bü
return come to home, fall at mother-his beat kill also completely return only

4) 
te ye de woro, kpah edu adu, adu amaka Ndölö fi te nga ye,
himself with speed, also returning return, return find Ndölö still at track her,

5) 
gü ba, «Angü Ndölö deyï, tima .nza eyi Ah reke ’duwa bane la.
say, «For Ndölö (voc), work finish (comp). It good very much.

6) 
Ye koro tïne ekoro agbü ngu akine, de ani go.»
You come now come in water here, that we return.»

7) 
Ndölö, mü du engbü eceka bü kpï de jia mü. Mü le
Ndölö you return sit looking only view with eye your. You want

8) 
ayia anü kpaka Tümbere de. Mü du yia ka mü dela, edu ka mü de
get-up go to Tümbere not. You return get-up yours that, returning yours with

9) 
kürüfü mü kpo kpah, ci ka mü tïne te mü ngbü ebì ne, ebì,
back yours completely also, song of You now which you sit singing this, singing,

10) 
«Ndölö, amba Ndölö nda bane?
«Ndölö, but Ndölö for-her-part thus?

11) 
Ndölö, ceka Ndölö te ye reke!
Ndölö, look-at Ndölö who she is-good!
1) Ndölö, ceka Ndölö te ye diki.»
Ndölö, look-at Ndölö who she is-red.»

2) Ah bî ci ka ye ba engu la, adu ayia ka ye afü ka ye, giri!
She sang song her like it that, return get-up her turn her (ideophone)

3) Mu Ndölö ma! Ló Ndölö kpah ma! Ndölö bü kpini eta du ye
Buttucks Ndölö none! Leg Ndölö also none! Ndölö only exact across waist her

4) kpa tïkpï, ka ye de mere gö gbü ye, võöö bala!
to upward, hers with big hole in her empty like-that!

5) Tümbere du ewu ngü ne. Tümbere ga, «Atî!
Tümbere return seeing word this. Tümbere say, «(Exclamation) But person

6) te fiti ni, fü ni anü amörü wü kpara ka ni ekötï 'buru ne, ah
who deceive me, then I go kill (pl) person my at-home all this, she

7) nda bane? Nda siti e bane na?» Ndölö adu afü ka ye kpala, adu
(contraexp.) thus? That-of bad thing thus ?» Ndölö return turn hers there return

8) aceka Tümbere, afü ka ye, ari ka ye agbü ngu fi badi.
look-at Tümbere, turn hers enter hers in water forever.

9) Ah koro nda tîne eyi de. Ah adu angbü cükü'daye, adu
She come (contraexp) now (comp) not. She return sit a-little, return

10) akoro. Tümbere adu akpe dela, aza gifî, akpe adoro wü jürü rü pîti pîti
come. Tümbere return run that, take axe, run chop (pl) little tree small small

11) pîti, adu di, andrü era ngu, akpo angbü ewükü Ndölö di, de ni
small, return with-it, pile beside water, begin sit pelt Ndölö with-it, that I

2) Ndölo adu ayia ka ye arí gbü ngu fì badi. Ndölo return get-up hers, enter in water forever

3) Fü Tümbere alügü te ye tïne kpala de gba, tïne edu kpa Then Tümbere return himself now there with cry, now returning to

4) eköfi teka wü kpara ka ye tïne de mere ciinga. Ah du, aï! Mamaguma home because (pl) person his now with big sorrow. He return, (exclamation) His-heart

5) tï de. Fü ah adu ayia dela, anü kpa ka gara komoko de íri ye Nza. fit not. Then he return get-up that, go to other man with name his Sunbird.

6) Engu de mürü yìwa bane. Fü ah anü amaka engu, aï te ngari ngü te emere He is owner oracle thus. Then he go find him, fall at message word which doing

7) ye, amala 'buru fefe na, agü ba, «Angü ni nü maka jaji würüse te ereke him, speak all to-him say «For I go find young woman who is-good

8) fa sii, amba ah ka ye nda esiti. Fü ah afiti ni. Fü ni anü amöro wü much, but she hers contraexp. is-bad. Then she deceive me. Then I go kill (pl)

9) ni ni, de wü wara ni, de wü di ni, wü meme, wü bürü, mother my, with (pl) wife my, with (pl) children my, (pl) goat, (pl) dog,

10) wü e ka ni eköfi, wü ngü nde. Ni ena (pl) thing my at-home, (pl) chicken all. I will

11) amere ne baye fü wü kpara ka ni la adu?» do ? how that (pl) person my that return?»
1) Nza ga, «Ye mala ngü de. Ye ngbü kötö.» Fü Nza
Sunbird say, «You speak word not. You sit down.» Then Sunbird

2) adu ato kpa ye, ale enga teme ka ye di, anü di erumbi rumbi,
return give hand his, like little stone his with-it, go with-it very high

3) kpa tïkpï fa sü, ase kpa ye te enga teme. Fü ewü ali gü te ewü kpala
at up much, leave hand his at little stone. Then they return themselves there

4) ake enga teme 'duwa biringbö, edu adu kpa kötö.
with little stone only one (together), returning return to down.

5) Enga teme te enü mari mari ni ū kötö, fü Nza
Little stone (inceptive) going near near I fall down, then Sunbird

6) ale enga teme, ngbari! Adu angbü kötö, agü ba, «Angü de ye Tümberere,
like little stone, (ideophone) Return sit down, say «For you Tümberere,

7) wü di ye, de ye, wü wara wü e ka ye 'buru, wüh ena adu
(pl) children your, with your, (pl) wife (pl) thing your all, they will return

8) akoro. Ye du edu, de ye de mere wa fa sü, de ye ndrü wa
come. You return return that you cut big fire(wood) a lot that you pile-up fire

9) fa cu sü di. Ye kö wü eyi, de wü wara ye, ye, wü ngü,
very much indeed with-it. You collect (pl) mother-your with (pl) wife your, your, (pl) chicken,

10) wü di wü meme, wü bürü ka ye 'buru, de ye kö ewü bü 'buru gbü wa
(pl) children (pl) goat, (pl) dog all, that you collect them only all in fire

11) la. De wüh curu lamu za alamu, de ye kö mbï ewü la,
that. That they burn burn-to-ash only burn-to-ash, that you collect ash their that,
1) de ye za mere siti fara sila, de ye kö mbü ewü la le 'buru gbügbü, that you take big bad shard pot, that you collect ash their that all all in-it,

2) de ye enü, ye o kpa züka esambü füh e ba e te that you go, you put to good in-house on thing like it which

3) würüse esiri ngütü. De ye ese ngü tökö fefeh, ye ni möngüi gbü nga ewü, de women filter salt. That you fetch water, pour on-it, you close door in track their, that

4) ye koro, ye ngbü ede möngüi. Wü kpara ka ye la ena akoro 'buru.» you come, you sit beside door. (pl) person your that will come all.»

5) Fü Tümbere alügü te ye, adu kpah bala, ade wa, andrü Then Tümbere return himself, return also like-that, cut fire(wood) pile-up

6) wa, akö wü kö wü kpara ka ye la 'buru, de wü kö fire, collect (pl) corpse (pl) person his that all, with (pl) corpse

7) wü e ka ye ka köti nde, abu gbügbü. Fü wü e la acuru (pl) thing his of compound all, throw in-it. Then (pl) thing that burn

8) 'buru. Fü ah akö mbü la le gbü mere fara sila, abī all. Then he collect ash that all in big shard pot, carry

9) anü di, ao areke kpa esambü la, adu aza ngu, atökö gbe füh ewü, ani möngüi, go with-it, put good to in-house that, return take water, pour all on them, close door,

10) akoro angbü edere möngüi. Nganga te eyi'ri mba cükü'daye, ngbü! giri e come sit behind door. It's-track (inceptive) delay only little, sound-of-drips noise it

11) wiü eyi. Tümbere du eü möngüi, erü kpa esambü la. Ah ekoro de, ah maka sound (comp). Tümbere return open door, enter to in-house that. He coming not, he found
1) eyi te tu eyi. Fu ah aza eyi, ao, akoro, adu angbu. Nganga mother-his who dripped (comp). Then he take mother-his, put, come, return sit. It's-tracks

2) eyiri mba ciiki'daye, ngbo! e tu eyi. Fu ah akpe kpa esambu delay only little, sound-of-drips it dripped (comp). Then he run to in-house

3) la, adu amaka wara ye, te tu eyi. Fu ah aza that, return find wife his, which dripped (comp). Then he take

4) wara ye, ao, akpo ekute wu didi, de wu ngu, wu meme, wife his, put, begin at-body (pl) children-his, with (pl) chicken (pl) goat,

5) wu baru. Fu wu e ka Tumbere dela atu akoro 'buru. Fu ewu adu (pl) dog. Then (pl) thing of Tumbere that drip come all. Then they return

6) akoro da wu ekofi. Fu su areke the te Tumbere. Fu Tumbere akoko come place their at-home. Then place is-good now to Tumbere. Then Tumbere shout

7) tadu da ewu wu kpara ka ye, te wu h tu koro eyi le 'buru 'do mini. happiness to see (pl) person his who they dripped came (comp) all all together.

8) E dela ngu ta te emere Tumbere. Gbui fiti ka kpara, te Thing that word (past) which doing Tumbere. In deceit of person, if

9) mui ena anu amaka bu e, fu mui ayia 'duwa, agu ba, «Angui ni le you will go find only thing, then you get-up only, say «For I like

10) amere,» dela ngu te ena asiti da mui, gbui ngbungi ka mui, ah ba to-do,» that word which will spoil place your, in sitting your it like

11) e te emere Tumbere la. Ah dudu, du dela. De ra Imanuele Matigui. thing which do Tumbere that. It ends end that. I Imanuele Matigui.
I will tell you the story of Tümbere and Ndölö. We will keep quiet and listen. One day Tümbere went fishing. When he reached the river he saw a pretty girl in the deep wide water. She was brown with long hair on her head. She was very pretty. When Tümbere, who had come to fish, saw the girl, he forgot all about fishing. Then he said, «You come and shake my hand.» Then the girl began to sing her song. The song says: Ndölö, is Ndölö like this? See how pretty Ndölö is! See how brown Ndölö is!» When Tümbere heard the song, Ndölö really did appear very pretty to him. So he began to run up and down along the bank because of Ndölö. He said, «Today's my lucky day! I want you, you come here and put your good hand in this dirty one of mine.»

«I will not go there. If you want me, come into the water,» said Ndölö. So Tümbere jumped into the water. Jumping in, he fell into the deep water, right up to his neck and he was afraid. So he rushed back to the land. Then he said, «If you please, I want you as a wife for ever.» Then Ndölö said, «If you say you want me as a wife, there is something I must ask you first.»

«Whatever you like,» said Tümbere.

«Have you a wife?»

«I have a wife.»

«What about your mother?»

«My mother is alive.»

«And children?»

«I have children.»

«What about chickens?»

«There are chickens.»

«What about a dog?»

«There is a dog.»

«Goats?»

«Yes, there are goats.»

«Very good,» said Ndölö. «if you want to marry me, you must go, and starting with your mother, kill all of your family, and also the hens, goats and dogs. Then you may come and marry me.»

«Alright,» said Tümbere. Then he ran home. He found all his family, and starting with his wife he killed her, and the children, dogs goats and chickens. He killed them all. Then he took his mother and hid her. Then he hurried back to the woman, who was still in the middle of the wide water. He said,

«Now no-one is left. My house is clean, just right for you. You come here.»

«You are lying, » said Ndölö, «there is somebody left. Your mother is still alive. You have not killed her. Go and kill your mother first; then I will go with you to your house.» So Tümbere rushed back again and killed his mother. He ran back, and found Ndölö in her place in the water.

«Ndölö, I have done everything that you wanted. You come out of the water now, and come home with me.»

Ndölö paused. She said nothing. Then she began to walk backwards, and start her song again:

«Ndölö, is Ndölö like this? See how pretty Ndölö is! See how brown Ndölö is!» Then she turned upside down, but - ! She had no buttocks! There were no legs either! She was only there from the waist up; the rest was one big empty hole!

«Is this the person who has tempted me, for whom I have killed all my family? For a bad creature like this?» Tümbere exclaimed. Then Ndölö turned and looked at him, and disappeared into the water for ever. Then Tümbere ran and got his axe and cut a lot of small sticks. He piled them up by the water and began to throw them at Ndölö to kill her. He threw sticks at Ndölö for a long time, But she didn't die. She had gone into the water for ever. He turned and went home crying, grieving for his family. He got home, but he was not happy. So he went to
see a magician called Nza (Sunbird).

Tümbere told him all that had happened. «I found a pretty girl, but she was evil. She deceived me, so that I killed my wife, mother, children and all the chickens, goats and dogs. What can I do to bring back all these people of mine?» Nza said, «Just wait. You sit down.» Then Nza picked up his stone, and took it high up in the sky, and then let it go. Then they began to come down together. When the stone was coming very near the ground Nza caught it at once. He sat down and said, «Tümbere, you must collect your wife, mother and all your things. You go and cut lots of firewood. When you have made a fire collect your mother, wife, children, chickens, goats and dogs and put them in the fire. Let them burn to ashes. Take their ashes and put them in a broken pot. Go into the house and put the pot on the good thing which women use for filtering salt. Get some water and pour it on. Shut the door behind you and sit beside it. Your people will all drip down.»

Then Tümbere returned as he was told, and cut wood and made a fire. He collected the bodies of his family and animals and put them in the fire. They were burnt up. He took all the ash and put it in a broken pot, putting this inside his house. Then he poured water on the ash, and, shutting the door, he sat beside it. After a while he heard something dripping - «Plop». He opened the door and going in he found his mother, who had dripped down. He brought his mother out. He shut the door again and waited. Only a moment later he heard another plop. He rushed inside and found his wife. Gradually all his children, hens, goats and dogs dropped back. They went back to their proper places, and Tümbere was happy. He shouted for joy to see his family again.

This is what happened to Tümbere. If someone tempts you, or you find something new which seems good to you and you do it, no good will come of it. It will spoil your home. Things will work out for you just as they did for Tümbere.

It ends like that. I am Immanuel Matügü.
Appendix ii
Lion Story
by Toma Bajia

Protagonist: Toma's child, his uncle and two others acting as a group
Antagonist: The lion
Props: The dead buffalo, the fire, the food
Spectators: None
Climax: page 168 line 2-7

Second person pronoun used to indicate change of topic page 167 line 5-7, 8-11, and page 168 line 2

1) Wayi, e dene ngü ka kami te ma emala ne. Kami de siti nü
   Yes, thing this word of lion which I speak this. Lion is bad animal

2) de gü te ye.
   with war at him.

3) Mbarase ka ra yia sene, anü laadï kpa gba akara ye,
   Child my got-up here, go up-to at home aunt (paternal) his

4) kpa gbü Gaba. Fü engu anü akoro kpala.
   at in Gaba. Then he go come there

5) Ah te engbü cükü'daye, fü yoko ye na akoro, te koro
   He (inceptive) sit little, then aunt's husband his come, who came

6) kpa gbü gü da endoro.
   at in grass and walking-about. For man that went found meat,

7) enga gba, te kami zoro, gbeke, nü di o kpa esa bïrï.
   child buffalo, which lion caught dragged, went with-it put at under stream.

8) Badene fü komoko dene akoro amaka. Komoko ga, «Wayi, ni maka so eyi dene.»
   Then then man this come find. Man say, «Yes, I found meat (comp) this.»
1) Fü komoko adu sela, akporo gba dela 'buru 'dọ mini, aji caca
Then man return there, cut-up buffalo that all together, dig hole-for-smoking-meat

2) akọ gba dene ìfẹh, adeke wa esasa. Komoko ta du de woro eyi
collect buffalo this on-it, light fire under-it. Man (past) returned with speed (comp)

3) kpa ekọtő, edu anū aī wū kpara, edu anū agiři mba du zū e
to home, returning to-go call (pl) person, returning to-go seek only remaining food

4) teka ani ngbü eme so dene.
because we sit watching meat this.

5) Komoko la bū ciki kpa ekọtő, kami, mū koro eyi. Fü kami,
Man that only right-there at home, lion you came (comp). Then lion,

6) fū mū adu ayia aza kuku la cu, abī mere ngbüngbü la cu.
then you return get-up take his-thigh that completely, carry big back-his that completely.

7) Mü tafa de e dela eyi anū azū.
You went-off with thing that (comp.) go to-eat.

8) Wū badene, kami, mū kpala, komoko ne, yi du koro eyi.
And then, lion, you there, man this you (pl) returned came (comp)

9) Yi ba wū kpara bala. Fū yi adu akoro. Yi wu ngū de te kami
you (pl) like (pl) person four. Then you (pl) return come. You (pl) see word which lion

10) ne mere ne kpah kpo. Yi ga, «Ako! Kamī dene, mimikini
this do this also completely You (pl) say, «(Exclamation) Lion this, maybe

11) ah nū sü eyi.» Fū ewū adu, de awa kpah so dela, ao gbü wa,
it went away (comp). Then they return, that cut also meat that, put in fire,
1)  
ewuju amere kümü ka wü, azü.  
want to-make food their to-eat.

2)  
Badene, kümü dela, wüh la bül emere amere gbü wa, kami, mü  
Then, food that, they still only doing do in fire, lion you

3)  
du koro kpah eyi. Fü kami adu awu ewü. Kümü dene tïne  
returned came also (comp.) Then lion return see them. Food this now

4)  
te ewü yia emere azü ne, wüh ce kümü ka wü 'duwa gbü wa.  
which they got-up doing to-eat this, they left food theirs only in fire.

5)  
Fü kümü curu acuru. Fü kami amere e de ewü gbü biti la,  
Then food burnt burn. Then lion do thing with them in night that

6)  
afü fïbü kere ewü kere kere kere kere kere kere, rara kötö ma.  
turn still behind them quick quick quick quick quick quick, sleep down none.

7)  
Fü kpï aseke 'duwa me ye.  
Then sky dawn only itself

8)  
Kpï te eseke, kami, mü tïne te eyia aka te mü  
Sky (inceptive) dawning, lion, you now (inceptive) getting-up move yourself

9)  
bala cukü'daye, angbü kpa esa e kpah baka e de kpane de.  
like-that a-little, sit at under thing also like it which there just.

10)  
Fü ewü adu akö bül so dene kere kere kere kere kere,  
Then they return collect only meat this quick quick quick quick,

11)  
rüriü bü de woro, 'duwa go ago.  
sound of meat being stuffed in bag only with speed, only return-home return.
Yes, this is a story about a lion that I am going to tell you. Lions are very bad fierce animals.

A young relative of mine got up from here and went to the house of his paternal aunt at Gaba.

After he had been there a little while his aunt's husband came back from a hunting trip in the bush. He had found meat — a young buffalo which a lion had caught and dragged down to the stream. When the man found it he said to himself, «Aha! I have found some meat!» So he jointed the buffalo. Then he dug a pit, lit a fire in it and placed the buffalo meat over the fire to smoke. Then he hurried home to call some people to help him, and also to get some food for them to eat while they were watching the meat.

While the man was still at home the lion returned. It took the buffalo's thigh and its whole big back and went off with them to eat.

While the lion was still around the men returned. There were four of them. They returned and saw what the lion had done, but they thought it had probably gone away again. So they cut up some of the meat into small pieces and put it on the fire to cook, wanting to make some food to eat.

While the food was still cooking, the lion returned and saw them. That food which they had been cooking to eat, they left it on the fire and it burnt. The lion troubled them a lot during the night by walking round and round them. They did not even lie down. At last dawn came.

When dawn came the lion went off a little way and lay down in the shade, as it might be over there. Then they collected up the meat as quickly as they could and returned home, and so they escaped from the lion.

That is what happened to the young man who went to visit his paternal aunt. That is what the lion did to them in the bush.
Appendix iii
Gbandi's Father and the Frog
by Gbandi Siti-e

Protagonist: Gbandi's father
Antagonist: Bazükümba
Props: Cooked fish, wooden dish, Gbandi's mother, etc.
Spectators: None
Climax: page 171 lines 8-9

Second person pronoun used to indicate change of topic page 170 line 5, page 171 line 1-4
Second person pronoun used for short imbedded expository discourse page 171 line 6

1) Ngü engu ne, ngü ka wüba, ka Siti-e. Ah ngbü emala
   Word he this, word of my-father, of Siti-e. He sit telling

2) fere me ye.
   to-me himself

3) Gbü sü ka wü Makaraka tane, fü wüba ayia eyi, anü
   In place of (pl) Zande (past), then my-father get-up (comp), go

4) agba Bazükümba, agbü barondo.
   to-home Bazükümba, in court.

5) Fü Bazükümba, fü mü ato kiimiü de angbe gada. Angbe
   Then Bazükümba, then you give food with great dish. Great

6) cögbörö arombo de īrī wü tritrütrü, de angbe lō wü, fü ewü amörö
   enormous frog with name their (type-of-frog) with great leg their, then they kill

7) arombo ne 'buru, ao gbü mere dukü, atökö mü fefeh, aza si, ao 'buru
   frog this all, put in big cooking pot, pour oil on-it, take fish, put all

8) fefeh na, ato kiimü ne, akoro di, ao enga gira wüba.
   on-it give food this, come with-it, put in-front-of my-father.
1) Bazükümbe, fü mü areke te mü, angbü kötö bane. Wüba, fü mü Bazükümbe, then you prepare yourself, sit down thus. My-father, then you

2) azü si ne firi. Mü zü si nza tine eyi. Mü füne te ega, eat fish this for-awhile. You ate fish finish now (comp). You now (inceptive), say,

3) «Ni za e bane,» mü bì 'duwa mere siti trîtrîrî, koro di esaka mü. «I take thing thus,» you carry only big bad (type-of-frog), come with-it in-your-hand.

4) Mü te eceka kpi, Bazükümbe gü ba dene, «De ye, Siti-e, ye ceka ne ne ene? You (inceptive) looking view, Bazükümbe say this, «You, Siti-e, you look this what?

5) Ye zü aroombo azü.» Angü wüh ce aroombo gbü sü kaka, gbü sü ka You eat frog eat.» For they leave frog in place his, in place of

6) Bazükümbe, wüh ce nda wü mafì. Te mü ce eyi, fü ewü amörö mü asidi. Bazükümbe, they leave (contraexpect) not. If you leave (comp), then they kill you away.

7) «Ye zü ezü. Ye kpi kamane mafì.» «You eat eat. You die also not.»

8) Wüba mala ngü de ka cürü ka kpi, Wüba adu areke te ye, My-father speak word not of fear of death. My-father return prepare himself,

9) azü aroombo de girì ye coro coro coro coro coro, azüfà aroombo 'buru, aza ngu anzö. eat frog with noise it's sound of eating dry meat, eat-all frog all, take water drink.

10) Fü wüba aliügü te ye, ago akoro kpa ekötï, amala ngü Then my-father return himself return come to at-home, speak word

11) fü wïna. ïrí wïna de Madina. «Madina, ngü mere ra eyi. to my-mother. Name my-mother is Madina. «Madina, word did me (comp).
This is a story about my father, Siti-e, which he told me himself.

During the time when the Zandes ruled here, one day my father got up and went to the house of Bazukumba, to the court.

Then Bazukumba caused food to be brought in a great dish. There is a type of enormous great frog called a tritritri which has great long legs. They had killed some of these frogs and put them in the cooking pot and cooked them with oil and fish. So they brought this stew and set it in front of my father.

Then Bazukumba got ready and sat down like this. Then my father sat and ate the fish for a while. He ate all the fish and then he put his hand into the dish to get another piece of fish and took out - a great big tritritri! He was sitting looking at it when Bazukumba said, «you, Siti-e, what are you looking at? Eat up that frog!» Because at Bazukumba's one did not refuse to eat frogs. If you refused then they would kill you. «Eat up that frog and you won't die!»
My father did not say anything because he was afraid to die. So he braced himself and ate the frog. Crunch, crunch, crunch, he ate it all up. Then he took a drink of water.

Then my father returned home and said to my mother — by the way, my mother's name was Madina — he said to her, «Oh Madina, a terrible thing happened. When I went to Bazukumba's, to the chief's, they brought food and there was a frog cooked with it. Now I have eaten a frog!» After that my father used to eat frogs all the time.

That is the sort of thing the Zandes used to do, defiling people! My father ate all that frog and he did not vomit.

That is what happened long ago, in the old days. My father told me about it, saying, «When I am gone you tell it to the next generation.»
Appendix iv
The Hemp Smokers
by Charles Ma-mere-ne Toma

Protagonist: Ngondima
Antagonist: Kümba
Props: Hemp, Ngondima's wife, tree they sit under etc.
Spectators: page 176 line 9 to page 177 line
Climax: page 176 lines 4-8

Second person pronoun used to indicate change of topic page 174 line 7 & 8

1) Wü komoko ta ladü, de ñri wü Ngondima ake Kümba.
   (pl) man (past) there-is, with name their Ngondima with Kümba.

2) Wüh ta de wü kpara te ewü ela bangï efa sü
   They (past) are (pl) person who they smoke hemp a lot.

3) Gbü gara ra fü Kümba amala fü Ngondima, ga, «Ye koro kpa ka
   In other day then Kümba speak to Ngondima, say, «You come to

4) ni ba ra egambi, de ani nü ala bangï ka ani.» Ngondima ga, «Züka
   me like day tomorrow, that we go smoke hemp ours.» Ngondima say, «Good

5) ngü. Ma ena akoro egambi etokokpï, fü ani anü amere e la, amere
   word. I will come tomorrow early-morning, then we go do it that, do

6) te ani de bangï. Züka ta'ba de engu ka tima.
   ourselves with hemp. Good tobacco is he of work.

7) Ngondima, fü mü ayia adu agba mü, angbü g bü biti la, ra
   Ngondima, then you get-up return to-home your, sit in night that, sleep

8) nda ma g bü jia mü, da efï nga bangï te ewü ena ala
   (contraexp.) none in eye your, and thinking about hemp which they will smoke
Dorothea Jeffrey

Third Person Identification and Reference in Mündu Narrative

1) te kpï seke eyi la. when sky dawn (comp) that.

2) Gügü emezïkpï Ngondima ayia efïkpï. Fü ah aï wara Early morning Ngondima get-up up. Then he call wife

3) ye, adu amala fefe na, gü ba dene, «Ni yia eyi, eja anü his, return speak to-her say this, «I got-up (comp) wanting to-go

4) agïrï ku kambü ka ani.» Wara ka ga, «Ye ci seek bark-rope house our.» Wife his say, «You wait

5) nga ra te ena akoro feke.» Ga, «Tima ka ni de ra nda ma. for sun which will come first.» Say, «Work my with sun (contraexpectation) none.

6) Kümba dene eyi ecï nga ni.» Kümba this (comp.) waiting for me.»

7) Fü Ngondima ayia aza dïrï ka ye bete jûra. Fü ah Then Ngondima get-up take bow his with bag. Then he

8) anü akoro amaka Kümba, adu amala, ga, «Ma fï nda ra, ga, mü tafa go come find Kümba, return speak, say, «I think for-my-part, say, you gone-off

9) ka mü dene nda mü Eyi.» Kümba ga, «Ma tï anü ace mü ao de. yours this for-your-part (comp).» Kümba say, «I can go leave you put not.

10) Mü de zïka awuba ka ra 'duwa ba ne la.» You are good friend my very much.»

11) Fü ewï ayia anü, anü akoro esa gara mere rü, adu amala, Then they get-up go, go come under other big tree, return speak,
1) ga, «Nih Ngbü esa züka gu rü ne, nih la te nih.» Fü ewü angbü kötö, say, «We sit under good cool tree this, we smoke ourselves.» Then they sit down,

2) akpo ela bangï teka saa bala, gara e te ewü ena amere eyi ma. begin smoking hemp for hour four, other thing which they will do (comp) none.

3) Fü bangï azoro ewü ’basu mini, agbo kötö. Fü ewü akpo era ’duwa ba ne la. Then hemp catch them two together throw down. Then they begin sleeping very much. (both)

4) Fü Ngondima ayia azükü, amaka Kümba da era ara. Fü ah Then Ngondima get-up awake, Find Kümba and sleeping sleep. Then he

5) adu aza aguruma gbü kombo ka ye, ayia azoro nzö Kümba gö! ayia awa return take knife in bag his, get-up catch head Kümba tight! get-up cut

6) ngüngürü, aza nzönzö, awo esa e. Ah du emala, ga, «Ma wo nzönzö neck-his, take head-his hide under thing. He returned speak, say «I hid his-head

7) eyi. Ah zükü, ah maka nzö ye? Anga engu ena awu süsü na ya?» Ah du (comp). He wake he find head his? Or he will know its-place ?» He returned

8) engbü sela ede kó kiri ye ne ma, kiri ye zükü de. sit there beside corpse friend his this for-a-long-time-in-vain. friend his wake not.

9) Wü kpara akoro amaka Ngondima, ga, «Mü ngbü sene, emere ne ene?» (pl) people come find Ngondima, say, «You sit here, do what?»

10) Ngondima ga, «Ni ngbü ecï nga Kümba te era ara ne. Ni za nzönzö Ngondima say, «I sit wait for Kümba who sleeping sleep this. I took his-head

11) kpah, wo eyi. Te ah zükü, ah maka nzö ye? Anga ah ena awu süsü na also, hid (comp) When he wake, he find head his? Or he will know itsplace
Once there were two men called Ngondima and Kümba. They used to smoke a lot of hemp.

One day Kümba said to Ngondima, «Come to my place tomorrow and we will go and smoke some hemp.» Ngondima said, «Good. I will come tomorrow first thing, and we will go and do that, go and get high on hemp. That's a kind of tobacco that has a very good effect!»

Then Ngondima went home, but that night he could not sleep for thinking about the hemp that they were going to smoke next morning.

Early in the morning Ngondima got up and called his wife and said to her, «I'm off to get some bark to make rope for our house.» His wife said, «Wait until the sun rises at least.» He said, «It has nothing to do with the sun. Kümba will be waiting for me.»

The Ngondima got up and took his bow and his bag and went and met Kümba. He said to him, «Oh, I was afraid you would have gone.» Kümba said, «I couldn't go and leave you, you are my best friend.»

Then they went on until they came to a great big tree. Then they said, «Let's sit down in the shade of this nice cool tree and smoke.» Then they sat down and began to smoke hemp. They smoked for about four hours — they had nothing else to do. Then the hemp overcame them so that they fell down and slept for a long time.

At last Ngondima woke up and saw that Kümba was still sleeping. So he took his knife from his bag, took a firm grip on Kümba's head and cut it off. Then he took the head and hid it under something. He said, «Now I have hidden his head. When he wakes up, will he be able to find it? Will he know where I have put it?» So he sat down by the body of his friend. He waited for a long time, but his friend did not wake up.

Some people came and found Ngondima and said to him, «What are you doing here?» Ngondima said, «I am waiting for Kümba here to wake up. I've taken his head and hidden it, and I'm wondering if he'll be able to find it when he wakes up, or if he'll know where it is.» The people said, «Have you killed your friend?» He said, «Oh no! I haven't killed him. I'm just playing a trick on him, to see if he can find his head when he wakes up.» It was hemp that caused him to do that. He did not realise that he had done anything wrong. When he recovered from the influence of the hemp, then he realised what a terrible thing he had done.
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