



DOCUMENTATION OF LAAL:

M-TONE LOWERING IN LAAL AND THE  
PHONOLOGY-SYNTAX INTERFACE

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Afrikalinguistisches Kolloquium, HU Berlin, 10 July 2012

- FOREWORD: Documenting Laal, brief presentation of the DOBES project and the language
- M-lowering in Laal and the phonology-syntax interface



# FOREWORD: DOCUMENTING LAAL

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# DOCUMENTING LAAL

## → THE DOBES PROJECT

- Dokumentation Bedrohter Sprachen (Volkswagen Stiftung)
- “Documentation of Laal (Chad)”: 3 years, 2011-2014
- Host institution: HUB (Prof. Dr. Tom Güldemann)
- Research Team:
  - Linguistics: Florian Lionnet (UC Berkeley)
  - Ethnomusicology: Prof. Sandrine Loncke (Univ. Paris 8)
  - Anthropology: Dr. Remadji Hoinathy (CRASH, N’Djaména)
- Goal: documentation of the Laal language, language uses, and cultural practices

# DOCUMENTING LAAL

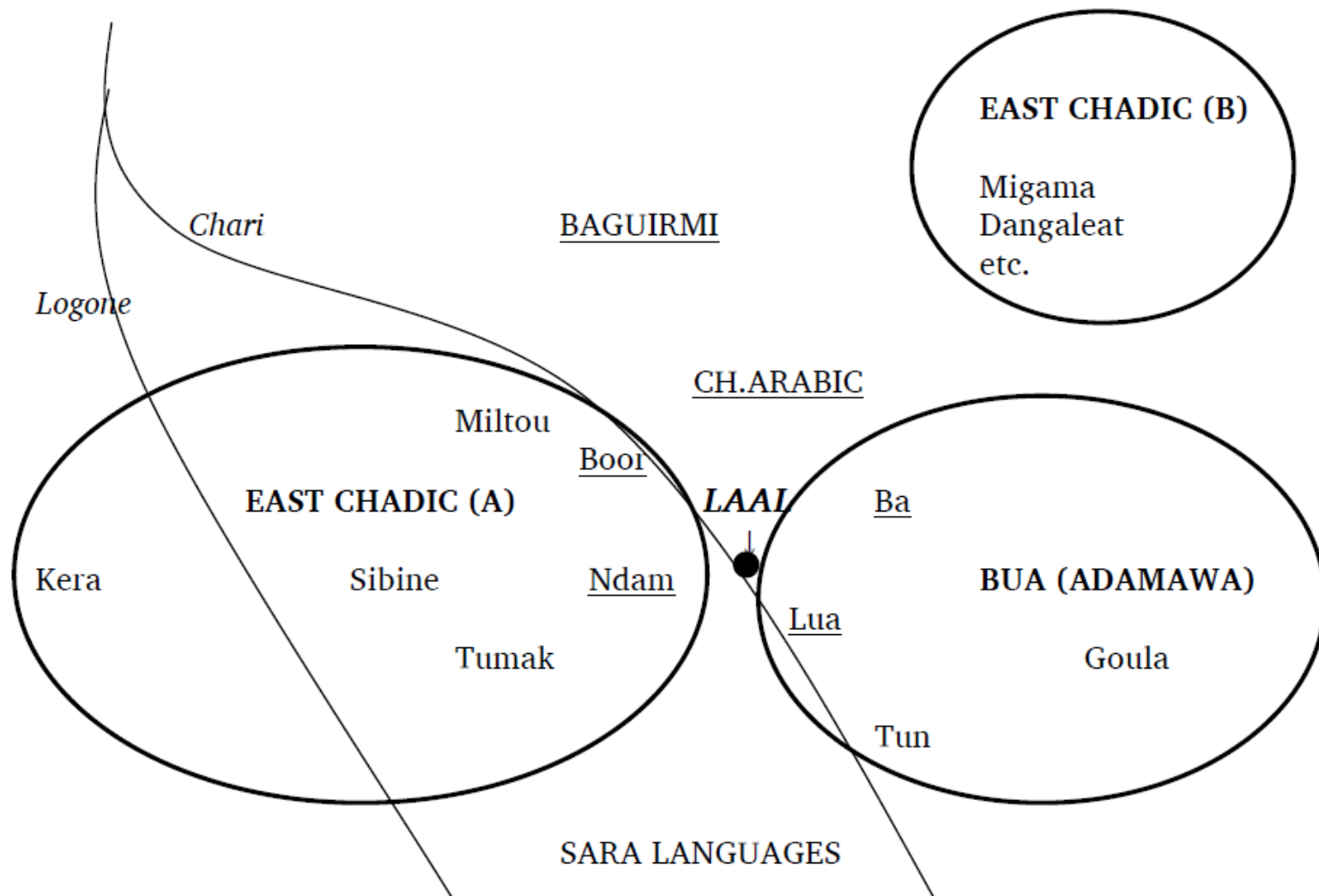
## → THE LANGUAGE

- Laal: unclassified language (most probably an isolate)
- About 750 speakers, in two villages in Southern Chad (+ diaspora in towns and in N'Djamena):
  - Gori (*lá*), ca. 300 inhabitants
  - Damtar (*buāl*), ca. 150 inhabitants
- Endangered:
  - Not endangered in the villages (transmitted to children)
  - Seriously endangered outside: language not transmitted to children
  - More and more people leave the villages → vulnerable



# DOCUMENTING LAAL

## → THE LANGUAGE



# DOCUMENTING LAAL

## → THE LANGUAGE

### ○ Phonology: consonants

	labial	alveolar	palatal	velar	glottal
Voiceless	p	t	c	k	ʔ
Voiced	b	d	j	g	
Pre-N	mb	nd	nj	ng	
Implosive	ɓ	ɗ	y		
Nasal	m	n	ny	ŋ	
Lateral		l			
Ttap/trill		r			
Fricative		s			h
Glide	w		y		



# DOCUMENTING LAAL

## → THE LANGUAGE

- Phonology: vowels (short + long)

	Front		Central	Back
	<i>unrd</i>	<i>rd</i>	<i>unrd</i>	<i>rd</i>
High	i	ü	ɨ	u
Mid	e	üo	ə	o
Low	ia (< ε)	üa	a	ua (< ɔ)

- Phonology: 3 tones
  - H (á), M (ā), L (à)
  - HL, LH (HM, MH)

# DOCUMENTING LAAL

## → THE LANGUAGE

- Strictly SVO
- Mostly Head-initial  $[X^0 [YP]]_{XP}$

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# M-TONE LOWERING IN LAAL AND THE PHONOLOGY-SYNTAX INTERFACE

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# 1 INTRODUCTION

- Many phonological processes in a diverse range of languages have been shown to depend on syntactic structure:
  - French *liaison*
  - Italian *raddoppiamento*
  - Celtic consonant mutations
  - “Metatony” in Bantu languages
  - etc.

# 1 INTRODUCTION

(2) Hausa: final vowel shortening on transitive verbs followed by an overt Object NP (Hayes 1990)

a. *ná:* *ká:mà:* (*ší*)

I catch it

‘I have caught (it).’

b. *ná:* *ká:mà* *kífí:*

I catch fish

‘I have caught a fish.’

c. *ná:* *ká:mà:* *wà* *Mú:sá:* *kífí:*

I catch for Musa fish

‘I have caught Musa a fish.’

## 1 INTRODUCTION

(3) Yoruba: L-to-M raising on transitive verbs followed by an overt Object NP (Déchaine 2001:83)

a. *mí-mò* / *mo mọ ilé e rẹ* (L > M)  
GER-know I know house of him  
'knowing' 'I know his/her residence.'

b. *jí-jẹ* / *mo jẹ ilá* (M)  
GER-eat I know house  
'eating' 'I ate (some/the) okro.'

c. *kí-kọ* / *mo kọ ilé* (L)  
GER-eat I know house  
'building' 'I built a house.'

## 1 INTRODUCTION

(4) Such phenomena have raised important questions concerning the relationship between phonology and syntax, in particular whether:

- a. Phonology can refer directly to syntactic information  
(Kaisse 1985, 1990; Odden 1987, 1990a, 1990b; Déchaine 2001)
- b. or Phonology has access to only a subset of syntactic information, filtered by intermediate structures given by the prosodic hierarchy  
(Selkirk 1978, 1986; Nespor and Vogel 1986; Inkelas and Zec 1995).

# 1 INTRODUCTION

## (5) “M-lowering” in Laal:

- M-toned verbs become Low-toned when followed by an overt *in-situ* object NP

<i>já</i>	<i>nyāg</i>	>	<i>já</i>	<i>nyàg</i>	<i>mèrìm</i>
I	eat		I	eat:T	meat
‘I eat.’			‘I eat meat.’		

- = mirror image of Yoruba “L-raising” illustrated in (3) above



## 1 INTRODUCTION

(6) Interestingly, M-lowering is also attested on M-toned head nouns followed by a genitive complement:

*dōrūm*

rope

‘rope’

>

*dòrùm*

rope:G

‘bark (*sp.*) rope’

*hól*

bark(*sp.*)

## 1 INTRODUCTION

(7) Goal of this presentation: show that M-lowering in Laal is morphosyntactic in nature

- it does not result from an influence of syntax on phonology,
  - either directly (syntactically conditioned phonological alternation)
  - or through the prosodic structure (phrasal phonology)
- but from the morphosyntactic marking of the direct government relationship that binds the head to its overt *in-situ* complement (Object NP, genitive NP modifier)

# 1 INTRODUCTION

## (8) Structure of this presentation

- Part 2: M-lowering in the VP
- Part 3: Transitive form of the gerund
- Part 4: M-lowering in the NP
- Part 5: Analysis: M-lowering as a case of morphosyntactic marking
- Part 6: Concluding remarks

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# M-LOWERING IN THE VP

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## 2 M-LOWERING IN THE VP

### 2.1 TRANSITIVE VERB + OVERT *IN-SITU* OBJECT NP

(9)

- a. H: *pír* ‘catch’                      *já*                      *pír*                      *tuààr*  
I                      catch                      chicken  
‘I catch/caught a chicken.’
- b. M: *nyāg* ‘eat’                      *já*                      *nyàg*                      *tuààr*  
I                      eat                      chicken  
‘I eat/ate chicken.’
- c. L: *jàr* ‘cut, slice’                      *já*                      *jàr*                      *tuààr*  
I                      cut                      chicken  
‘I cut the chicken’s throat.’
- d. LH: *sàrí* ‘peck’                      *tuààr*                      *sàrí*                      *jāṅāl*  
chicken                      peck                      termite  
‘The chicken pecked the termite.’
- e. HL: *múri* ‘run, dance’                      *ʔi*                      *múri*                      *gààm*  
they                      run                      dance.sp.  
‘They danced the funeral dance.’

## 2 M-LOWERING IN THE VP

### 2.1 TRANSITIVE VERB + OVERT *IN-SITU* OBJECT NP

(10) M-lowering is attested with

- all clauses: matrix, subordinate
- all clause types: affirmative, negative, interrogative, exclamative
- all TAM markers (although see part 3 for TAM markers selecting the gerundive form)

## 2 M-LOWERING IN THE VP

### 2.2 NO M-LOWERING ANYWHERE ELSE

(11) Transitive verb + understood or elided Object NP

a.     *já*       *nyāg*  
      I       eat  
      ‘I eat/ate (it).’

b.     *mōōnō*   *bùr*       *nyōó*   *nùñú*       *yāg*   *'yá*  
      *mōōnō*   *būr:T*   *nyōō-H*   *nùñú*       *yāg*   *'yá*  
      lion       uproot:T   grass-CON   here       throw   thus  
      ‘The lion uproots grass and throws it like this.’

## 2 M-LOWERING IN THE VP

### 2.2 NO M-LOWERING ANYWHERE ELSE

#### (12) Extracted Object: topicalization

**[tuààr]<sub>TOP</sub>** ʔò                      **nyāg** wó,                      **[sér]<sub>TOP</sub>** ʔò                      **sīr** wó  
chicken                      you                      eat                      NEG                      karkaday                      you                      drink                      NEG

‘Chicken, you don’t eat; karkaday, you don’t drink.’

#### (13) Extracted Object (relativization)

**nápār**                      **[má**                      ʔèèn                      ʔǎŋ                      **juāŋ]<sub>RC</sub>**  
sort                      CON                      yesterday                      we(incl)                      buy

‘the kind that we bought yesterday’



## 2 M-LOWERING IN THE VP

### 2.2 NO M-LOWERING ANYWHERE ELSE

#### (14) Transitive Verb + Adjunct:

a.     *já*     *tāār*   *nyààn*                    (cp. *já*   *tààr*   *nyé*)  
      I        hunt    bush                    I   hunt:T   elephant  
      ‘I hunt in the bush.’                    ‘I hunt elephant[s].’

b.     *tuààr*                    *má*    *já*     *nyāg*   *ʔèèn*  
      chicken CON    I        eat     yesterday  
      ‘the chicken that I ate yesterday’

c.     *ʔì*     *yīg*     *yà*     *gǐ*     *hōōr*   *kuán*  
      they    pour    LOC    in     horn    DEF  
      ‘they put [it] into the horn.’

## 2 M-LOWERING IN THE VP

### 2.2 NO M-LOWERING ANYWHERE ELSE

(15) Dative complement:

*ʔà*      *tō*      *nī*  
he          carry      for:me

‘He carried (it) for me.’ (Boyeldieu 1982:152)

NB: no example with a dative *kī*-PP could be found in the database

## 2 M-LOWERING IN THE VP

### 2.3 INTERVENING DATIVE COMPLEMENT

#### (16) Intervening Dative complement:

a.      *ʔà*      *tò*      *nī*      *kū*  
he          carry:T    for:me    fire

‘He carried the light (lamp) for me.’

b.      \**ʔà*      *tò*      *kū*      *nī*  
he          carry:T    fire        for:me

c.      *ʔà*      *juàŋ*    [*kí*      *nūnī*]<sub>DAT</sub> [*sààb* *bìdíl*]<sub>OBJ</sub>  
he          buy:T      for          woman    cloth      one

‘He buys/bought one piece of fabric to the woman.’

(Boyeldieu 1982:153)

b.      *ʔà*      *juàŋ*    [*sààb* *bìdíl*]<sub>OBJ</sub> [*kí*      *nūnī*]<sub>DAT</sub>  
he          buy:T      cloth      one          for          woman

‘He buys/bought one piece of fabric to the woman.’

(Boyeldieu 1982:153)

## 2 M-LOWERING IN THE VP

### 2.4 AUXILIARY VERB + NOMINALIZED VP

(17) *já*      *cār*      *mī*      *ʔà*      *mà*      *ká*      *dūrār*  
I            want      that      he            HORT      do            work  
'I want him to work.' (lit. I want that he should do work)

(18) *já*      *cār*      *kàrà*                      *dūrār*  
I            want:T      do:GER:T                      work  
'I want to work.' (lit. I want the doing of work)

(19) *já*      *cār*      *sū*  
I            want:T      water  
'I want water.'

## 2 M-LOWERING IN THE VP

### (20) Summary:

- a. M-lowering applies to any transitive verb followed by an overt *in-situ* object NP
- b. Object can be:
  - NP
  - Nominalized VP (Gerund)
- c. Adjacency between the verb and its object is not necessary (intervening dative)

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# THE MARKED TRANSITIVE FORM OF THE GERUND

### 3 THE MARKED TRANSITIVE FORM OF THE GERUND

(21) The gerund has two forms:

a. one that is homophonous with the simple form (zero-derivation)

→ no overt object *in-situ*

*kááw*                      *pāy*

make:GER be.difficult

‘Building (it) is difficult.’

b. marked transitive form:

→ overt object *in-situ*

→ same context/conditions as for M-lowering

*kààwà*                      *nyàw*                      *pāy*

make:GER:T                      house                      be.difficult

‘Building a house is difficult.’

### 3 THE MARKED TRANSITIVE FORM OF THE GERUND

#### (22) Morphology of the marked transitive form of the gerund (glossed “GER:T”)

- a. suffix -V (copy of the root vowel, with unpredictable epenthetic -r- with some CV(V) verbs, e.g. *ká* ‘do’ → *kàrà*)
- b. All tones are changed to L (**including H**)

	H	M	L
	<i>sór</i> ‘find’	<i>pīg</i> ‘tie’	<i>jàr</i> ‘cut’
Gerund with overt obj <i>in situ</i> : -(r)̀ + all tones > L	<i>sòr-ò</i>	<i>pìg-ì</i>	<i>jàr-à</i>



### 3 THE MARKED TRANSITIVE FORM OF THE GERUND

(23) Selected by auxiliary verb:

a. *já*      *càr*      *kááw*  
I            want      make:GER

‘I want to make/build (it).’

(lit. I want making/building)

b. *já*            *càr*            *kààwà*            *nyàw*  
I            want:T      make:GER:T      house

‘I want to build a house.’

(lit. I want the building of a house)

### 3 THE MARKED TRANSITIVE FORM OF THE GERUND

(24) Selected by five TAM markers (most probably former auxiliaries):

- *tēé* Imperfective
- *ná/ní* Prospective (sg/pl)
- *wáā/wũ* Itive (sg/pl)
- *náā/nũ* Prospective-Itive (sg/pl)
- *mínà/mínì* Intentional (sg/pl)

### 3 THE MARKED TRANSITIVE FORM OF THE GERUND

(24) Selected by five TAM markers (most probably former auxiliaries):

a.     *já*       *tēé*       *kááw*  
      I           IPFV       make:GER  
      ‘I am building (it).’

b.     *já*       *tēé*       *kààwà*       *nyàw*  
      I           IPFV       make:GER:T     house  
      ‘I am building a house.’

### 3 THE MARKED TRANSITIVE FORM OF THE GERUND

#### (32) Summary:

	Simple form	Gerund
No overt object, or ex-situ object	nyāg	nyāg
In-situ object	nyàg → M-lowering	nyàg-à → “transitive” suffix

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# M-LOWERING IN THE NP

42

## 4 M-LOWERING IN THE NP

### 4.1 GENITIVE VS. CONNECTIVE CONSTRUCTION

(33) GENITIVE construction vs. CONNECTIVE construction

(34) Genitive construction:  $N^0 + NP$

*nyàw ndíí*

house bird

‘(bird’s) nest’

## 4 M-LOWERING IN THE NP

### 4.1 GENITIVE VS. CONNECTIVE CONSTRUCTION

#### (35) Connective construction: NP + CON + NP

a. N(P) + CON + N(P)

*gégêr yí ráábè /*

camp CON Rabeh /

‘Rabeh’s camp’

*mōōnō*

lion

‘female lion’

*má*

CON

*nīnī*

female

b. N(P) + CON + PP

*tílà*

sand

*má*

CON

*gè*

in

*māār*

river

‘River sand’

(i.e. sand that one can find in or along the river)

## 4 M-LOWERING IN THE NP

### 4.1 GENITIVE VS. CONNECTIVE CONSTRUCTION

#### (35) Connective construction: **NP + CON + NP**

c. N(P) + CON + Locative ADV (= “demonstrative”)

*nyàw*                      *má*                      *dāŋ*

house                      CON                      there

‘That house.’

d. N(P) + CON + Clause (“relative clauses”)

*mààmàr*                      *jí*                      *múnúnj*                      *néér*

my.gd-mother                      CON                      give.birth                      my.mother

‘my maternal grand-mother’ (lit. my grand-mother  
who gave birth to my mother)



## 4 M-LOWERING IN THE NP

### 4.1 GENITIVE VS. CONNECTIVE CONSTRUCTION

#### (36) Evidence for syntactic status: pronominalization

- a.     *nyàw ndíí*                                     →     *nyàw nàná*  
house  bird   house  its  
'a/the bird's nest'                                     'its nest'
- b.     *wèn*                                     *mōl*                                     →     *wèn nàná*  
"boule"                                     pear.millet                                     "boule"  its  
'boule made of pearl millet'                                     'boule made of it'

## 4 M-LOWERING IN THE NP

### 4.1 GENITIVE VS. CONNECTIVE CONSTRUCTION

- (37) Evidence for syntactic status (2): the complement may be a very complex NP (not N-N compound, but N-NP structure)

*kī*      *yèn*      [[*cǎn*      *nīnī*] *kán*] *wùrù*]<sub>NP</sub>

*kī*      *yēn:G*      *càn-H*      *nīnī*      *kán*      *wùr-ò*  
to      body:G      child-CON      woman      DEF      family-her

‘To the girl’s family’

## 4 M-LOWERING IN THE NP

### 4.2 M-LOWERING IN THE GENITIVE CONSTRUCTION

(38) Same picture as between Verb and Object:

- a. H: *hóy* ‘shells’                      *hóy jūūrū* ‘peanut shells’  
         shells                      peanuts
- b. M: *dōrūm* ‘rope’                      *dòrùm hól* ‘bark rope’  
         rope                      bark.sp.
- c. L: *nyàw* ‘house’                      *nyàw ndíí* ‘bird’s nest’  
         house                      bird
- d. LH: *gàáw* ‘wing’                      *gàáw ndíí* ‘bird’s wing’  
         wing                      bird
- e. HL: *sây* ‘tea’                      *sây nàsàrà* ‘White people’s tea’  
         tea                      White

## 4 M-LOWERING IN THE NP

### 4.3 NO M-LOWERING ANYWHERE ELSE

#### (39) N + Connective (connective construction)

a.     *miān*   *yí*       *dōη*  
road    CON    be.long  
‘long road’

b.     *sǔ*               *nīr*  
*sū*            -H   *nīr*  
water -CON    be.hot  
‘hot water (i.e. tea)’

## 4 M-LOWERING IN THE NP

### 4.3 NO M-LOWERING ANYWHERE ELSE

#### (40) N + Numeral

a.        *dōrūm*            *bîdîl*  
          rope                    one  
          ‘one rope’

b.        *wūrā*                *māā*  
          men                    three  
          ‘three men’

## 4 M-LOWERING IN THE NP

### 4.3 NO M-LOWERING ANYWHERE ELSE

#### (41) N + Determiner

a.        *nāārā*                *kán*        *nyíní*  
man                        DEF        come  
‘The man came.’

b.        *nāārā*                *jàn*        *nyíní*  
man                        INDF        come  
‘A (certain) man came.’

c.        *nāārā*                *jánàn*        *nyíní*  
man                        INDF        come  
‘One of the men came.’

## 4 M-LOWERING IN THE NP

### 4.3 NO M-LOWERING ANYWHERE ELSE

#### (42) N + Topic/Focus markers

a. *wūrā* *yì* *tēé* *kí*  
men FOC IPFV do:PL

‘THE MEN do it.’ (i.e. it is the men’s job)

b. *ngiāāl* *lē* *ʔò* *kú* *ʔò* *pír-àr* *wó*  
hyena CONTR you see you catch-it NEG

‘The hyena on the other hand, you see it but you don’t catch it.’

c. *nāārā* *juāŋ* (*ʔà*) *nyíní* *ʔá*  
man TOP he come COMPL

‘(As for) the man, he has just arrived.’

## 4 M-LOWERING IN THE NP

### 4.3 NO M-LOWERING ANYWHERE ELSE

(43) N + Adverb, clause-final Negation

a. *[ʔà]*    *bál*    *tēé*    *tùù*    *siāāg*    *bìlà*  
he       still       IPFV       suck       milk       only

‘He was still suckling.’

b. *mālā*    *káw*    *dīàn*

“mala”    too       there:is

‘There is also (a tradition called) the mala.’

c. *ʔí*                                    *wūrā*    *bàn*  
it.is                                    men       EMPH

‘It is the men themselves.’

d. *já*        *ká*        *dūrār*    *wó*  
I            do        work       NEG

‘I did not work.’



## 4 M-LOWERING IN THE NP

### 4.3 NO M-LOWERING ANYWHERE ELSE

CONCLUSION: M-Lowering has to do with head-complement relationship:

- Presence of an Object NP *in-situ* (VP)
- Presence of a genitive complement (NP)



**5**

**M-LOWERING AS A CASE  
OF MORPHO-SYNTACTIC  
MARKING**

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## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

(44) Claim 1: not phrasal phonology

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### (44) Claim 1: not phrasal phonology

→ Crucial data: Intervening Dative (cf. ex.17):

a.    ?à       tò       nī       kū  
he       carry:T   for:me   fire

‘He carried the light (lamp) for me.’

c.    ?à       juàŋ   [kí       nūnī]<sub>DAT</sub> [sààb   bìdìl]<sub>OBJ</sub>  
he       buy:T   for       woman   cloth   one

‘He buys/bought one piece of fabric to the woman.’

(Boyeldieu 1982:153)

→ M-lowering is triggered by the presence of the Object NP in-situ, NOT by any other complement.

Not phrasal phonology: Verb and OBJ would need to be  
be adjacent: M → L /          ]<sub>V</sub> ]<sub>OBJ-NP</sub>

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‘He carried the light (lamp) for me.’

c.      ?à      **juàŋ**      [**kí**      **nūnī**]<sub>DAT</sub>      [sààb      bídíl]<sub>OBJ</sub>  
he      buy:T      for      woman      cloth      one

‘He buys/bought one piece of fabric to the woman.’

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→ **Not phrasal phonology:** Verb and OBJ would need to be adjacent: M → L / \_ ]<sub>V</sub> [OBJ-NP

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

- (45) Claim 2: It is **morphosyntax**: a floating –L suffix.  
→ Evidence: marked transitive form of the Gerund
- a. same context/use as M-lowering.
  - b. since this form of the Gerund is clearly a suffix  
→ M-lowering is best seen as a suffix as well,  
i.e. a case of morphosyntactic head-marking.
- (46) Claim 3: M-lowering in the VP and M-lowering in the Genitive constr. are one and the same phenomenon:
- a. not only V-Obj relationship
  - b. but **head-compl. relationship**

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

(47) General claim: In Laal, the presence of a directly governed complement *in situ* (in VP and NP) is marked on the head ( $V^0$ ,  $N^0$ )

	Genitive	Simple form of verb	Gerund
No complement <i>in situ</i>	( $\emptyset$ )	$\emptyset$	$\emptyset$
Overt <i>in-situ</i> complement	-L > $N^0$ -L [NP] <sub>GEN</sub>	-L > $V^0$ -L [NP] <sub>OBJ</sub>	- $\hat{V}$ > $V^0$ - $\hat{V}$ [NP] <sub>OBJ</sub>

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.1 PHONOLOGICAL ANALYSIS

Why does the –L suffix surface only with M-toned nouns/verbs?

- a. H: *pír* ‘catch’      *já*      *pír*      *tuààr*  
I      catch      chicken  
‘I catch/caught a chicken.’
- b. M: *nyāg* ‘eat’      *já*      *nyàg*      *tuààr*  
I      eat      chicken  
‘I eat/ate chicken.’
- c. L: *jàr* ‘cut, slice’      *já*      *jàr*      *tuààr*  
I      cut      chicken  
‘I cut the chicken’s throat.’
- d. LH: *sàrí* ‘peck’      *tuààr*      *sàrí*      *jāŋāl*  
chicken      peck      termite  
‘The chicken pecked the termite.’
- e. HL: *múrí* ‘run, dance’      *ʔì*      *múrí*      *gààm*  
they      run      dance.sp.  
‘They danced the funeral dance.’



## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.1 PHONOLOGICAL ANALYSIS (LAAL TONE SYSTEM)

#### Overview of the tone system of Laal

(49) Tone bearing unit: **mora** (not syllable)

→ Main argument: syllables may be linked to more than one tone.

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.1 PHONOLOGICAL ANALYSIS (LAAL TONAL SYSTEM)

(50) Surface tones (total mono-morphemic words in dict.: 1800)

a. Three level tones: H, M, L

	1 mora (CV)			1 syll./2+ morae			2 syllables		
H	(46)	<b>nyé</b>	‘elephant’	(88)	<b>rúú</b>	‘sow’	(369)	<b>míná</b>	‘thing’
M	(31)	<b>kū</b>	‘fire’	(67)	<b>tāā</b>	‘fish’	(199)	<b>dōrūm</b>	‘rope’
L	(25)	<b>nà</b>	‘bee sp.’	(61)	<b>làà</b>	‘dream’	(403)	<b>ḃìrà</b>	‘fishing hook’

NB: CVC words are excluded here, since it is not yet clear whether coda consonants are moraic or not in Laal.

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.1 PHONOLOGICAL ANALYSIS (LAAL TONAL SYSTEM)

(50) Surface tones (total mono-morphemic words in dict.: 1800)

b. 2 well attested melodies: HL, LH (+ marginal HM and MH)

	1 mora (CV)			1 syllable / 2+ morae			2 syllables		
<b>HL</b>	---			(10)	<b>suáàr</b>	‘have a meeting’	(105)	<b>tílà</b>	‘sand’
<b>LH</b>	(1)	<b>pǐ</b>	‘flower’	(38)	<b>ŋgíí</b>	‘wasp’	(236)	<b>kàrú</b>	‘tree sp.’
<b>HM</b>	---			(3)	<b>wáā</b>	ITIVE	(7)	<b>líbrā</b>	‘needle’
					(2 TAM + 1 prep.)			(5 bw, 1 det, 1 ideo)	
<b>MH</b>	---			(1)	<b>tēé</b>	IPFV	(4)	<b>kēsé</b>	‘bow’
					(1 TAM marker)			(4 bw.)	
<b>LM</b>	---				---			---	
<b>ML</b>	---				---			---	

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.1 PHONOLOGICAL ANALYSIS (LAAL TONAL SYSTEM)

(51) CONCLUSION: M-tone is unstable, “weaker” than H and L.

NB: suffixation to a root may only preserve the M of the root if the suffix itself surfaces as M, otherwise the M tone of the root is changed to H or L (according to rules that are not always understood yet).

	H	M	L
	<i>lúg</i> ‘mix’	<i>lūg</i> ‘uproot’	<i>bààr</i> ‘cut’
Ventive -v̂	<i>lúg-ú</i>	<i>lùg-ù</i>	<i>bààr-à</i>
Associative -v̂	<i>lúg-ú</i>	<i>lùg-ú</i>	<i>bààr-á</i>
Medio-passive -íny	<i>lúg-íny</i>	<i>lùg-íny</i>	<i>bààr-íny</i>

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.1 PHONOLOGICAL ANALYSIS (LAAL TONAL SYSTEM)

(52) One possible analysis: underspecification of M

Cf. **Akinlabi's** (1984) analysis of the Yoruba tone system

- a. Two underlying tones: H and L
- b. One underspecified  $\emptyset$ , realized as default M

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.1 PHONOLOGICAL ANALYSIS (-L SUFFIXATION)

- (53) M-Lowering is caused by floating -L suffix  
→ -L may only attach to preceding toneless mora
- (54) If preceding mora already bears a tone, -L does not attach and is not realized  
→ Evidence that it is still present: it blocks High Tone Spreading

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.1 PHONOLOGICAL ANALYSIS (-L SUFFIXATION)

(55) Head has a M-tone (=  $\emptyset$ )

a.	<i>dōrūm</i>		'rope'		
	Lexical tone	→	Floating T assoc.	→	Default T assoc.
	<i>dorum</i>		n/a		<i>dōrūm</i>
	x x				x x
					⋮
					<u>M</u>





## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.1 PHONOLOGICAL ANALYSIS (-L SUFFIXATION)

(56) Head has a H-tone

<i>tám</i>	<i>mār</i>					
leg	cow					
Lexical tone		→	Floating T assoc.	→	Default T insertion	
<i>tám</i> + <i>mar</i>			n/a		<i>tám</i> <i>mār</i>	
x	x				x	x
						⋮
H	<b>-L</b>				H	( <b>-L</b> ) <u>M</u>

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.1 PHONOLOGICAL ANALYSIS (-L SUFFIXATION)

(57) Head has a L-tone

<i>nyàw</i>	<i>ndíí</i>			'bird's nest'
house	bird			
Lexical tone	→	Floating T assoc.	→	Default T insertion
<i>nyaw</i> + <i>ndíí</i>		n/a		n/a
x	x			
L	(-L) H			

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.1 PHONOLOGICAL ANALYSIS (-L SUFFIXATION)

**Ignore section 5.2.3 on Handout**

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.2 PRONOMINALIZATION OF COMPLEMENT AND HTS

Pronominalization of complement = evidence of presence of –L suffix even when it does not attach

→ Pronominalization = pronominal suffix on the head  
(slightly more complex for genitive construction)

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.2 PRONOMINALIZATION OF COMPLEMENT AND HTS

#### (63) Pronominalization of genitive complement

→ All suffixes are L-toned

			H		M	L	
			>H	>HL	M>L	>L	>LH
			<i>tám</i> 'hand'	<i>wúúr</i> 'thigh'	<i>māl</i> 'tongue'	<i>bààw-</i> 'gd-father'	<i>nàr</i> 'son'
1	'my'	-àr	<i>tám-ír</i>	<i>wúúr-ìr</i>	<i>màl-àl</i>	<i>bààw-àr</i>	<i>nàr-ár</i>
2	'your'	-à	<i>tám-á</i>	<i>wúúr-à</i>	<i>màl-à</i>	<i>bààw-à</i>	<i>nàr-á</i>
3m	'his'	-àr	<i>tám-ár</i>	<i>wúúr-àr</i>	<i>màl-àl</i>	<i>bààw-àr</i>	<i>nàr-ár</i>
3f	'her'	-ò(g)	<i>túm-ú</i>	<i>wúúr-ù</i>	<i>mòl-ò</i>	<i>bòòw-ò</i>	<i>nòr-ó</i>
3n	'its'	-àn	<i>tám-án</i>	<i>wúúr-àn</i>	<i>màl-àn</i>	<i>bààw-àn</i>	<i>nàr-án</i>

→ There seems to be M-lowering, i.e. -L suffix

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.2 PRONOMINALIZATION OF COMPLEMENT AND HTS

#### (64) Pronominalization of genitive complement

However → a few nouns have archaic toneless suffixes:

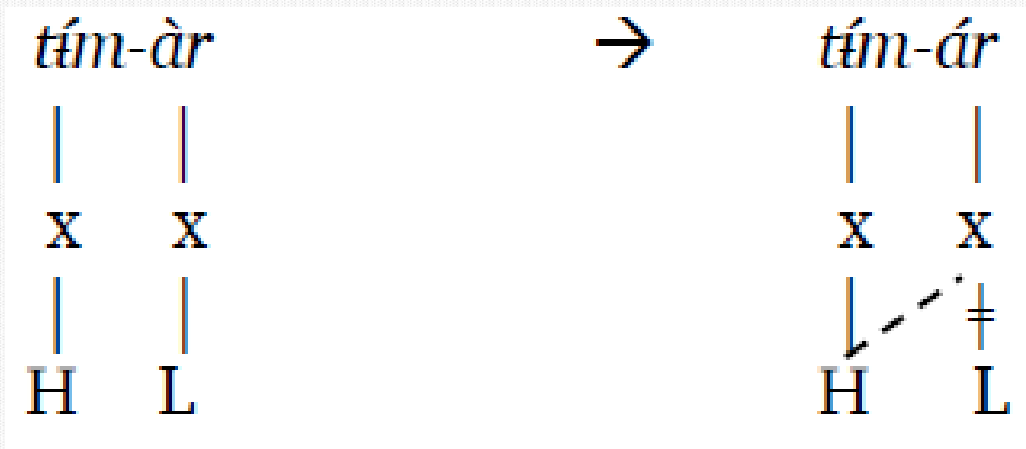
			<i>mān-</i> ‘face’	<i>jūn-</i> ‘belly’
1	‘my’	-i	<i>mān(-ī)</i>	<i>jūn(-ī)</i>
2	‘your’	-(u)a	<i>mūn-ā</i>	<i>jūn-ā</i>
3m	‘his’	-ar	<i>mān-ār</i>	<i>jūn-ār</i>
3f	‘her’	-ò	<i>mùn(-ù)</i>	<i>jùn(-ù)</i>
3n	‘its’	-àn	<i>mèn-àn</i>	<i>jùn-àn</i>

→ Conclusion: no -L suffix, but L spreads from L-toned suffix

5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING  
5.2 PRONOMINALIZATION OF COMPLEMENT AND HTS

(65) No -L suffix in N-suf:

a. 'his hand' (H-toned, 1 mora + L-toned suf.)



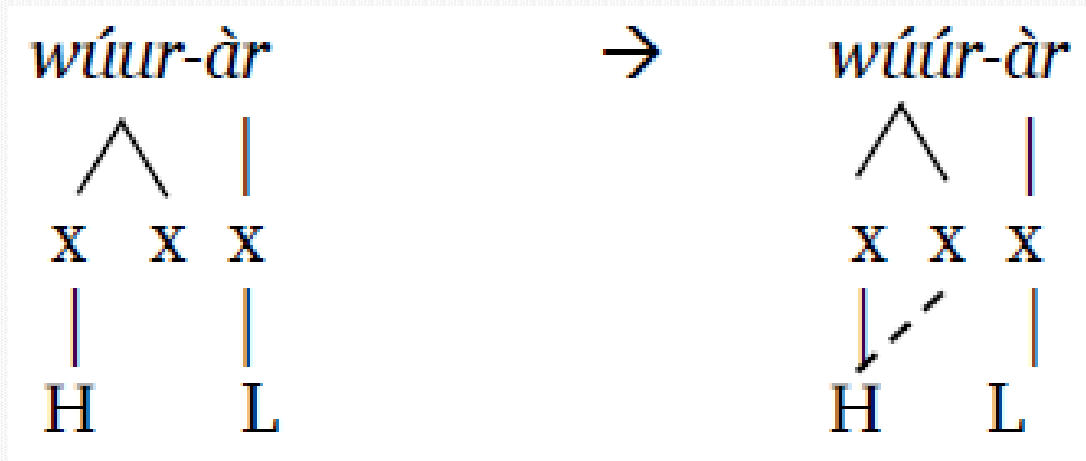
The lexical H of the root spreads one mora to the left and delinks the L of the suffix.

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.2 PRONOMINALIZATION OF COMPLEMENT AND HTS

(65) No -L suffix in N-suf:

b. 'his thigh' (H-toned, 2 morae + L-toned suf.)



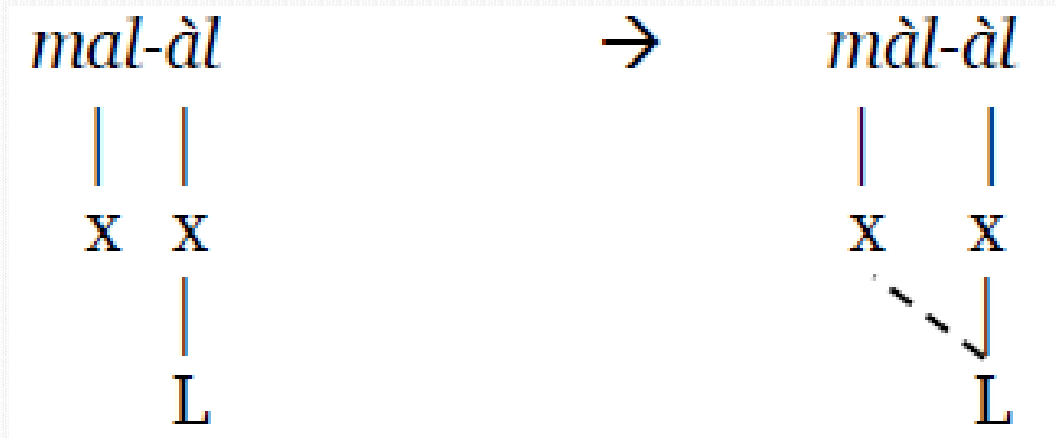


## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.2 PRONOMINALIZATION OF COMPLEMENT AND HTS

(65) No -L suffix in [N + -pron.suf]:

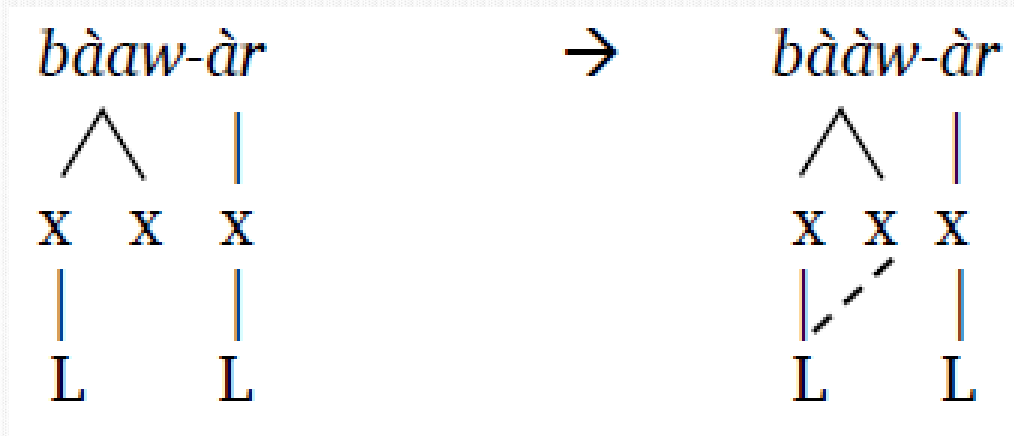
c. 'his tongue' ( $\emptyset$ -toned + L-toned suf.)



5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING  
5.2 PRONOMINALIZATION OF COMPLEMENT AND HTS

(65) No -L suffix in [N + -pron.suf]:

d. 'his gd-father' (L-toned root + L-toned suf.)

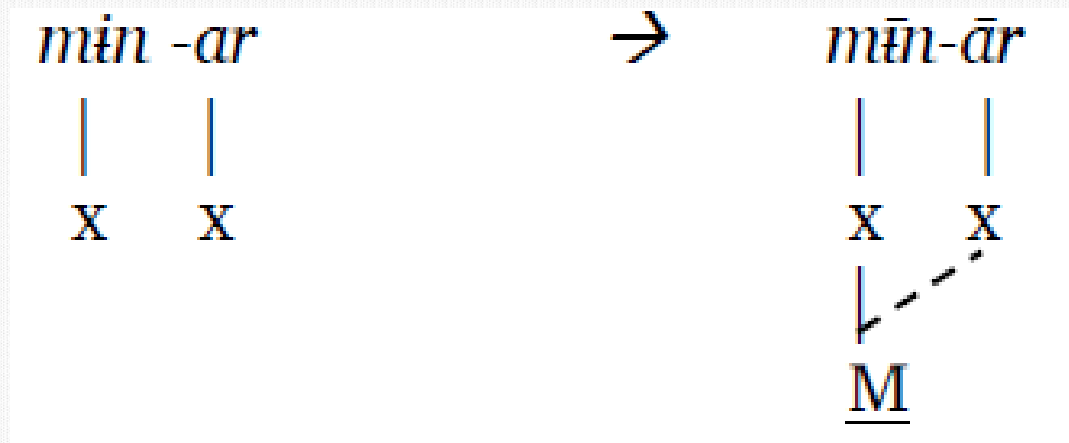


## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.2 PRONOMINALIZATION OF COMPLEMENT AND HTS

(65) No -L suffix in [N + -pron.suf]:

f. 'his face' ( $\emptyset$ -toned root +  $\emptyset$  toned suf.)



## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.2 PRONOMINALIZATION OF COMPLEMENT AND HTS

(70) Presence of the -L suffix in [V + -pron.suf.]

			H	M	L
			<i>sór</i> 'find'	<i>nyāg</i> 'eat'	<i>jàr</i> 'cut'
1	'me'	-ár, -án	<i>sór-ár</i>	<i>nyàg-án</i>	<i>jàr-án</i>
2	'you'	-á, -án	<i>suár-á</i>	<i>nyuàg-án</i>	<i>juàr-án</i>
3m	'him'	-ár, -án	<i>suár-ár</i>	<i>nyàg-án</i>	<i>jàr-án</i>
3f	'her'	-ò, -òn	<i>sór-ò</i>	<i>nyòg-òn</i>	<i>jòr-òn</i>
3n	'it'	-àr, -àn	<i>suár-àr</i>	<i>nyàg-àn</i>	<i>jàr-àn</i>

- 1<sup>st</sup> three suffixes are H-toned
- M-toned verb is lowered

CONCLUSION: cannot be L spreading from suffix

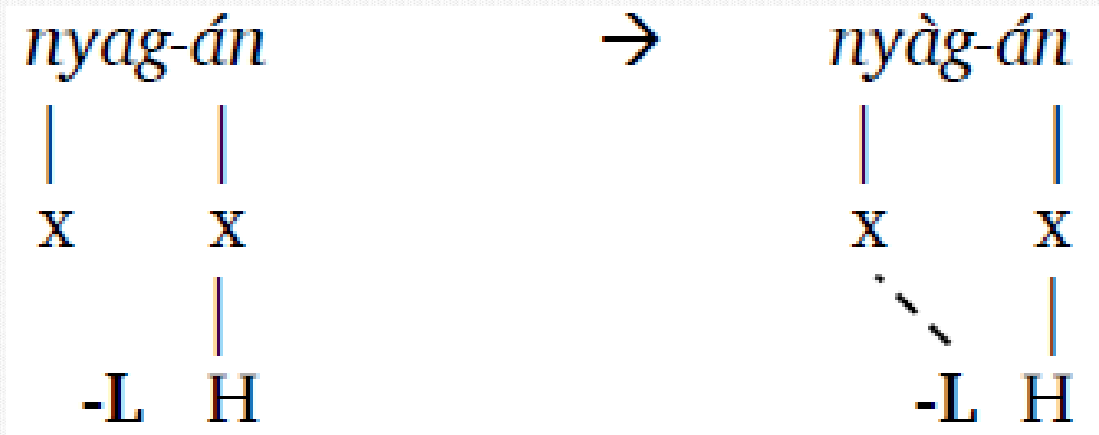
→ Floating -L suffix is present

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.2 PRONOMINALIZATION OF COMPLEMENT AND HTS

(70) Presence of the -L suffix in [V + -pron.suf.]

a. *nyàg-án* ‘eat him’ ( $\emptyset$ -toned root + H-toned suffix)

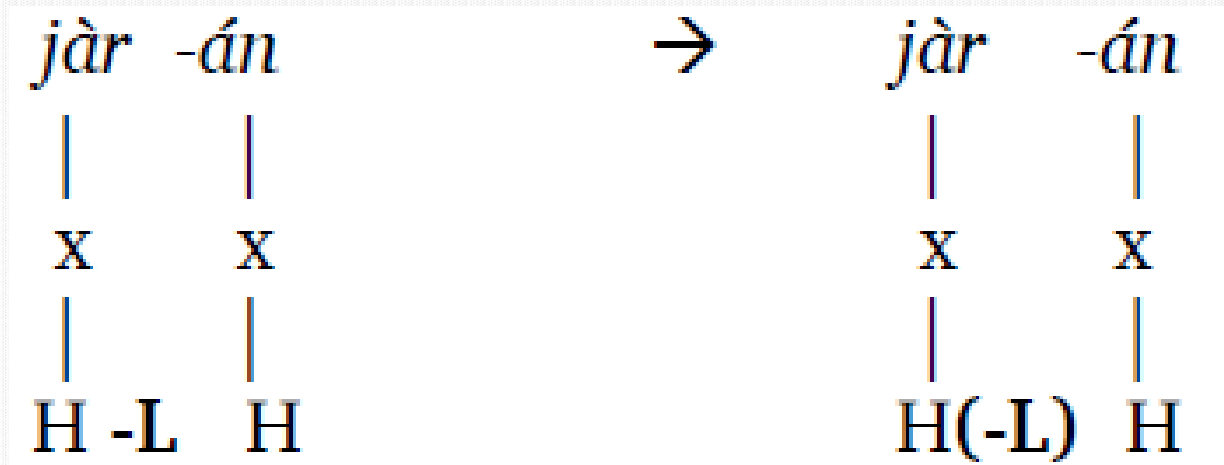


## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.2 PRONOMINALIZATION OF COMPLEMENT AND HTS

(XX) Presence of the -L suffix in [V + -pron.suf.]

b. *jàr-án* ‘cut his throat’ (L-toned root + H-suffix)



## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.2 PRONOMINALIZATION OF COMPLEMENT AND HTS

(XX) Presence of the -L suffix in [V + -pron.suf.]

c. *suár-ár* 'find him' (H-toned root + H-toned suffix)

<i>sór</i>	<i>-ár</i>	→	<i>suár</i>	<i>-ár</i>
X	X		X	X
H -L	H		H(-L)	H

## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.2 PRONOMINALIZATION OF COMPLEMENT AND HTS

(XX) Presence of the –L suffix in [V + -pron.suf.]

d. *sór* + *-àr* ‘find + it’ (H-toned root + L-toned suffix)



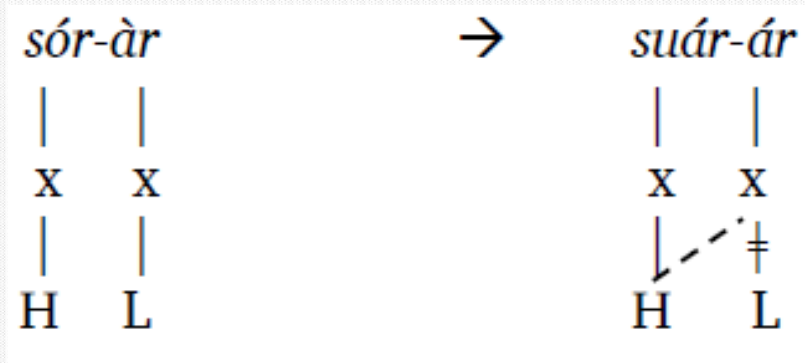
## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.2 PRONOMINALIZATION OF COMPLEMENT AND HTS

(XX) Presence of the -L suffix in [V + -pron.suf.]

d. *sór* + *-àr* 'find + it' (H-toned root + L-toned suffix)

Expected if no floating-L:



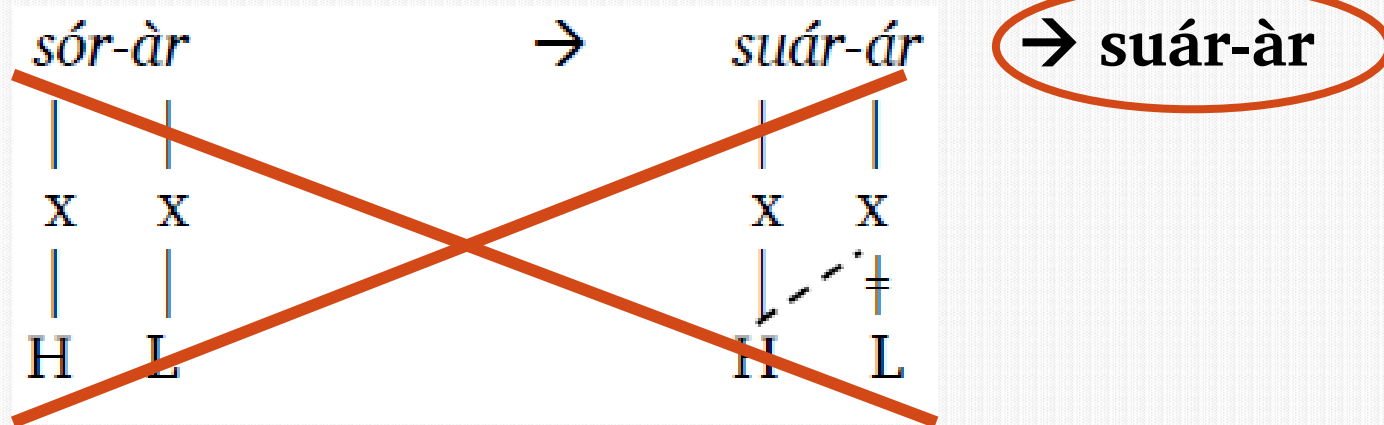
## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.2 PRONOMINALIZATION OF COMPLEMENT AND HTS

(XX) Presence of the -L suffix in [V + -pron.suf.]

d. *sór* + *-àr* 'find + it' (H-toned root + L-toned suffix)

Expected if no floating-L:



## 5 M-LOWERING AS A CASE OF MORPHO-SYNTACTIC MARKING

### 5.2 PRONOMINALIZATION OF COMPLEMENT AND HTS

(XX) Presence of the -L suffix in [V + -pron.suf.]

d. *sór* + *-àr* ‘find + it’ (H-toned root + L-toned suffix)

With floating -L:

<i>sór</i>	<i>-àr</i>	→	<i>suár</i>	<i>-àr</i>
x	x		x	x
H -L	L		H(-L)	L

-L cannot attach to TBU already bearing a tone, and blocks HTS



# CONCLUSION

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## CONCLUSION

(70) M-lowering is not a prosodic alternation → not compatible with Hayes' (1990) account of Hausa Final vowel shortening (Precompiled Phrasal Phonology)

a. *ná:* *ká:mà:* (*ší*)  
I catch it  
'I have caught (it).'

b. *ná:* *ká:mà:* *kí:fí:*  
I catch fish  
'I have caught a fish.'

c. *ná:* *ká:mà:* *wà* *Mú:sá:* *kí:fí:*  
I catch for Musa fish  
'I have caught Musa a fish.'

## CONCLUSION

(73) M-lowering in Laal is a case of morphosyntactic marking: the presence *in-situ* of a complement is marked on its head.

→ floating -L suffix is one of the two realizations of this morpheme

	Genitive	Simple form of verb	Gerund
No complement <i>in situ</i>	( $\emptyset$ )	$\emptyset$	$\emptyset$
Overt <i>in-situ</i> complement	-L > N <sup>0</sup> -L [NP] <sub>GEN</sub>	-L > V <sup>0</sup> -L [NP] <sub>OBJ</sub>	- $\dot{V}$ > V <sup>0</sup> - $\dot{V}$ [NP] <sub>OBJ</sub>

## CONCLUSION

(74) in keeping with recent reanalyses of similar phenomena in other languages that used to be analyzed as cases of phrasal phonology,

→ in particular **Crysmann's (2005)** reanalysis of Hausa final vowel shortening:

*“FVS in Hausa is but one exponent of a highly systematic distinction drawn in the language relating to the mode of realization of some privileged argument, viz. the direct object.”* (**Crysmann 2005:19**)

## CONCLUSION

- (75) Interestingly, **Crysmann (2011)** shows that the same property (“head-marking, signaling the presence of an adjacent *in-situ* complement” **(2011:1)**) is attested in Hausa genitive constructions making use of the genitive linker *-n/-r*.

NB: Contrary to Laal, the (non-)extraction marking morphemes are different in the NP and in the VP.



## CONCLUSION

- (76) Laal, like Hausa, belongs to the typological class of “extraction-marking languages” (Crysmann 2005:1), where the head of a construction is marked differently depending on whether its complement is extracted or *in situ*.

Like Hausa (but unlike Chamorro or French), the head is marked in cases of non-extraction (overt *in-situ* complement) in Laal.

## CONCLUSION

- Is a reanalysis of Yoruba L-raising (cf. intro) and other similar phenomena in other languages along those lines possible?

**THANK YOU!**

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