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1. General features of Tagba

1.1. Generalities

- 1 Tagba is a Senufo language spoken in the West of Burkina Faso, in an area called Tagbara. It has about 35,000 speakers living in 28 villages. Westermann (1911), Tressan (1953), Greenberg (1970) and Naden (1989) class the Senufo languages among the Gur Languages of the Niger-Congo family. Tagba has a dialect cluster with various degrees of mutual intelligibility.
- 2 The data that we present in this paper have been collected in the village of Mahon. The data are based on a corpus resulting from long-term fieldwork by one of the authors between 2007 and 2012. It is composed of 1500 recordings of a group of native speakers (Traoré 2016). Traoré has obtained a phonological inventory which comes from the analysis of 621 basic roots (loanwords, compounds and derivations were excluded).



Figure 1. Senoufo languages (source : Roulon 1968 : 57)

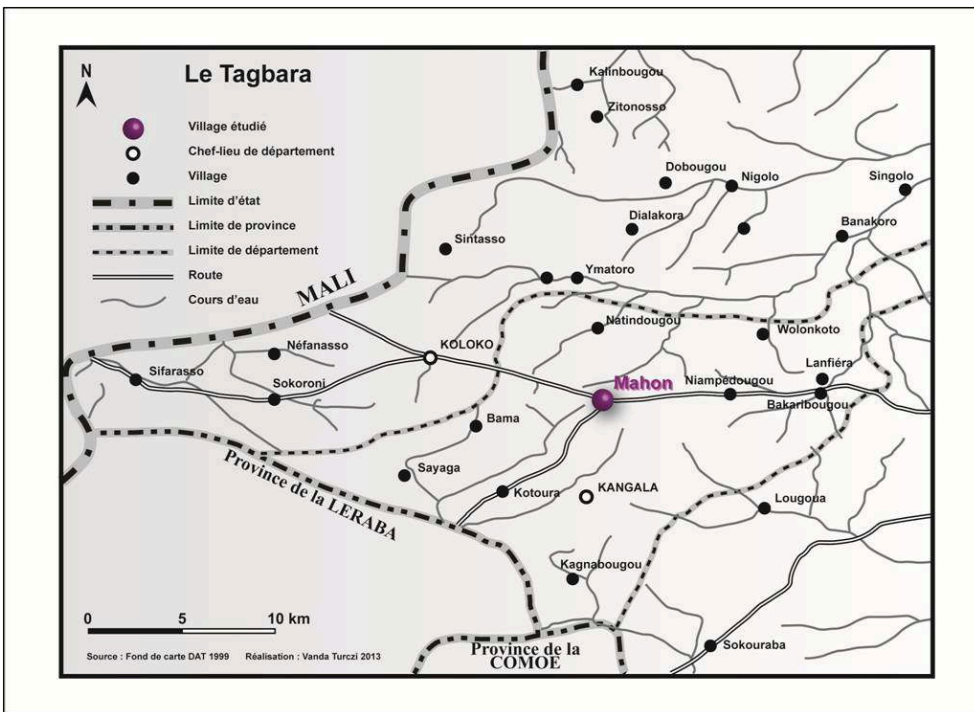


Figure 2. The Tagbara (source: INSS/CNRST)

1.2. The phonological sketch of Tagba

1.2.1. Inventory and contrastive features

- 3 Before launching into the tonology, in recognition of the fact that Tagba is a lesser-known language, we will introduce a sketch of its phonology.
- 4 The sound inventory is shown in (1)

(1)	Consonnants				vowels			
	p	t	c	k	i			u
	b	d	ɟ	g	ɪ			ʊ
	f	s			e	ə		o
	v	z			ɛ	ɛ		
	m	n	ɲ	ŋ		a	ɔ	ɔ

- 5 As with many Niger-Congo languages, the same vowel height distributes into two series, [+ATR] and [-ATR].
- 6 Tagba is a tone language with two underlying contrastive tones: high (H) and low (L). A minimal pair which illustrates their phonological status is shown in (2).
- 7 (2) tó ‘grave’ tò ‘close’

1.2.2. Phonological processes

- 8 Two phenomena are to be considered briefly before focusing on Tagba tonology: vowel harmony (VH) and intervocalic lenition.

Vowel Harmony

- 9 Tagba has highly complex VH patterns, the analysis presented here follows Traoré (2016). It involves the features of Place, Height and ATR.
- 10 Place harmony affects suffixes with underlying form /-CV/. If V=/a/, then it occurs systematically, as shown in (3a); if V is another vowel, Place harmony is not systematic, (3b) shows cases where it occurs, (3c) those where it does not occur (certain words involve more than one kind of VH).

(3)	a.	ɲê-ya	[ɲéyè]	‘faces’
		ɲó-ga	[ɲóɣó]	‘mouth’
		bũn-ga	[bũɲó]	‘terrace’
	b.	gó-tɪ	[gbóró]	‘scrape’

		cě-dɪ	[cédè]	'cut'
	c.	lǔg-tɪ	[lùrɪ]	'go up'
		còt-dɪ	[còdɪ]	'press in'

- 11 As for Height harmony, it occurs in some words, but not systematically.

(4)	a.	ɲǔ-tɪ	[ɲùrɛ]	'heat'
		kǎ-dɪ	[kálá]	'roast'
	b.	fê-t-dɪ	[fédɪ]	'jam'
		fâd-dɪ	[fâdɪ]	'change'

- 12 ATR harmony often goes with that of place and height, but not systematically either. Compare:

(5)	a.	pěd-bɛ	[pèlìβé]	'size'
		tún-lɛ	[túnúlé]	'squirrel'
	b.	tód-gɔ	[tólóɣó]	'accompany'
		jêt-lɛ	[jérílɛ]	'tongue'

- 13 To focus on the tonology, we will not enter into details of the VH processes. If in our data the vowel changes, it is due to VH.
- 14 **Intervocalic lenition**
- 15 Only a subset of consonants, oral and nasal stops¹, appears in intervocalic position, and the lenition affects oral stops systematically. The examples are shown in (6).

(6)	Lenition	Example
	d>l	cǎd-tɪ [cálɪ] 'flatten'
	t>r	bèt-ɔ [bèrɔ] 'flow'
	k>ʔ	nǒk [nòʔó] 'bottom'
	g>ɣ	mě-ga [mèɣé] 'name'

- 16 Intervocalic lenition also occurs after a nasal vowel, shown in (7a). This differs from the vowel + nasal sequence in (7b).

(7)	a.	dǎ-ga	[dǎǰá]	'basket'
	b.	dǔn-ga	[dùŋó]	'chest'

- 17 In (6) and (7a), the examples have only CV syllables. If the root has a CVC underlying form and the suffix -CV form, this will give an underlying CVC-CV structure. Tagba structure is composed entirely of CVs at the surface level, codas are forbidden. There are two main strategies to avoid a surface coda, the first is vowel epenthesis, shown in (8) and the second is the fusion of two consonants, shown in (9).

(8)	Vowel epenthesis			
	a.	bìd-gɔ	[bìlìǰò]	'respect'
	b.	ŋǒt-ga	[ŋòròǰó]	'smoke'
	c.	sǎd-ja	[sàlǒjá]	'laziness'

(9)	Fusion of two consonants			
	nǎn-gɛ	[nǎŋé]		'beef'
	fǎd-dì	[fǎdí]		'change'
	tǔn-ja	[tùŋó]		'caterpillar'

- 18 As we see in (8ab), the epenthetic vowel is usually a copy of the vowel of the root. However, it does not necessarily have to be, as shown in (8c) where only part of the root vowel is copied.

Interactions between consonants and vowels

- 19 Tagba also shows some correlations between consonants and vowels. Vowel features spread more easily across some consonants in vowel epenthesis and VH. Consider:

(10)	a. /d/				
		i.	VE	fed	[felɪ] 'coincer'
		ii.	VH	ku-dì	[kult] 'cried'
	b. /g/				
		i.	VE	tɛg	[tɛʒɛ] 'poser'
		ii.	VH	do-ga	[doʒo] 'smell'

- 20 In (10a), the root vowel can't cross the consonant /d/, whether in VE or in VH. In (10b), it can cross /g/ both in VE and in VH. This is not a coincidence even though there are counter-examples: Traoré & Luo (2014) and Traoré (2016: Chap.1) propose a hierarchy of the “strength” of the consonants based on the phonotactics at the morphological boundary. /d/ is one of the strongest while /g/ one of the weakest. However, we will not develop this issue because of its extreme complexity and will focus on Tagba tone in this paper.
- 21 Now let's compare the two examples shown in (11):

(11)	a.	/fêd/ [fêlì]	'diluted'
	b.	/fêt-dɔ/ [fêdò]	'dilute, diluting'

- 22 As (10a) shows, a phonological singleton consonant /d/ becomes a lenis [l] phonetically. On the other hand, in (11b), there is a fusion of two underlying coronal obstruents: /td/. This fused structure yields a [d]. This is analyzed as a mismatch between phonological form and phonetic interpretation. Phonologically, the fused structure is a geminate; however, it does not have the phonetic correlate of the increased closure duration.
- 23 This leads us to analyze it as a “virtual geminate” (VG)². As for (9b) with a fused /dd/ and (11b) with a fused /td/, it appears that they both result in a surface [d]. This is because Tagba never allows surface intervocalic voiceless obstruents. [d] as a voiced stop is already the strongest intervocalic consonant possible.

1.3. Morphological features

- 24 Tagba is a language with noun and verb classes. It has eight noun classes (NC) and ten verb classes (VC).
- 25 For nouns, the inflection indicates the NC and the number. A noun is associated with a single set of suffixes (or two if the class distinguishes genders). Every class has indefinite and definite suffixes. The eight NC are wɪ/pɪ, kɪ/yɪ, lɪ/cɪ, tɪ and pɪ. As for verbs, the root may have no suffix (the “bare” or “unmarked” form, which gives the zero aspect), or take a suffix for one of the ten VC, yielding the incompletive aspect. Examples already shown in (11) can illustrate these patterns.
- 26 A word is composed of root and suffix (except for compounds). The underlying form of a root is of CV or CVC types, with underlying tone(s). As for the suffixes, they are of CV or V forms, always toneless.
- 27 Like many languages of the same area, the basic nominal morphology pattern of Tagba consists of a root plus a classifier (CL), which gives the singular and the plural forms, illustrated by (12).

(12)	a.	nô-ɲɛ	[nóɲɛ]	mother-CL	'mother'
	b.	nô-bi	[nóbì]	mother-CL	'mothers'

2. Tagba tonology

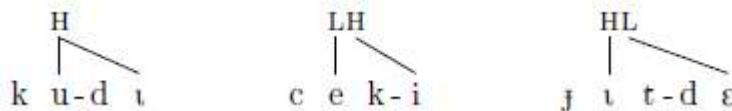
- 28 We analyze Tagba tone according to the general theoretical assumptions of Autosegmental Phonology (Goldsmith 1976). In this framework the skeleton, segments and tones are all on different tiers.
- 29 The underlying tone(s) of a root can be deduced from the contrast between forms with and without suffix.

(13)	a.	ped	[pèlè]	swell-COMPL	'swelled'
		ped-go	[pèlìǰó]	swell-INCOMPL	'swelling'
	b.	gog	[gbòǰò]	gather-COMPL	'gathered'
		gog-ji	[gbòǰòjì]	gather-INCOMPL	'gathering'

- 30 (13a) and (13b) have the same structure: a CVC root without suffix for the completive form. Both have two surface L tones. On the other hand, the CVC-CV suffixed form for the incomplete aspect gives different surface tones: LLH and LLL. We thus deduce that the root “ped” has underlying LH tones, while the root “gog” has underlying L tone.
- 31 At first glance, Tagba seems to be a perfect example of the tone association proposed by Goldsmith (1976). From left to right, tones and syllables are associated one to one, and a syllable without tone will receive the preceding tone.

(14)	a.	kú-dì	[kúlí]	cry- ACCOMP	'cried'
	b.	cěk-i	[cèǰí]	smile-UNACCOMP	'be smiling'
	c.	ǰít-da	[ǰídè]	tongue-CL	'tongue'

- 32 These examples can be illustrated as shown in (15): when a root has one underlying tone, it will spread onto vowel(s) without tonal association; when it has two underlying tones and two vowels, the first tone is associated with the first vowel, the second tone with the second vowel.
- 33 (15)



2.2. More complex patterns

- 34 But patterns are more complex in the following cases: 1) when there are more underlying tones than underlying vowels; 2) when there is vowel epenthesis; 3) when there is vowel deletion. Let's examine each of them.

- 35 If a root has two underlying tones and no suffix, the second tone will be floating instead of piling up on the vowel, as shown in (16):

(16)	a.	cě	[cè]	'trembled'
	b.			

- 36 If a CVC root with two underlying tones has no suffix, the second tone will also be floating. Let's compare (16) to (17):

(17)	a.	cěk	[cèʔè]	'smiled'
	b.			

- 37 The second vowel in (17) is an epenthetic one, the H tone floats just as in (16).
 38 A tone, once floating, cannot cross the word boundary. For example, in the compound *sǎd.fǒd-ŋɛ* > [sǎlǐfòlòŋɛ́], 'laziness.owner-CL', the floating H tone in *ǎ* cannot spread to the next vowel of *fǒd* 'owner'.
 39 If a CVC root takes a CV suffix, the root V will be copied entirely as an epenthetic vowel, as shown in (18), or partially as a single feature, as shown in (19). The epenthetic vowel does not have an underlying tone; it just copies the preceding tone.

(18)	a.	ŋǒt-ga	[ŋòròʒó]	smoke-CL	'smoke'
	b.				

(19)	a.	kǎd-gɛ	[kálǐʒè]	armpit-CL	'armpit'
	b.				

- 40 If we compare (18) and (19) to (17), we see that they are indeed the same pattern: the epenthetic vowel is transparent to lexical tone assignment.
 41 Finally, if a CV root takes a V suffix, the two heteromorphic vowels trigger processes of hiatus resolution. This appears as four strategies that are shown in (20).

(20)	a.	Deletion of the first vowel		
		Jê-ɪ	[jì]	'enter, entering'
		lǒ-u	[lú]	'take, taking'
	b.	Deletion of the second vowel with tonal inversion		
		jǎ-ɔ	[já]	'son'
		ɲâ-ɔ	[ɲà]	'see, seeing'
	c.	Vowel assimilation to V2		
		Jě-i	[jii]	'wash, washing'
		Jâ-i	[jîi]	'break, breaking'
	d.	Glide formation		
		cɛ́-u	[cɛ́w]	'know, knowing'
		sɛ́-u	[sɛ́w]	'produce, producing'

- 42 In (20a), the first vowel is deleted, and the second one takes the second underlying tone; in (20b), the second vowel is deleted, but the first one also takes the second underlying tone; in (20c), the first vowel is assimilated to the second one; in (20d), the second vowel turns into a glide.
- 43 In a general way, high vowels dominate low ones and front vowels dominate back ones³. The data in (20) are crucial for our analysis and we will come back to them in section 3.3.
- 44 A rule-based approach would solve the problem posed by these patterns with a series of ordered rules and to predict the data in (16) - (19), the tone assignment must precede the epenthesis.

(21)	a.	Tone assignment rule:		
		$/kâd-ga/ \rightarrow \begin{array}{cc} H & L \\ & \\ k & a & d & g & a \end{array}$		
	b.	Epenthesis rule:		

		$\emptyset \Rightarrow \mathbf{1} / \left\{ \begin{array}{l} C \quad _ \quad C \\ C \quad _ \quad \# \end{array} \right.$
	c.	Tone copy rule:

45 Similar rule ordering will predict the data in (20a): tone association must precede the vowel deletion. As for data in (20b-d), we will provide an analysis in section 3.3.

3. Tier hierarchization

46 As we have shown in §2.2, Tagba data do not fit the tone association convention perfectly. Let us look first at a “canonic” case of tonal behavior.

(22)	Ewe vowel coalescence (Clements & Ford 1979)
	mēkpó ètú > mēkp ôtú

47 In (22), to resolve the hiatus /óè/, Ewe chooses to delete the second vowel /è/, but not its underlying L tone. This kind of phenomenon has been considered to be strong evidence since the inception of the autosegmental theories that the tonal tier is independent from the segmental tier. However, if we compare the Tagba data in (20a), we observe the opposite phenomenon: the tone drops with vowel deletion. If Tagba behaves differently, the organization of its tonal and segmental tiers should then be reconsidered.

3.1. Previous discussions on tier hierarchization

48 According to Yip (2002: xxi), the Tone-Bearing Unit (TBU) is “the entity to which tones associate”. It may be syllable, mora or “perhaps vowel”. However, this definition is far from exhaustive. Odden (1995) summarizes previous discussions on this question: for Goldsmith (1976), the TBU would be the vowel, i.e. tone is directly associated with a vowel; for Goldsmith (1995), it is the syllable. Odden agrees with Clements & Ford (1979) that the TBU is a higher prosodic unit.

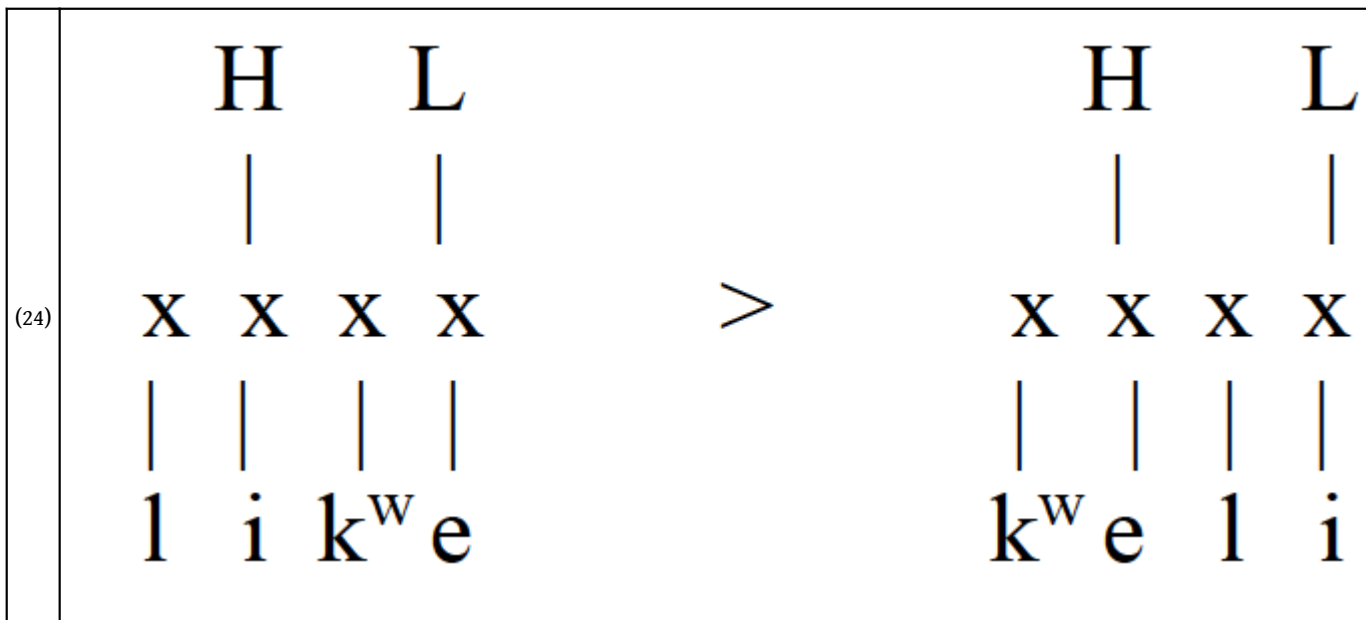
"There has been some ambiguity in previous uses of the term tone-bearing unit. It is maintained here that tones are not directly associated with vowels or other segments,

but rather with higher-level units such as the syllable or the syllable final . . . " Clements & Ford (1979: 181),

- 49 The "higher-level units" can also be the skeleton. This possibility is shown in Bao (1999: 7). However, although the skeleton is assumed by different autosegmental theories, i) it is not expressed in the same way, for example, x-skeleton (Archangeli 1985) and CV-skeleton (Clements & Keyser 1983); ii) it is often implied but not directly expressed in autosegmental representations. The nature of the TBU implies different tier hierarchization. In this paper we will assume the x-skeleton.
- 50 Bakwiri slang (Hombert 1973), shown in (23), is another famous example of how tone is autonomous regarding segments.

(23)	lík ^w è	k ^w éli	'to fall'
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- 51 If tones were associated to segments, tones would move with the vowels. Therefore, in an autosegmental representation, tones should not be associated to segments, but to higher prosodic units such as the mora, the syllable or the skeleton. In the latter case, the example in (23) could be represented as follows:



- 52 This confirms Clements & Ford (1979) and Odden's (1995) point of view that tone should be associated to higher-level units but not directly to the vowels.
- 53 In the discussions above, the association of tone with higher prosodic units is relevant for analyses. However, Yip (2002) claims that "in the case of language with only mono-moraic, open CV syllables, where each syllable bears exactly one tone, the TBU could be vowel, mora or syllable."
- 54 Accordingly, the following notations are equivalent for a language with only mono-moraic open CV syllables

(25)	$\begin{array}{c} C \quad V \quad - \quad T \\ \\ \mu \\ \\ \sigma \end{array}$	or	$\begin{array}{c} C \quad V \\ \\ \mu - T \\ \\ \sigma \end{array}$	or	$\begin{array}{c} C \quad V \\ \\ \mu \\ \\ \sigma - T \end{array}$
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55 Since Tagba is a language with only CV syllables, we'll examine below if different notations of tonal association are really equivalent.

3.2. Analysis of Tagba

56 Tagba appears to be a counterexample for Yip's claim. Two cases: vowel epenthesis and vowel deletion, plead for an analysis of tone-to-vowel association. Let's compare the predictions of tone-skeleton association and tone-vowel association.

57 The two predictions are shown in (26):

(26)	Epenthesis: ɲǒt-ga > [ɲǒrǒʒǒ] 'smoke'	
a.	Tone having access to skeleton	
b.	Tone having access to vowels	

58 In (26a), the association (arrowed lines) of the epenthetic vowel [ɒ] and that of the L tone are two separate operations. Once the vowel [ɒ] is copied to solve the CC cluster at the morphological boundary and thereby satisfy the CV syllable structure requirement, we have to suppose an additional "tone copy rule" to associate the L tone with the skeletal position with which [ɒ] is associated.

59 In (26b), in contrast, since L is already associated with [ɒ], the copy of this latter (arrowed line) will certainly also copy the L tone. This way, a single operation, vowel epenthesis, is needed to avoid the CC cluster. (26b) is more economical than (26a), in the sense that it demands a single operation instead of two, and should thus be preferred.

60 If for (26) the simpler one of the two solutions is the better one, for the vowel deletion in (20a), the hypothesis that tone has access to the skeleton in Tagba will give the

wrong prediction. Besides, the behavior of (20a) is exactly the opposite to (22), the classic example demonstrating the autonomy of tone in relation to vowels. Let's examine (27) below:

(27)	Vowel deletion: ʃê-i > [ʃi] 'enter, entering'	
	a.	Tone having access to skeleton
		<pre> H L x x x † j e i </pre>
	b.	Tone having access to vowels
		<pre> x x x † j e i H L </pre>

- 61 In (27a), the L tone and the vowel [e] are associated to the same skeletal position, the deletion of [e] does not imply that of the H tone, which could give a similar case as in (22). In (27b), in contrast, since the tone is associated to the vowel [e] and this latter to the skeletal position, the deletion of [e] implies that of the H tone at the same time, which gives the attested [ʃi], where the [i] has a L tone⁴.

3.3. Analysis of other patterns

- 62 Our analysis covers almost all the vowel epenthesis in our corpus, although a few exceptions exist. They consist of a very small number of roots all of which have /k/ /g/ as C2:

(28)	a.	sèk-ga	[sèʔéʒí]	'baskets'
	b.	cûg-lɛ	[cúʒùlól]	'pots'

- 63 We don't have a principled explanation for these kinds of exceptions, but notice that these exceptions only occur with /k/ and /g/, which are the two weakest consonants among Tagba obstruent phonemes, in a CVC₂-C₃V word, if C₂ is /k/ or /g/ and C₃ another obstruent, C₂ will always drop.
- 64 For the strategies of vowel sequences shown in (20b-d), we should explain each of them.
- 65 Take (20bc) (repeated in 29), this example shows the deletion of the second vowel, with an apparent inversion of tone, that is, the first vowel is maintained, but it takes the second underlying tone.

(29)	a.	Deletion of the second vowel with tonal inversion		
		jǎ-ɔ	[jǎ]	'son'
		ɲâ-ɔ	[ɲâ]	'see, seeing'
	b.	Assimilation of the two vowels		
		jě-i	[jĩ]	'wash, washing'
		jâ-i	[jĩ]	'break, breaking'

66 In fact, the maintaining of vowel quantity is subject to variation, that is, the same phonological patterns can lead to different surface forms:

(30)	a.	wâ-ɔ	[wâ]	'someone'
	b.	tâ-ɔ	[tâ]	'possess, possessing'

67 Where (30a) corresponds to (29a), with the second vowel deleted, and (30b) to (29b), with the vowel assimilation. The fact that (30a) and (30b) have exactly the same phonological pattern leads us to analyze the data in (29a) not as an inversion of tone, but as the deletion of the first vowel after vowel assimilation. From a derivational viewpoint, we propose that the data in (29a) go through two intermediary steps:

(31)	a.	underlying form:	jǎ-ɔ	
	b.	vowel assimilation:	jǎ-a	
	c.	tone assignment:	jâá	
	d.	1 st vowel deletion:	[jǎ]	'son'

68 This analysis presents two advantages. Firstly, it unifies the tonal process in (14a) and (14b), thus tonal inversion is no longer needed; secondly, it accounts for the variation in (30): for (29a) and (30a), the surface form corresponds to (31d), yet for (29b) and (30b), the surface form corresponds to (31c). This view analyzes the variation not as a coincidence, but as part of the phonological structure already present at the underlying level.

69 As for (20d), the second vowel /u/ becomes a glide and thus cannot be a TBU⁵.

4. Conclusion

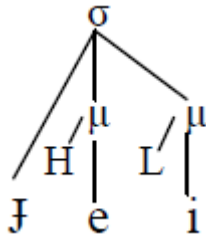
70 In this paper we have presented data in Tagba and examined its tonal patterns. The problem that Tagba raises for autosegmental phonology is how the different tiers should be organized in this language. Previous studies either claim that tone is universally associated with higher-level units, or make the assumption that all tier

hierarchizations are equivalent. Tagba shows that whether tones are associated with the skeleton (positions, morae or other units according to different theories) or with segments (vowels) is relevant for the prediction of tonal patterns. Rather than a universal claim that they should be associated with higher-level units or that the type of association makes no difference, we propose that for Tagba, tone is associated directly to vowels.

- Archangeli, Diana (1985). Yokuts Harmony: Evidence for Coplanar Representation in Nonlinear Phonology. *Linguistic Inquiry* 16, 335-373.
- Bao, Zhiming (1999), *The structure of tone*. New York: Oxford University Press.
- Clements, G.N. & K.C. Ford (1979), Kikuyu tone shift and its synchronic consequences. *Linguistic Inquiry* 10: 179-210.
- Clements, George N. & Samuel Jay Keyser (1983), *CV phonology, a generative theory of syllable*. Cambridge : Mass. The MIT Press.
- Delafosse, Maurice (1904). *Vocabulaires comparatifs de plus de 60 langues ou dialectes parlés à la Côte-d'Ivoire et dans les régions limitrophes*. Paris : Ernest Leroux.
- Delafosse, Maurice (1911). Les langues voltaïques (boucle du niger). *Mémoire de la Société de Linguistique de Paris*, 16, 6.
- Goldsmith, John (1976), *Autosegmental phonology*. PhD dissertation, MIT.
- Goldsmith, John (1995), Phonological Theory, in John A. Goldsmith (ed.), *The handbook of phonological theory*, 1-23. Cambridge, MA: Blackwell.
- Greenberg, Joseph H. (1963). *The Languages of Africa*. Indiana University Press.
- Hyman, Larry M. 2011. Tone: Is it different? In John Goldsmith, Jason Riggle & Alan C.L. Yu (eds), *The handbook of phonological theory, 2nd ed.*, 197-239. Blackwell.
- Hombert, Jean-Marie (1973). *Speaking backwards in Bakwiri*, SAfrL 4(3) - p. 227-236.
- Martinet, André (1970). *Éléments de linguistique générale*. Paris: Armand Colin.
- Naden, Anthony J. (1989). Gur. Dans John Bendor-Samuel & Rhonda L. Hartell, eds., *The Niger-Congo Languages. A classification and description of Africa's largest language family*. University Press of America, Lanham, New York, London.
- Odden (1995), Tone: African Languages. In John A. Goldsmith (ed.), *The handbook of phonological theory*, 444-475. Cambridge, MA : Blackwell.
- Roncador, Manfred von & Mieke, Gudrun (1998). *Les langues gur (voltaïques). Bibliographie commentée et inventaire des appellations des langues*. Rüdiger Köppe Verlag, Köln.
- Roulon, P. (1968). Essai de phonologie du Tyembara (dialecte senoufo), Paris, SELAF, 57p.
- Traoré, Edwige Mori (2016). *Étude ethnolinguistique du sicanε (chants de hochets des femmes senoufo du Tagbara)*. PhD Thesis, Université d'Orléans.
- Tressan, Lavergne de (1953). *Inventaire linguistique de l'Afrique occidentale française et du Togo*. I.F.A.N., Dakar.
- Yip, Moira. 1995. Tone in East Asian languages. In John A. Goldsmith (ed.), *The handbook of phonological theory*, 476-494. Cambridge, MA: Blackwell.
- Yip, Moira (2002), *Tone*, Cambridge University Press.

NOTES

1. The only occurrences of approximants and fricatives in intervocalic position are in loanwords.
2. Virtual length (VL) is developed in works assuming the abstractness of phonology, in particular within the frameworks of Government Phonology and related theories. The essential idea is that phonological representations do not have to correspond immediately to a phonetic reality. In the Tagba case, the reason allowing us to consider phonetic [d] as a VG is that a simple intervocalic /t/ or /d/ always becomes sonorant. Readers interested in VG or VL in general are invited to consult Ségéral & Scheer (2001) for a survey of the debate since generative phonology.
3. As mentioned by one of the reviewers, “Tagba appears to be one of the languages which challenge the primacy of structure on segments.” Indeed, word structure depends on a competition between two segments in contact, here two vowels. By “dominate” we mean the primacy of high over low vowels and front ones over back.
4. An alternative solution, as pointed out by one of the reviewers, would be the mora:



In a V1-V2 sequence, if tone is associated to mora, and the weight of the mora depends on the competition between /e/ and /i/, here the first μ falls, and both H tone and /e/ fall as well.

5. In Tagba, the glides cannot be vocalic, but must be consonantal, for this language avoids hiatus at all costs. Glides can of course be the second vowel of a diphthong in some languages such as the Mandarin Chinese, for they are moraic and clearly take part of the contour tone. See Yip (1995) for details.
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ABSTRACTS

Tagba (Senufo) is a tone language that presents tonal patterns that appear quite regular at first glance. However, these are difficult to model under standard autosegmental hierarchical assumptions regarding the placement of skeleton, segments and tones. In this paper, we will present Tagba tonology and demonstrate that it can be accounted for by readjusting the tiers of hierarchization. From this, we reason that the proposed hierarchy is parametric and language specific.

Le tagba (senufo) est une langue à tons qui présente des patrons tonals plutôt réguliers au premier abord, cependant, le point de vue traditionnel sur la hiérarchie des lignes de représentation dans le modèle autosegmental fait des prédictions qui s'avèrent inappropriées sur certains patrons tonals dans cette langue. Dans cet article nous présenterons la tonologie du tagba et démontrerons qu'un aménagement de la hiérarchisation des lignes de représentation

rendra compte de ses patrons tonals complexes, ainsi nous raisonnerons que cette hiérarchie, au lieu d'être universelle, est paramétrique en fonction des langues.

INDEX

Mots-clés: tagba, ton, segments, squelette, lignes, hiérarchie

Keywords: Tagba, tone, segments, skeleton, tiers, hierarchy

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