



Alexander Angsongna

Department of Linguistics, University of British Columbia *a.angsong@ubc.ca*

Samuel Akinbo

CrossMark

Department of Linguistics, University of British Columbia akinbosk@gmail.com

Dàgáárè /dàgááiì/ (ISO 639-3) is a Mabia language (Bodomo 1997) of Niger-Congo family. It is spoken by about 1.5 million The map in Figure 1 shows the areas, in northwestern Ghana and southern Burkina Faso, where Dàgáárè is spoken predominantly. There are four broad dialects of Dàgáárè. These include Northern Dàgáárè [dàgàià], spoken in Lawra /lóiá:/, Nandom /nàndò:/ and Burkina Faso; Southern Dàgáárè /wá:lí/, spoken around Kaleo /kàlèó/ and in Wa /wá/; Western Dàgáárè /bìtìfò/ spoken in Lassie /lààsìé/, Tuna /tú:nà/ and along the western side of the Black Volta river in Burkina Faso. The other dialect is Central Dàgáárè. These broad dialects are further divided into sub-dialects, as there are internal variations in these dialect groups (Bodomo 2000). This paper's primary focus is on Central Dàgáárè, which comprises the varieties spoken in and around Jirapa /dʒìtébǎ:/, Han /hěŋ/, Ullo /úlò/, Daffiama /dàfìémé/, Nadowli /nàdòlí/, Charikpong /tʃɛtìkpóŋ/, Sombo /sòmbó/ and Duong /dùóŋ/.

Most of the data in this paper come from Central Dàgáárè spoken in some parts of the Nadowli-Kaleo district, with specific focus on the variety spoken in the Sombo area. The data were elicited in Ghana from five native speakers. All five speakers were male; they were born and had lived all their lives in Sombo. They were between the ages of 31 and 45 years. The first author, who is also a native speaker of Central Dàgáárè, provided supplementary data in Vancouver, Canada. The narrative in the transcription section was recorded from a 28-year-old woman of the Daffiama /dàf ìèmá/ variety of Central Dàgáárè. The data presented in this work are represented orthographically and phonemically. All orthographic forms are without brackets while all phonemic representations are in slant // brackets. Note that the Dàgáárè language as presented here as well as in Bodomo (2000: 3) corresponds to a group of between three and six languages in other publications – the Dàgáárè–Waale–Birifor linguistic continuum in Bodomo (1997: 1) and Dagaaric in glottology.org on *Ethnologue*.

The data were recorded with a SHURE WH30XLR cardioid condenser (a headset microphone) and Rode NGT2 supercardioid condenser (a shotgun microphone) at the sampling rate of 48 kHz and bit depth of 16 bit. The microphones were attached to a zoomQ8 camera. The data presented in this work are from fieldwork funded by Insight grant by the Social Sciences and Humanities Research Council of Canada (SSHRC) to Douglas Pulleyblank.

Consonants

Dàgáárè is reported to have four main varieties (Bodomo 1997) that form a dialect continuum of varying degrees of mutual intelligibility. Bodomo reports that Dàgáárè has 25 consonants and two glides. However, the number of consonants varies between the various dialects. In Central Dàgáárè, there are 23 consonants and two glides (semi-vowels). These include stops /p b t d k g kp gb ?/, affricates $\hat{f_1} \hat{d_2}$ /, fricatives /f v s z h/, nasals /m n ŋ mm n/,

Journal of the International Phonetic Association (2022) 52/2 doi:10.1017/S0025100320000225

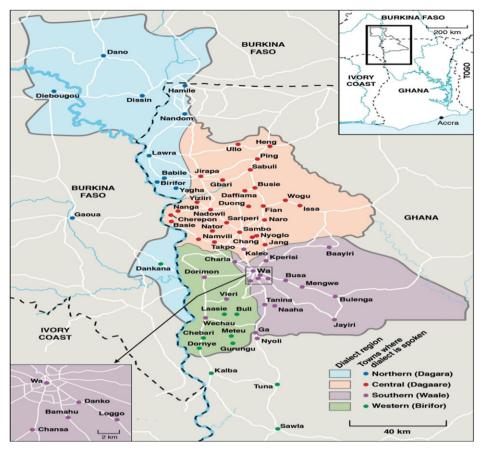


Figure 1 (Colour online) Areas where Dàgáárè is spoken in northwestern Ghana and in Burkina Faso.

approximants /j w/, a lateral approximant /l/ and the alveolar approximant /I/ which can only occur intervocalically, word-medially and root-finally. In Southern Dàgáárè (Wáálí), there are 22 consonants and two glides (Abdul-Aziz 2015). The voiced alveolar fricative /z/ that is present in the central, northern and western dialects is not attested in the southern dialect. Northern Dàgáárè (Dàgàià) and Western Dàgáárè (Bìnfð) are each reported to have 25 consonants and two glides (Dundaa 2013, Kuubezelle 2013). The following sounds: voiceless bilabial implosive /6/ and voiceless glottalized lateral /²l/ are attested in the northern dialect and in the western dialect. Voiceless glottalized palatal /²j/ and the voiceless glottalized labial-velar glide /²w/ are found only in the western dialect, while the voiceless velar fricative /x/ is attested only in the northern dialect. The table shows the consonants for Central Dàgáárè.

	Bilat	oial	Lab	ial-	Alve	eolar	Pala	ato-	Palatal	Ve	elar	Lab	ial-	Glottal
			dent	al			alve	eolar				vela	r	
Plosive	р	b			t	d				k	g	kp	₫b	?
Affricate							t∫	d 3						
Fricative			f	v	S	Z								h
Nasal		m				n			ŋ		ŋ		ŋm	
Approximant						r			j			,	W	
Lateral approximant						1								

CONSONANT	PHONETIC	Orthographic	GLOSS
р	/p ^h égí/	pégé	'shell'
b	/bíé/	bíé	'child'
t	/t ^h ìgì/	tègè	'treat'
d	/d5:/	dóó	'man'
k	k ^h ógó	kógó	'chair'
g	/gà:/	gàà	'to go'
kp	/kpéjí/	kpéré	'to spill'
gb	/gbágá/	gbágá	'container'
?	/?ì/	è	'to do'
f	/fâ:/	fáà	'to seize'
V	/vá:bú/	váábó	'leaf'
S	/sígí/	ségé	'hut'
Z	\ìtáíz\	zèèré	'soup'
h	/h ś :.1ì/	hạạri	'yawn'
t∫	/t͡ʃέ/	kyé	'but'
$\widehat{d_3}$	$/\widehat{d_3}\hat{\epsilon}/$	gyé	'reject'
m	/má/	má	'mother'
n	/nénì/	nénè	'meat'
ŋ	/ɲâ:/	nyáà	'chest'
ŋ	/ŋá:/	ŋáà	'like this'
ŋm	/ŋmání/	ŋmáné	'calabash'
j	/jí.ıì/	yírì	'house'
W	/wì.ıí/	wìrí	'horse'
ľ	/p ^h égrí/	pégré	'shells'
1	/lúgó/	lúgó	'logs'

Aspiration

In this paper we observe that when the voiceless stops /p t k/ occur in word-initial position, there appears to be some degree of aspiration. In phonetic transcription, aspiration is indicated by a superscript h, [^h]. Consequently, all initial voiceless stops in this work are transcribed as /p^h t^h k^h/.

Restricted distribution of consonants

In addition to the consonants listed above, Central Dàgáárè has some consonants which are restricted in their distribution, such as voiced alveolar approximant /I/ and its allophonic variant the alveolar tap /r/. For example, /I/ only occurs intervocalically, as in /dì-Ié/ 'eating', and root-finally, as in /sùùI-Ì/ 'ask', and in word-medial position it is occasionally realized as an alveolar tap /r/ after a /g/, as in /pʰéɡrí/ 'shells'. Another sound with restricted distribution is an allophonic variant of voiced velar plosive /g/. Bodomo (1997) describes the allophonic variant of /g/ as a voiced velar fricative / χ /, as in /p^hégrí/ 'woman' and /wéɣè/ 'log'. However, a recent acoustic, palatographic and ultrasound study (Akinbo et al. 2020) suggests that this velar fricative is a velar with strong tap-like features, which is a previously unattested sound in human language. The findings of Akinbo et al. on the velar are summarized in Table 1.

Properties	Dàgáárè Results	Expected of [g] (Byrd 1993)	Expected of tap (Ting 2007)	Expected of resonant	
Waveform	Complex waveform, amplitude decrease	Simple waveform (voicing)	More complex waveform, amplitude decrease	No amplitude decrease	
Spectrogram	Formant structure	Gap with voicing bar	Formant structure possible	Formant structure	
Duration	0.055 s	0.081 s	0.028-0.041 s	<not available=""></not>	
Ultrasound	Lots of tongue movement	Lots of tongue movement	Lots of tongue movement	Less movement	
Palatography	Closure	Closure	Closure	No closure	

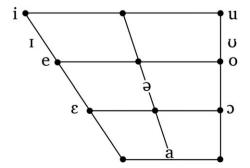
Table 1 Summary of acoustic results of Dàgáárè /g/ experiment (Akinbo et al. 2020).

In summary, although the Central Dàgáárè /g/ has a longer duration than an alveolar tap, its production is most consistent with the behaviour of a tap, in terms of waveform, spectrogram, ultrasound, and palatography. In particular, it is not consistent in a number of ways with a stop or a resonant; rather it is a velar with tap-like features. Consequently, according to the report on the 1989 Kiel Convention (Roach 1989: 70), 'where no independent symbol for a tap is provided, the breve diacritic [~] should be used'. Therefore, the velar tap would be represented as /ğ/.

Note also that Dàgáárè has CV syllables as well as CVC syllables with either a nasal or the approximant I_{J} and I_{L} .

Vowels

The vowel inventory of Dàgáárè contains ten contrastive oral vowels.



VOWEL	PHONETIC	ORTHOGRAPHIC	GLOSS
i	/dì/	dì	'eat'
Ι	/dî/	dê	'take'
e	/jèlé/	yèlé	'speaking'
ε	/jélé/	yélé	'speech'
ə	/vá/	vạ	'burn partially'
а	/wà/	wà	'come'
э	/d5/	dó	'weed'
0	/dó/	dó	'climb'
U	/fù/	fò	'your'
u	/dú/	dú	'swim'

The vowels are acoustically represented in Figure 2. The vowels were plotted using *phonR* (McCloy 2012) in R (R Core Team 2018).

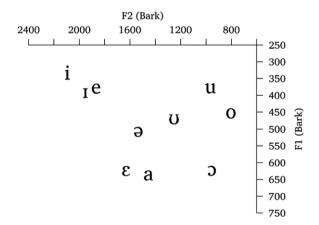


Figure 2 Means for first and second formants (F1, F2) of ten vowels.

While previous studies (e.g. Bodomo 1997) report that Dàgáárè has nine contrastive vowels, a recent acoustic study (Ozburn et al. 2018) suggests that Central Dàgáárè has a tenth vowel. The tenth vowel is reported to be /ə/, which is an [ATR] (advanced tongue root) counterpart of the [RTR] (retracted tongue root) vowel /a/. In this study, formants of low vowel were measured in verbal particles surrounded by different combinations of [ATR] and [RTR] vowels. The results show that the low vowel is significantly higher and fronted when followed by an [ATR] vowel compared to when followed by an [RTR] vowel, suggesting that /a/ has significantly different variants depending on whether it occurs in an [ATR] or an [RTR] context. This supports the claim in Saanchi (1997) that Central Dàgáárè indeed has ten vowels. In this paper, brackets around [ATR] and [RTR] indicate that they are phonetic features. The bare ATR without brackets is simply an abbreviated term used to refer to vowel harmony that is based on tongue root advancement and retraction. Using Kernel density estimation, the contour plot in Figure 3 shows the distribution of the two low vowels within the vowel space based on the acoustic study by Ozburn et al. (2018).

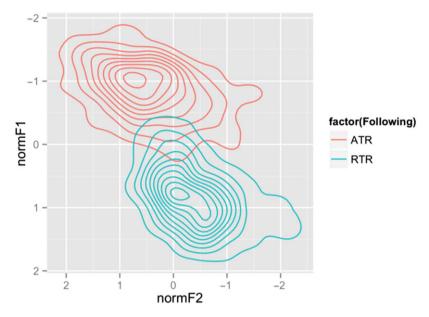


Figure 3 (Colour online) Normalised F1-F2 of /a/ by following context (Ozburn et al. 2018).

The results of the research in Lloy et al. (2019) also suggest that the tenth vowel is (partially) contrastive. The list in (1) is based on the minimal pairs identified by Saanchi (1997) in (1).

(1) Minimal pairs of [ATR] and [RTR] low vowels

[ATR]			[RTR]			
vá /vá/	'burn partially'	vá	/vá/	'hit'		
háárì /há:.ıì/	'yawn'	háárè	/há:.ıì/	'shoo'		
sáárì /sá:.1ì/	'gather in bulk'	sáárè	/sá:.ıì/	'broom'		
hậlí /hə́lí/	'widen'	hálè	/hálí/	'smell badly'		
bààrá /bà:.ıá/	'smart' (e.g. skin irritation)	bààrá	/bà:.ıá/	'growing'		
wáálì /wá:lì/	'to bruise'	wáálè	/wá:lì/	'parboil'		

Vowel length, nasalization and co-occurrence

Vowels in Dàgáárè may contrast in length. Each vowel has a long counterpart and the differences in length of the vowels can bring about differences in meaning. However, the distinction between the short and long vowels may not necessarily be phonemic. Some examples are shown in (2).

SHORT	VOWELS		LONG V	OWELS	
tú	/t ^h ú/	'dig'	túú	/t ^h ú:/	'shrub/forest'
dś	/d5/	'weed'	dóó	/dś:/	'man'
dà	/dà/	'buy'	dàá	/dă:/	'market'
vậ	/vá/	'burn partially'	váárà	/śuèv/	'burning partially'
kùrí	/k ^h ù.ıí/	'tortoise'	kùùrí	/k ^h ù:1í/	'hoe'
kò	$/k^{h}\dot{\upsilon}/$	'give'	kòòrè	/k ^h ù:.1ì/	'snore'

(2) Words with short and long vowels

As reported by Kennedy (1966), Dàgáárè vowels can be phonetically nasalized when they are contiguous with nasal consonants, as seen in (3).

(3) Nasalized vowels

kỗŋ	/k ^h ằŋ/	'cry'
kốŋ	$/k^{h}$ ốŋ/	'hunger'
bồŋ	/bồŋ/	'to know'
zῒŋ	/zῒŋ/	'sit'
gấŋ	/gấŋ/	'lie down'
yấŋ	/jɛ̂ŋ/	'wisdom'
bầŋ	/bằŋ/	'put'
dồŋ	/dồŋ/	'bite'
yằŋ	/jě̃ŋ/	'where'

In addition, all vowels in Dàgáárè can show nasality even when not adjacent to a nasal consonant. In such cases, they can be referred to as nasal vowels. However, unlike in Northern and Western Dàgáárè, in Central Dàgáárè, not all nasal vowels are phonemic. Consider the examples of nasal and oral vowels in (4).

(4) Nasal vowels and oral vowels

NASAL VOWELS			ORAL VOWELS			
kấằ	/kʰấ́ː/	'oil'	kàà	/k ^h à:/	'look'	
zÌĨ	$/z\hat{\tilde{i}}/$	'blood'	—			
fồỗ	/fồ:/	'you' (emphatic)	_			
tīī	$t^{h} \tilde{\mathbf{I}}$	'drugs/medicine'				
sồố	/sồ͡ź/	'witchcraft/sorcery'	sòś	/sùó/	'knife'	
dấầ	/dẫ:/	'alcoholic drink'	dáà	/dâ:/	'push'	

wềấ	/wÌ̇́ŧ/	'go wild'	wèé	/wìé/	'farm'
wîế	/wî́iế/	'quick(ly)	wìé	/wìé/	'horses'
kấấ	/k ^h ấː/	'death'			
vầấ	/vữ̀:/	'fire'			
bếế	/bŕ́ľ./	'broth'	béé	/bíː/	'or'
kồố	$/k^h \tilde{\tilde{\upsilon}} \tilde{\tilde{\upsilon}} /$	'water'			
kyếề	$\widehat{tf}\hat{\mathbf{\tilde{i}}}$	'fry'			

Nasal vowels in Central Dàgáárè occur only in CVV sequences either as a long monophthong or diphthong, just like nasal vowels in the Southern Dàgáárè (Wáálí). There are, however, some restrictions on the distribution of the front mid vowel /e/: it cannot occur as a long nasal vowel but can occur as part of a nasal diphthong. In the northern and the western dialects (Dàgàià and Bìifà), there are long CVV nasal vowels as well as short nasal vowels which occur in CV forms (Dundaa 2013, Kuubezelle 2013).

In terms of sequences, vowels in Dàgáárè occur in a particular pattern. They either occur as long monophthongs or diphthongs. However, not every vowel sequence is allowed in the language. For instance, while opening diphthongs such as /ie uo/ are permitted, there is a prohibition on closing /ai oi/ and centering /io uo/ diphthongs. Bodomo (1997) identifies the following phonemic vowel sequences which are the same vowel sequences in Central Dàgáárè.

(5) Vowel sequences in Dàgáárè

ii, ie	bíírí	/bí:ɹí/	'children', /bíé/'child'
11, 18	síírì	/sí:.iì/	'honey', /wìé/'farm'
ee	bùléé	/bùlé:/	'kid'(little goat)
aa	váárè	/vá:ɹì/	'leaves'
uu	t∫úù	/t∫ú:/	'moon'
uo	kúó	/k ^h úó/	'field mouse'
ue	túé	/t ^h úé/	'dug'
υυ	búúrí	/bú:.ıí/	'goats'
υo	púś	/p ^h úó/	'stomach'
00	tòòrí	/t ^h ò:1í/	'ear'
33	dóó	/dś:/	'man'
36	tờé	/t ^h ðé/	'pounded'

In addition to the sequences identified by Bodomo, the following sequences are equally possible and productive in Dàgáárè:

(6)	88	gbéè	/gbe:/	'legs'	
		lèé	/lɛ:/	'beads'	
	ạạ ~ əə	háárì/háá1ì	/há:.1ì/	'yawn'	

Vowel harmony

Dàgáárè has assimilatory processes which involve the obligatory agreement of adjacent vowels in the values of [ATR] and round features. These processes are known as vowel harmony (Archangeli & Pulleyblank 2007, Rose & Walker 2011).

The ten vowels in Dàgáárè fall into two natural classes based on [ATR] feature, as seen in (7). Only [ATR] vowels co-occur with each other. Similarly, only [RTR] vowels co-occur with each other.

- (7) Natural classes of Dàgáárè vowels
 - a. [ATR]: /i e o u ə/
 - b. [RTR]: /ιεουα/

Stewart (1967), cited in Bodomo (1997: 20), refers to the kind of tongue root harmony in Dàgáárè as cross-height vowel harmony. In this case, the feature [ATR] is distinctive at more than one vowel height and the process of harmony operates across sequences of vowels which differ in vowel height (Stewart & van Leynseele 1979). In (8), we first show that harmony operates across the same vowel height. In the [ATR] cases, the vowels are of the same height and in the [RTR] examples, all vowels in each word are of the same height. Each example is either comprised of all high vowels or all mid vowels. Note that there is no harmony in the orthography as both [ATR] and [RTR] vowels can co-occur in the word, as in *sáárè* 'broom' and *nénè* 'meat'. Harmony is realized only in the phonemic forms.

(8) Tongue root harmony across the same vowel height

[ATR]			[RTR]		
tíírí	/t ^h í:.ıí/	'vomit'	séérè	/íLijs/	'honey'
tùùrì	/t ^h ù:.ıì/	'pick'	sòòrè	/íL:Ú2/	'ask'
kpérè	/kpé.iè/	'slicing'	wégè	/wégè/	'log'
kógó	/k ^h ógó/	'chair'	pógó	/p ^h ógó/	'woman'

The examples in (9) show that ATR harmony can operate across vowels with different heights.

(9) Tongue root harmony across different vowel heights

 p^{h} íé/ 'ten' t^{h} ìé/ 'tree' / t^{h} ùò/ 'carry' p^{h} úó/ 'stomach'

The vowels in $/p^{h}i\acute{e}/$ 'ten' and $/t^{h}uiie$ / 'carry' are combinations of high vowels /i u/ and mid vowels /e o/; they are also [ATR]. Similarly, each of the words $/t^{h}i\acute{e}/$ 'tree' and $/p^{h}uiie/$ 'stomach' contains both high and mid [RTR] vowels.

Status of /a/ in ATR harmony

The status of /a/ in Dàgáárè ATR harmony is a topic of interesting debates. Kennedy (1966) argues that /a/ occurs with vowels showing open harmony and excludes vowels that exhibit close harmony. Open harmony involves low vowels which are made with an open mouth

while close harmony involves high vowels which are made with the mouth closed. Hall (1973), on the other hand, suggests that /a/ occurs with [ATR] vowels to the exclusion of [RTR] vowels. Bodomo (1997) argues that /a/ occurs with [ATR] and [RTR] vowels.

However, as noted above, Ozburn et al. (2018) suggest that /a/ is not neutral to ATR harmony in Central Dàgáárè. They show that /a/ is significantly higher and fronted when the following vowel is [ATR], compared to when the following vowel is [RTR], thereby suggesting that /a/ has an [ATR] counterpart. The carrier sentences from Ozburn et al. (2018) illustrating /a/ in [ATR] and [RTR] environments are shown in Table 2.

Table 2 Carrier phrases with /a/ between [ATR]/[RTR] vowels (Ozburn et al. 2018: 1).

Preceding	Following	Target	Gloss
[ATR]	[ATR]	báj[úó] tá [dí] dííbú	'Bájúó, don't eat food.
[RTR]	[RTR]	bàj[òó] tá [dí]béŋé	'Bájòó, don't take beans.'
[ATR]	[RTR]	dàb[úó] tá [dí] à nén	'Dábúó, don't take meat.'
[RTR]	[ATR]	bàj[òó] tá [dí] dííbú	'Bàjòó, don't eat food.'

In Dàgàia and in Bìrìfò, /a/ is reported to be neutral and co-occurs with both [ATR] and [RTR] vowels (Dundaa 2013, Kuubezelle 2013). However, similar to what is reported in Saanchi (1997), Ozburn et al. (2018) and Lloy et al. (2019) about /a/ in Central Dàgáárè, Southern Dàgáárè (Wáálí) is said to have ten oral vowels in which the low vowel /a/ has an [ATR] counterpart /a/ (Abdul-Aziz 2015).

Tone

Dàgáárè has two contrastive tones: H(igh), as in $t\dot{u}$ 'to dig', and L(ow), as in $t\dot{u}$ 'to follow' (Anttila & Bodomo 1996, 2000; Bodomo 1997). H tone is marked with the acute accent (`) and L tone is marked with the grave accent (`). In some words, different tones can co-occur. Examples of the tones are shown in (10)–(12).

(10)	H WORI)	L WORD)
	/t ^h ú/	'dig'	/t ^h ù/	'follow'
	/dá/	'blow' (wind)	/dà/	'buy'
(11)	HH wo	RD	LL WOR	D
	/gbágá/	'a kind of basket'	/g͡bàgà/	'agama lizard'
	/p ^h ógó/	'woman'	/t ^h àbà/	'tobacco'
	/bíé/	'child'		
(12)	HL WOR	RD	LH WOR	RD
	/jí.i/	'house'	/wìɹí/	'horse'
	/níè/	'person'	/jàgá/	'cheeks'
	/dúgì/	'pot'	/dùgú/	'a kind of dance'

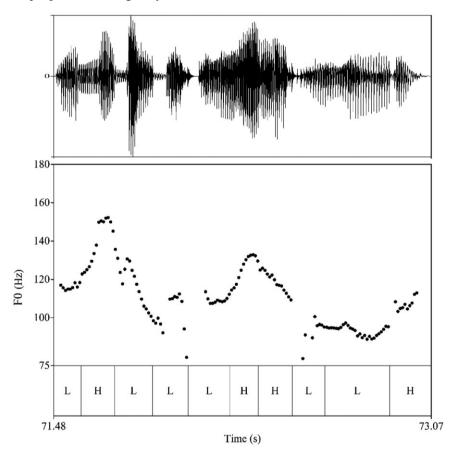
Downdrift and downstep

Dàgáárè has downdrift, which is the cumulative lowering of pitch in the course of an utterance due to interaction of tones (Akinlabi & Liberman 1995, Connell 2001). Downdrift is illustrated with a pitch track of the phrase in (13). As shown in Figure 4, the pitch of H with a preceding L is lowered.

(13) Downdrift

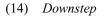
L	ΗL	L	LH	Н	L	LH
а	no-ba	da	00-10	la	а	waa-ir
D	person-PL	PST	eat-IPFV	AFF	D	yam-PL

'The people were eating the yam.'



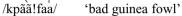


When two adjacent syllables bear H tone, the pitch of the second syllable is lowered. For instance, the phrase /jí! Fáá/ 'bad house' contains a sequence of H! HH, the pitch of second H is lower than the pitch of the initial high. This lowering of pitch is referred to as downstep (Hyman 1985, Selkirk & Tateishi 1991). The lowering is usually represented with an exclamation mark (!) to signal an unassociated floating L tone. The following examples from Anttila & Bodomo (1996: 14–15) illustrate this process. The lowering of the second phrase in (14a) can be visualized in the pitch track in Figure 5.

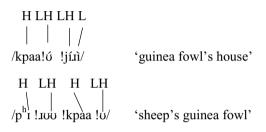


a. Noun + Adjective

HLH /ji!faa/ 'bad house' H LH



b. Noun + Noun



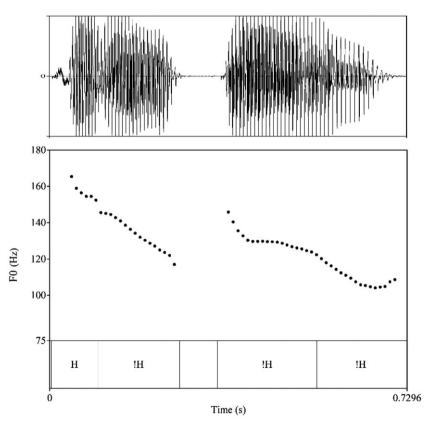


Figure 5 Pitch track [H!H!H!H].

Transcription of recorded passage

The text provided is a story entitled 'The shea butter baby' told by a female native speaker of the Daffiama [dàf ìèmá] variety of Central Dàgáárè. Note that there is occasional intervocalic deletion of some segments like /g/ and /I/ in some words by this speaker especially in pógó \rightarrow póó 'woman'; i.i) \rightarrow ìì 'rise'

PHONETIC TRANSCRIPTION

The slashes in this text indicate boundaries between sentences.

jé gòưó gòưó n sín-sınlúú / pógó kàŋá-ŋ bé!bé / à kúlúù síưé / ừ bá dògró / kàà síưé gàà tì dí pòòbílé à wà pààlừừ íŋéŋ / kàà pòòbílé jêŋ dògró t͡ʃé à pógó bà dògró / pòg-k͡pèŋ nàŋ bá dògró ná / t͡ʃúúŋ táà pòòbílé bíé ŋá ừ mìŋé bíé / kàà póó máŋ ìưé nà pòòbílé ŋúúuí à pòg-k͡pèŋ ŋúúuí / lè lá dááuí kàŋá kàà póg-k͡pèŋ kòŋ gàà ừ bâ jírì /

/ kàà dìó pòònáá!ŋáá kàŋá míŋ bé à dìóŋ / ù míŋ núŋ lá à póó jélé páá / úŋ gàà tì tá, kà à pógó ôŋ t͡júúnó kúú / kúú dí tò kấằ kùú / úŋ tò à kấằ à kù à pógó / kà à póó sùùưú kà dàbó.nì ùŋ nà kúlí / úŋ jèl ká ù nà díé bé sá t͡jế gàà ù sí sé jí sì / kà à póó dí à kấằ na à dí kpè nì dìó à kpè dí à kấằ bíŋ à dí ìŋ gbáálí pùóŋ / kàà kấằ gáŋ bé lééŋ bèbíe átà /dáás ná à póó náŋ wà jè kúù kúlóŋ, kàà kấằ lìè bíé /úŋ dí kù à pógó /kúú dí à bíé ŋá káà gèsé nì kúù míŋ bôn ù náŋ táá nà kú ù lá lé / ká t͡júú tóò vénè kùú màsá vằu / ú dàŋ tóó véné kùú píé!lé ŋmíná!á / kúù jèl lá kúú véŋ kùú bé máá!súŋ jóŋ / kúú tá dí sìíŋ tùlúŋ zàà míŋ ká à kứù, kúù wòŋáàŋ úŋ ká ùúŋ /

/ kàà póó dí à bíé gàà ní ò sí í jí / à tì tàà à bíé, lé náà póó náŋ wùlúú ná, lé úŋ ì í à kàà gàà bíé léé úŋ tì lìè pòòsá là / kà dóó kàŋá míŋ bí!bé, à míŋ táá pógbó bátà / t͡fé nàŋ wà né à bìpóó, ò vìèlúŋ nà zúŋ, úŋ jèlí kứờ bươ lướ, kà à bíé mà bá sàờ/ úŋ náŋ jèl kờờ nà dí-ứŋ kàà póó jèl kờứ kườ bíé ná bá jí lê ŋmìná!á / t͡fứ nàŋ jèl kườ nà káá ú, kườ báŋ ná lế ná ò náŋ nà káá ứ kứ kờờ bíé ná tá jí ŋmìná!á / lé lá kà à póó dí à bìpóó kươ / úŋ dí tì kúlí nì, à gàà tì jèlí kừ ở pógbó ná zàá bátà/ káà pógó bá mà á vữu ở bá gè lé kươ dàŋ wà wà há kà bà dí bứŋ từ lớŋ / ở bá píé!lé vữu míŋ / ká ở bá bướ lờ kươ dàŋ wà wà há kà bà dí bứŋ từ lớŋ zàà kừứ kừờ dù / tòò kà ở táábá ná máŋ jí; à jí à à máŋ gàà kừ láá bèbí là záá sứ tí tì ì /

/ ťſé kàà dóó míŋ dí gàà zòò.í / bèbíè àtà dáá.í ù bá wà, báŋ ìì dúglì sáú kồö / à ìì dúglì sáú kồố ká à póó kpè tì mòŋ, kà à póó kònó/ báŋ jèl ká zínè ŋá sáú kúú ní nà mòŋ / úŋ ìì kpè, à kpè tá kàà sáú kũõ kpáá.a / úŋ bùùlì / úŋ òŋ kòŋ máá!..úŋ bùùlì dì gàà kứu tì tjùù... kà vũũ vúúlúú ún píílì né!lé/ ùn dì dógéé à thùùìà kóókóó tlé zò kpè tì òn kồố à míií míií ù ìné ka à zíé lá kờ/ lé ừn dì dógéé lé léén kà à kóókóó wà tì fáià, ứn kpè à ónbừ zíé lé núù zû/ án pãã tá kúú zìn à mí í zôn à mòn sáú/ bán záázàgrì, kàná zàà bá kpè bé/ ún mì làà zón à mònáà sáú kàà vũũ vúúló, úŋ ì.tàà kõõ mí.tè lé léén/ kàà vũũ vúúlúú ná tì gààlì ù ìnén, úŋ zàá <code>jnÉlì bìŋ dìóŋ à bìŋ à kòiódìóŋ/ lé lá kàà kàŋá dááná jè ká kà bá ìlì kpè tì né bà póó ná mùó bà</code> nán jè kà póó ná kúù bá mà. a vũũ ná ká ká bá kpè tì né lé ná ù nán ì. té/ bà kpè tá. a kùù zàá péléé gán tìné lèglìkèlè/ bán kpè tì bùòlì táá/ t͡ʃé báá mín bé à dìón bà nán mán dì...é sììmáá bà dán bá ìnáá báá sììmáá/ à póó nán mán dì.té nmàà ìnáá báá/ tóò bán jí tì bùòlì/ báá wóó báá wóó wá dì kúnúúnú/ báá kún dì kúnúúnú/ jè nán mán dì té jè sáú jè dàn jèl ká báá wóó wá dí sáú/ jè nán mán bàió jè néní jè jèl ká báá wóó wá dì nén/ báá kún dì kúnúúnú báá wóó bà dì ié kúnúúnú/ bán ì i zèl dà iá kà iá náá báá/ lè lá kà à ... à póqbó kà iá à báá kàà báá ì, jí tù zíé nà só, ì à sí, iế nán tù gàà ná/ bán kà, á báá ná tiế tiệ tế à jí lún kàà báá mín zòưó tíế mín thiết \dot{t} à zó lé léén báá nì nínsààláá zòé bà ì bún jénì, ùn zògàà tì pógàà dóó/ à gàà jèlàà dóó/ kàà dóó ìì núù wèbú lìè wààná đìó kà lè/ póó né!léé/ ún wà lìè ù sùó à nógàà jídèmé zàá pábù à fièbì bà záá bìn/

Translation

The shea butter baby

Listen to my story!

There lived a certain woman who married her husband. She was not able to bring forth children. So, the husband went for a second wife. The second wife could bear children, but the first wife still could not. Though the first wife could not bear children, she considered and treated the child of the second wife as her own. The second wife was however not happy about it and treated the first wife with discontent. So, one day, the first wife cried to her hometown (father's house).

There was a certain old woman in the father's house who liked the woman so much. Upon getting to her father's home, the old woman gave her shea nuts and asked her to extract shea butter for her. She extracted the shea butter for her (the old woman). After that, the old woman asked her when she would go home. She said she would go home in three days. The old woman then went and kept the shea butter in a large pot. The day the woman said she was returning to her husband, the shea butter transformed into a baby and the old woman gave the baby to her. She (the old woman) told her that she should take this child and go with it as the only thing she had for her. She told her to never allow the child to set fire or be exposed to the sun or eat hot food, because she can only survive in cool environments.

The woman returned to her husband with the child and handled her as advised by the old woman. She raised her into a beautiful young woman. There was a certain man who had three wives, but after seeing the young woman, he wanted to marry her because she was beautiful; the mother did not agree initially. The man insisted he would marry her, the mother declined because her daughter cannot be exposed to the sun. The man said he can cater for her and ensure she is never exposed to heat. The woman agreed and gave the daughter out in marriage. The man took her home and informed the other three wives never to allow her bath hot water or eat hot food. So, the other wives did all house chores until they got fed up.

ίηέ-η

pógó

woman.SG

body-FOC

bà

NEG

Meanwhile, their husband had gone for war and had not returned after three days. The other three wives asked her to cook and she started crying. She went in to cook and the heat from the fire made her to start melting. She sprinkled cold water on her body and continued cooking. However, the heat was too unbearable that she eventually melted completely. The other wives entered the kitchen to find that she had completely melted. There was a dog in the house, but aside the new wife, the other three wives never fed the dog. The women went to call the dog to come and eat the oil; the dog refused saying, 'Dog will not eat oil; dog does not eat oil.' The women chased the dog with clubs; the dog ran toward the direction the husband travelled and eventually met the man and reported the incident. The man returned on his horse to find that what the dog reported was true. Out of anger he pulled out his sword and kill everyone in the house.

Phonemic transcription with interlinear glossing

A list of abbreviations used in the glosses will be found at the end of this passage.

įέ òt-óp òr-óp n sín-smlúú 2рг. be.ready-IPFV be.ready-IPFV 1SG **RED-story** Lit.: you be getting ready for my story 'Listen to my story!' pógó kàná-n bé 1hé woman.SG INDF-FOC COP there 'There lived a certain woman' à síı-é kúlú-ù CNJ marry-3SG.POSS husband-sG 'who married her husband.' ù bá cy-bęp 3sg give.birth-IPFV NEG 'She was not able to bring forth children.' kà-à síi-é tì dí pòò-bílé à wà pààlù-ù CNJ-D husband-SG take woman-small CNJ come add.sG to 'The husband went for a second wife.' kà-à pòg-bílé cy-bcp tſέ à jêη CNJ-D woman-small.SG DEM give.birth-IPFV CNJ D

dòg-ró

give.birth-IPFV

'The second wife could bear children but the first wife couldn't.'

pòg-kpêŋ nàŋ bá ċ₁-pćb ná woman-big.sg DEM because NEG give.birth-IPFV 'Though the senior wife could not bear children,' t∫úù-n pòò-bílé bíé ù táà à ná mìné CNJ.3SG-FOC child.sg 3sg have D woman-small.sg DEM have bíé child.SG 'she considered and treated the child of the second wife as her own.' pòg-kpèn kà-à póqó mán 31-í? ná-à núú.ií CNJ-D woman.SG do-IPFV with-D woman.big.SG HAB jealousy 'The second wife was not happy about it and treated the first wife with discontent.' póg-kpèŋ 1È lá bâ dááıí kàŋá kà-à kòη gàà Ù father then AFF day.SG INDF CNJ-D woman-big.SG cry go 3SG.POSS jí.i home.sG 'So one day the first wife cried to her home town'(father's house).' kà-à dìó pòònáá!náá bé dìó-ŋ kàná míŋ à CNJ-D house.sG woman.old.SG INDF also COP D house. SG.FOC 'And there was a certain old woman in the house.' Ù jέlέ míŋ núŋ ná à póś páá 3sg like also AFF D woman.SG issue.SG much 'She liked the woman very much.' **ύ-**η gàà tì tá, kà à póś òη t∫úún≾ 3SG-FOC reach fetch sheanut.PL go to С D woman.SG kύ-ύ give-3sg 'When she got there, the old woman fetched shea nuts and gave to her,' kấằ kú-ú dí tò kù-ú C-3SG take oil.sG give-3sG pound 'and asked her to extract shea butter for her.'

ú-ŋ		tò		à	kấ̀ầ	à	kù	à	póó		
3sg.fg	DC	pound		D	oil.sg	CNJ	give	D	woma	n.SG	
'She e	extracted	d the bu	tter for	her (th	e old wo	oman).'					
kà	à	póó		·ùLÚÚZ	-Ú	kà	dàbó.ií	່ ບໍ-ກ		ná	kúlí
CNJ	D	woma	n.sG	ask-38	SG	С	when	3sg-f	OC	FUT	go.home
'The c	old won	nan ther	ı asked	her wh	en she v	vill retu	ırn to he	er husba	and's ho	ouse.'	
ú-ŋ		jèl	ká	ù	nà	díé	bé.iáátà ÎĴé			gàà	ù
3sg-f	OC	say	С	3sg	FUT	eat	day.th	ree	CNJ	go	3sg
àlía		jí,ì									
husba	nd.sG	home.	SG								
'She said she will go back to her husband's house in three days.'											
kà	à	pógó		dí		à	kấầ	na	à	dí	
CNJ	D	woma	n.SG	take		D	oil.sg	DEM	CNJ	take	
kpè		nì	dìó		à	kpè		dí		à	kấ̀ầ
enter		with	room.	SG	CNJ	enter		take		D	oil.sg
bíŋ		à	dí	ìŋ		gbáálí		pùó-ŋ			
put		CNJ	take	put.in	side	largep	ot.SG	inside	-FOC		
'Then	the old	womar	n went a	and kep	t the she	ea butte	er inside	a large	e pot.'		
kà-à	kấằ	gáŋ	bé	lééŋ	bèbíè	átà					
CNJ-D	oil.sg	lie.	there	until	day.PL	three					
'The o	oil laid t	here fo	r three	days.'							
dááı	ná	póó		náŋ		wà		jèl	kú-ù		
day	DEM	woma	n.SG	REL		come		say	c-3sg		
kúló-r),		kà-à		kấ̃ầ	lìè		bíé			
go.hoi	ne.IPFV	-FOC	CNJ-D		oil.SG	turn		child.s	SG		
'The c	lay the	woman	said sh	e was r	eturning	g to her	husban	d, the s	hea but	ter tran	sformed
into a	baby.'										
ú-ŋ		dí	kù	à	pógó						

3SG-FOC take give D woman.SG

'The old woman gave the baby to the woman.'

kú-ú dí bíé ká-à à ná àláp nî child.sG with c-3sg take DEM D C-CNJ go.IPFV kú-ù míŋ bûŋ ù náŋ táà nà kú-ù lá lέ thing.SG C-3SGgive-3sG also 3sg REL have FUT AFF DEM 'And told her that she should take this child and go with it as the only thing she has for her.' ká ÎĴÚ-Ú tốố vénè kù-ú vĩiĩ màıá С CNJ-3SG NEG allow.IPFV CNJ-3SG set.IPFV fire.sG 'She told the woman never to allow her (the child) set fire,' ú dàn tốờ véné kù-ú píé!lé nmíná!á 3sg never NEG allow.IPFV CNJ-3SG get.close.IPFV sun.SG 'she should never expose her to the sun,' kύ-ύ kú-ù ièl lá vén kù-ú bé máá! ướn jóŋ C-3SG matter AFF C-3SG allow CNJ-3SG only COP shade 'and that she (the baby) should live only under cool conditions,' kú-ú tá dí sìín tùlún zàà mín ká à kú-ù C-3SG NEG.IMP take all food hot also С CNJ give-3sg 'she (the woman) must not give her (the child) any hot food.' ú-ŋ ká kú-ù wònáà-n ùύη CNJ-3SG hear.3SG-FOC 3SG-FOC С yes 'And asks if she (the woman) has heard her (old woman), and she (the woman) says yes.' kà-à póś dí à bíé qàà ní Ù child.sG CNJ-D woman.SG take D with 3sg go síıé jíJì husband.SG home.sG 'The woman returned to her husband's home with the child' à tì táà à bíé, lέ ná-à pógó náŋ CNJ have child.sG to D DEM DEM-D woman.SG REL wùlúú ná, lέ ú-η 31-í? do-IPFV show.3sg DEM DEM 3SG-FOC 'and handled the child the way the old woman advised,'

kàà bíé lééŋ lìè śślakt à à ύ-η tì raise D child.sG until woman.young.SG CNI 3SG-FOC to turn 'and raised the child into a young woman.'

kà	dóó	kàŋá	míŋ	bé	!bé,	à	míŋ	táá	póg-bó	bátà
CNJ	man.s	G INDF	also	COP	there	CNJ	also	have	womai	n-PL three
'And	there w	as a cer	tain ma	in who	had thre	ee wive	es,'			
t∫έ	nàŋ	wà	лé	à	bìpóó,	,		ù	vìèlúŋ	
but	yet	come	see	D	child.	woman	1.SG	3sg	beauty	I
nà		zúŋ,		ú-ŋ		jèlí		kú-ù		búó.iúú,
DEM		becau	se	SG-FO	С	say		CNJ-3	SG	want.IPFV.3SG
kà	à	bíé		mà		bá	sàù			

C D child.SG mother.SG NEG agree

'but when he saw the girl, because she was very beautiful, he wanted to marry her and the mother did not agree initially.'

ú-ŋ	náŋ	jèl	kú-ù	nà	dí-úŋ		kà-à	
3SG-FOC	still	say	c-3sg	FUT	take-3s	SG.FOC	CNJ-D	
póó	jèl	kù-ú	kú-ù	bíé		ná	bá	jíıè
woman.SG	say	give-3sg	C-3SG.POSS	child.	SG	DEM	NEG	go.out.IPFV
ŋmìná!á								
sun.SG								

'He still insisted he would marry the young woman and the woman (the mother) said that her daughter cannot be exposed to the sun.'

Îſύ-ύ nàŋ jèl kú-ù nà káá ύ, kú-ù CNJ-3SG c-3sg look.after 3sg c-3sg yet say.PFV FUT báŋ ná lέ Ù náη káá ú kύ ná nà FUT look.after 3sg С know AFF how DEM 3sg REL kù-ù bíé ná tá jí nmìná!á CNJ-3SG.POSS child.SG DEM NEG.IMP sun.SG go.out 'He said he will look after her and that he knows how to look after her so that she does not get into sunshine.'

lé	lá	kà	à	póó		dí	à		bìpó	5		kú-ù	
DEM	AFF	CNJ	D	woma	woman.SG		D		child.woman.SG			give.3sg	
'So th	e woma	in gave	out the	daught	er in ma	arriag	e.'						
ύ- ŋ		dí		tì	kúlí		nì	ì,	à	gàà	tì	jèlí	kù
3sg-f	OC	take		to go.hon		ne	W	vith	CNJ	go	to	say	give
Ù	1 5		ná	zàá	bátà								
3SG.PG	3SG.POSS woman.PL		n.PL	DEM	all	three	e						
'He to	ok her	home a	nd told	the thre	e wives	;							
ká-à		pógó		bá	mà1-á		vằấ	i ù	5	bá	jt-jg		
C-D		woma	n.sG	NEG	set-IPF	V	fire	.sg 3	SG	NEG	go-IPFV		
kúláá		Ù	bá	òıóúa		kóŋ			tú!lú	ŋù	bá	dì-ıé	
water	source	3sg	NEG	bath-I	PFV	wate	er.sG		hot	3sg	NEG	eat-IP	FV
sììmáà	ì	tú!lúŋ											
food.s	SG	hot											
'that s	he (neu	wife)	doesn't	set fire	she do	een't	fetal	n wat	er ch	e doesn	't bath he	at wate	r and

'that she (new wife) doesn't set fire, she doesn't fetch water, she doesn't bath hot water and she doesn't eat hot food.'

Ù	bá	píé!l-é	vầấ	míŋ
3sg	NEG	get.close-IPF	V fire.SG	also
'She d	loes no	t also get clos	e to fire.'	

ká	Ù	bá	ćıčùd)	ká	kú-ú	dàŋ	wà	wáá-ná	kà	bà
С	3sg	NEG	want-l	IPFV	С	C-3sg	ever	come	come-IPFV	CNJ	3pl
dí	búŋ		tùlúŋ	zàà	kù	kù-ú	dì				
take	thing.	SG	hot	all	give	C-3sg	eat				

'He said he doesn't want to ever come and find that they (the other wives) have given her something hot to eat.'

tớờ	kà	Ù	táá-bá	ná	máŋ	jí;	à	jí	à				
so	CNJ	3sg	colleague-PL	DEM	HAB	go.out	CNJ	go.oı	it D				
máŋ	gàà		kùláá	bèbí.	ì	záá	báná-	ŋ	át-í?				
HAB	go		water source	day.sG		all	3pl.foc		do-IPH	FV			
jélí		lá	jélí	záá	kà	bà	záá	súú.ií	tì	ìì			
activ	ity.SG	FOC	activity.SG	all	CNJ	3pl	all	anger	to	rise			
'So h	'So her co-wives were always doing all house chores everyday and eventually they got fedup.'												

τſέ kà-à dźź míŋ dí gàà zýýtí CNJ CNJ-D man.SG also take go war 'Meanwhile the man had gone for war.' bèbíè átà dááıí ù bá wà. bá-ŋ ìì dúglì sáú day.PL three period 3SG NEG come 3PL-FOC rise boil cornmeal.sG kῢź water.SG 'After three days, he had not returned, and the other wives put water on fire.' à ìì kồź dúglì sáú ká à póś CNJ rise boil cornmeal.SG water.SG С D woman.SG kpè tì mòn. kà à pśś kòn-ó stir enter to CNJ woman.SG cry-IPFV D 'They boiled the water and asked the woman (new wife) to go in and cook and she started crying.' kú-ú báŋ jèl ká zínè ηá sáú ní nà mòŋ 3PL say С today DEM cornmeal.sg C-3sg DEM stir FUT 'They told her she will cook today's food.' kῢź ìì kpè, à kpè kà-à sáú ύ-η tá 3SG-FOC rise enter CNJ enter reach CNJ-D cornmeal.SG water.SG kpáárà boil.IPFV 'She entered (the kitchen) and the water was boiling.' bùùlì ύ-η **3SG-FOC** make.porridge 'She prepared porridge.' ύ-η máá! ướn bùùlì dì gàà kú-ú òŋ kàŋ 3SG-FOC fetch water.SG cold make.porridge take C-3SG go vĩĩ vúúl!úú tì tſùù. kà píílì né!lé **ύ-**η to pour CNJ fire.SG scorch.PFV.3SG 3SG-FOC start melt.IPFV 'She made porridge, went to pour it inside; the heat got to her and she started melting.'

ù-ŋ		dì	dógéé	à	t∫ùùı	à	kóókóó	t∫é	zò	kpè	
3SG-FC	DC	suffer	pain	CNJ	pour	D	porridge	CNJ	run	enter	
tì	òŋ	kũõ		à	mílí		míıí	ù	íńé	kà	à
to	fetch	water.SG		CNJ	sprink	le	sprinkle	3sg	body	CNJ	Dà
zíé		là	kò								
place.s	SG	REP	dry								

'She struggled to start the first step of the cooking and then ran to sprinkle cold water on herself to cool down and dry up the melted part.'

lé	ບ້-ກູ		dì	dógéé	lé	lééŋ kà		à	kóókóó		wà	tì
DEM	3SG-FC	ЭС	suffer	pain	DEM	until	CNJ	D	porridg	ge	come	to
fá.1-à, ú-ŋ			kpè	à	óm-bù		zíé	lé		nú-ù		
boil-IPFV 3SG-FG		3sg-fo	С	enter	D	fetch-M	MLZ	place.sc	ì	DEM	with.3	SG
zû												
1 1												

head.sG

'This was how she suffered and when the porridge was boiling she entered to fetch and it was the same thing.'

á-ŋ		pãã	tá	kú-ú	zìŋ	à	mílí	zôŋ
3SG-FC	DC	then	reach	C-3SG	sit	CNJ	sprinkle	flour
mờŋ	à	sáú						
stir	D	cornm	eal.sg					

'It was then time to sit and stir the food.'

bá-ŋzáázàgrì, kàŋázààbákpèbé3PL-FOCallrefuse INDFallNEGenterthere'They (the other three wives) refused to get involved.'

ú-ŋ		mì.iàà		zśŋ	à	mònáà	sáú	kà-à	
3sg-fo	C	sprink	le.IPFV.D	flour	D	stir.IPFV.D	cornmeal.sG	CNJ-D	
vũũ	vúú!ló	,	ú-ŋ	ìràà		kũõ	mílè	lé	lééŋ
fire	scorch	.IPFV	3SG-FOC	do.IPF	V.D	water.SG	sprinkle.IPFV	DEM	until
'She sprinkled the flour and started stirring the food and the fire was scorching her and she									
was sprinkling cold water on her body.'									

vầấ kà-à vúú!lúú ná ú-ŋ zàá tì qààlì Ù ìηέ-η, CNJ-D fire scotch.NMLZ DEM over 3sg body-FOC 3SG-FOC all to nélì bìŋ dìó-n à bìn à kòıódìó-n melt house-FOC CNJ kitchen.SG-FOC put put D 'The heat from the fire became unbearable and she completely melted into a pool of oil inside the kitchen.' lέ lá kà-à kpè kàŋá dááná jè ká kà bá ìì tì then AFF CNJ-D INDF person say С CNJ 3PL rise enter to nέ bà ná mùś pśś bà náŋ jèl ká pśś ná woman.SG see 3pl DEM that 3pl REL sav С woman-SG DEM kpè kù-ù bá vũũ ká ká bá lὲ màiá ná tì nè fire С C-3SG NEG set.IPFV DEM С 3pl enter to see DEM ná Ù nán 31-í? DEM 38G REL do-IPFV 'So one them (the other wives) said they should go in to see what the woman is doing.' kpè zàá bà tárà kù-ù néléé gáŋ tìŋé lèglìkèlè 3pl enter reach.IPFV CNJ-D all melt.AFF lie floor.sG IDEO 'They entered and saw that she had completely melted into a pool of oil.' bá-n kpè tì bùòlì táá. 3SG-FOC enter call each other to 'They called each other.' t∫έ báá míŋ bé à dìó-ŋ bà náŋ máŋ dì-ıé dog.sGalso but COP D house.SG-FOC 3PL REL HAB eat-IPFV sììmáá bà dán bá ìnáá báá sììmáá 3pl food.sG never NEG give.D dog.sgfood.sg 'But there was a dog in the house and whenever they were eating, they never gave the dog food.' à pśś náŋ máŋ dì-ıé nmàà ìnàà báá woman.SG REL give.D dog.SG D HAB eat-IPFV cut 'It was only that woman who always gave the dog food whenever she was eating.' táð jí tì bùàlì bá-n **3PL-FOC** go.out to call so 'So they went out to call;'

báá wóó báá wóó wá dì kúnúúnú dog.SG IDEO dog.SGIDEO come eat oil 'they called the dog to come eat/drink the oil by singing.' báá dì kúnúúnú kún dog.SGNEG.FUT oil eat "Dog will not eat oil," the dog replied and sang back." jÈ dì-ıé jÈ sáú jÈ dàŋ jèl ká náŋ máŋ 2pl REL HAB eat-IPFV 2pl cornmeal.SG 2PL ever say.PFV С báá wóó wá dí sáú come eat cornmeal.SG dog.SG IDEO 'The dog refused and asked them: "Anytime you are eating food, have you ever invited me?"" iὲ náŋ máŋ ċι-ćć jÈ néní jÈ jèl ká báá 2pl chew-IPFV 2pl 2pl С REL HAB meat.SG say dog.SG wóó wá dì nén come eat meat.SG IDEO "Any time you are eating meat, have you ever asked the dog to come and eat meat?" dì báá kúŋ kúnúúnú báá wóó bà dì-ıé kúnúúnú dog.SG NEG.FUT eat oil dog.SG IDEO NEG oil eat-IPFV 'The dog replied: "Dog will not eat oil; a dog does not eat oil."" bá-n ìıì zèlì dàà.ií à kàıá ná-á báá rise lift. stick.PL 3PL-FOC CNJ with-D dog-SG chase.IPFV 'They got up, picked sticks and were chasing the dog.' lè lá kàà à... à póó-bó kàı-á à báá D woman-PL chase-IPFV dog.sG DEM AFF CNLD D D kà-à báá ìì jí zíé sóıì tù nà CNJ-D dog.SG rise follow place.sg path.SG go.out DEM síıé à náŋ tù gàà ná husband.sG REL follow go DEM D

'The women chased the dog and the dog ran towards the direction their husband had travelled.'

bá-ŋ	kàıá		báá	ŋá	τ∫έ	t∫ìà	ÌĴÈ.IÉ		à	jíél	jíélúŋ	
3PL-FOC	chase.I	PFV	dog.sG	DEM	CNJ	sin	ig.IPFV	D		sor	song.SG	
kà-à	báá	míŋ	òlóz		t∫é	mí	ŋ î∫	jijí				
CNJ-D	dog.SG	also	run.IPF	V	CNJ		o si	ng.IP				
'They chased	the dog	while s	singing	and th	ie dog r	an a	ind sar	ng in i	refusa	ıl.'		
à zó	lé	lééŋ,	báá	nì	nínsàà	ínsààláá zòé		bà		?ì		
CNJ run	DEM	until	dog.sG	and	human.SG		rı	run.NMLZ		NE	G	COP
bún	jénì,	ບ້-ກູ		zò	gàà	tì	p	5gàà		dốć	5	
thing.SG	one	3sg-fo	С	run	go	to		neet.D		ma	man.SG	
'The dog ran a	and fina	lly met	the ma	n (the	women	's hu	usbano	d)'				
à gàà	jèlàà	dóó										
CNJ go	tell.D	man.sG	ì									
'and went and	l told th	e man.'										
kà-à	dóó		ìì	nú-ù	Ì	,	wèbú		lì	è	wà	à-ná
CNJ-D	man.s	G	rise	with	th-3sg ho		horse.	rse.SG tur		m	rn come-IPFV	
dìó	kà	lè.										
house.SG	CNJ	DEM										
'The man returned with his horse to the house to find that what the dog said was true;'								as true;'				
póó	né!léé											
woman.SG	melt.FOC											
'the woman had melted.'												
ú-ŋ	wà	lìè	ù	sùó		i	à	nóg	àà			
3SG-FOC	come	turn	3sg	knif	e.sg	(CNJ catch		tch.D			
jídèmé	zàá	pábú	à	fièbi	ì bà	2	záá	bìŋ				
house.people	all	all	CNJ	lash	NEG	i i	all	put				
'Out of anger,	, he can	ne and p	oulled o	out his	sword	and	struck	all c	f ther	n dov	vn.'	

ABBREVIATIONS

2, 3	2nd, 3rd person
AFF	affirmative
С	complementizer
CNJ	conjunction
СОР	copula

D	determiner
DEM	demonstrative
FOC	focus
FUT	future
HAB	habitual
IDEO	ideophone
IMP	imperative
INDF	indefinite
IPFV	imperfective
NEG	negation
NMLZ	nominalizer
PFV	perfective
PL	plural possessive
PST	Past tense
RED	reduplication
REL	relative
REP	repetitive marker
SG	singular

Acknowledgements

We would like to thank the native speakers in Sombo (Nadowli-Kaleo district) who were happy to share their time and language with us during our field work in Ghana. Thanks to the editor and two anonymous reviewers for their great comments and suggestions. This research is part of the project funded by Social Sciences and Humanities Research Council of Canada (SSHRC) Insight grant (#435-2016-0369) awarded to Douglas Pulleyblank.

Supplementary materials

To view supplementary material for this article, (including audio files to accompany the language examples), please visit https://doi.org/10.1017/S0025100320000225.

References

- Abdul-Aziz, Abdul Moomin. 2015. Aspects of Waali phonology. Masters thesis, University of Ghana-Legon, Accra.
- Akinbo, Samuel, Alexander Angsongna, Avery Ozburn, Murray Schellenberg & Douglas Pulleyblank. 2020. Velar tap in Dágáárè. Presented at the 49th Annual Conference on African Linguistics (ACAL 49), Michigan State University.
- Akinlabi, Akinbiyi & Mark Liberman. 1995. On the phonetic interpretation of the Yoruba tonal. Proceedings of the 13th International Congress of Phonetic Sciences (ICPhS XIII), Stockholm, 42–45.
- Anttila, Arto & Adams [B.] Bodomo. 1996. Stress and tone in Dagaare [Dàgáárè]. Rutgers Optimality Archive, 169.
- Anttila, Arto & Adams [B.] Bodomo. 2000. Tonal polarity in Dagaare [Dàgáárè]. Trends in African Linguistics 4, 11–134.
- Archangeli, Diana [B.] & Douglas Pulleyblank. 2007. Harmony. In Paul DeLacy (ed.), *The Cambridge handbook of phonology*, 353–378. Cambridge: Cambridge University Press.

- Bodomo, Adams [B]. 1997. *The structure of Dagaare* [*Dàgáárè*] (Stanford Monographs in African Linguistics). Stanford, CA: CSLI Publications.
- Bodomo, Adams [B.] 2000. Dàgáárè (Languages of the World/Materials 165). Munich: Lincom.
- Byrd, Dani. 1993. 54,000 American stops. UCLA Working Papers in Phonetics 83, 97-116.
- Connell, Bruce. 2001. Downdrift, downstep, and declination. In Dafydd Gibbon & Ulrike Gut (eds.), *Typology of African Prosodic Systems Workshop*, 18–20. Bielefeld: Taps Proceedings.
- Dundaa, Mark. Gandaa. 2013. Aspects of Birfor phonology. Masters dissertation, University of Ghana.
- Hall, Edward. 1973. Dagaare [Dàgáárè] West African Language Data Sheets. Edited by M. E. K. Dakubu, University of Ghana, Legon.
- Hyman, Larry [M.]. 1985. Word domains and downstep in Bamileke-Dschang. Phonology 2(1), 47-83.
- Kennedy, Jack. 1966. Collected field reports on the phonology of Dagaari [Dàgáárè]. *Collected Language Notes* 6.
- Kuubezelle, Nerius. 2013. An autosegmental analysis of phonological processes in Dagara. Masters thesis, University of Ghana.
- Lloy, Angelina, Samuel Akinbo, Alexander Angsonga & Douglas Pulleyblank. 2019. The Dagaare [Dàgáárè] low vowels: A tenth vowel in the phonological inventory of an understudied language. Poster presentation at the Multidisciplinary Undergraduate Research Conference, University of British Columbia.
- McCloy, Daniel [R.] 2012. Vowel normalization and plotting with the *phonR* package. *Technical Reports* of the UW Linguistic Phonetics Laboratory. https://dan.mccloy.info/pubs/McCloy2012_phonR.pdf.
- Ozburn, Avery, Samuel Akinbo, Alexander Angsongna, Murray Schellenberg & Douglas Pulleyblank. 2018. Dagaare [Dàgáárè] [a] is not neutral to ATR harmony. *Canadian Acoustics* 46(4), 36–37.
- R Core Team. 2018. *R: A language and environment for statistical computing*. Vienna: R Foundation for Statistical Computing. Retrieved from http://www.R-project.org/ (24 October 2020).
- Roach, Peter [J.] 1989. Report on the 1989 Kiel Convention: International Phonetic Association. Journal of the International Phonetic Association 19(2), 67–80.
- Rose, Sharon & RoseWalker. 2011. Harmony systems. In John A. Goldsmith, Jason Riggle & Alan C. Y. Yu (eds.), *The handbook of phonological theory*, 240–290. Oxford: Wiley Blackwell.
- Saanchi, James [A.] 1997. The vowel system of Dagaare [Dàgáárè]. Gur Papers/Cahier Voltaïques 2, 129–135.
- Selkirk, Elizabeth & Koichi Tateishi. 1991. Syntax and downstep in Japanese. In Carol Georgopoulos & Roberta Ishihara (eds.), *Interdisciplinary approaches to language: Essays in honor of S.-Y. Kuroda*, 519–543. Dordrecht: Springer.
- Stewart, John [M.] 1967. Tongue root position in Akan vowel harmony. Phonetica 16(4), 185-204.
- Stewart, John [M.] & Helene van Leynseele. 1979. Underlying cross-height vowel harmony in Nen (Bantu A. 44). *Journal of African Languages and Linguistics* 1, 31–54.
- Ting, Zeng. 2007. Understanding flapping in Xiangxiang Chinese: Acoustic and aerodynamic evidence. *The 16th International Congress of Phonetic Sciences* (ICPhS XVI), Saarbrücken, 393–396.