

## THE VOWEL SYSTEM OF EFIK

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In the few Efik studies available, only two dialects: Calabar and Ibibio, have received some attention, the former more than the latter.<sup>1</sup> In these studies, the problem of vowel harmony which governs vowel distribution has not been adequately looked into. As a result, verb pronominal prefixes are regarded as the sole embodiment of the vowel harmony system. In this paper it is shown that by examining *Ána:ŋ*, another dialect of Efik, it becomes clear that the vowel harmony system in Efik bears more relationship with the vowel harmony common to many West African languages than has ever been indicated.<sup>2</sup>

*Ána:ŋ* is spoken in *Abák* and *Íkót* Ekpené Divisions by approximately one and a quarter million persons. It is bounded in the north and west by Igbo, and in the south and east by Ibibio. However, the data in this description are based on the speech in the vicinity of *Íkót* Ekpené township.

The vowel system is slightly more elaborate in *Ána:ŋ* than in Calabar. First, *Ána:ŋ* has more vowel phonemes than Calabar: eight against seven in Calabar. What accounts for this is the fact that in *Ána:ŋ* the vowel *ɥ* contrasts with *u*, whereas there is no comparable phenomenon in Calabar (Fig. 1).

[ -back ] [ -round ]		[ +back ] [ +round ]		
[ +tense ]	[ -tense ]	[ +tense ]	[ -tense ]	
i		u	ɥ	[ +high ]
e	ɛ	o	ɔ	[ -high ] [ -low ]
	a			[ +low ]

Vowel chart

*Ána:ŋ* *ɥ* is sometimes represented in Calabar by either *i* or *u*, as in the following examples:<sup>3</sup>

<sup>1</sup> Elaine Kaufman (1968) is the only known study of Ibibio as of now. See References, p. 112.

<sup>2</sup> P. Ladefoged (1964), p. 38.

<sup>3</sup> Examples are given in their phonemic forms except where otherwise indicated. Only the high tone (´) is marked. The unmarked tone is low.

(1)	Ána:ŋ	Calabar	
	fút	fút	be noisy
	fít	fítí	fold
	yup	yipi	beat
	kúp	kípí	shut up
	ndú	ndú	sweetness
	ukú	uku	dignity
	utú	utú	poverty
	pu	pu	fail

Second, vowel length is phonemic in Ána:ŋ. The following contrasts exist at the lexical level:

(2)	kóŋ	cough	kóóŋ	hang
	búk	praise	búúk	bury
	kók	cure	kóók	construct
	mbót	boil	mbóót	hill
	bak	butcher	baak	dread
	úbók	hand	úbóók	nurturing

These are absolutely unpredictable and must therefore be indicated in the lexicon. Incidentally, we may add that vowel length is predictable in plural forms of certain verbs where it is used to indicate plurality of action, like repeated action by one or more persons.

(3)	singular	plural		singular	plural	
	dút	dúút	pull	pénné	péén	daub
	kán	káán	loiter	ŋiam	ŋiian	sell
	saŋá	saaná	stroll	ŋian	ŋiian	point at

These examples are accounted for by a dialect specific phonological rule which may be characterized as follows:

$$(4) \quad V \rightarrow [+length]/C-C (V)/plural$$

Apart from these two aspects, Ána:ŋ and Calabar share basically the same constraints in vowel harmony. What is meant by this is that we would regard any differences in vowel harmony constraints as relatively minor and possibly related to diachronic changes (Table 1).

We may briefly state the segment structure conditions as IF-THEN conditions (Stanley, 1967), just to highlight the characteristics of Efik vowels. Undue repetition of all the information, including universal constraints (Chomsky, 1965, p. 6), in the table, is avoided.

$$(5) \quad +I \begin{bmatrix} +voc \\ +back \end{bmatrix} \\ \downarrow \\ T \begin{bmatrix} +round \\ -low \end{bmatrix}$$

This condition states that all back vowels are round. Conversely, with regard to roundness, all nonback vowels are nonround. Also, it states that there is no low, back vowel.

$$(6) \quad +I \begin{bmatrix} +voc \\ +tense \end{bmatrix} \\ \downarrow \\ T [-low]$$

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Table 1. Systematic redundancies

	With redundancies							Without redundancies								
	i	u	ɥ	e	ɛ	o	ɔ	a	i	u	ɥ	e	ɛ	o	ɔ	a
Vocalic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Consonantal	-	-	-	-	-	-	-	-	.	.	.	.	.	.	.	.
Anterior	-	-	-	-	-	-	-	-	.	.	.	.	.	.	.	.
Coronal	-	-	-	-	-	-	-	-	.	.	.	.	.	.	.	.
High	+	+	+	-	-	-	-	-	+	+	+	-	-	-	-	-
Low	-	-	-	-	-	-	-	+	.	.	.	-	-	-	-	+
Back	-	+	+	-	-	+	+	-	-	+	+	-	-	+	+	.
Nasal	-	-	-	-	-	-	-	-	.	.	.	.	.	.	.	.
Tense	+	+	-	+	-	+	-	-	.	+	-	+	-	+	-	.
Continuant	+	+	+	+	+	+	+	+	.	.	.	.	.	.	.	.
Voiced	+	+	+	+	+	+	+	+	.	.	.	.	.	.	.	.
Strident	-	-	-	-	-	-	-	-	.	.	.	.	.	.	.	.
Round	-	+	+	-	-	+	+	-	.	.	.	.	.	.	.	.
Sonorant	+	+	+	+	+	+	+	+	.	.	.	.	.	.	.	.

This condition states that there is no low tense vowel in Efik.

$$\begin{array}{c}
 (7) \quad +I \left[ \begin{array}{l} + \text{voc} \\ - \text{back} \\ - \text{tense} \end{array} \right] \\
 \downarrow \\
 T [- \text{high}]
 \end{array}$$

This condition states that if a vowel is front, nontense, then it must be nonhigh. That is, it can either be mid or low.

We begin the description of the segment sequence condition with the syllable—the next smallest unit, after phonemes, from which morphemes and words are made. We recognize two syllable types in Efik: the principal syllable type, which consists of more than one segment; and the minor syllable type, which consists of a single segment. The principal syllable type may be defined as a nonvocalic segment followed by one or two vowels and optionally by a nonvowel. It may be diagrammed as follows:  $- \text{voc} (V) V (- \text{voc})$ . In the minor syllable type, the segment may be either a nasal consonant or a vowel. Both are possible only in a preconsonantal position—as a prefix.

- (8) (a) *dí*      come                      *dóm*      bite  
           *dío*      trample on                      *suan*      scatter  
           *yié*      answer                              *yíón*      wander  
           *dáy*      taste                                      *wuak*      tear apart  
       (b) *Ń = bát*      dirt                                      *á = bán*      water pot  
           *Ń = tán*      sand                                      *í = ták*      base

Because of the lack of agreement on the representation of the principal syllable, when tone sequence is involved,<sup>4</sup> it is necessary to argue briefly for the form preferred here.

<sup>4</sup> W. E. Welmers (1968) has two analyses: (i) an Ibibio form *ébidé* 'he plays', as underlying Calabar *ébrě* and (ii) *ésyě* 'his'. T. L. Cook (1969) consistently has *brě* and *ésyě* respectively.

Dialect evidence throws some light. Here are *Ána:ŋ* examples which contrast with Calabar (phonetic):

(9)	Calabar	<i>Ána:ŋ</i>	
	tígá	tíá	kick
	wóró	wuó	go out
	yeré	yié	answer

It is significant that *Ána:ŋ* forms have retained the tones exactly as they are in their disyllabic counterparts in Calabar. If we assume that the basic syllable pattern is CV or GV, it is simpler to describe the *Ána:ŋ* forms as derived from Calabar forms through some rules which include consonant deletion.

In a reverse situation, *Ána:ŋ* retains two syllables while Calabar has monosyllables:

(10)	<i>Ána:ŋ</i>	Calabar	
	bidé	brě	play
	fidé	frě	forget
	tudé	trě	stop

Both of these sets show that the underlying vowel in each syllable bears a single tone, and that the existence of two tones on a vowel can at best represent a purely phonetic phenomenon.

The preceding examples are simple and clear-cut cases. But in difficult cases no dialect evidence exists to support disyllabicity, e.g. *duó* 'fall', *ésié* 'his', *túep* 'cold'. In deciding which analysis to use here, there are perhaps two arguments for accepting two vowels in the underlying syllable. First, it is possible that the historical explanation for the phenomenon is similar to the cases whose historical processes can be recovered in dialects. The only difference in the present cases is that we cannot determine what the lost consonant was. Secondly, and related with the first, since the original tones in these syllables are still preserved, it would be consistent to relate these tones to individual vowels. Again, at the phonetic level we can consider certain environments in which some of these words are subject to a glide formation and tone assimilation rules. The operation of these rules in Efik is quite clear, so they need not be discussed here.<sup>5</sup>

The futility of any argument such as Cook's (1969), which refers to the vowel harmony of the third person singular pronominal prefix, is obvious if we bear the foregoing in mind. The argument is that because the pronominal prefix for *biom* is *o* not *ε* in Calabar, the first vowel in the verb stem is a glide. There is no argument for the expectation that it should be the first vowel which determines the harmony. Here are different prefix vowels under a similar environment.

(11)	<i>Ána:ŋ</i>	Calabar	
(a)	á = tíá	á = tígá	he kicks
	á = míá	á = mígá	he beats
(b)	é = fidé	é = frě	he forgets
(c)	é = tudé	ε = trě	he stops

<sup>5</sup> In fact, it very much seems to be the case in certain words like *biom* 'carry on the head', *síó* 'subtract', where tone assimilation naturally results in glide formation, thus yielding *byom* and *syó* respectively. There is an alternative analysis which, strangely enough, no one has ever suggested. This is the possibility of there being an intervening glide which might be lost through the application of a deletion rule. Thus the examples under consideration might have as underlying forms *biyom*, and *síyó* respectively.

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The first example in Calabar falsifies the argument that *i* as the first vowel of the stem would unconditionally require an  $\epsilon$  prefix as in (b). Even (c) shows that the underlying first vowel of the stem fails to command the prefix in the prescribed terms. All these suggest that in a sequence of two vowels, whether broken by a consonant or not, one of them is more prominent. And it is this prominence which determines the harmony. In the following, it will be shown that the verbal pronominal prefixes can hardly be used exclusively to describe the vowel harmony because these prefixes only partially exemplify a more detailed vowel harmony.

Vowel harmony in many West African languages is regarded as relatable to a diacritic feature which we could call tense (Ladefoged, 1964, p. 36), which is distributable to the word if it has either plus or minus (Chomsky and Halle, 1968, p. 378). The distribution is from stems alone. Vowel harmony as a term used in the description of many West African languages which do not fit neatly into the pattern found in Igbo, for instance, is somewhat loose to accommodate vowel distribution even without any consideration of the feature tense. This is the way it has always been used in relation to Efik, as in the choice of affixes (Ward, 1933). It will be shown that in the case of Efik this feature does exist, though in a disrupted form,<sup>6</sup> and may be legitimately used. However, this breakdown of the original system makes it impossible to describe the vowel harmony in Efik exclusively in terms of the feature tense as in the case of Igbo. We have to appreciate how erroneous it is to alternatively resort exclusively to vowel height in describing the vowel harmony in Efik. An adequate description of Efik in this regard should make use of both. And this can be achieved by the use of IF-THEN conditions.

The first restriction may be stated as follows:

$$(12) \quad +I \left[ \begin{array}{c} - \text{voc} \\ \langle - \text{cons} \rangle \\ \alpha \text{ back} \end{array} \right] \quad \begin{array}{c} [+ \text{voc}] \quad [+ \text{voc}] \quad ([- \text{voc}]) \\ \downarrow \\ [+ \text{high}] \\ \langle \alpha \text{ back} \rangle \end{array}$$

T

This condition states that in a syllable which contains two vowels, the first one must be high. It further states that if the first segment is a glide, then it must agree in backness with the first vowel.<sup>7</sup>

$$(13) \quad \begin{array}{cc} \text{sua} & \text{hate} & \text{wua} & \text{sacrifice} \\ & & \text{yíók} & \text{cut} \end{array}$$

Thus, we cannot have either \**yua* or \**wio*.

$$(14) \quad -I \quad [- \text{voc}] \quad \begin{array}{c} [+ \text{voc}] \\ [+ \text{back}] \\ [+ \text{high}] \end{array} \quad \begin{array}{c} [+ \text{voc}] \quad [- \text{voc}] \\ \downarrow \\ [+ \text{tense}] \\ [- \text{back}] \end{array}$$

T

<sup>6</sup> The situation here is comparable to Yoruba as indicated in Ayọ́ Bamgboṣe (1967), p. 268.

<sup>7</sup> This phenomenon is related to vowel length. Calabar avoids this phenomenon by having either an extra syllable or merely a short vowel, e.g. *wɔrɔ* 'go out', *wa* 'sacrifice', *yók* 'cut'. Also, this condition does not include a sequence of two identical vowels representing length. For instance, we have *yɔɔp* 'beat' (plural) from *yɔp*.

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This negative condition states that if the second vowel in a syllable is preceded by a back high vowel, then the second vowel cannot be a tense nonback vowel. This means that we can have 15(a), but not (b).

(15)	(a)	ínuen	bird	(b)	*inuen
		túén	point a light at		*tuen
		suenné	disgrace		*suenne
		suan	scatter		*tuin
		ídúó	container		*buin

In stating how the vowels of the stem determine the vowel of the prefix in both nouns and verbs, we need to use the principle earlier suggested: that the prominent vowel in the stem imposes the restriction on the features of the prefix vowel and of the vowel of the following syllable in the same word even beyond the formative boundary.

$$(16) \quad -I \begin{bmatrix} +\text{seg} \\ +\text{voc} \end{bmatrix} = [-\text{voc}] ([+\text{voc}]) \begin{bmatrix} +\text{voc} \\ +\text{tense} \end{bmatrix} ([-\text{voc}])$$

↓

$$T [-\text{tense}]$$

This negative condition states that if the stem vowel is tense, we may not have a nontense vowel prefix. Thus if the stem vowel is tense, the prefix vowel may only be a tense vowel. This condition is further interpretable as saying that if the stem vowel is nontense, then two possibilities exist: namely, the prefix may be either a tense or nontense vowel. For example:

(17)	(a)	Nontense stem vowel					
		e = dɛm	back	ɛbéɪm	another year		
		ú = fɔk	house	ɔ = kɥk	money		
		í = daŋ	arrow				
	(b)	Prominent nontense stem vowel					
		é = túɛp	cold	é = tié	he sits	á = túá	he weeps
	(c)	Prominent tense stem vowel					
		u = tué	spider	i = tié	seat	i = sió	hatred

It must be pointed out immediately that (16) is merely a generalization, which is not the same as saying that it has no exceptions. Indeed, there are a few exceptions. But such exceptions make the generalization more significant because they point to a deviation from what is intrinsically a generality. Such exceptions may point to a diachronic process as the following examples would lend support:

(18)	Calabar	Ána:ŋ	
	(a)	óbúu	ébúu dust
		ótú	étú crowd
		éyén	éyén child
		okím	ekím unripe
	(b)	óduk	ódɥk horn
		okúk	ɔkɥk money
		óbúk	óbɥk flesh
		óku	ókɥ priest
		obúu	ɔbɥɥ crayfish

Considering Calabar, (16) is perhaps exceptionless. But in respect of *Ána:ŋ*, it is interesting how systematic the deviation from Calabar is.<sup>8</sup> In (18)(a) the prefix tense vowel in Calabar changes to nontense in *Ána:ŋ*, while the stem vowel remains the same in both dialects. In (18)(b) the tense vowels, both stem and prefix in Calabar, systematically become nontense in *Ána:ŋ*. The exceptions provided by the *Ána:ŋ* forms in (18)(a) lead to a modification of condition (16) as follows:

$$(19) \quad +I \begin{bmatrix} +\text{voc} \\ -\text{tense} \end{bmatrix} = [-\text{voc}] ([+\text{voc}]) \begin{bmatrix} +\text{voc} \\ +\text{tense} \end{bmatrix} ([-\text{voc}])$$

↓

$$T \begin{bmatrix} -\text{high} \\ -\text{low} \\ -\text{back} \end{bmatrix}$$

This condition states that if the stem vowel is tense, then the only nontense vowel which is permissible is a mid-nonback vowel. Thus, (19) is specific to *Ána:ŋ*, while (16) covers Calabar and part of *Ána:ŋ*. In diachronic terms, *Ána:ŋ* has added (19) to its set of vowel harmony conditions, while Calabar has only (16).

Looking at vowel harmony condition (16) once more, in the context of Calabar dialect, we might find that it resolves the puzzle about the distribution of the nontense, nonback mid vowel in word-initial position. Ward (1933) was faced with this problem of accounting for the fact that the nontense, nonback mid vowel commonly occurs after a consonant and rarely in a prefix position. The tense counterpart occurs, with a few exceptions, almost exclusively in the prefix position. In her phonemization she regarded both *e* and *ɛ* as being in complementary distribution. Ward's problem does not exist for us once we conceive of the vowel harmony in Efik as a partially broken system which formerly made use of the feature tense, probably like neighbouring Igbo. Thus we find what Ward calls exceptions, *enyé* 'he', *ekébé* 'box', hardly such, because they fit perfectly into the vowel harmony pattern requiring the same features: nontense.

Other vowel harmony conditions for the prefix are:

$$(20) \quad -I \begin{bmatrix} +\text{voc} \\ +\text{tense} \end{bmatrix} = [-\text{voc}] ([+\text{voc}]) \begin{bmatrix} +\text{voc} \\ +\text{tense} \\ -\text{high} \\ -\text{back} \end{bmatrix} ([-\text{voc}])$$

↓

$$T \begin{bmatrix} +\text{back} \\ -\text{high} \end{bmatrix}$$

This negative condition states that if the prominent stem vowel is mid-, tense, nonback, then the only tense prefix vowel which cannot occur is *o*. Thus we have (21)(a) but not (b):

(21)	(a) <i>itien</i>	five	(b) * <i>otien</i>
	<i>ebíét</i>	place	* <i>obiet</i>
	<i>úbíét</i>	similarity	* <i>obi</i>
	<i>esién</i>	outside	* <i>ote</i>
	<i>udé</i>	that place	

We had loosely interpreted (16) to mean that a nontense stem vowel may have a tense prefix vowel. Now we need to state the restriction on what that prefix vowel can be, depending on the stem vowel.

<sup>8</sup> A comparable deviation is present in Koelle's *Ána:ŋ*, recorded over 100 years ago—Udo Essien (1970).

$$(22) \quad -I \begin{bmatrix} + \text{voc} \\ + \text{tense} \end{bmatrix} = [-\text{voc}] ([+\text{voc}]) \begin{bmatrix} + \text{voc} \\ - \text{tense} \end{bmatrix} ([-\text{voc}])$$

↓

$$T \begin{bmatrix} - \text{high} \\ - \text{low} \\ + \text{back} \end{bmatrix}$$

This condition states that if the stem vowel is nontense, then we cannot have a tense, mid, back vowel prefix o. For instance, we can have (23)(a), but not (b).

(23)	(a)	íka	falling star	iké	tobacco
		ibɔ	baldness	edem	back
		eka	mother	ékué	parcel
		ékúó	they sing	ebúót	loan
		ébɔk	hearth	ébɔk	monkey
		ébiɔŋ	porcupine	ékɔŋ	snail
		útem	cooking	úka	going
		úbók	hand	utú	poverty
	(b)	*otɔ, *oma, *obɔ, *oke			

Actually, 20 and 22 could be collapsed into one condition, but for clarity they are not. Of the nontense vowels that can occur, there are restrictions:

$$(24) \quad +I \begin{bmatrix} + \text{voc} \\ - \text{tense} \end{bmatrix} = [-\text{voc}] ([+\text{voc}]) \begin{bmatrix} + \text{voc} \\ - \text{tense} \\ \alpha \text{ low} \\ \beta \text{ back} \end{bmatrix} ([-\text{voc}])$$

↓

$$T \begin{bmatrix} \alpha \text{ low} \\ \beta \text{ back} \end{bmatrix}$$

This condition states that if the prominent stem vowel is nontense, then the only nontense prefix vowel that it can have must agree in lowness and backness with the stem vowel.

(25)	(a)	$\begin{bmatrix} - \text{low} \\ + \text{back} \end{bmatrix}$	(b)	$\begin{bmatrix} + \text{low} \\ - \text{back} \end{bmatrix}$	
		ɔkɔm	roof	ábáj	water pot
		ókóm	he salutes	ánúák	he crushes
		ódɔk	he pours	áfíák	he spins
		ófɔk	he knows		
		ófíóŋ	moon	(c)	$\begin{bmatrix} - \text{low} \\ - \text{back} \end{bmatrix}$
		údɔk	pity	étúep	cold
		óbɔk	he praises	étem	he cooks
		óbɔt	he borrows	ésié	his

Thus we do not have \*aCoC, \*aCɔ, \*aCuɔC, \*εCuɔC, \*ɔCuaC, \*εCiaC, \*ɔCuaC (where C stands for any consonant), except in borrowed words.

In considering vowel harmony in disyllabic roots we must assume that the first syllable is basic and that the second is conditioned by it in respect of vowel harmony. Disyllabic roots must therefore conform to the following vowel harmony conditions:



$$(26) \quad +I = [-\text{voc}] ([+\text{voc}]) \begin{bmatrix} +\text{voc} \\ -\text{tense} \\ \alpha \text{ low} \\ \beta \text{ back} \end{bmatrix} ([-\text{voc}]) = [-\text{voc}] [+ \text{voc}]$$

T

$$\downarrow$$

$$\begin{bmatrix} -\text{tense} \\ -\text{high} \\ \alpha \text{ low} \\ \beta \text{ back} \end{bmatrix}$$

This condition states that the prominent nontense stem vowel will allow in the next syllable only a nontense, nonhigh vowel which agrees in lowness and backness. In essence this condition is similar to (24).

(27)	(a)	$\begin{bmatrix} +\text{low} \\ -\text{back} \end{bmatrix}$		(c)	$\begin{bmatrix} -\text{low} \\ +\text{back} \end{bmatrix}$	
		ábánjá	it is about		fúkó	be sad
		kuanná	clear the throat		súkó	remain
		síamá	regret		bókó	pass
	(b)	$\begin{bmatrix} -\text{low} \\ -\text{back} \end{bmatrix}$				
		suenné	disgrace			
		túénné	show the light			
		búénné	be poor			

The vowel harmony condition for disyllabic roots also applies to monosyllabic words which become disyllabic as a result of taking an affix. Two phenomena responsible for suffixes are negation and relativization:

(28)	(a)	$\begin{bmatrix} -\text{low} \\ +\text{back} \end{bmatrix}$		(c)	$\begin{bmatrix} +\text{low} \\ -\text{back} \end{bmatrix}$	
		túk + kó	cheat + negative/Rel.		dá + ká	stand + Neg./Rel.
		kóm + mó	mean + negative/Rel.			
		fók + kó	know + negative/Rel.			
	(b)	$\begin{bmatrix} -\text{low} \\ -\text{back} \end{bmatrix}$				
		tém + mé	cook + negative/Rel.			
		tím + mé	beat + negative/Rel.			
		tié + ké	sit + negative/Rel.			

Where the root is already disyllabic, the vowel harmony condition which applies following suffixation in the environments of negation and relativization is highly restricted. Only one vowel is possible: this is the vowel in the basic form of the negative or relative morphemes ke.<sup>9</sup>

(29)	dámmá + ke	be mad + Neg./Rel.
	fíómó + ke	torture + Neg./Rel.
	símé + ke	be foolish + Neg./Rel.
	bópó + ke	girt + Neg./Rel.

<sup>9</sup> This rule has a wider application in Calabar than in Ana:ŋ. For instance, it applies to close monosyllables in (28), thus giving kóm + ké, tém + ké, where Ana:ŋ uses a rule of assimilation.

Finally,

$$(30) \quad +I = [-\text{voc}] \begin{bmatrix} +\text{voc} \\ +\text{high} \\ +\text{tense} \end{bmatrix} = [-\text{voc}] \begin{bmatrix} +\text{voc} \\ \downarrow \\ -\text{high} \\ -\text{low} \\ -\text{back} \\ -\text{tense} \end{bmatrix}$$

T

This condition states that if the first vowel of the stem is high and tense, then the only permissible vowel in the following syllable is a mid-nontense vowel.

(31)	fité	forget	simé	reach	timé	struggle
	yíté	pursue	bute	be foolish		
	bumé	scramble for	tuté	stop	tutte	shift

An interesting situation exists in Calabar which permits, in addition to (31), the following:

(32)	(a)	bíti	spread a mat	kuni	grunt		
		wuti	demolish	duti	drag		
	(b)	siótó	utter	(c) ekatí	round	(d) epíti	small

These are exceptions which must be listed. Ána:ŋ avoids these in several ways, such as deleting the final vowel in (a), deleting the final syllable in (b), using the common vowel harmony condition (26) in (c), and using a different word in (d) where Ána:ŋ would substitute etok.

Thus, by examining Ána:ŋ, another dialect of Efik, we can see the process of change in the vowel harmony system. We can see that the vowel harmony in Efik now relies on both vowel height and traces of the feature tense which still exist. We see that vowel height sometimes involves repeating the same vowel sound. Also, we can see that the presence, in Ána:ŋ, of eight vowels similar to Igbo would strongly support a possibility of a one time pre-eminence of the feature tense. Above all, we can appreciate the choice of verb pronominal prefixes, some of which are invariable—for example, first, second and third persons plural *i* and *e*—as indicative of the degree of breakdown in the use of the feature tense. In the other pronominal affixes: second and third persons singular, as well as in nominalizing prefixes, we notice that the situation is not arbitrary, but conforms to the overall system examined here.

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