

## PERSONAL PRONOUNS IN BUA LANGUAGES

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**Abstract:** Bua languages in general are poorly documented and many aspects of their morphosyntax are still undescribed. The purpose of this paper is to outline a state of the art concerning the structure and operation of the personal pronoun systems. Largely based on unpublished or restricted documentation, it systematically reviews the systems of eight languages, commenting on both the identity of persons and the types of functional paradigms. Despite numerous shortcomings and uncertainties, interesting observations can be made concerning the 1<sup>st</sup> person plural ‘exclusive’/‘inclusive’ contrast, the logophoric pronouns, the tonal polarity of Subject and Object pronouns, and different types of personal possessive constructions.

**Key words:** personal pronouns, 1<sup>st</sup> pl. exclusive/inclusive, logophoric, reflexive, same referent, tonal polarity, possessive construction, Bua languages, Adamawa languages

### 1. Introduction

The Bua languages are spoken by small communities living in southern Chad. They comprise some 13 units, some of which are now extinct but known through limited wordlists collected in the 1970s. Further details — and a map — concerning this language group may be found in this volume (Boyeldieu, Kastenholz, Kleinewillinghöfer & Lionnet 2020).<sup>1</sup>

The aim of the present paper is to provide insight into the forms, organization, and behaviour of the personal pronouns of the Bua

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<sup>1</sup> For a more extensive presentation, see also Boyeldieu, Kastenholz, Kleinewillinghöfer & Lionnet 2018 (henceforth BKKL 2018).

languages. However, the uneven nature — in both quantity and quality — of the sources available will make the goal necessarily modest: not all languages are documented for our purpose and the transcription of some data happens to be rather approximate (as a general rule I am following the orthographic choices made by the authors).

Out of the 13 units below, only the eight languages in bold will be considered here (endonyms are in italics; extinct languages are indicated in square brackets):

- **Lua** or Nielim, Niellim
- [*Cini*]
- **Tun** or Tunya, Tounia
- [*Perim*]
- [*Lɔɔ* or Noy]
- **Ba** or Bua, Boua
- *Kawãwãy* or *Korom* (?)
- **Kulaal** or Iro Gula, Goula d'Iro
- **Kulaale** or *Eyle*, Fanya, Fanian
- **Zan Gula**, Goula de Zan (*Mɔrɛ*)
- **Bon Gula**, Goula de Bon (*Eeni*)
- **Bolgo** (including *Terɛw*, *Bolgo*, *Bormo*)
- Koke

Personal systems will be presented and commented for each language before offering a short comparative overview in a concluding section.

Despite the above-mentioned limits of the documentation, the presentation and comparison of the systems prove to be useful, specifically with regards to the following most salient features:

1. Identity of persons:
  - Inclusive/exclusive contrast for 1<sup>st</sup> person plural
  - Reflexive and/or Logophoric
2. Paradigms:
  - Subject/Object as main contrast
  - Tonal polarity of Subject/Object
  - Possessive constructions

It should be mentioned here, once and for all in this paper, that no language shows gender distinction in personal pronouns. In particular, 3<sup>rd</sup> pers. sg. always has the full value of ‘he/she/(it), him/her/(it), or his/her/(its)’, even if the two (three) complementary meanings are not expressly mentioned in any given example.

## 2. Lua

Sources: (Boyeldieu 1985: 406–407, 409–413; unpubl. documentation; Testut 1978: 1–12; Vanderkooi 2000<sup>2</sup>).

Table 1

Lua personal pronouns<sup>3</sup>

	Emphatic	Subject	Object, preposition- governed, possessive	Self
1S	<i>ɲiñ</i>	<i>ñ</i>	<i>ñ</i>	<i>mǎñ</i>
2S	<i>ɲiñ</i>	<i>ñ</i>	<i>ñ</i>	<i>mǎm</i>
3S	<i>ɲír</i>	<i>í</i>	<i>í</i>	<i>mǎr</i> (animate) <i>màr</i> ~ <i>mày</i> ~ <i>mànì</i> (inanim.)
LOGS	<i>ɲiř</i>	<i>ř</i>	<i>ř</i>	<i>mār</i> ( <i>mār</i> ?)
1PE	<i>ɲiñíí</i>	<i>í</i>	<i>í</i>	<i>mǎy</i>
1PI	<i>ɲiĩ</i>	<i>ĩ</i>	<i>ĩ</i>	<i>mày</i>
2P	<i>ɲíí</i>	<i>í</i>	<i>í</i>	<i>mǎy</i>
3P	<i>ɲáá</i>	<i>á</i>	<i>á</i>	<i>mǎ</i> ~ <i>máná</i> (anim. & inanim.)
LOGP	<i>ɲàà</i> <sup>3</sup>	<i>à</i>	<i>à</i>	?

<sup>2</sup> Despite its appealing title “Cohesion and Saliency in Niellim Narrative: A look at discourse particles and participant reference”, this MA thesis is of little use for our purpose given the fact that tones are usually not marked and the Logophoric forms are overlooked.

<sup>3</sup> The form is adapted from Testut *nyà* ‘Réfléchi pluriel’ (1978/3: 9) for which I postulate a long vowel by comparison with 3P.EMPH *ɲáá*.

## 2.1. Persons

In general, the 3<sup>rd</sup> person pronouns (sg. or pl.) may refer to animates as well as to inanimate entities.

Lua has a contrast of ‘exclusive/inclusive’ 1<sup>st</sup> pers. pl. pronouns (1PE/1PI).

Logophoric pronouns are attested for both sg. and pl.<sup>4</sup> Note that, in all paradigms, LOGS and LOGP differ from the corresponding 3<sup>rd</sup> pers. pronouns by tone only.

As illustrated in (1), the Logophoric pronouns may refer to the reported speaker(s) within the sequence of reported speech:

- (1) [...] *málīm*    *ń*    *jàà*    [...] *dájī*    *páā*    *jág*    *tā*  
           marabout    DET    say.IND            leg=time    some    different    then  
*ṛ*            *bā*    *hínā*    *à*            *bā*    *jāā*    *pāār*    *ēē*  
 LOGS.SBJ    FUT    come.VN    LOGP.SBJ    FUT    word    tell.VN    eh!

*páy*    *kāy*  
 INTERR    what?

a. ‘... the marabout said [...], another time **he** would come [and] **they** would talk, isn’t it?’

b. ‘... the marabout said [...]: “another time, **I** will come [and] **we** will talk, isn’t it?”’ (Text: I, 63-64)

Both translations as indirect (a.) or direct (b.) speech are equally well-founded but the latter is usually more comfortable when a reference to the co-reported speaker is mentioned within the reported speech. Indeed this co-reported speaker is normally referred to, in Lua, not by a 3<sup>rd</sup> pers. pronoun, as is more often the case, but by a 2<sup>nd</sup> pers. pronoun, a situation that makes the logophoric discourse closer to a direct speech (in English terms).<sup>5</sup> This principle is illustrated in (2):

<sup>4</sup> The logophoric plural forms were unfortunately ignored in Boyeldieu (1985: 406–407).

<sup>5</sup> About different types of reported speech and configurations of personal reference in reported speech in some African languages, see (von Roncador 1988: 289–293; Boyeldieu 2013: 27–34).

- (2) [...] *lē mál nè jìr̄ kāy gè á ?ùrà*  
 and price REL LOGS.EMPH put.IND to 3P.PG PASS.IND  
*á sùl ní á dùgà ná pàý jìm̄*  
 3P.OBJ head COORD 3P.SBJ go\_back.IND SUSP INTERR 2S.EMPH  
*m̄ liām ò bágá càw̄ m̄ ā*  
 2S.SBJ match.IND LOGS.POSS child marry.VN DET INTERR

[The chief is speaking to a young man who wants to marry his daughter.]

‘[The chief said: “...] and the price that **I** set for them [i.e. the former suitors] went beyond them (lit. passed their head) and they went back, and **you, you** are able to marry **my** daughter?’” (Text: 413-25)

Logophorics, however, are not limited to the context of reported speech but, as in (3)–(4), they may also function as reflexive — or ‘same referent’ — possessives in the frame of one and the same clause.<sup>6</sup> The term *logophoric* then has to be taken here in a wide sense.<sup>7</sup>

- (3) *í tī í ləg ò sùl dān*  
 3S.SBJ stay.IND 3S.SBJ look\_at.IND LOGS.POSS head middle  
 ‘**He** stayed (and) thought about (lit. looked at **his own** head’s middle).’ (Text: 409-10)
- (4) *á wò bīr̄ tī à dān ?ín [...]*  
 3P.SBJ PROG ask at LOGP.POSS middle thus  
 ‘**They** were asking among **themselves** (lit. in the middle of themselves) thus...’ (Text: II, 5)

<sup>6</sup> Lua therefore proves to be a “mixed logophoric language” — as opposed to a “pure logophoric language” — in the sense of Culy (1994: 1056).

<sup>7</sup> If the principle of coreference undoubtedly works in such examples of spontaneous speech as (3) and (4), it is often not observed in elicited sentences where a ‘same referent’ interpretation is, however, indisputable, e.g. *í dīi í jí* (not ... *ò jí*) {3S.SBJ / open\_wide.IND / 3S.POSS / eye} (not {... / LOGS.POSS / eye}) ‘S/he is opening **her/his (own)** eyes wide.’

## 2.2. Paradigms

Lua has a limited contrast between subject pronouns and pronouns that function as object, preposition-governed adjuncts, and possessive. The two paradigms are identical except for 1s and 2s that have opposite tones (Low for subject *vs.* High for object-possessive).

### 2.2.1. Subject

As in (5), subject pronouns are preposed to the verb (tonally marked as either indicative or injunctive) or, in case of complex forms, to one of the three aspect markers *wò* ‘Progressive’, *bā* ‘Future’, or *ká* ‘Obligative’ (Boyeldieu 1985: 353–355).

- (5) a. *ř*            *sì*  
           **3s.SBJ**    **go.IND**  
           ‘S/he goes.’
- b. *ř*            *sĩ*  
           **3s.SBJ**    **go.INJ**  
           ‘S/he should go, s/he has to go.’
- c. *ř*            *wò*            *sā́ál*  
           **3s.SBJ**    **PROG**        **go.VN**  
           ‘S/he is going.’

### 2.2.2. Object

Object pronouns are postposed to the verb as in (6)–(7), but they precede the verbal noun form in case of complex verbal forms (8). Note that in (7), both objects, directly postposed to *kà* ‘make’ and *nā* ‘give’, do not refer to a patient, but to a benefactive.

- (6) — [...] *ná*    *níí*            *măy*    *lāg*            *jāā*    *nèn*    *nā*  
                   then 2P.EMPH 2P.SELF look\_at.INJ word DEM INTERR
- báá*    *păy*            *nĩr*            *nā*    *jāā*    *dúnā*  
   child INTERR LOGS.EMPH with word life[Ar.]

*löl ā*

NEG INTERR

— *bā ʔāā bā bāá ʔàrà m̄ mē pàý kây*

QUOT yes QUOT child exceed.IND 2s.OBJ but[Fr.] INTERR what?  
[the chief is speaking to his people, commenting on the wisdom of the young suitor]

‘— [The chief said: “...] then, you (pl.), yourselves, look at these words! didn’t the child defeat **me** with his words of wisdom [lit. of life]?’

— [the people said:] yes! the child defeated **you**, didn’t he?’” (Text: 419-54/55)

(7) *bāá t̄bā tī ʔiūl s̄i s̄i tén w̄àŋ kà*  
child fall.IND at way go.IND go.IND find.IND chief make.IND

*ř lápyā á nā ř ndúū ní*  
3s.OBJ greeting[Ar.] 3p.SBJ give.IND 3s.OBJ water COORD

*ř jì*

3s.SBJ drink.IND

‘The child took the road, he went, he went, he found the chief and greeted **him** [lit. made greetings (to) **him**].

They gave **him** water and he drank.’ (Text: 411-16/17)

(8) [...] *wò nè t̄ā bā m̄ ʔān ní [...]*  
person REL then FUT 2s.OBJ escort.VN COORD

*tèní [...]*

not\_be.IND

‘[...] there is nobody [...] who will escort **you** [...].’ (Text: 413-33)

### 2.2.3. Preposition-governed

As for preposition-governed pronouns, they follow the preposition they are governed by as shown in (9):

(9) *á dō ḡi ř kuàl ní ř tī*  
3p.SBJ throw.IND to 3s.PG mat COORD 3s.SBJ stay.IND

‘They gave **him** a mat and he had a rest.’ (Text: 411-18)

## 2.2.4. Possessive

Possessive pronouns precede the head noun. As illustrated in (10), this is the only possible construction with a personal modifier (there are more if the modifier is a noun). In particular Lua does not make any distinction corresponding to the so-called ‘alienable/ inalienable’ contrast.

- |                  |            |                |            |
|------------------|------------|----------------|------------|
| (10) a. <b>ń</b> | <i>líi</i> | b. <b>ń</b>    | <i>lāg</i> |
| 1s.POSS          | house      | 1s.POSS        | house.PL   |
| ‘my house’       |            | ‘my houses’    |            |
| c. <b>á</b>      | <i>líi</i> | d. <b>á</b>    | <i>lāg</i> |
| 3p.POSS          | house      | 3p.POSS        | house.PL   |
| ‘their house’    |            | ‘their houses’ |            |
| e. <b>ń</b>      | <i>súl</i> | f. <b>á</b>    | <i>súl</i> |
| 1s.POSS          | head       | 3p.POSS        | head       |
| ‘my head’        |            | ‘their head’   |            |

## 2.2.5. Emphatic

In comparison with the preceding paradigms, Emphatic pronouns formally result from the prefixation of an irregular sequence *ɲ-*. Although the choice of these ‘heavy’ or ‘long’ forms is not always clear, they obviously may function as topic, as in (2) *ɲìñ* {2s.EMPH} ‘you!’. But sometimes also, the emphatic nature of the pronoun seems to make it the preferred form for a logophoric: see for instance *ɲìñ* {LOGS.EMPH} instead of a simple subject form in (2), or instead of a simple object form in (6).

## 2.2.6. Self

This last paradigm is not well known. The self pronouns, normally preceded by an emphatic pronoun (e.g. *ɲír mār* ‘s/he him/herself’) or by a noun (*lāg mǎ ~ lāg màná* ‘the houses themselves’) are chiefly made up of pronouns similar to the object, preposition-governed and possessive ones but preceded by an element *mǎ-* that is unidentified. Yet this principle does not explain all forms, especially the 3<sup>rd</sup> person pronouns, some of which may refer specifically to inanimate objects.



### 3. Tun

Sources: (Palayer 1975), [L2 document] (unpubl.).

Table 2

#### Tun personal pronouns

	Subject (Perfective)	Subject (Intentional)?	Object	Possessive
1S	<i>nē, nā, (nā́, ná)</i>	<i>nà</i>	<i>nè</i>	<i>nè</i>
2S	<i>mā, (mā́, má)</i>	?	<i>mò</i>	<i>mà</i>
3S	<i>ì</i>	?	<i>dō</i>	<i>dā</i>
1PE	<i>bā, (bā́, bá)</i>	?	<i>bù</i>	<i>bà</i>
1PI	<i>jì</i>	?	<i>jì</i>	<i>jì</i>
2P	<i>ī</i>	?	<i>ì</i>	<i>ì</i>
3P	<i>mà</i>	?	<i>ē</i>	<i>ē</i>

#### 3.1. Persons

Tun has an ‘exclusive/inclusive’ contrast for the 1<sup>st</sup> pers. pl. forms.

No logophoric has been recorded but the existence of such a pronoun cannot be excluded since the data are limited and no text is available.

#### 3.2. Paradigms

The subject (intentional) paradigm is uncertain.

Object and Possessive should probably be considered only one paradigm. They only display some vocalic variants (*o/ə* for 2s-3s and *u/ə* for 1PE) that are probably explained by their position regarding the governing lexical unit — following the verb (object) but preceding the noun (possessive) — and a difference of resulting syllable stress.

If we except 1PI and 3P, all the other persons show a tonal contrast of Mid tone for Subject — at least Perfective — vs. Low tone for Object / Possessive.<sup>8</sup>

<sup>8</sup> It should be noted that basically no High tone appears in the Tun personal pronouns, a possible clue for a former two-tone system (see converging data in BKKL 2018: 100)

Examples (11) to (13) illustrate the position of subject (Perfective), object, and possessive pronouns respectively. As in Lua, there is only one construction for what could be, elsewhere, ‘alienable’ and ‘inalienable possession’.

- (11) a. ***ɲē***      *tūú*  
           **1s.SBJ**    eat.PF  
           ‘I have eaten.’
- b. ***m̀̀***      *tūú*  
           **3P.SBJ**    eat.PF  
           ‘They have eaten.’
- (12) a. *ì*      *sōy*      ***ɲè***  
           3s.SBJ    hit.PF      **1s.OBJ**  
           ‘S/he has hit **me**.’
- b. *ì*      *sōy*      ***ē***  
           3s.SBJ    hit.PF      **3P.OBJ**  
           ‘S/he has hit **them**.’
- c. *ì*      *dōō*      ***ɲè***  
           3s.SBJ    touch.PF **1s.OBJ**  
           ‘S/he has touched **me**.’
- d. *ì*      *dōō*      ***ē***  
           3s.SBJ    touch.PF **3P.OBJ**  
           ‘S/he has touched **them**.’
- (13) a. ***ɲè***      *sáy*  
           **1s.POSS**    house  
           ‘**my** house’
- b. ***ē***      *sáy*  
           **3P.POSS**    house  
           ‘**their** house’
- c. ***ɲè***      *sī*  
           **1s.POSS**    head  
           ‘**my** head’
- d. ***ē***      *sī*  
           **3P.POSS**    head  
           ‘**their** head’

#### 4. Ba

Sources: (Boyeldieu, pers. doc.; Lionnet, pers. doc.).

Table 3

#### Ba personal pronouns

	Independent	Subject	Object	Possessive
1s	<i>bĩ</i>	<i>è</i>	<i>é</i>	<i>é</i>
2s	<i>bím, bòm</i>	<i>m̀̀</i>	<i>m̀̀</i>	<i>m̀̀</i>
3s	<i>bīrā (bīrā?)</i>	<i>ā, arā</i>	<i>ā, rā</i>	<i>ā, rā, arā</i>
LOGS	<i>bì</i>	<i>bì</i>	<i>(ì, bì?)</i>	<i>ì, bì</i>
1p	<i>bòw</i>	<i>ù (ò?)</i>	<i>ú (ó?)</i>	<i>ú (ó?)</i>
2p	<i>béy</i>	<i>ì (è?)</i>	<i>í (é?)</i>	<i>í (é?)</i>
3p	<i>bèbé</i>	<i>bé</i>	<i>bé</i>	<i>bé</i>
LOGP	<i>bòw</i>	<i>bòw</i>	<i>(ù, bòw?)</i>	<i>ù, bòw</i>

### 4.1. Persons

According to both sources, there seems to be no ‘exclusive/inclusive’ contrast in the 1<sup>st</sup> pers. pl.

Singular and plural logophoric pronouns are present in all paradigms. As in Lua, they operate within the reported speech (14a–b) but also, like reflexive pronouns, within one and the same clause (15a–b):

- (14) a. *ā*      *līgā*      *bā*      *ā*      *là*      *wūn*  
 3S.SBJ    say.IND    QUOT    3s.SBJ    see.IND    thing  
 ‘S/he<sub>i</sub> said that s/he<sub>j</sub> saw something.’
- b. *ā*      *līgā*      *bā*      *ḃì*      *là*      *wūn*  
 3S.SBJ    say.IND    QUOT    LOGS.SBJ    see.IND    thing  
 ‘S/he<sub>i</sub> said that s/he<sub>i</sub> saw something.’
- (15) a. *ā*      *sòw*      *ā*      *sìlì*  
 3S.SBJ    catch.IND    3s.POSS    head  
 ‘S/he<sub>i</sub> took his/her<sub>j</sub> head.’
- b. *ā*      *sòw*      *ì (~ ḃì)*      *sìlì*  
 3S.SBJ    catch.IND    LOGS.POSS    head  
 ‘S/he<sub>i</sub> took his/her<sub>i</sub> head.’

### 4.2. Paradigms

Ba has four paradigms of personal pronouns — Independent, Subject, Object, and Possessive — but the last two would probably show as one paradigm with the help of more complete data. Variations between the vowels *u~o* (1P) and *i~e* (2P) reflect inconsistency between sources (Boyeldieu ~ Lionnet).

Here again there is a tonal contrast of Low tone for Subject vs High tone for Object/Possessive in 1s, 2s, 1p, and 2p.

Let us now briefly comment on and illustrate the behaviour of these different paradigms.

#### 4.2.1. Independent

The independent pronouns formally result from the prefixation of a *ḃV-* type sequence to the forms displayed in the other paradigms. The main

function that has been noted is as topic. Example (16) illustrates this use with cases of topicalization of a subject pronoun that may be doubled (or not), at least in the case of 1S.SBJ and 3P.SBJ.

- (16) a. **ǃĩ** (è) là b. **ǃèǃé** (ǃé) là  
 1S.INDP 1S.SBJ see.IND 3P.INDP 3P.SBJ see.IND  
 ‘**Me**, (I) saw.’ ‘**They**, (they) saw.’  
 c. ... **ǃā** **ǃòw** là  
 QUOT LOGP.INDP see.IND  
 ‘... (say) that **themselves** saw.’

#### 4.2.2. Subject

The Subject pronoun precedes the verb.

- (17) a. **è** là(g) wūn b. **ǃé** là(g) wūn  
 1S.SBJ see.IND thing 3P.SBJ see.IND thing  
 ‘**I** saw something.’ ‘**They** saw something.’  
 c. ... **ǃā** **ǃòw** là(g) wūn  
 QUOT LOGP.SBJ /see.IND thing  
 ‘... (say) that **themselves** saw something.’

#### 4.2.3. Object

The Object pronoun follows the verb (examples with a logophoric object have not been checked as such):

- (18) a. **ā** làg é b. **ā** làg **ǃé**  
 3S.SBJ see.IND 1S.OBJ 3S.SBJ see.IND 3P.OBJ  
 ‘S/he saw **me**.’ ‘S/he saw **them**.’  
 c. ... **ǃā** **ā** làg **ù**  
 QUOT 3S.SBJ see.IND LOGP.OBJ  
 ‘... (say) that s/he saw **themselves**.’  
 d. **ā** **nē** é e. **ā** **nē** **ǃé**  
 3S.SBJ chase.IND 1S.OBJ 3S.SBJ chase.IND 3P.OBJ  
 ‘S/he chased **me**.’ ‘S/he chased **them**.’  
 f. ... **ǃā** **ā** **nē** **ù**  
 QUOT 3S.SBJ chase.IND LOGP.OBJ  
 ‘... (say) that s/he chased **themselves**.’

## 4.2.4. Possessive

The Possessive pronoun precedes the head noun. This is the only pattern and Ba does not make any contrast of an ‘alienable/inalienable’ relation.

- (19) a. *é* *mīn*                      b. *ḃé* *mīn*  
 1s.POSS thing.PL                      3p.POSS thing.PL  
 ‘my things’                              ‘their things’
- c. *ù* *mīn*                      ~ *ḃòw* *mīn*  
 LOGP.POSS thing.PL                      LOGP.POSS thing.PL  
 ‘their own things’
- d. *é* *sìlì*                              e. *ḃé* *sìlì*  
 1s.POSS head                              3p.POSS head  
 ‘my head’                              ‘their head’
- f. *ù* *sìlì*                              ~ *ḃòw* *sìlì*  
 LOGP.POSS head                              LOGP.POSS head  
 ‘their own head’

## 5. Kulaal

Sources: (Pairault 1966; 1969; unpubl. documentation).

Table 4

Kulaal personal pronouns (incomplete, labels mine)

	Independent	Subject	Object	Preposed possessive	Postposed possessive	Self	Focalized
1s	?	<i>ñó, n-</i>	<i>ñò</i>	<i>ñò, (n?)</i>	<i>ñò-n</i>	<i>ñòmmé</i>	<i>ñsò,</i> <i>ñsààsò,</i> <i>ñsòmòsò</i>
2s	?	<i>mó, m-</i>	<i>mò</i>	<i>mò</i>	<i>mò-n</i>	<i>mòmmé</i>	<i>mòsò</i>
3s	<i>ḃké, ḃkéri,</i> <i>ḃkéti</i>	<i>á</i>	<i>è, nè</i>	<i>à</i>	<i>pè(è)</i>	?	<i>ñsò,</i> <i>ñsòmòsò</i>
LOGS	<i>ḃḃkeri</i>	<i>én</i>	<i>èn</i>	?	<i>ènn-è</i>		?
1PE	<i>pómḃèri,</i> <i>pómḃèyùòri</i>	<i>pó</i>		?	<i>pìn</i>	<i>pómè</i>	?
1PI	<i>émḃèri,</i> <i>émḃèyùòri</i>	<i>én</i>	<i>èn</i>	?	<i>èn (*ènn-è)</i>	?	?

End of Table 4

	Independent	Subject	Object	Preposed possessive	Postposed possessive	Self	Focalized
1 <sub>PI</sub>	<i>émchèrì,</i> <i>émchèyùòrì</i>	<i>én</i>	<i>èn</i>	?	<i>èn (*ènn-è)</i>	?	?
2 <sub>P</sub>	<i>ímmchèrì,</i> <i>ímmchèyùòrì</i>	<i>í</i>	<i>ì</i>	<i>ì</i>	<i>ìn (i-n?)</i>	?	?
3 <sub>P</sub>	<i>mmchèrì,</i> <i>mmchèyùòrì</i>	<i>ó, é</i>	<i>ò,</i> <i>(m)mè</i>	<i>ò</i>		?	?
LOGP	?	<i>món</i>	<i>mònnè</i>	?	<i>món, mónnè</i> <i>(mónn-è?)</i>	?	?

Giving a picture of the Kulaal pronouns is a challenge since no systematic paradigm is available and information has to be gathered from different parts of Pairault’s works. Moreover, most Kulaal texts lack glosses or word-by-word translations and the interpretation of sentences based on their global translation happens to be a difficult task. Glosses are mine throughout this section.

### 5.1. Persons

Kulaal has an exclusive/inclusive contrast for the 1<sup>st</sup> person plural pronouns (1<sub>PE</sub>/1<sub>PI</sub>).

It has also both sg. and pl. pronoun forms that Claude Pairault defines as reflexive 3rd pers. pronouns of the “indirect style” (Pairault 1969: 262, 270), and that clearly represent logophoric forms (LOGS/LOGP). While there are clear examples of use in reported speech, as in (20)–(21), the logophoric apparently does not work as reflexive within one clause:

- (20) *á kól á wíl tée-à pè “én tìn lóópìl,*  
 3s come\_back 3s tell father-3s QUOT LOGS.SBJ find sacred\_stone  
*lóópìl mètè á sòò èn tak.”*  
 sacred-stone this[?] 3s follow LOGS.OBJ [COMPLETION?]  
 ‘As he came back, he told his father: “I found a sacred stone. This stone is following me.” [‘De retour, il dit à son père : « J’ai trouvé une pierre sacrée. Cette pierre me suit. »] (Pairault 1969: 162–163/line 10-4-11)

- (21) *ú-pè á hùòpá-pè mònnè tuk-kè-mónnè,*  
 3P-QUOT 3S wash-[COMPLETED?] LOGP.OBJ all-[?]-LOGP.POSS  
*à món iláá-nè.*  
 then LOGP.SBJ show-3S  
 ‘They say: “Wash all of us. Then we will show you.” [‘Ils disent :  
 «Lave-nous tous. Ensuite nous t’indiquerons. »’] (lit. they say  
 that he has to wash themselves all of themselves; then themselves  
 will show him.) (Pairault 1969: 242–243/line 12-2-59)

## 5.2. Paradigms

### 5.2.1. Independent, Self and Focalized

Some of the above formally complex paradigms are incomplete and not explained. The plural independent forms probably include the noun *yùù(t)* (*É*) ‘body’. As for the three focalized forms (‘I am, you are, s/he is the one who...’), they contain a *sè* element that could represent a former, frozen agreement determiner for nouns denoting ‘humans’ (see BKKL 2018: 77–78).

### 5.2.2. Subject

Subject pronouns, which precede the verb (e.g. *ñó pààtì* ‘I do’), may undergo some variations when themselves preceded by one of the two aspect markers *lì* ‘Progressive’ (e.g. *lì ñò pààtì* ‘I am doing’) and *lá* ‘Near future’ (Pairault 1969: 90):

Table 5

**Kulaal Subject pronouns and variants  
 in the context of aspect markers *lì* and *lá***

	Subject	+ Progressive <i>lì</i>	+ Near future <i>lá</i>
1s	<i>ñó, n-</i>	<i>lì ñò, lì n-</i>	<i>lá ñó</i>
2s	<i>mó, m-</i>	<i>lì mò, lì m-</i>	<i>lá mó</i>
3s	<i>á</i>	<i>lì</i>	<i>láá</i>
LOGS	<i>én</i>	?	?
1PE	<i>pú</i>	<i>lì-pù</i>	<i>lá-pú</i>

End of Table 5

	Subject	+ Progressive <i>lì</i>	+ Near future <i>lá</i>
1PI	<i>én</i>	<i>lèn</i>	<i>lá-én</i>
2P	<i>í</i>	<i>lìi</i>	<i>lá-í</i>
3P	<i>ú, é</i>	<i>lù</i>	<i>lá-ú</i>
LOGP	<i>món</i>	<i>lì món</i>	?

## 5.2.3. Object

Object pronouns follow the verb, see (20)–(21) above.

## 5.2.4. Possessive

Possessive pronouns may be either preposed or postposed to the head noun. In the latter case, the possessive itself is suffixed with a connective element that is mainly realized as *-n* (after vowel) or *-e* (after consonant). The semantics of this contrast is unclear but, as suggested by (22), it has apparently nothing to do with an ‘alienable/inalienable’ opposition.<sup>9</sup>

- (22) a. *ñò-húl*                      b. *à-húl*  
       1s-head                            3s-head  
       ‘my head’                        ‘his/her head’
- c. *húl-lê-ñò-n*                d. *húl-lê-pè*  
       head-DET-1s-CONN            head-DET-3s.CONN  
       ‘my head’                        ‘his/her head’

Other examples are (23) for a preposed construction, as well as (24)–(25) for postposed constructions:

- (23) *à úl-è*                      *àmpúk*  
       3s name-DET    Ampuk  
       ‘Its name (is) Ampuk [a type of beer].’ (Pairault 1969: 96–97/line 7-3-13)

<sup>9</sup> The hyphenation principles adopted by Claude Pairault are not always consistent and should not be given too much significance.



- (24) *ñó wáák-è tòḡ-kù-pèè-ri*  
 1s keep-3s house-DET-3s.CONN-in  
 ‘I keep it in **her** [referring to a woman] house.’ (Pairault 1969: 114–115/line 8-77)
- (25) *wàsà pèè ì-n-tájé tòráà-kò èn-nè*  
 somebody QUOT PROG-[1s.SBJ!]-want cubit-DET LOGS-CONN  
 ‘[...] whoever wants [it] can deliver **one’s** full potential (lit. wants **one’s** cubit).’ [‘[...] quiconque le veut peut donner sa mesure.’]  
 (Pairault 1969: 126-127/line 8-211)<sup>10</sup>

Finally the two nouns *èè* ‘mother’ and *téé* ‘father’ display complex and irregular possessive paradigms that I mention here for the record only:

Table 6

**Kulaal Possessive paradigms of *èè* ‘mother’ and *téé* ‘father’**

	‘mother’	‘mothers’	‘father’	‘fathers’
1s	<i>ñò’èèkípèè</i>	<i>ñò’èèkípèè-m-pù</i>	<i>ń téé à</i>	<i>ñ-téé à-m-pù</i>
2s	<i>èèkùm</i>	<i>mò’èèkípèè-m-pù</i>	<i>téé ùm</i>	<i>mò-téé à-m-pù</i>
3s	<i>èèkípèè, èè-kí-pè(è)</i>	<i>à’èèkípèè-m-pù</i>	<i>téé à</i>	<i>a-téé à-m-pù</i> [tone ?]
LOGS	<i>èèkì-ñ</i>	?	<i>téé-ñ</i>	?
1PE	<i>pù’èèkípèè (1PE?)</i>	<i>pù’èèkípèè-m-pù (1PE?)</i>	<i>pù téé à</i>	<i>pù-téé à-m-pù</i> (1PE?)
1PI	?	<i>ìn’èèkípèè-m-pù (1PI?)</i>	?	<i>ìn-téé à-m-pù</i> (1PI?)
2P	<i>ì’èèkípèè</i>	<i>ì’èèkípèè-m-pù</i>	<i>ì téé à</i>	<i>ò-téé à-m-pù</i>
3P	<i>ò’èèkípèè</i>	<i>ò’èèkípèè-m-pù</i>	<i>ò téé à</i>	<i>ò téékùm</i>
LOGP	?	?	?	?

<sup>10</sup> *ì-n* might in fact represent not only the progressive form of the 1<sup>st</sup> pers. sg. ({PROG-1s.SBJ}) but also that of the Logophoric singular ({PROG-LOGS.SBJ}), which is not illustrated in Table 5 above.

### 5.2.5. Tonal contrast in Subject vs. Object & Possessive

Whereas all subject forms have High tone, most pronouns in the object and the two possessive paradigms have Low tone. The only exception is LOGP among the postposed possessives. (Note also that High tones of subject pronouns are systematically converted to Low in presence of the Progressive marker *lì*, see Table 5 above.)

## 6. Kulaale

Source: (Lionnet 2018; pers. com.).

Lionnet (pers. com.) completes Table 7 as follows:

— There are two series of subject pronouns: one used with indicative verb forms, the other with subjunctive verb forms.

— Although object and possessive pronouns are formally identical, the former follow the verb predicate while the latter precede the head noun.

— The emphatic possessive pronouns are postnominal, and are likely historically derived from a connective construction CONN + PRONOUN ‘(the one) of me/you...’. The connective is *ké~kê* in the singular, *tú~tû* in the plural.

— There is no inclusive/exclusive distinction in 1P.

— The logophoric pronouns do not seem to be used outside of reported speech, e.g. to express reflexive possession (e.g. *mămmàt<sub>i</sub> wé èmè é<sub>ij</sub> / \*ɪŋ<sub>i</sub> kúúmá* ‘Mahamat<sub>i</sub> came with his<sub>ij</sub> knife’). This will need to be further investigated.

— 1s subject *N̄* undergoes place assimilation with following consonant: [*ń, ɟ, ŋ, ń*].

— All pronouns are [−ATR] except 2P, which is always [+ATR].

— Tonally, all independent pronouns are LH; indicative subject pronouns are all H except 1P *ɔ̄*; subjunctive subject pronouns are all L; Object/possessive pronouns are all L, except 3s *é*; Emphatic possessive pronouns are all HLH.

Table 7

## Kulaale personal pronouns

	Independent / Emphatic	Subject (indicative)	Subject (subjunctive)	Object / Possessive	Possessive emphatic sg.	Possessive emphatic pl.
1s	ʔiníŋ~ʔéníŋ	ń	ñ	ɛ	kááyé	tááyé
2s	mìní	mí	mù	mì	kámí	támí
3s	ʔiní	∅	∅	é	kábé	tábé
LOGS	ʔiníŋ	ŋ	?	ŋ	káyŋ	táyŋ
1p	ʔoní~ʔonó	ò	ò	ò	káawó	táawó
2p	ʔiní [+ATR]	í [+ATR]	ì [+ATR]	ì [+ATR]	káyí [+ATR]	táyí [+ATR]
3p	òoní	ó	ò	ò	kábú	tábú
LOGP	òoníŋ	óŋ	?	òŋ	(káábó)	(táábó)

## 7. Zan Gula<sup>(1)</sup>

Source: (Ahmat & Weiss 2010).

It happens that different sources concerning the same language — or what is supposed to be the same language — do not match properly. Such cases may namely result from dialectal divergence, heterogeneous descriptive approaches, or complementarity in the features selected by the authors. In such a situation it would be both difficult and risky to combine the data into one and the same presentation. Rather, I will treat these cases as independent sources in different sections, that is §7 Zan Gula<sup>(1)</sup> and §8 Zan Gula<sup>(2)</sup>, as well as §10 Bolgo<sup>(1)</sup>, §11 Bolgo<sup>(2)</sup>, and §12 Bolgo<sup>(3)</sup>.

Table 8

### Zan Gula<sup>(1)</sup> personal pronouns

	Independent	Subject	Direct object	Indirect object	Possessive
1s	<i>ŋo</i>	<i>ŋì / a ŋì</i>	<i>-ŋ, ŋe</i>	<i>ŋee</i>	<i>ŋì</i>
2s	<i>mo</i>	<i>mi</i>	<i>-m, mo</i>	<i>moo</i>	<i>mi</i>
3s	<i>lô</i>	<i>ù</i>	<i>-l, le</i>	<i>lee</i>	<i>ŋí</i>
LOGS (?)		<i>(ka) le ?</i>			
1PE	<i>bυ / bô</i>	<i>bi</i>	<i>bu</i>	<i>buu</i>	<i>bi</i>
1PI	<i>wô</i>	<i>úú</i>	<i>wυ</i>	<i>wυυ</i>	<i>ú</i>
2P	<i>Ye / ṭyo</i>	<i>í</i>	<i>yi</i>	<i>yii</i>	<i>i</i>
3P	<i>bu / uwo</i>	<i>ù</i>	<i>bu / wu</i>	<i>buu</i>	<i>ù</i>

Data and comments concerning Zan Gula are extremely cursory. I do not know whether the uppercase *Y* in Independent 2P is relevant and I do not understand the value of the boldfaced variants in the Independent and Indirect Object paradigms. Tones are usually not marked.

## 7.1. Persons

There is clearly an ‘exclusive/inclusive’ contrast in the 1<sup>st</sup> pers. pl. pronouns.

Relying on example (26a–b), the authors speculate on the existence of a Logophoric pronoun *ka le* or *le* (?).

- (26) a. *Mîusa sôm baa a kîro*  
 Moussa say CONN **he** come  
 ‘Moussa says that **he** (i.e. somebody else) will come.’
- b. *Mîusa sôm baa kale kîro*  
 Moussa say CONN **he** come  
 ‘Moussa says that **he** (i.e. Moussa) will come.’

If so, the same form could perhaps be identified in a further example with intentional value (27) (?):

- (27) *Hassan à yôw le rôo fara*  
 Hassan he go [**himself?**] sow sorghum  
 ‘Hassan is going to sow sorghum.’ [lit. H. is going, [intending] that **himself** will sow sorghum (?)]

The authors also speculate on the existence of a ‘serial’ (i.e. ‘sequential’?) 3s pronoun (with verbs in the past). This form is not mentioned in Table 8 above.

- (28) *Alî lî saale mi oki faade mi yôw kedde*  
 Ali eat paste **he**[?] go\_out enclosure **he**[?] go hunting  
 ‘Ali ate the paste, then **he** got out of the house, and **he** went hunting.’

## 7.2. Paradigms

### 7.2.1. Subject

The subject pronoun, which is dependent on the TAM markers (no illustration), precedes the verb:

- (29) *a ñi ôle noso -so*  
 I see thing unknown  
 ‘I see something.’

- (30) *i ne neme Nûura -lee*  
 he give meat Nuura to<sub>her</sub>  
 ‘He gives meat to Nuura.’

### 7.2.2. Direct & Indirect object

The direct (31a-b) or indirect (32) object pronoun follows the verb. Note that the *-CV* and *-C* variants of the singular direct object are complementarily suffixed to consonant-final and vowel-final verbs:

- (31) a. *i sôŋi-ŋ*  
 he pricks-**me**  
 ‘He pricks me.’  
 b. *i fom-ŋo*  
 he loves-**me**  
 ‘He loves me.’
- (32) *i ne -lee neme*  
 he give **to<sub>him</sub>** meat  
 ‘He gives **him** meat.’

### 7.2.3. Possessive

There is only one syntactic structure for modifying the noun with a possessive pronoun and there is no contrast such as ‘alienable/inalienable possession’:

- (33) a. *ni too*    b. *ni tôy*    c. *ni mûu*  
 my house    my houses    my mouth  
 ‘my house’    ‘my houses’    ‘my mouth’

## 8. Zan Gula<sup>(2)</sup>

Source: (Rendinger 1949: 184–190).

Although Rendinger (1949), an older source on Zan Gula, is of limited reliability, I have to mention here the fact that the author makes a clear distinction between two possessive constructions. The first one

Table 9

**Zan Gula<sup>(2)</sup> personal pronouns**

	<b>Personal pronouns</b>	<b>Emphatic</b>
1s	<i>n'e, n'o, n'</i>	<i>n'o n'on'o, n'e nò</i>
2s	<i>mó, am, m</i>	<i>mó nò</i>
3s	<i>o, n'i, mó n'i, sa, lō gé</i>	<i>n'i nò, mó n'i nò</i>
1p	<i>buoni</i>	?
2p	<i>yémi (&lt; bié mi?), yemigo</i>	?
3p	<i>sau</i>	?

is illustrated in (34): as in Zan Gula<sup>(1)</sup>, the Possessive pronoun is prefixed to the head noun, without any specific marker (glosses are mine):

- (34) a. *n'a-ha*                      b. *n'a-hālélé*                      c. *n'é-félé*  
           1s.POSS-wife                      1s.POSS-neck                      1s.POSS-nose  
           ‘my wife’                              ‘my neck’                              ‘my nose’  
       d. *n'i-gin'é*                      e. *n'u-dullé*  
           1s.POSS-teeth                      1s.POSS-knee  
           ‘my teeth’                              ‘my knee’

In the second construction, a different form of the possessive pronoun follows the head noun, which is itself followed by an invariable connective *bé* (“particule indiquant la possession”):

- (35) a. *sulé*      *nén'i*      *bé*                      b. *sulé*      *mam*      *bé*  
           head      1s.POSS      CONN                      head      2s.POSS      CONN  
           ‘my head’    ‘your (sg.) head’  
       c. *ha*      *nan'i*      *bé*                      d. *ha*      *mam*      *bé*  
           wife      1s.POSS      CONN                      wife      2s.POSS      CONN  
           ‘my wife’    ‘your (sg.) wife’

Nothing is said concerning the respective value of each construction. Since both (34)–(35) illustrate kinship or body part terms only, it is likely that no distinction of the ‘alienable/inalienable’ type is involved.

## 9. Bon Gula

Sources: (Roberts 2004; 2010).

Table 10

### Bon Gula personal pronouns

	Independent	Subject of Past	Subject of Present	Relative Subject?	Object (suffixed to -V / -C)
1s	<i>noojo</i>	<i>ni</i>	<i>niŋ</i>	<i>aŋ</i>	<i>-n / -no</i>
2s	<i>moojo</i>	<i>mi</i>	<i>miŋ</i>	<i>am</i>	<i>-(u)m / -mo</i>
3s	<i>yeejo</i>	--- [i?]	<i>iŋ</i>	<i>a</i>	<i>-y / -ye</i>
1PE	<i>beebe</i>	<i>be</i>	<i>beŋ</i>	<i>b</i>	<i>-be</i>
1PI	<i>e-eni</i>	<i>e VB-(e)n</i>	<i>eŋ VB-(e)n</i>	<i>e VB-(e)n</i>	<i>eni</i>
2P	<i>ûbe</i>	<i>î</i>	<i>îŋ</i>	<i>ay</i>	<i>î</i>
3P	<i>uube</i>	<i>u</i>	<i>uŋ</i>	<i>aw</i>	<i>-u / -wu</i>

	Possessive	'Possessive pronouns' (singular / plural possessed object)
1s	<i>ni</i>	<i>no no / ne ne</i>
2s	<i>mi</i>	<i>mo no / me ne</i>
3s	<i>yi</i>	<i>ye no / ye ne</i>
1pe	<i>ba</i>	<i>be no / be ne</i>
1pi	<i>a</i>	<i>eni no / eni ne</i>
2p	<i>î</i>	<i>î no / î ne</i>
3p	<i>u</i>	<i>u no / u ne</i>

Bon Gula sources consist of two SIL working papers that still contain some unsolved analyses and inconsistent transcriptions. They are nevertheless worthwhile in the absence of other documents. The main source used here is (Roberts 2010), unless otherwise specified. Note that glosses are mine throughout this section.



## 9.1. Persons

Bon Gula has an ‘exclusive/inclusive’ contrast for the 1<sup>st</sup> pers. pl. pronouns. On the other hand, no logophoric pronoun — or specific pronoun of indirect speech — is mentioned.

## 9.2. Paradigms

### 9.2.1. Independent

When compared with the object pronouns that are suffixed to final consonant verbs (-C), independent forms are clearly suffixed with *-jo* in the singular and with *-be* in the plural. The only exception is 1<sub>PI</sub> *e-eni*, which should perhaps be compared with the endonym *Êeni* ‘Bon Gula language’ (Roberts 2004: *eeni*).

As suggested by *no* ‘me’ in example (36) below, there might exist ‘short’ forms of this paradigm.

### 9.2.2. Subject(s)

The contrast ‘Subject of Past’ vs. ‘Subject of Present’ is not clear and apparently not supported by the rare examples available, which only illustrate 1s ‘I’ in (36) or the discontinuous 1<sub>PI</sub> ‘we (excl.)’ in (37)–(38):

- (36) *no*                      *ni*                                      *yerki*                      *haw*    *kîr*  
 1s.INDP[?]              1s.SBJ.PAST[!...]              listen\_to              dog    bark  
 ‘Me, I listen to the barking dog.’
- (37) *e-eni*,                      *e*    *bôô-n*                                      *bala*  
 1<sub>PI</sub>.INDP              1<sub>PI</sub>.SBJ.PAST[!...]...              tie-...1<sub>PI</sub>.SBJ              goat  
 ‘We (incl.), we (incl.) tie the goat.’
- (38) *e-eni*,                      *e*    *um-en*                                      *dokil-lo*  
 1<sub>PI</sub>.INDP              1<sub>PI</sub>.SBJ.PAST...              kill-...1<sub>PI</sub>.SBJ              leopard-DEF  
 ‘We are the ones who (we, incl.) have killed the leopard.’

More complete paradigms may be found in Roberts (2004), e.g. (39) and (40) (hyphenation and glosses are mine). Note that, again, despite the translation, the proposed forms are often the ones belonging to the ‘Subject of Past’ paradigm. Also, there is only one 1<sup>st</sup> pers. pl.

here, probably the 1<sup>st</sup> pl. ‘exclusive’, but with forms (*pa*, *paŋ*) that differ from Table 10 above (*be*, *beŋ*). In addition, the form *ɪ-wɔ̃y* ‘S/he goes out’ in (40) suggests that the ‘Subject of Past’ 3s is *i-* rather than <--->, as indicated in Table 10 above (based on Roberts 2010).

- |      |                    |                   |                     |
|------|--------------------|-------------------|---------------------|
| (39) | <i>kul-in</i>      | drink-INF         | ‘to drink’          |
|      | 1S <i>ju-kuli</i>  | 1S.PAST[!]-drink  | ‘I drink.’          |
|      | 2S <i>miŋ-kuli</i> | 2S.PRES[?]-drink  | ‘You (sg.) drink.’  |
|      | 3S <i>ɪŋ-kùlì</i>  | 3S.PRES[?]-drink  | ‘S/he drinks.’      |
|      | 1P <i>pàŋ-kùlì</i> | 1P.PRES[?]-drink  | ‘We drink.’         |
|      | 2P <i>ɪŋ-kùlì</i>  | 2P.PRES[?]-drink  | ‘You (pl.) drink.’  |
|      | 3P <i>úŋ-gùlì</i>  | 3P.PRES[?]-drink  | ‘They drink.’       |
| (40) | <i>wɔy-en</i>      | go_out-INF        | ‘to go out’         |
|      | 1S <i>ju-wɔy</i>   | 1S.PAST[!]-go_out | ‘I go out.’         |
|      | 2S <i>mɔ-wɔy</i>   | 2S.PAST[!]-go_out | ‘You (sg.) go out.’ |
|      | 3S <i>ɪ-wɔ̃y</i>   | 3S.PAST[!]-go_out | ‘S/he goes out.’    |
|      | 1P <i>pà-wɔ̃y</i>  | 1P.PAST[!]-go_out | ‘We go out.’        |
|      | 2P <i>í-wɔ̃y</i>   | 2P.PAST[!]-go_out | ‘You (pl.) go out.’ |
|      | 3P <i>ú-wɔ̃y</i>   | 3P.PAST[!]-go_out | ‘They go out.’      |

Finally, the existence of a “Relative Subject” paradigm is suggested by Roberts (2010) on the evidence of limited examples like (41)–(42):

- |      |   |                  |                          |
|------|---|------------------|--------------------------|
| (41) | <i>kûm an</i>   | <i>hellenu</i>   |                          |
|      | flour   | 1S.REL           | buy                      |
|      | ‘the flour <b>that</b> I have bought’                               |                  |                          |
| (42) | <i>Amate iŋ</i>   | <i>haykî lal</i> | <i>a hêllo</i>           |
|      | Amat  | 3S.PRESENT[?]    | think millet 3S.REL burn |
|      | ‘Amat(, he?) is thinking of the millet <b>that (it)</b> has burnt.’ |                  |                          |

### 9.2.3. Object

Object pronouns are suffixed to the verb, except for 1P<sub>I</sub> and 2P, which are said to be postposed (and not hyphenated). Singular object pronouns have complementary forms *-C* or *-CV* according to the final segment —

vowel or consonant — of the verb. Note that the independent pronoun may also work as object, as happens for 3P in (43a).

(43)

- |    |     |                           |                         |                                     |
|----|-----|---------------------------|-------------------------|-------------------------------------|
| a. | 1S  | <i>Ali dū-<u>n</u></i>    | Ali / surpass-1S.OBJ    | ‘Ali surpassed <b>me.</b> ’         |
|    | 2S  | <i>Ali dū-<u>m</u></i>    | Ali / surpass-2S.OBJ    | ‘Ali surpassed <b>you.</b> ’        |
|    | 3S  | <i>Ali dū-<u>y</u></i>    | Ali / surpass-3S.OBJ    | ‘Ali surpassed <b>him/her.</b> ’    |
|    | 1PE | <i>Ali dū-<u>be</u></i>   | Ali / surpass-1PE.OBJ   | ‘Ali surpassed <b>us (excl.)</b> .’ |
|    | 1PI | <i>Ali dū <b>eni</b></i>  | Ali / surpass / 1PI.OBJ | ‘Ali surpassed <b>us (incl.)</b> .’ |
|    | 2P  | <i>Ali dū <b>î</b></i>    | Ali / surpass / 2P.OBJ  | ‘Ali surpassed <b>you (pl.)</b> .’  |
|    | 3P  | <i>Ali dū <b>ûûbe</b></i> | Ali / surpass / 3P.INDP | ‘Ali surpassed <b>them.</b> ’       |
| b. | 1S  | <i>Ali hul-<u>no</u></i>  | Ali / hit-1S.OBJ        | ‘Ali hit <b>me.</b> ’               |
|    | 2S  | <i>Ali hul-<u>mo</u></i>  | Ali / hit-2S.OBJ        | ‘Ali hit <b>you.</b> ’              |
|    | 3S  | <i>Ali hul-<u>le</u></i>  | Ali / hit-3S.OBJ        | ‘Ali hit <b>him/her.</b> ’          |
|    | 1PE | <i>Ali hul-<u>be</u></i>  | Ali / hit-1PE.OBJ       | ‘Ali hit <b>us (excl.)</b> .’       |
|    | 1PI | <i>Ali hul <b>eni</b></i> | Ali / hit / 1PI.OBJ     | ‘Ali hit <b>us (incl.)</b> .’       |
|    | 2P  | <i>Ali hul <b>î</b></i>   | Ali / hit / 2P.OBJ      | ‘Ali hit <b>you (pl.)</b> .’        |
|    | 3P  | <i>Ali hul-<u>lu</u></i>  | Ali / hit-3P.OBJ        | ‘Ali hit <b>them.</b> ’             |

#### 9.2.4. Possessive

Possessive constructions are commented in Roberts (2010), who indicates only one syntactic pattern, in which the modifier precedes the head (44a–b). There is apparently no contrast between so-called ‘alienable/inalienable’ constructions.<sup>11</sup>

- |      |    |     |                               |                     |                              |
|------|----|-----|-------------------------------|---------------------|------------------------------|
| (44) | a. | 1S  | <b><i>ni</i></b> <i>ton</i>   | 1S.POSS / house     | ‘ <b>my</b> house’           |
|      |    | 1PI | <b><i>a</i></b> <i>ton</i>    | 1PI.POSS / house    | ‘ <b>our (incl.)</b> house’  |
|      |    | 3P  | <b><i>u</i></b> <i>ton</i>    | 3P.POSS / house     | ‘ <b>their</b> house’        |
|      |    | 1S  | <b><i>ni</i></b> <i>tônde</i> | 1S.POSS / house.PL  | ‘ <b>my</b> houses’          |
|      |    | 1PI | <b><i>a</i></b> <i>tonde</i>  | 1PI.POSS / house.PL | ‘ <b>our (incl.)</b> houses’ |
|      |    | 3P  | <b><i>u</i></b> <i>tônde</i>  | 3P.POSS / house.PL  | ‘ <b>their</b> houses’       |

<sup>11</sup> One can wonder, however, about the precise semantics of a phrase like ‘my heads’ in (44b).

b. 1S	<i>ni hûl</i>	1S.POSS / head	‘my head’
1PI	<i>a hûl</i>	1PI.POSS / head	‘our (incl.) head’
3P	<i>u hûl</i>	3P.POSS / head	‘their head’
1S	<i>ni hûn</i>	1S.POSS / head.PL	‘my heads’
1PI	<i>a hûn</i>	1PI.POSS / head.PL	‘our (incl.) heads’
3P	<i>u hûn</i>	3P.POSS / head.PL	‘their heads’

### 9.2.5. “Possessive pronouns”

Finally Roberts (2010) identifies a double paradigm of “Pronoms possessifs (objet possédé au singulier)” and “Pronoms possessifs (objet possédé au pluriel)” (Possessive pronouns for singular/plural possessed object). The forms are not glossed, not translated and not illustrated.<sup>12</sup> However, sg. *no* / pl. *ne* is identified elsewhere as a connective (“connectif”) in such noun phrases as in (45) (glosses are still mine):

- (45) a. *hûl bala no*  
 head goat **the\_one\_(of)**  
 ‘the goat’s head’
- b. *tu maama no*  
 ear child **the\_one\_(of)**  
 ‘the child’s ear’
- c. *tû maama ne*  
 ear.PL child **the\_one\_(of).PL**  
 ‘the child’s ears’
- d. *ton mîne no*  
 house child.PL **the\_one\_(of)**  
 ‘the children’s house’
- e. *tônde maama ne*  
 house.PL child **the\_one\_(of).PL**  
 ‘the child’s houses’

The complex forms of the ‘Possessive pronouns’ paradigm would then read *no no* {1s.[?]/the\_one\_(of)} ‘the one of me, mine (sg.)’ /pl.

<sup>12</sup> Remember, though, that the document was elaborated with and for Bon Gula speakers.

*ne ne* {1s.[?]/the\_one\_(of).PL} ‘the ones of me, mine (pl.)’, etc. However, the pronoun forms that precede the connective are not the *possessive* forms but are rather similar to the object forms that are suffixed/postposed to consonant-final verbs. So, the question remains open as to which personal pronouns are really involved here.

## 10. Bolgo<sup>(1)</sup>

Source: (Kastenholz 2017: 13–14, 20–21).

Table 11

### Bolgo<sup>(1)</sup> personal pronouns

	Subject	Object	Possessive
1S	<i>nī</i>	- <i>Vn</i>	<i>nī</i>
2S	<i>mām</i>	- <i>Vm</i>	?
3S	<i>jō</i>	- <i>V</i>	?
1P	<i>wāw</i>	- <i>Vw</i>	?
2P	<i>yē</i>	- <i>Vy</i>	?
3P	<i>bāb</i>	- <i>Vb</i>	?

The variety of Bolgo described by Kastenholz (2017) is that spoken by people who call themselves *Bólǵò* (glossonym *Bólǵòní*), a subgroup of the so-called Bolgo ‘Kubar’.

### 10.1. Persons

Bolgo has only one form of 1<sup>st</sup> pers. pl. and no ‘exclusive/inclusive’ contrast. It also has no Logophoric pronoun.

### 10.2. Paradigms

#### 10.2.1. Subject

The pronoun precedes the verb (46) or the auxiliary (47):

- (46) ***jō***            *jōr = rā bī*  
 3SG.SBJ    call=PF    people  
 ‘He has called the people.’

- (47) *jī*            *kà*    *jōr*    *bī*  
 1SG.SBJ    FUT    call    people  
 ‘I will call the people.’

### 10.2.2. Object

All the forms have been identified only in the context of a preceding (C)V<sub>C</sub> verb. The behaviour of the personals is not documented after verbs of the (C)V type.

Example (48) illustrates some vocalic variations of the clitic object according to the vocalic identity of the preceding lexical base (cp. *ōl* ‘see’, *ēl* ‘hit, strike’):

- |   |                                      |
|---|--------------------------------------|
| (48) a. <i>Brahim</i> <i>ól = um = nà</i> | b. <i>Brahim</i> <i>ēl = im = nà</i> |
| B.            see=2s.OBJ=PF               | B.            hit=2s.OBJ=PF          |
| ‘Brahim has seen <b>you</b> (sg.).’       | ‘Brahim has hit <b>you</b> (sg.)’    |
| c. <i>Brahim</i> <i>ól = o = rà</i>       | d. <i>Brahim</i> <i>ēl = e = rà</i>  |
| B.            see=3s.OBJ=PF               | B.            hit=3s.OBJ=PF          |
| ‘Brahim has seen <b>him</b> .’            | ‘Brahim has hit <b>him</b> .’        |
| e. <i>Brahim</i> <i>ól = uḅ = rà</i>      | f. <i>Brahim</i> <i>ēl = iḅ = rà</i> |
| B.            see=3p.OBJ=PF               | B.            hit=3p.OBJ=PF          |
| ‘Brahim has seen <b>them</b> .’           | ‘Brahim has hit <b>them</b> .’       |

### 10.2.3. Possessive

The Possessive pronoun precedes the head noun (the only form documented, 1s.POSS, is the same as in the Subject paradigm):

- (49) *Hasib*    *jī*            *bīn*  
 H.            1SG.P    brother.SG  
 ‘Hasib is **my** brother.’

## 11. Bolgo<sup>(2)</sup>

Source: (Tikka 2019: 93–99, 106–112, 114–115).

Tikka’s work is based on the linguistic variety spoken by a subgroup known as Bolgo ‘Dugag’ (endonym *Terew*). Minor variations appear in comparison with Bolgo<sup>(1)</sup> in the preceding section.

Table 12

**Bolgo<sup>(2)</sup> personal pronouns**

	Subject	Suffix	'Possessive form' (?)	Possessive
1s	<i>ɲɲ ~ ɲɪ</i>	<i>-(V)ɲ</i>	<i>abuɲ</i>	<i>ɲɲ</i>
2s	<i>maj ~ ma</i>	<i>-(V)m</i>	<i>abum</i>	<i>maj</i>
3s	<i>ɟoj ~ ɟo</i>	<i>-a, -V, -∅</i>	<i>aba</i>	<i>ɟoj</i>
1p	<i>waj ~ wa</i>	<i>-(V)w</i>	<i>abuw</i>	<i>waj</i>
2p	<i>jej ~ je</i>	<i>-(V)j</i>	<i>abij</i>	<i>jej</i>
3p	<i>boj ~ bo</i>	<i>-(V)b</i>	<i>abub</i>	<i>boj</i>

It has to be noted that the author's transcriptions strictly follow the IPA principles: in particular *ɟ* stands for [ɟ] and *j* for [j]. Unfortunately, and although the author is quite aware of the role of tone that she marks for lexical terms, she does not mark any tone on grammatical units, in particular not on pronouns.

**11.1. Persons**

Like Bolgo<sup>(1)</sup>, Bolgo<sup>(2)</sup> has no 'exclusive/inclusive' contrast in the 1<sup>st</sup> plural, and no specific Logophoric pronoun.

**11.2. Paradigms**

## 11.2.1. Subject

Subject pronouns all have a full and a short form. Full forms may be used as subject but speakers tend to favour the short variants (without final consonant), especially in the case of the 1<sup>st</sup> Pers. sg. *ɲɪ*.

One and the same 3<sup>rd</sup> sg. form is used for 'he', 'she', and 'it'.

## 11.2.2. Suffix

The actual realisation of the Suffixes results from complex rules involving the word shape of the preceding morpheme (final consonant or vowel) as well as its vocalic identity. The most diverse allomorphs — including free variants — are found with the 3s Suffix. This is shown

in (50), which displays but a selection of (surface?) realisations (Tikka 2019: 96–98):

(50) Stem	>	+ 3s Suffix	
<i>kāŋgí</i>		[kaŋga]	‘to mix’
<i>tɔ́rí</i>		[tɔrɔ]	‘to love’
<i>tɔ́lú</i>		[tɔlɔ]	‘to hit with downward motion’
<i>hūlgí</i>		[hulgo] ~ [hulga]	‘to stir’
<i>dēŋgɛ́</i>		[dɛŋgɛ] ~ [dɛŋga]	‘to insult’
<i>hòbā</i>		[hoba]	‘to hide’
<i>ɲìlē</i>		[ɲile]	‘to push’
<i>tɔ́</i>		[tɔ]	‘to take’
<i>tèè</i>		[tèè]	‘to find’

Pronominal Suffixes are used for all types of object. However, except for the case of some common ditransitive verbs like *nà* ‘give’ (52) or *tùmō* ‘send’, indirect objects and benefactives are followed by the specific ‘dative marker’<sup>13</sup> *dɪ* as in (53)–(54):

- (51) *ɔj*      *òlò-ŋ*  
 3S.SBJ see-1S.OBJ  
 ‘He sees **me**.’
- (52) *boj*      *nà-ŋ*              *ɲól*  
 3P.SBJ give-1S.OBJ honey  
 ‘They are giving **me** some honey.’
- (53) *ɔj*      *tērí-ŋ*              *dɪ*      *ɲām*  
 3S.SBJ buy-1S.OBJ DAT meat  
 ‘She buys meat for **me**.’
- (54) *sāw*      *kājá-ŋ*              *dɪ*      *ra*              *ɲíl*  
 dog destroy-1S.OBJ DAT already broom  
 ‘The dog destroyed **my** broom.’

<sup>13</sup> This ‘dative marker’, as named by the author, is not illustrated after nouns but it is not clear whether its use is restricted to pronouns. It is not clear either whether it has to be analysed as a postposition or as an applicative marker somehow depending from the verb. In agreement with Sabine Littig (pers. comm.), I doubt we have to deal here with a case marker, a type of grammatical morpheme uncommon in Adamawa languages.



Furthermore the same suffixes appear in a specific paradigm of ‘possessive forms’, based on an *ab-* unit and used in such constructions as (55) (glosses are mine):

- (55) a. (*ɟɪ*)     **abuŋ**     búsō     b. (*maj*)     **abum**     búsō  
 (1s.SBJ)    ?1s.SUFF   horse     (1s.SBJ)    ?2s.SUFF   horse  
 ‘I have a horse.’                     ‘You (sg.) have a horse.’

However, as stated by the author, these constructions as well as the ‘possessive forms’ they involve are not well understood:

“It seems that the pronominal suffixes have a dative function in these sentences, but it is unclear at this point whether the word to which they are attaching is a verb, a preposition, or something else.” (Tikka 2019: 114–115).

### 11.2.3. Possessive

The full forms of the Subject paradigm — but not the short ones<sup>14</sup> — also work as possessives, which precede the head noun, e.g.:

- (56) a. **ɟuŋ**     bāā     b. **maj**     bāā  
 1s.POSS     child     2s.POSS     child  
 ‘my child’                             ‘your (sg.) child’

## 12. Bolgo<sup>(3)</sup>

Source: (Rendinger 1949: 179–184).

Table 13

**Bolgo<sup>(3)</sup> personal pronouns**

	Personal pronouns	Possessive (a)	Possessive (b) and Emphatic
1s	<i>n'é, n'a, nāŋ</i>	<i>n'ēŋ, nan n'ēŋ</i>	<i>n'ena, n'eno</i>
2s	<i>may, ma, iéy</i> (rare)	<i>mām</i>	<i>mā no</i>
3s	<i>g'éya, giyo di, ma ri</i>	<i>oldio</i>	<i>dīo no</i>

<sup>14</sup> Tikka (2019: 94, footn. 30), however, comments on some other forms possibly used as possessives.

End of Table 13

	Personal pronouns	Possessive (a)	Possessive (b) and Emphatic
1p	<i>way</i>	<i>wao, way</i>	<i>wa na</i>
2p	<i>ié di</i>	<i>iéy</i>	<i>ié no</i>
3p	<i>(bi si</i> ‘those people’)	–	–

Although Rendinger’s (1949) data have limited value (see §8 above), it is remarkable that the author, just as he did for Zan Gula<sup>(2)</sup>, identifies two distinct possessive constructions in Bolgo.<sup>15</sup> In the first case the possessive pronoun precedes the head noun (glosses are mine):

- (57) a. *n’eng*      *bīno*                      b. *māmo*      *bīno*  
           1s.POSS      brother                              2s.POSS      brother  
           ‘my brother’                              ‘your (sg.) brother’

In the second pattern, which is reminiscent of both Kulaal (§5) and Zan Gula<sup>(2)</sup> (§8), the possessive pronoun comes after the head noun and is itself followed by a connective *no*<sup>16</sup> as in (58):

- (58) a. *kalba*      *n’e*      *no*                      b. *garlo*      *mā*      *no*  
           gourd      1s      CONN                              spear      2s      CONN  
           ‘my gourd’                              ‘your (sg.) spear’

Finally, this latter pattern has an ‘Emphatic’ variant, characterised by an undefined element *gi*, inserted between the head noun and the possessive:

<sup>15</sup> Despite the limited quality of the source, I tend to trust the author on this point, as I did for Zan Gula. The fact that Bolgo<sup>(1)</sup> and Bolgo<sup>(2)</sup> have only one possessive construction may be explained by a difference of linguistic varieties: the author of Bolgo<sup>(3)</sup> worked with people from Bolgo ‘Dugag’ and from Koke (Tikka 2019: 11). Another point that gives consistency to Général de Rendinger’s analyses is simply the fact that similar syntactic constructions have been identified in Kulaal by Claude Pairault (see §5.2.4) and in Kulaalé by Florian Lionnet (see §6).

<sup>16</sup> This resembles, of course, the connective sg. *no* / pl. *ne* of Bon Gula (see end of §9 above).

- (59) a. *bin* *gi* *n'e* *na*      b. *garté* *gi* *diō* *no*  
       brother [?] 1s    CONN    spear [?] 2s    CONN  
       ‘my brother’                            ‘his spear’

These are all the illustrations presented by the author. Examples (57) and (58) would not contradict the assumption that the distinction, whose semantics is not commented, is of an ‘alienable/inalienable’ nature (‘brother’ *vs* ‘gourd’ and ‘spear’) but such a view is apparently not compatible with the lexical units involved in (59) (‘brother’ and ‘spear’).

### 13. Comparative overview

#### 13.1. Persons

##### 13.1.1. 1<sup>st</sup> plural ‘exclusive/inclusive’

The opposition of 1<sup>st</sup> pers. pl. ‘exclusive’ *vs*. ‘inclusive’ is dominant: it is well attested in Lua, Tun, Kulaal, Zan Gula, and Bon Gula. It is apparently absent from Ba, Kulaale, and Bolgo. Where it exists, the contrast 1PE *vs*. 1PI is present in every paradigm, i.e. it goes through the whole pronominal system.

##### 13.1.2. Logophoric

Logophoric pronouns are attested in Lua, Ba, Kulaal, Kulaale, and, questionably, Zan Gula. Because of the limits of the data currently available, their existence is not excluded in Tun. They most probably do not exist in Bon Gula and Bolgo. Logophorics, where they appear, are also well integrated in their system: they have singular and plural forms, and are attested in every paradigm.

In both Lua and Ba, logophorics are used in the domain of reported speech (logophoricity *stricto sensu*) as well as in simple clauses (same referent). In Kulaal and Kulaale, however, they are seemingly limited to the former function.

## 13.2. Paradigms

### 13.2.1. Subject/object

Although the number of distinct paradigms differs markedly from one source to another, there is a clear tendency for the whole group to contrast two major sets, namely Subject and Object, the Possessive pronouns often looking as a variant of the latter (Tun, 'Ba, Kulaal), if not being even identical (Lua, Kulaale). Objects, however, are usually postposed or suffixed to the verb, whereas possessives always are — or may be — preposed to the head noun.

In Lua, Tun, 'Ba, Kulaal, and Kulaale, the major division Subject/Object is chiefly marked by tone contrasts. As shown in Table 14 below (grey cells), the segmental identity of pronouns is very similar in both paradigms, whereas tonal differences, if any, are as follows:

- Subject = Low *vs.* Object = High
  - Lua: 1s and 2s only (other persons are identical)
  - 'Ba: 1s, 2s, 1p, and 2p (other persons are identical or similar)
- Subject = High (Tun Mid)<sup>17</sup> *vs.* Object = Low
  - Tun: 1s, 2s, 1pe, and 2p (other persons have different forms)
  - Kulaal: all persons (except 1p, which is not known for Object)
  - Kulaale (indicative subject only): 1s, 2s, 2p, and 3p (1p is always L-toned, and 3s Subject/Object have different forms and same tone)

For the time being nothing can be said concerning Zan Gula, Bon Gula, and Bolgo, in which the tonal identity of personals is still missing.

### 13.2.2. Possessive constructions

All languages have a possessive construction that follows the pattern {PRON.POSS / head\_noun}. For most of them this is the only way to specify a noun with a personal reference. But Kulaal, Kulaale, Zan Gula<sup>(2)</sup>, and Bolgo<sup>(3)</sup> have an additional pattern {head\_noun / PRON.POSS /

<sup>17</sup> Remember that only Low and Mid tones appear in the Tun personal pronouns (see above, §3, footn. 10).

CONN}, which can probably be explained as a former topicalized, appositive construction (lit. \*‘the house/head, the one of me’ > ‘my house/head’), at least if we assume that the connective marker was in fact a possessive (or associative) *pronoun* or *substitute*: ‘the one (of)’, similar to that which has been observed in Bon Gula (see end of §9 above). It is, however, not clear which semantic value is attached to either modifying pattern in the latter three languages. At least a correlation with the so-called ‘alienable/ inalienable possession’ seems to be excluded.<sup>18</sup>

### 13.3. Summary and conclusions

#### 13.3.1. Compared features

The different features that have been mentioned with respect to persons or paradigms are summarized in Table 14 below.

Table 14

Distribution of structural features

	Lua	Tun	Ba	Kulaal	Kulaalɛ	Z. Gula	B. Gula	Bolgo
1P excl. vs 1P incl.	+	+	–	+	–	+	+	–
Logophoric (± refl.)	+	?	+	+	+	?	–	–
Object ≈ Possessive	+	+	+	+	+	–	–	–
Tonal polarity Subject/Object	+	+	+	+	+	?	?	?
‘Preposed’ possessive	+	+	+	+	+	+	+	+
‘Postposed’ possessive	–	–	–	+	+	+	–	+

<sup>18</sup> The so-called ‘possessive’ (or associative) constructions definitely deserve a specific study that should take in account both pronominal and nominal modifiers. Unfortunately, such constructions as ‘the one (of)’ are not often documented in linguistic descriptions, and even less in grammatical sketches or limited surveys.

The conclusions that can be drawn from such a chart are necessarily limited. It is possible, however, to emphasize the two following points:

i) the principle of a tonal polarity between Subject and Object paradigms (Table 17 below) is not *a priori* ruled out in Zan Gula, Bon Gula, and Bolgo, and could finally prove to be a distinctive structural feature of the historical system of personal pronouns common to all Bua languages,

ii) in the same historical perspective, the early existence of a ‘possessive’ construction following the pattern {PRON.POSS / head\_noun}, which is present in all (described) present-day languages, is highly likely. This does not imply that it was necessarily the only one.

### 13.3.2. Segmental forms

Finally Table 16 below shows that several phonic recurrences — indicated in grey cells — can be observed, from language to language, in both Subject and Object paradigms. These constant features are summarized in Table 15 in the form of pseudo-reconstructions. They concern only 1S, 2S, 1PE, 2P, and 3P. No attempt has been made to reconstruct the other persons, which display a more pronounced formal diversity. It is known that 3<sup>rd</sup> pers. singular pronouns may be easily replaced by elements of varied origin (determiners, deictic pronouns, lexical units like ‘person’ or ‘body’). Logophoric pronouns also may have various origins (emphatic, self, neuter or inanimate 3<sup>rd</sup> pers. pronouns, definite or anaphoric marker) and they often show a marked diversity of forms and structures even across closely related languages (Boyeldieu 2013). As for the 1<sup>st</sup> pers. pl. pronouns, the interpretation of the present data is uncertain, if not contradictory: obvious recurrences in 1PE suggest that the ‘inclusive’ 1PI forms, which are more varied, are also more recent. But if the assumption was right, we would also expect similar forms to 1PE *°bu/e/i* in the languages — Ba, Kulaale, and Bolgo — that have no ‘exclusive/inclusive’ contrast, which is not the case.

Table 15  
Pseudo-reconstructions of historical forms (based on Table 16 below)

	°n/n(i/o)	°bu/e/i
1S		
2S	°m(o/i)	?
3S	?	°i/y
LOGS	?	°(b/b)u
		LOGP ?

Table 16

## Phonic recurrences in 'Subject' and 'Object' paradigms

Subject pronouns

	Lua	Tun	Ba	Kulaal	Kulaale (Indic.)	Zan Gula	Bon Gula	Bolgo <sup>(1)</sup>
1S	ñ	nē, nā	è	ñó, n-	Ñ	ni/a ni	ni	ni
2S	m̄	mā	m̄	mó, m-	mí	mi	mi	mām
3S	r̄	ì	ā, ārā	á	Ø	ù	ø [i?]	jō
LOGS	r̄	?	bì	én	íŋ	kale?	?	-
1PE	í	bā	ù	pú	ò	bi	be	wāw
1PI	ì	jì		én		úú	e VB-n	
2P	í	ī	ì	í	í [+ATR]	í	í	yē
3P	á	mà	bé	ó	bó	ù	u	bāb
LOGP	à	?	bòw	món	bóŋ	?	?	-

End of Table 16

Object (+possessive) pronouns

	Lua	Tun	Ba	Kulaal	Kulaale	Zan Gula	Bon Gula	Bolgo <sup>(1)</sup>
1s	ń	nè	é	ńò	è	-ɲ, ɲe	-ɲ / -ɲo	-Vɲ
2s	ń	mò	ń	mò	mì	-m, mo	-(u)m / -mo	-Vm
3s	ʃ	dō	ā, rā	è, nè	é	-l, le	-y / -ye	-V
LOGS	ʔ	?	(í, bí?)	ɛn	ɪŋ	?	?	-
1PE	í	bù		?		bu	-be	-Vw
1PI	ì	ʃì	ú	èn	ò	wu	eni	
2p	í	ì	í	ì	ì [+ATR]	yí	î	-Vy
3p	á	ē	bé	ù	bù	bu/wu	-u / -wu	-Vb
				(m)mè				
LOGP	à	?	(ù, bòw?)	mònnè	bòŋ	?	?	-

Table 17

Tonal polarity of 'Subject' and 'Object' paradigms  
(H/L contrast or reverse, Tun M/L)

Subject pronouns

	Lua	Tun	Ba	Kulaal	Kulaale (Indic.)	Zan Gula	Bon Gula	Bolgo <sup>(1)</sup>
1s	ń	ńē, ńā	è	ńó, n-	ń	ńì / a ńì	ńì	ńì
2s	ń	mā	ń	mó, m-	mí	mì	mì	mām
3s	ʃ	ì	ā, ārā	á	Ø	ù	ø [i?]	jō



End of Table 17

	Lua	Tun	Ba	Kulaal	Kulaale (Indic.)	Zan Gula	Bon Gula	Bolgo <sup>(1)</sup>
LOGS	ɾ	?	ɓì	én	ìŋ	kale?	?	–
1PE	í	bā	ù	pó	ɔ̃	bi	be	wāw
1PI	ì	jì		én		úú	e VB-n	
2P	í	ì	ì	í	í [+ATR]	í	í	yē
3P	á	mà	bé	ú	ɓó	ù	u	ɓāb
LOGP	à	?	ɓòw	món	ɓóŋ	?	?	–
<i>Object (+possessive) pronouns</i>								
	Lua	Tun	Ba	Kulaal	Kulaale (Indic.)	Zan Gula	Bon Gula	Bolgo <sup>(1)</sup>
1S	ń	ɲè	é	ñò	è	-ɲ, ɲe	-ɲ /-ɲo	-Vɲ
2S	ń	mò	ń	mò	mì	-m, mo	-(u)m / -mo	-Vm
3S	ř	dō	ā, rā	è, nè	é	-l, le	-y /-ye	-V
LOGS	ř	?	(l, ɓì?)	èn	ìŋ	?	?	–
1PE	í	bù	ú	?	ɔ̃	bu	-be	-Vw
1PI	ì	jì		èn		wu	eni	
2P	í	ì	í	ì	ì [+ATR]	yì	í	-Vy
3P	á	ē	bé	ù	ɓù	bu/wu	-u /-wu	-Vɓ
LOGP	à	?	(ú, ɓòw?)	(m)mè	ɓòŋ	?	?	–

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## Abbreviations

1PE — 1 <sup>st</sup> person plural exclusive	INTERR — interrogative
1PI — 1 <sup>st</sup> person plural inclusive	LOGP — logophoric plural
1S — 1 <sup>st</sup> person singular	LOGS — logophoric singular
2P — 2 <sup>nd</sup> person plural	NEG — negative
2S — 2 <sup>nd</sup> person singular	OBJ — object
3P — 3 <sup>rd</sup> person plural	PAST — past
3S — 3 <sup>rd</sup> person singular	pers. — person
Ar. — Arabic	PF — perfective
CONN — connective	PG — preposition-governed
COORD — coordinative	pl., PL — plural
DAT — dative marker	POSS — possessive
DET — determinate, determiner	PRES — present
EMPH — emphatic	PROG — progressive
excl. — exclusive	PRON — pronoun
Fr. — French	QUOT — quotative
FUT — future	REL — relative
incl. — inclusive	SBJ — subject
IND — indicative	sg., SG — singular
INDP — independent	SUFF — suffix
INF — infinitive	SUSP — suspensive
INJ — injunctive	VN — verbal noun

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