# The verb system of Lua (a 'Bua' language of Chad) 

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Bua languages
(Adamawa 13) and position of Lua


Designed by J. Picard, CNRS, 2017

## Outline

- Preamble: data, noun number, personal pronouns, homophones
- Verb classes (indicative/subjunctive moods) and Infinitive
- Core verb phrase
- Modality constructions (Obligatives)
- Auxiliary constructions (Durative, Future, Obligative)
- Adverbial constructions (Durative/Imminent, Necessity)
- Satellites (Dubitative, Remansive, Completed, Negation, Interrogative \& Question)


## Data

- Collected during a two-year stay in Chad (Fort Lamy/N'djaména 1973-75)
- Toolbox lexicon (2600 entries)
- Several elicited questionnaires (Bouquiaux \& Thomas 1971): nouns, verbs, sentences
- Spontaneous speech productions (5 tales, transcribed, glossed, and translated)
- Interest in old data revived within the Bua languages comparative group (Boyeldieu, (Kastenholz), Kleinewillinghöfer \& Lionnet, since 2017)
N.B. Illustrations are elicited unless identified by a text reference (T-XX.nn)


## Noun number

Various processes of noun plural marking (if any): apophony ('Umlaut') and suffixes, mainly representing relics of a former noun class system whose cognates are still active in only one of the Bua languages: Kulaal (BKKL 2018: 74-79)

| Sg. | Pl. |  |
| :---: | :---: | :--- |
| piāg | pēg | 'shoulder' |
| súl | súrí | 'head' |
| t́́lā | térī | 'tree, wood' |
| tuāy | tōy $\sim$ tóyḡ̄ | 'peanut' |
| dàā | dāg | 'arm' |

Table 1. Types of noun plural formation

## Personal pronouns

|  | Emphatic | Subject | Object, preposition-governed, and possessive | Self |
| :---: | :---: | :---: | :---: | :---: |
| 1S | jìn | ǹ | ń | mǎn |
| 2S | nìm | m | ḿ | mǎm |
| 3 S | nír | ŕ | ŕ | $\begin{gathered} \text { măr (animate) } \\ \text { màr } \sim \text { mày } \sim \text { mànì (inanimate) } \end{gathered}$ |
| LOGS | nìr | r | r | mār (màr ?) |
| 1PE | jìníí | í | í | mǎy |
| 1PI | jiì | ì | ì | mày |
| 2 P | jiíl | í | í | mǎy |
| 3 P | jáá | á | á | mǎ ~ màná (anim. + inanim.) |
| LOGP | jàà | à | à | ? |

Table 2. Personal pronouns

## Homophones

| 1.a <br> b <br> c | wò /pl. bì <br> wò \{DUR\} <br> wò \{SIT\} | noun <br> auxiliary (invar.) <br> copula (invar.) | 'human being, person, (pl.) people' <br> 'Durative, Imminent' <br> 'Situative, be at, exist' |
| :---: | :---: | :---: | :---: |
| 2.a | 6ə̄ \{FUT\} | auxiliary (invar.) | 'Future, Virtual, Optative' |
| b | ¢ว̄ \{QUOT\} | quotative | 'Quotative, Introducer of reported speech' |
| 3.a | tī (inf. t̄̄m) | verb (cl. 4) | 'sit, stay, be, become' |
| b | tī | preposition | 'at, in, on' |

Table 3. Noteworthy homophones

## Verb classes (indicative/subjunctive moods) and infinitive (1/2)

2 finite forms (\{IND.V\}, \{SBJ.V\}) vs 1 infinite form (\{V.INF\})
Indicative mood: 'realis, factual'
Subjunctive mood: 'necessity, wish, order'

| Class | Indicative | Subjunctive | Infinitive |  |
| :--- | :---: | :---: | :---: | :--- |
| 1 | bàn | bān | Gān | 'hang, hold onto' |
| 3 | bōn | 6ōn | Guààn | 'dance' |
| 4 | mōg | móg | mógl̄̄ | 'contract, make a fist' |
| 4 | lōy | lóy | lóóm | 'lie, sleep' |
| 4 bis | sūrí | súrí | sūrí | 'laugh at' |
| 5 | tóó | tōō | túúl̄a | 'pound, crush' |

Table 4. Verb classes and infinitives: some illustrations

Verb classes (indicative/subjunctive moods) and infinitive (2/2)

| Class | Indicative | Subjunctive | Infinitive (main processes) | Lexical tokens |
| :--- | :---: | :---: | :--- | ---: |
| 1 | L | ML | M, LM; 2 suffixes | 343 |
| 1bis | LH | MLH | LH | 15 |
| 2 | L | H | M; 1 suffix | 4 |
| 3 | M | ML | LM = पूM; mostly suffixes | 34 |
| 3bis | MH | MLH | MH | 1 |
| 4 | M | H | M, HM, LM; some suffixes | 182 |
| 4bis | MH | H | MH | 6 |
| 5 | H | M | HM; mostly suffixes | 24 |
| invariable | $\ldots$ | $\ldots$ | $\ldots$ | 16 |
| irregular | $\ldots$ | $\ldots$ | $\ldots$ | 3 |
| Total |  |  |  | 628 |

Table 5. Verb classes and infinitives - tone patterns (counts updated 2023)

## Formalisation of mood markers? (1/2)

- Verb tones are both lexical and grammatical, e.g.:

IND tōn / SBJ tôn 'forge' (cl. 3) vs IND tón / SBJ tōn 'send' (cl. 5)

- Does one mood represent the marked form of the two?

Note the following ambivalent tone patterns:

| Class | Indicative | Subjunctive | Lex. tokens |
| :--- | :---: | :---: | :---: |
| 1 | L | ML | 343 |
| 1 bis | LH | MLH | 15 |
| 2 | L | H | 4 |
| 3 | M | ML | 34 |
| 3 bis | MH | MLH | 1 |
| 4 | M | H | 182 |
| 4 bis | MH | H | 6 |
| 5 | H | $\mathbf{M}$ | 24 |

Table 6. Moods and tone patterns: cases of ambivalence

## Formalisation of mood markers? (2/2)

Two paths of research:

- Consonants? (thank you, Raymond!)

In contrast to the frequencies observed in the general lexicon, cl. 3 verbs reveal a relatively high number of the initial glottalised stops 6 - and $d$-, while cl. 5 verbs show a markedly high frequency of the initial voiceless stops $t$ - and $c$-. Implications however not obvious.

- Former polar tone? Initially marking SBJ?

Possibly inherited from a likely historical *L/H tone system (BKKL 2018: 100 ; Lionnet 2023)?

## Core verb phrase : [(S) Ind/SbJ.Verb (O)]

(1)

| r | 6ōw | r̀ | Guày |
| :--- | :--- | :--- | :--- |
| $3 S$ | IND.tie | LOGS | goat |

'(S)he ties/tied his/her (own) goat!'

| tō | / | tō $\quad$ lǒl |
| :--- | :--- | :--- |
| IND.end | IND.end NEG |  |
| 'It is finished.' | 'It is not finished' |  |

(3) bím bōw à buày
child.PL SBJ.tie LOGP goat
'The children should tie their goat!/Let the children tie their goat!'
(4) bōw m̀ buày!

SBJ.tie 2 s goat
'Tie your goat!'

## Modality constructions : [Mod (S) SBJ.Verb (O)]

- kiíní \{oblig \} 'Obligative’
(5) [...] Gúrū mày jàà gì ŕ páā bā nèr gì ì kuáāa ndōw ndōw
kííí ì làg bì tòtōn!
OBLIG 1PI SBJ.see person.PL DEM.PL
'.. one said to his mate : paddle for us quite close, we must see these people!' (T-III.16)
Potentially functioning as a subordinator of purpose:
(6) wàn jàà: [...] ì $\mathfrak{\text { ba }}$ tómnī tī á luà kíní á kā wájòn á chief ind.say LOGS FUT send.INF at 3P bottom oblig 3p sbj.do what? 3P
hínā ...
SBJ.come
'The chief said : ... I will send (a message) after them (saying that) they must do what?
(they must) come.
(T-IV.26, 28)
>>> 'The chief said... I will send (a message) after them so that they will do what? (so
that they will) come.'
- $k \dot{a} \sim k \notin\{$ OBLIG $\}$ 'Obligative’ (also Auxiliary, see above)
(7) kí í tí Pín!

OBLIG 3S SBJ.stay thus
'Let him/her stay like this!'
(8) [...] sòòn ì páā kuār páā бə̄ Puă ká nìì sì ì IND.call LOGS mate young_man some QUOT SBJ.stand_up OBLIG 1PI.EMPH SBJ.go 1PI làg $\quad$ íī nènēy !
SBJ.see woman DEM.DEF
'(He...) calls some mate (and) says: get up! we must go (and) see this woman!'
Potentially functioning as a subordinator of purpose:
(9) Ø̄̄ í ná ń ndúū ká ǹ nī! í ná ń Pààr ndúū ká nī ! QUOT 2P SBJ.give 1s water OBLIG 1s SBJ.drink 2P SBJ.give 1s horse water oblig SBJ.drink '(She) said: give me water, I must drink, give water to my horse, (he) must drink!' (T-IV.76) >>> '(She) said: give me water so that I drink, give water to my horse so that (he) drinks!'
(10) yāàr ń ká ǹ sō

SBJ.help 1s oblig 1s sbJ.lift
'Help me, I must lift!' >>> 'Help me to lift!'

## Auxiliary constructions : [(S) AUX (g̀̀ Beneficiary) (O) Verb.INF]

(11a) á kà gì wàn círā
3P ind.do for chief work
'They do/did (a) work for the chief.'
(11b) á бā $^{\text {gà }}$ wàn círā kààr
3P FUT for chief work do.INF
'They will do (a) work for the chief.'
(12a) ǹ tén í tī Pùūl
1s ind.find 3 s on road
'I found him/her on the road.'
(12b) ǹ $\mathbf{6} \bar{\partial}$ ŕ tinnā tī Pùūl
1s fut 3s find.INF on road
'I will find him/her on the road.'

$$
w o ̀ ~\{D U R\}
$$

- 'Durative'
(13) [...] б̄̄ làg ì wān hāām tà ì wò jáblī QUOT SBJ.see LOGS thing ind.get_lost then LOGS DUR look_for.INF
'... (she) said: see! my cloth got lost, that's why I am looking for (it).'
- 'Near Future, Imminent'
(14) [...] málìm ḿ jàà: bọ tī bàrì hásā lēlē ī pùn tī siàāl marabout ANPH IND.say well! IND.be good now here DEF place IND.be night tèén ná ì wò sílī̄ already SUCC LOGS DUR go_back_home.INF
'.. the marabout said: well, that's good, now, here, night has come (lit. the place is already night) and I'm going to go back home.'


## $6 \bar{\partial}\{$ FUT $\}$

- 'Future'

LOGS FUT go.INF child woman anPh with marry.INF ask.INF INTERR 3P FUT

to LOGS refuse.INF or 3 P fut to Logs child woman anph give.INF Q
'... I will go and ask for the girl('s hand), will they refuse (her) to me or will they give me the girl?'
- 'Virtual/Potential'
[...] Pààr nǎ hínā kúnǎ m̀ $\mathbf{6} \overline{\text { à }}$ Pààr hínā pār m̀ $\mathbf{6} \overline{\text { ā }}$ Pààr hínā pār horse CONN2 tail as_if 2 s fut horse tail catch.INF 2 S fut horse tail catch.INF [the python is pursuing a flying horse]
' ... the tail of the horse is as if you [python] would catch the horse's tail, you would catch the horse's tail.'

$$
6 \bar{\partial}\{\text { FUT }\} \text { (cont.) }
$$

－＇Possible／Feasible＇
（17）［．．．］ŕ jàà bā nìr màr wān nè ì tén lǒ（l）lá 3S IND．say QUOT LOGS．EMPH LOGS．SLF thing DEM LOGS IND．find NEG also
̀̀ あう̄ sílī̀ lǒ（l）lá
LOGS FUT go＿back＿home．INF NEG also
＇.. ．she says（to herself）：I，myself，did not find my thing（i．e．cloth）and I will not be able to go back home．＇
－＇Optative／Deontic＇
（18）málìm［．．．］lòg j̀ súl Píín jàà ：luààr nèn ná jìr marabout IND．look＿at LOGS head thus．long IND．say village DEM SUCC LOGS．EMPH 6戸̄ bō jō liā jō tá $\grave{r}$ bò lǒl ná［．．．］ FUT move．INF only and if then LOGS IND．move NEG SUCC
＇The marabout．．．thought about（lit．looked at his head）for a long time（and）said（to himself）：this village，I simply have to move and，if I don＇t move．．．［sth．bad will happen］＇

$$
k \dot{a} \sim k \dot{t}\{\text { OBLIG }\}
$$

- 'Obligative' stricto sensu (very limited use in the positive sense)
(19) á ká (~ kí) hínā

3p oblig come.INF
'They have to come/they must come.'

- 'Prohibitive' (most instances by far appear in a negative context, and address a second person subject, sg. or pl.)
(20) ń bàà tààm Gā ǹ ká dúgrī túrī lǒl
'My father doesn't want me to eat mushrooms.' (lit. my father wants that I don't eat mushrooms)

hūl dīb nà ḿ dẫn lǒl [...]
stomach hit.INF with 2 s leg NEG
[the flying horse is warning its rider]
'.. when... I will start to run, don't hit my stomach with your legs!...'


## Adverbial constructions : [(S) wò/tī Prep. (gì Benef.) (O) Verb.INF]

- wò t̄ \{SIT[UATIVE]/at $\}$ > 'durative/imminent'
(22) káy ḿ Pángāl tī jāā nè á wò tī gì ḿ jāā ! SBJ.put 2 s attention at speech REL 3P SIT at to 2 s tell.INF 'Pay attention to what people are telling you!'
(23) [...] m̀ jàà [...] Ђə̄ ḿ bááa Pī̄ wò tī wò Gว̄r kúúlā $\bar{\varepsilon}$ ? [...] 2 S IND.say QUOT 2 s child woman SIT at person male marry.INF eh? '.. you tell... that your daughter is about to marry a man eh? ...'
- tī lé \{IND.stay~be/for~aiming \} > 'deserve/need' (elicited examples only)
(24) í tī lé dīb

3s ind.be for beat.INF '(S)he deserves beating (to be beaten).'

| tī | lé | gì | ŕ | jāā | lǒl |
| :--- | :--- | :--- | :--- | :--- | :--- |
| IND.be for | to | 3 S | tell.INF | NEG |  |

'It is not necessary to tell him (lit. it does not deserve to be told to him/her).'

## Satellites (various orders and positions)

- $m a^{`}\{\mathrm{DUB}\}$ 'maybe (random), Dubitative' (preposed/postposed, limited instances)

```
mā í hīnā liāālí
DUB 3s IND.come yesterday
'Maybe he came yesterday.'
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DUB rain fUT rain.INF rain DUB FUT rain.INF
'Maybe it will rain.'
(28) mā í Ђø̄ hínā ~ fí f̄̄ hínā mā dub 3s fut come.INF 3s fut come.INF DUB
'Maybe (s)he will come.'
Potentially functioning as a marker of indirect question:

| ǹ jàà | mā | ŕc | б̄̄ | hínā |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1s | InD.say | DUB | 3 S | FUT | come.INF |

'I say maybe (s)he will come.' >>> 'I wonder whether (s)he will come.'

- dä̀ \{REM\} 'still, (not) yet, Remansive' (preposed/postposed, limited instances)
(30) dày ǹ tī ngáá $\sim$ ǹ tī ngáá dāy REM 1S IND.be strong 1S IND.be strong REM 'I am still strong.'
(31) dăy í sì lǒl ~ ŕ sì dày lǒl REM 3 S IND.go NEG 3 S IND.go REM NEG
'(S)he did not go yet.'
(32) ŕ wò wān túrī dã̃

3s DUR thing eat.INF REM
'(S)he is still eating.'
(33) í bàà ḿ mànì nǎ Pààr nè tuàāní đã̀ rí tī Gáá càl Pín 3s father anph 3s.Self Conn2 horse rel before Rem 3s ind.be child young thus
tà í wò huáān tī súl ?ín déd-déd, [...] then 3 s DUR ride.INF on top thus long
'The very horse of her father that formerly, (as) he was still a young child like that, he had been riding on top like that for a long time...,

- tèén 'already, Completed' (postposed)
(34) [...] bì tòtōn-ì á hīnā á làg nì̀ Pùn tèén nč?
person.PL DEM.PL-DEF 3P IND.come 3P IND.see LOGS.EMPH place already eh?
'.. these people came (and) already saw my place, eh?'
(35) Gááa pīi [...] làg Gááá kuār ḿ tèén gàná, tī nè tà ŕ child woman IND.see child young_man ANPH already then IND.be DEM then 3s jàà gì r̀ bàà tèén 6̄ bááá kuār nè jō nî̀ tààm IND.say to LOGS father already QUOT child young_man DEM FOC LOGS.EMPH IND.want ŕ kúúlā $\bar{\varepsilon}$ ? păy kày?
3s marry.INF eh? INTERR what?
'The girl... had already seen the young man (and) then, he was the one she had already told her father he was the young man she wanted to marry, eh?, isn't it?' (T-IV.22-23)
- tèén (cont.)
N.B. tèén 'already, Completed' may also modify an adjective:
(36) ŕ bàà jàà bō wān nè tà Paàr hìní tèén tà nīm Gạá nènēy

3s father IND.say eh! thing DEM then horse old already then 2 s.EMPH child DEM.DEF tī Gááá kuār m̀ lōg á جàrg̀̀ māán tī wàá [...]
IND.be child young_man 2s SBJ.look_at 3P horse.PL proper IND.be how?
[the chief disapproves the daughter who chose an old horse while her new husband and his mates ride young horses]
'Her father said: eh! this thing, the already old horse, you, this child is a young man, look, how are their own horses?...'

- lǒl \{NEG\} 'Negation' (postposed)
[...] í làg wò Pín tī wò 6ār lǒl lá Pīī lǒl lá pǎy 2P IND.see person thus ind.be person man NEG also woman NEG also INTERR í lòg wò nín à?
2P ind.see SIT présent Q
'... did you (ever) see such a person (that he/she) is not a man, nor a woman, did you (ever) see (that) it exists?'
(38) [...] í jàà: nìm nè m̀ Pùnà jāā dúnā nàrì ná mà ká 3s ind.say 2 S .EMPH DEM 2 s Ind.know speech life a_lot succ 2 s OBLIG dūgā sāál tī ḿ luààr hūl lŏl liā m̀ tí tī nìr màr go_back.INF go.INF at 2 s village inside NEG but 2 s SBJ.stay in LOGS.EMPH LOGS.SLF gə̄r hūl [...]
earthen_house inside
'... he said : you, since you know a lot about life, you must not go back to your village but you have to stay in my own earthen house...'
- pǎy \{INTERR $\}$ 'Interrogative' (preposed) and $a^{-}\{\mathrm{Q}\}$ 'Question' (postposed)

The function of Interrogative păy is to introduce a question. It is sometimes used in the context of Wh-questions, as in (39), but is more systematically required in presence of a polar question marked by $a$, as in (40):



INTERR LOGS fUT thing find.INF where? then logS fut eat.INF
'(The dog) said : ... or, if I stay pounding the broken millet grains, where shall I find something to eat?'

$\bar{\varepsilon}$ nā gì ḿ ndìnì mày $\bar{\varepsilon}$ pǎy nā g̀̀ ḿ 6ìjīm fín à?
eh? IND.give to 2 s nice really eh? INTERR IND.give to 2 s ugly thus Q
'... they tell her : yourself, (our) father has a lot of affection for you eh?, (he) gives you very nice (things) eh?, did he ever give you ugly (things)?'

## Summary of the verb system

| Finite verb constructions | Core |  |  | + Modality - |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | IND | 'Realis' |  |  |  |
|  | SBJ | 'Necessity/Imperative' |  | kiini - $k \dot{a} \sim k \dot{t}$ | 'Obligative (+ 'so that')' <br> 'Obligative (+ 'so that')' |


| Infinitive constructions | Auxilary | - wò - | 'Durative/Imminent' |
| :---: | :---: | :---: | :---: |
|  |  | $-6 \bar{\partial}-$ | 'Future/Virtual~Potential/ Possible~Feasible/Optative~Deontic' |
|  |  | $-k \dot{a} \sim k \dot{t}-$ | '(Obligative)/Prohibitive' |
|  | Adverbial | - wò tī- ('be at') | 'Durative/Imminent' |
|  |  | -tìlé - ('be for') | 'deserve/need' |

Satellites: $\quad m a^{-}$'maybe (random), Dubitative'
dà̀ 'still, (not) yet, Remansive'
tèén 'already, Completed'
lŏl 'Negation'
păy 'Interrogative'
$a^{-}$'Question'

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| Finite verb constructions | Core |  |  | + Modality |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | IND | 'Realis' |  |  |  |
|  | SBJ | 'Necessity/Imperative' |  | $\begin{aligned} & \text { kíní }- \\ & k \dot{a} \sim k^{\prime} \end{aligned}$ | 'Obligative (+ 'so that')' <br> 'Obligative (+ 'so that')' |


| Infinitive constructions | Auxilary | - wò - | 'Durative/Imminent' |
| :---: | :---: | :---: | :---: |
|  |  | $-6 \bar{\partial}-$ | 'Future/Virtual~Potential/ Possible~Feasible/Optative~Deontic' |
|  |  | $-k \dot{a} \sim k \dot{t}-$ | '(Obligative)/Prohibitive') |
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|  |  | - tīlé - ('be for') | 'deserve/need' |

Satellites: ma` 'maybe (random), Dubitative'
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lŏl 'Negation'
păy 'Interrogative'
a' 'Question'

## Abbreviations \& glosses

| 1PI | $1^{\text {st }}$ person plural inclusive | inf., INF | infinitive |
| :--- | :--- | :--- | :--- |
| 1s | $1^{\text {st }}$ person singular | INTERR | interrogative |
| 2P | $2^{\text {d }}$ person plural | invar. | invariable |
| 2S | $2^{\text {d }}$ person singular | LOGP | logophoric plural |
| 3P | $3^{\text {d }}$ person plural | LOGS | logophoric singular |
| 3S | $3^{\text {d }}$ person singular | NEG | negation |
| ANPH | anaphoric | OBLIG | obligative |
| CONN2 | connective $2(n a ̆)$ | pl., PL | plural |
| DEF | definite | Q | question |
| DEM | demonstrative | QUOT | quotative |
| DUB | dubitative | REL | relative |
| DUR | durative | REM | remansive |
| EMPH | emphatic | SBJ | subjonctive |
| FOC | focalizer | SIT | situative |
| FUT | future | SLF | self |
| IND | indicative | SUCC | successive |

## References (a selection)

Bouquiaux, Luc et Jacqueline M.C. Thomas (éds). 1971. Enquête et description des langues à tradition orale, Paris : SELAF (Numéro spécial 1), 1971, 5 vol.
Boyeldieu, Pascal. 1985. La langue lua («niellim») (Groupe Boua - Moyen-Chari, Tchad). Phonologie. Morphologie. Dérivation verbale. Paris: SELAF. (Descriptions de Langues et Monographies Ethnolinguistiques 1).
——. 2020. Personal pronouns in Bua languages. Language in Africa 1(3), 292-335.
[BKKL 2018] =
Boyeldieu, Pascal, Raimund Kastenholz, Ulrich Kleinewillinghöfer \& Florian Lionnet. 2018. The Bua group languages (Chad, Adamawa 13): A comparative perspective. In Kramer, Raija \& Kießling, Roland (eds.), Current approaches to Adamawa and Gur languages, 53-126. Köln: Rüdiger Köppe. (Afrika und Übersee, Beiheft 34.)
Lionnet, Florian. 2023. L'inventaire phonologique du fanya (boua, Tchad) : description et données comparatives préliminaires. Séminaire du Llacan (18 janvier 2023). CNRS.

