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TONAL INVERSION IN GEJI AND PELU

B. CARON*

Geji and Pelu are two dialects of Geji proper, a language spoken in Bauchi State, Nigeria. It belongs to the Northern sub-group of the South-Bauchi West Chadic languages.

South Bauchi West Classification¹

Language clusters	Languages	Dialects
Sub-group North		
Geji	Geji	Bolu
		Pelu
Polci	Zaranda	Geji
		Zaranda
Polci	Dir	Zul
		Baram
		Diir
	Polci	Buli
		Langas (Luri†)
		Lundur
		Polci
Sub-group South		
Zeem	Chaari	Zeem†, Dyarum (?)
		Tule†
		Chaari
Dass	Lushi	Lushi†
	Baraza	Bàraza
		Dùr
	Dott	Zumbul
Wangdày		
Zòdì		
Saya	Zakshi	Zàkshì
		Boto
		Zari
	Zaar	Sigidi
		Zaar of Kal
		Zaar of Marti
		Zaar of Bogoro

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¹ After Shimizu 1978.

Geji Dialects

Pelu and Geji are two very close dialects with very similar lexicon.

	Pelu	Geji
wasp	<i>kábàlkàn²</i>	<i>kábàlkàn</i>
ant sp.	<i>fyá: fyá:</i>	<i>fyá: fyá:</i>
dog	<i>kááí</i>	<i>kááí</i>
cat	<i>kúle</i>	<i>kúle</i>
horn	<i>nɔ:</i>	<i>nɔ:</i>
tree sp. (wild custard apple)	<i>mbwa:ki</i>	<i>mbwa:ki</i>
mahogany	<i>lànka</i>	<i>lànka</i>

Tone inversion (pre-pausal form)

However, tonal inversion is frequently observed in pre-pausal forms:

	Pelú		Gejí	
head	<i>gǎ:</i>	R	<i>gá:</i>	M
guinea-fowl	<i>dǒ:n</i>	R	<i>dǒ</i>	M
head	<i>gǎ:</i>	R	<i>gá:</i>	M
baboon	<i>hǔ:</i>	R	<i>hwo:mi</i>	MM
testicle	<i>ndi:sí</i>	MH	<i>ndí:sí</i>	HH
scorpion	<i>yendál</i>	MH	<i>yéndál</i>	HH
dove	<i>kulú</i>	MH	<i>kúlú</i>	HH
tongue	<i>láká</i>	MH	<i>láká</i>	HH
beans	<i>ba:lí</i>	MH	<i>bá:lí</i>	HH
millet sp.	<i>swa:ɲí</i>	MH	<i>swá:gí</i>	HH
bird	<i>ya:tí</i>	MH	<i>yá:tí</i>	HL
porcupine	<i>gusní</i>	MH	<i>gùsnì</i>	LL
dirt	<i>dàskán</i>	MH	<i>dàskàn</i>	MM
fish	<i>kwe:sí</i>	MH	<i>kwe:si</i>	MM
tree sp. (<i>Bombax costatum</i>)	<i>bi:kí</i>	MH	<i>bi:ki</i>	MM

Comments:

- 1) All corresponding Pelu patterns = rising
- 2) Geji : rising pattern possible for verbs:

Mə paki wi.
 PL.AOR finish ACC
 ‘we finished’

- 3) Geji = no rising pattern in nouns (except for a few Hausa loanwords, e.g. *dò:ríná*, ‘hippopotamus’; *àgwà:gá*, ‘duck’, etc.)

² Geji and Pelu are 3-tone language. High tone (H) is noted by an acute accent on the vowel, Low tone (L) with a grave accent, Mid tone (M) is left unmarked. Falling tone (F) is noted by a circumflex accent, and Rising tone (R) by a caron.

Floating tones in Geji

A first explanation is possible if a survey of lexical tones done with the copula *kən* ‘it is’ = Hausa stabilizer *ne:/fe*³:

		Geji	Pelu
bedbug	<i>búlí</i>	<i>kən</i>	<i>kən</i>
flea	<i>swa:si</i>	<i>kən</i>	<i>kən</i>
warthog	<i>dànzi</i>	<i>kən</i>	<i>kən</i>

Geji: the stabilizer has a Mid tone that copies the last tone of the noun it follows.

Pelu: the stabilizer has polar tone: M after H and H after –H (i.e. M and L).

In Geji⁴, with some nouns having L or M tone, *kən* appears with a H tone. This can be accounted for by positing a floating H tone linking with the particle:

(13) a. *dà:zi* (LL^H), ‘eleusine’: *dà:zi kən*, ‘it is eleusine’.



	Pelu		Geji	
eleusine	<i>dà:zi</i>	<i>LH</i>	<i>dà:zi (H)</i>	<i>LL (H)</i>
red sorrel	<i>d̥ʒid̥à</i>	<i>LH</i>	<i>d̥ʒid̥à (H)</i>	<i>LL (H)</i>
blood	<i>hùlàn</i>	<i>LH</i>	<i>hùlàn (H)</i>	<i>LL (H)</i>
speech	<i>gàbá</i>	<i>LH</i>	<i>gàbà (H)</i>	<i>LL (H)</i>
donkey	<i>zà:kí</i>	<i>LH</i>	<i>d̥ʒà:kì (H)</i>	<i>LL (H)</i>
bark	<i>gùl̥ʒ̥à</i>	<i>LH</i>	<i>gùb̥ʒ̥àn (H)</i>	<i>LL (H)</i>
wild yam	<i>gùl̥kí</i>	<i>LH</i>	<i>gùl̥kì (H)</i>	<i>LL (H)</i>
lungs	<i>hu:hú:</i>	<i>MH</i>	<i>hu:hu: (H)</i>	<i>MM (H)</i>
lizard	<i>bàlkàŋ</i>	<i>LH</i>	<i>balkəŋ (H)</i>	<i>MM (H)</i>
land monitor	<i>dàkál</i>	<i>LH</i>	<i>dəkəl (H)</i>	<i>MM (H)</i>
friend	<i>yelàn</i>	<i>MH</i>	<i>yelən (H)</i>	<i>MM (H)</i>
lie	<i>lali</i>	<i>MH</i>	<i>lali (H)</i>	<i>MM (H)</i>
mucus	<i>yeləl</i>	<i>MH</i>	<i>yeləl (H)</i>	<i>MM (H)</i>
hornbill	<i>burtú</i>	<i>MH</i>	<i>burtu (H)</i>	<i>MM (H)</i>
tree sp. (Grewia bicolor)	<i>hollí</i>	<i>MH</i>	<i>hollì (H)</i>	<i>MM (H)</i>
horse	<i>kapsí</i>	<i>MH</i>	<i>kapsi (H)</i>	<i>MM (H)</i>
thorn	<i>ji:lí</i>	<i>MH</i>	<i>i:li (H)</i>	<i>MM (H)</i>
citrus	<i>le:mó</i>	<i>MH</i>	<i>le:mo (H)</i>	<i>MM (H)</i>
tree sp. (Detarium S.)	<i>gàŋəl</i>	<i>MH</i>	<i>gəŋəl (H)</i>	<i>MM (H)</i>
pepper	<i>tatta:séj</i>	<i>MMH</i>	<i>tatta:fi (H)</i>	<i>MM (H)</i>
mosquito	<i>huləndí</i>	<i>MMH</i>	<i>huləndi (H)</i>	<i>MMM (H)</i>

The same floating H tone cannot link with syllables with an initial depressor consonant⁵, as can be seen with the quantifier *gwon*, pl. : *d̥ʒon*, ‘some’. The quantifier is realized with a M tone and the floating H tone links with the last syllable of the noun. This can be accounted for by saying that *gwon* has a Mid tone pattern, and D consonants act as a barrier (are “opaque”) to H tones.

³ This is a first intuitive presentation of the data. See below for another interpretation, taking into account the dialect variation.

⁴ Pelu has H and M “floating” tones that behave differently from Geji.

⁵ Cf. Caron 2009.

- (13) b. $dà:zì (LL^H) + gwon > dà:zì gwon$
-

Floating tones in Geji?

However, the tones of *gwon* in other contexts vary in a way that is difficult to explain if it has a Mid tone. Let us compare the behaviour of *gwon* with that of *kən*:

- (14) a. *kadì* ‘dog’ *kadì kən* *kadì gwòn*
 b. *kúlú* ‘dove’ *kúlú kən* *kúlú gwon*
 c. *bàlì* ‘monkey’ *bàlì kən* *bàlì gwon*
 d. *dànzì^H* ‘warthog’ *dànzì kən* *dànzì gwon*
 e. *wá:tân* rain season *wá:tân kən* *wá:tân gwòn*

Now, if *gwon* has a lexical Lo tone, and if we consider that it does not block the rightward spreading of H, the following rules⁶ for the surface realization of tone combinations apply:

	L	H	M
L	M	H	L
H	M	H	H
M	L	H	M

In Caron (2009) we hypothesized that the lexical form of *dànzì* (H) was *dànzì*, and the floating H tone was only a surface realization of the citation form, yielding the following general derivation:

- (15) a. *kadì* + *kən* > *kadì kən* (M+M > M)
 b. *kadì* + *gwòn* > *kadì gwòn* (M+L > L)

- (16) a. *kúlú* + *kən* > *kúlú kən* (H+M > H)
 b. *kúlú* + *gwòn* > *kúlú gwon* (H+L > M)

- (17) a. *bàlì* + *kən* > *bàlì kən* (L+M > L)
 b. *bàlì* + *gwòn* > *bàlì gwon* (L+L > M)

(18)	a.	<i>dànzì</i>	+	<i>kən</i>	>	<i>dànzì kən</i>	(H+M > H)
	b.	<i>dànzì</i>	+	<i>gwòn</i>	>	<i>dànzì gwon</i>	(H+L > M)

- (19) a. *wá:tân* + *kən* > *wá:tân kən* (M+M > M)⁷
 b. *wá:tân* + *gwòn* > *wá:tân gwòn* (M+L > L)

However, (18a) yields an exception : *dànzì kən* instead of **dànzì kən* as predicted by the rules. This exception can be accounted for if we state that *kən* is a clitic with no lexical tone, and the OCP applies on the domain N=clitic, *dànzì=kən*.

⁶ *idem*.

⁷ The non-H part of contour tones is M: F < H-M ; R < M-H.

Conclusion

- It is much desirable, as a rule, to find a systematic way of accounting for tonal inversion in the dialect, by presenting a unified description of the lexicon;
- this presents a further limitation of the role of Depressor Consonants in Geji: this role is limited to the diachronic explanation of the birth of a 3-tone system (Caron 2009);
- once again, we can but notice the need for distinctive features among close neighbours as a source for the development of dialects.

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