

# Conditioning factors on final vowel alternations in Hausa verbs

A prosodic account

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# Outline

- A little bit about Hausa
- Final vowel alternations
- Puzzling data
- Hypothesis
- Outlook

## **A little bit about Hausa**

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- West Chadic (Afro-Asiatic) language
- 88 million speakers (54 million of which as L1)
- spoken primarily in Niger and northern Nigeria, official language in both countries
- language of instruction in education

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- tonal (high, low and falling)
- lots of root and pattern morphology akin to the related Arabic and Hebrew
- verb syntax mostly revolves around auxiliaries, lexical verbs are syntactically almost ‘inert’

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## Glossing abbreviations

Exhaustive list of glossing abbreviations used:

1 = first person, 2 = second person, 3 = third person,  
SG = singular, PL = plural, GR X = verb grade & form,  
OBJ = object, f = feminine, m = masculine,  
CPLI = completive I, CPLII = completive II,  
CNTI = continuative I, CNTII = continuative II,  
SBJV = subjunctive, KO = modal particle 'kò:'

## **Final vowel alternations**

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## Nominal vs. pronominal objects

(1) a. *sun razàná faraq-hù:la:*  
CPLI.3PL terrorize civilians  
'They terrorized the civilians.'

(Newman 2000:632)

b. *sun razàna: = su*  
CPLI.3PL terrorize = 3PL.OBJ  
'They terrorized them.'

## Nominal vs. pronominal objects

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The same verb takes on two different forms depending on whether the following object is nominal or pronominal

Verbs like *razan* always end in either a short vowel and bear an HLL melody, or end in a long vowel plus an HLH melody

## Verb Grades

- *razan* is a so-called grade 1 verb
- grades are verb classes with very heterogeneous properties (f.e. GR2 = ditransitive, GR6 = motion verbs, but neither are all ditransitives GR2 nor are all motion verbs GR6)
- the grades are established by the kinds of vowels and melodies they have preceding different kinds of words:

A = V – \_\_

B = V – direct, personal pronominal

C = V – direct, non-personal pronominal<sup>1</sup> or nominal

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<sup>1</sup>Such as wannàn ‘this one’, koomee ‘anything~everything’ and wàà ‘who’

## Partial Paradigm

	A	B	C
Grade 1	-aa HL(H)		-a HL(L)
Grade 2	-aa LH(L)	-ee LH	-i LH
Grade 4	-ee HL(H)		-e(e) HL(H)
Grade 6	-oo H		

**Table 1:** Final vowels and tone melodies of some verb grades

The A–B–C forms are not an obligatory distinction, see f.e. grade 6 (and 4)

Only gonna look at grade 2 verbs from now on since they're the most distinct and thus most informative ones wrt context forms

## In-situ/ex-situ pairs: Introduction

Over the next following slides I will show you data from sentence pairs which differ minimally in the words used and their meaning

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Between the sentences of each pair there is however a structural difference:

For one reason or another, the object immediately follows the verb in one (in-situ), whereas in the other the object appears clause-initially (ex-situ)

## In-situ/ex-situ pairs: Q–A pairs

(1) Jaggar (2001:195)

Q:. Kun sayi bakar mota?

kun        sàyi        bakaɾ    mo:tà:?  
CPLI.2PL buy\GR2C black car

‘Did you buy a black car?’

A:. A’a, farar mota muka saya.

a:’à: farar    mo:tà:    mukà        sàya:  
no    white car    CPLII:1PL buy\GR2A

‘No, it was a white car we bought.’

## In-situ/ex-situ pairs: Questions and echo questions

(2) Newman (2000:494)

a.      mè:    ta:            sàya:  
          what CPLI.3SGf buy\GR2A

‘What did she buy?’





(4) Jaggar (2001:521)

a. Yàr wa ka aura?

[yʌɾ wà: ]<sub>i</sub> ka àura: [\_\_\_\_\_] <sub>i</sub>?  
daughter whose CPLII.2SG.m marry\GR2A

b. Wa ka auri yàrsa?

wà:<sub>i</sub> ka àuri [yʌɾ-sà \_\_\_\_]<sub>i</sub>  
whose CPLII.2SG.m marry\GR2C daughter-POSS.3SG

‘Whose daughter did you marry?’

All this data can be described by the A-B-C model from before

A = V – \_\_\_

B = V – direct, personal pronominal

C = V – direct, non-personal pronominal or nominal

Now we're going to look at some more challenging data

## **Puzzling data**

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## Complement clauses I

- (5) a.      na:          ne:mì          ìn          gan = shì  
              CPLI.1SG seek\GR2C SBJV.1SG see\GR\*B = 3SG.OBJ

‘I tried (lit. sought) to see him.’

- b.          na:          ne:mì          aiki:  
              CPLI.1SG seek\GR2C work

‘I looked for work.’

Jaggar (2020:162)

The matrix verb ‘seek’ *ne:mì* appears in the C-form both when it takes a subjunctive clause or a noun as its complement

## Complement clauses II

The following sentences are claimed to have the same meaning

(6) a.      mun      hànga:      sun      da:wo:      Furniss (1991:97)  
              CPLI.1PL see\GR2A CPLI.3PL come back\GR6ABC

      b.      mun      hàngi      sun      da:wo:  
              CPLI.1PL see\GR2C CPLI.3PL come back\GR6ABC

‘We saw they came back.’

There is likely to be some conditioning factor though, possibly: presuppositional content, prosodic phrasing, factivity, ...

## Full vs. reduced object pronouns

Hausa has modal particles which can appear freely within a sentence, but (obviously) not inside of a word

(7) a.      ya:          nè:me: = tà                                  Newman (2000:478)  
              CPLI.3SG seek\GR2B = 3SG.fOBJ  
              ‘He sought her.’

b.      ya:          nè:mi          kò: ita  
              CPLI.3SG seek\GR2C KO 3SG.f  
              ‘He moreover sought her.’

- modal particle intervenes between verb and pronoun  
→ cliticization blocked, verb takes C- instead of B-form  
(despite no following noun!)

## **My hypothesis**

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## Prosodically conditioned

$\omega \hat{=}$  prosodic word ( $\sim$  root + affixes + clitics)

$\phi \hat{=}$  prosodic phrase ( $\sim$  syntactic phrase)

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- Rule 1:  $(\dots) \omega(V + B-X) (\dots)$ 
  - if the verb is followed by any material within the same prosodic word, it has to take the B-form no matter what the wider prosodic context is
- Rule 2:  $\phi((\dots) V + A)$  OR  $\phi((\dots) V + C\dots X)$ 
  - iff the verb terminates its prosodic word on its own, it'll either take the A-form or the C-form
  - no following material within the phonological phrase: A
  - any following material within the phonological phrase: C

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(9) some select predictions for prosodic phrasing

a.  $\iota$ (y'aŋ wà ka  $\omega$ (àùra:)) (4), A

b.  $\iota$ (wà: ka  $\phi$ ( $\omega$ (àuri) y'aŋ-sa)) C

c.  $\iota$ ( $\phi$ (mun  $\omega$ (hànga:))  $\phi$ (sun da:wo:)) (6), A

d.  $\iota$ (mun  $\omega$ (hàngi) sun da:wo:) C

e. ya:  $\omega$ (nè:me: = tà) (7), B

f. ya:  $\phi$ ( $\omega$ (nè:mi)  $\omega$ (kò:)  $\omega$ (ita)) C

## This is alloMORPHY

- differences in alternations quite minute for the most part, one could imagine a couple of shortening/lengthening rules to take care of the distribution

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- differences in alternations quite minute for the most part, one could imagine a couple of shortening/lengthening rules to take care of the distribution
- ! crucially though GR2 endings escape a phonological account
  - while  $e: \rightarrow a$  does happen in some other contexts in the language, I'm not aware of any instances of  $e: \rightarrow i$
- there are irregular verbs whose endings are phonologically unpredictable, but they nonetheless conform to the same shape as the respective grade vowels

## This is alloMORPHY II

	A	B	C
see	gani:	gan	ga
leave (tr.)	bari:	bari:	baɾ
know	sani:	sani:, san	san
load <sub>1</sub>	ɗaukà	ɗàùke:	ɗàùki
load <sub>2</sub>	ɗaukà	ɗau	ɗau

**Table 2:** some irregular verbs

- irregular verbs have don't share any morphs with any of the grades (or with each other)
- their endings are still sensitive to the A–B–C contexts in the same way as regular verbs are



predicted prosodic phrasing indicated by me

(10) (Pawlak (2007:103–4), citing Matafiya 1958:15)

- a.        dire:bà    ϕ(ya:        **ga**            mutà:ne:    sun        yi  
          driver    CPLI.3SG    see\GR\*C    people    CPLI.3PL    do  
                  yawa:)  
                  abundance

‘The driver saw there were many people.’

- b.        dire:bà    ya:            **gani:**        ,(cê:wa:    mutà:ne:    sun  
          driver    CPLI.3SG    see\GR\*A    that        people    CPLI.3PL  
                  yi yawà:)  
                  do abundance

‘The driver saw that there were many people.’

predicted prosodic phrasing indicated by me

(11) Pawlak (2007:104)

- a.  $\phi$ (sun    **ga**        yanà:    shân    ruwa:)  
CPLI.3PL see\GR\*C    CNTI:3SG drinking water

‘They saw him drinking water.’

- b.  $\phi$ (sun     $\omega$ (**gan** = shi))         $\phi$ (à lo:kàcîn dà    yakè:  
CPLI.3PL see\GR\*B = 3SG.OBJ    at time which    CNTII:3SG  
shân    ruwa:)  
drinking water

‘They saw him when he was drinking water.’





# Outlook

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- consult native speakers for possible interpretive difference in complement clause examples
- collect recordings of a handful of speakers uttering all the different types of constructions
- examine whether prosodic account works out

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