

STRUCTURAL NOTES ON URHOBO

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o. This study is based largely on the speech of the Rev. Palmer Ofuoku, whose original home is a village just east of Eku, Midwestern Nigeria. He has apparently adapted his speech somewhat in the direction of the dialect which forms the basis for most written Urhobo; in particular, it has been noted that he is not entirely consistent in the use of nasalized vowels. The elicitation of material and the preparation of these notes were the fruit of a one-week stay at Eku, 24-29 July 1966, under the sponsorship of the Nigeria Baptist Mission, whose hospitality and co-operation are gratefully acknowledged.

o.1. The transcription of Urhobo used in this study differs from the usual written form of Urhobo in respect to a number of consonants. This transcription is not intended as a recommendation for orthographic reform, but neither is it to be interpreted as merely the reflexion of personal preference (or prejudice). Rather, an effort has been made to reflect in the transcription what appears after this brief period of study to be the phonological system of the language. Those who would use this study in an effort to learn the language are reminded that letters are not sounds, and that orthographic differences do not in any sense imply that different speech sounds have been heard; further, the transition from one transcription to another, as long as each is consistent, presents little difficulty if sound rather than symbol is the major focus of attention. The usual transcription of Urhobo vowels is structurally adequate, and is followed here. A major concern of this study has been the tonal structure of Urhobo, and—unlike any available written Urhobo, unfortunately—tone is consistently and completely indicated in this study. Because of the lack of opportunity to hear every form repeatedly, it is entirely likely that occasional glaring errors have been made in individual words.

o.2. A 'practical', pedagogical presentation of the material elicited would undoubtedly be considered more useful to most of those who will be interested in this study. However, the more formal, condensed presentation given here makes it possible to include much more of the structure of the language in the brief time available; it is hoped that the preparation of practical drill materials will be facilitated and guided by this inevitably sketchy and somewhat technical outline of the major patterns of Urhobo phonology and grammar.

1. PHONOLOGY

1.1. The consonants of Urhobo are given in the table below. Each digraph (sequence of two letters) represents what may be considered a unit consonant. The horizontal rows are, respectively: voiceless stops, voiced stops, voiceless fricatives, voiced fricatives, (voiced) resonants, and (voiced) nasals. The vertical columns show the positions of articulation; for reasons involving function and symmetry, *y* is listed in the velar column, although its articulation is palatal. Following the chart are notes on the pronunciation of individual consonants, with an indication of the equivalent transcription in Urhobo orthography where relevant.

Bilabial	Labio-dental	Alveolar	Pre-palatal	Velar	Labial-velar
—	—	t	ty	k	kp
b	—	d	dy	g	gb
f	f	s	sy	h	—
ɸ	v	z	zy	ɣ	—
w	—	r	ry	ɣ	—
m	—	n	ny	—	ŋm

The bilabial fricatives *f* and *ɸ* are written as *ph* and *vw*, respectively, in Urhobo orthography. They are not, of course, complex consonants or sequences in any sense. They are produced with the lips approximately in the position used for blowing lightly over the surface of hot coffee to cool it; but the release to the following vowel is abrupt, without a separate *w* effect.

The alveolar *r* is a single tap of the tongue tip against the gum just behind the front teeth. It is produced with the sides of the tongue relaxed; especially before the high vowels *i* and *u*, there is usually some lateral passage of air, resulting in an *l*-like sound.

The pre-palatal consonants here interpreted as *ty*, *dy*, *sy*, *zy*, *ry*, *ny* are those usually written *ch*, *dj*, *sh*, *j*, *rh*, *ny*. The usual orthography does nothing, of course, to indicate the similarity in articulation of all of these consonants. Each one is pronounced with the front part of the tongue spread, so that the sides of the tongue touch the upper bicuspid. The contact of the tongue with the front of the palate involves a broader surface for the Urhobo *ty* and *dy* than for the initial sounds in English 'choke' and 'joke'. For most of the sounds in this series, a palatal or *y*-like release is prominent. It may not be as obvious for *ry* as for the others; however, in a southern Urhobo dialect investigated for a brief hour in January 1966 the palatal articulation of what is written *rh* was striking, and it is even possible that *sy* and *ry* are not distinguished in that dialect. The sound is not voiceless, as the writing *rh* may imply, and the spreading of the tongue characteristic of the other consonants in this series is essential. The similarity among these consonants is suggested in the transcription *ty*, *dy*, *sy*, *zy*, *ry*, *ny*. Unit symbols could also be used, such as: *c*, *j*, *ʃ*, *ʒ*, *f*, *h*, or perhaps: *č*, *ǰ*, *š*, *ž*, *ř*, *ň*. The important thing is to recognize that they constitute an articulatory set.

h is a velar, not glottal or pharyngeal, fricative; it is the sound sometimes represented *x*, produced by friction between the back of the tongue and the velum (soft palate). *ɣ*, written *gh* in Urhobo orthography, is the voiced counterpart. (Learners without phonetic training can help themselves considerably by studying the positions and movements of their tongues in a mirror.)

kp, *gb*, and *ŋm* are doubly articulated consonants; there is simultaneous closure and release at the velar position (characteristic of English *k*, *g*, *ŋ*, the last of which is the nasal at the end of 'sing') and at the lips. *ŋm* is written *mw* in Urhobo, for no phonetically valid reason; it is certainly not a bilabial nasal with a *w* release.

Examples of these consonants can be extracted from citations in the remainder of this study for systematic drill.

In other tone languages, of which Igbo and Efik are striking examples, the possible pitch sequences are of quite a different type. This type of tonal structure has been called 'terraced level', or is sometimes described as having two basic tones with a phenomenon known as 'downstep'. In such a language, it is possible to have a sequence of a non-low tone followed by the same pitch, or by another non-low a little lower than the first (a new 'terrace' or a 'downstep'), or by low. However, it is not possible to go from one non-low tone to a higher pitch. That is, there is no sequence of different pitches which can properly be labelled 'mid-high'. Using for the time being the terminology of a discrete level language (which would ultimately be confusing), the only possible sequences in two-syllable forms are L-H, L-L, H-H, H-L, and H-M. In longer combinations, the last of these levels is quite different from the 'mid' of a discrete level system; it rather becomes the highest point of reference for what follows, and it in turn may be followed by another slightly lower level higher than low. A fairly long phrase in such a language may contain as many as eight or nine recognizably different pitches; each tone other than low must be defined in terms of its relation to the preceding non-low—either 'the same' or 'lower'. In this way, a multiplicity of actual pitches can be described in terms of a three-way distinction.

The dialect of Urhobo under investigation resembles the second of these types of tone languages in one important respect: in two-syllable utterances, only the five sequences listed in the preceding paragraph are found, and there is never a sequence for which the label 'mid-high' is required. On the other hand, the phenomenon of 'terracing' or 'downstep' within a phrase is not found. A non-low tone lower than an immediately preceding non-low is heard only in utterance-final position (i.e. before pause). Up to the last syllable of any given utterance, all tones can be described in terms of a two-tone system: 'high' and 'low', including glides 'high-low' (falling) and 'low-high' (rising). Only in final position, and then only after 'high', is it necessary to recognize a third tone. On the chance that other Urhobo dialects may manifest a 'terraced level' system of the type described above, it might be safest to label this additional final tone 'high with downstep' or simply 'step'. For purposes of this one study, however, it is equally valid—and probably more convenient—simply to call it 'mid'.

As in most terraced level languages, the sequence 'high-low-high' in Urhobo ends at a lower pitch than that at which it begins. The sequence is very much like 'high-low-mid' in a discrete level language such as Yoruba. However, it is not necessary, and not even sound procedure, to label the final tone in such a sequence 'mid'. There is no higher tone with which it can contrast, and a succession of such sequences would suggest further unnecessary labels for successively lower pitches. It is simpler, and entirely legitimate, simply to state that a high tone after a low is automatically a little lower than a preceding high tone. Only in final position, and then only after high, is a contrasting mid tone label required.

The tonal contrasts found in this dialect of Urhobo can now be illustrated, first and most simply in the sequences found in two-syllable nouns. High tone is marked ´; low tone is marked `; final mid tone is marked ˘. It would be entirely practicable to leave one of these unmarked—probably most conveniently low. However, full marking is employed here to make the identification of tones unmistakable.

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The sequence high-high is found in only a few nouns such as the following, and the first of these has an alternant form with high-low in certain combinations:

ómó	child	(cf. ómò mẹ́ 'my child')
úkó	cup	(cf. úkó mẹ́ 'my cup')
úryé	tree	

The sequence high-low is also relatively uncommon:

ébò	bag	ádà	forked stick
úkẹ	cane (reed)	éhù	garment
ésè	gift	ẹtyẹ	door

The sequence high-mid is illustrated by the following; in non-final position, high-low seems to substitute for this sequence regularly, so that the tones of these and of the above nouns are identical:

étō	pumpkin	ónẹ	running
áhē	owl	úgē	fish trap
íwē	thorn	ódō	mortar
ónā	basket (sp.)	úfī	rope, snare
ósẹ	father	íyō	money
óni	mother	óhọ	chicken
údyū	farm	évū	shop

The sequence low-high is illustrated by the following:

èré	mat (sp.)	ísá	ring
ítú	mushroom	àṅmá	cloth
òkó	friend	ònẹ	yam
òró	wasp	òzé	basin
ògọ	bottle	ùví	paddle
ùvú	room	òtyẹ	water pot
ẹué	goat		

The sequence low-low is apparently the most common:

àgà	chair	àmà	bell
àsò	night	èdì	palm nut
èkì	market	èwǎ	bone
àyè	woman	ẹdẹ	day
òkọ	canoe	òsè	suitor
òsò	hawk	òtà	squirrel
àmè	water	ẹbè	leaf, book
èmù	food	òkò	parcel
òryẹ	plantain	òdyà	soap
òdà	cutlass	ènì	elephant
èrì	fish	ùkpè	year
ùdì	beverage		

Some sequences of three tones are illustrated by the following nouns and numerals; a reminder is in order here that the final high in the sequence high-low-high is lower

than the initial high, but cannot contrast with anything higher. The sequence high-high-high has not been recorded, but the total amount of material is sufficiently limited that this may be merely accidental.

high-high-low	ófigbò	palm oil
low-high-low	ìrósò	rice
	èràkò	dog
	ìdyéryè	path, road
high-high-mid	ómódò	pestle
	óréè	town
	ééréè	eight
	íryíri	nine
low-high-mid	èwéri	monkey
high-low-high	ódìbó	banana
	úrúryé	vine, rope
high-low-low	íyòri	five
	ósyàrè	man
low-low-low	ùgbènù	hill
	ùsyùryè	axe
	ìviri	fat
	èviri	oil (esp. palm oil)

Rising and falling glides—sequences of low-high and high-low, respectively—may accompany single vowels. The vowels do not appear to be appreciably lengthened, and are therefore not written doubly; the tone sequences are very quick. These sequences are indicated by marks which combine the marks for high and low in the appropriate order: \sim for a rise from low to high, and \wedge for a fall from high to low. The following examples—for which there are innumerable parallels—illustrate these sequences in contrast with each of the level tones. A vowel elision involving the verb and noun is reflected here by writing the combination as a single word; this effect is normal in fairly rapid speech.

ò syíryé	he cut down trees
ó syíryé	he is cutting down trees
ó syíryé	he cuts down trees
ò syíryé	he should cut down trees

In very rapid speech, it may be difficult to perceive the bottom of the fall in the last example. However, the following high tone has the somewhat lower level expected after a low tone. If this sequence were clearly a high level tone with the initial vowel, followed by a slightly lower tone with the next syllable, this dialect would have to be described as having a typical terraced level system; the second syllable would be accompanied by 'downstep'. However, any effect approximating this (again with the exception of an utterance-final syllable) appears to be realized in only slightly more deliberate speech as a falling glide followed by a high tone.

Tone sequences may also accompany lengthened vowels. Since such sequences are rather restricted in their function in the language, it is convenient to indicate the tone alone (not written over any letter); it is the tone rather than the extended vowel which is important, though the vowel is present to 'carry' the tone. The most striking instance of this type of tonal sequence is in negative constructions. After an otherwise final low tone (or mid tone which becomes low for this purpose), the negative is marked by an added high

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tone; after an otherwise final high tone, the negative is marked by a fall to low and then a rise to high, which may be interpreted as an added low-high sequence. The following are illustrations of parallel affirmative and negative sentences:

ò tá kẹ̀ ụ̀ẹ̀	he told me
ò tá kẹ̀ ụ̀ẹ̀'	he didn't tell me
mè tâ kẹ̀	I told him
mè tâ kẹ̀'	I didn't tell him

Tonal assimilation, certain tonal alternations, and aspects of the grammatical functions of tone will be discussed at appropriate points in later sections. Meanwhile, the above discussion provides a framework for identifying all tones in the wide variety of types of utterances recorded, which will certainly account for at least a very major portion of possible combinations.

1.4. Apart from the identification of the individual consonants and vowels described in 1.1 and 1.2 above, there are problems involving the interpretation of certain phonetic sequences. In the established orthographies of many African languages, sequences of *i* and another vowel, or *u* and another vowel, after a syllable-initial consonant, are commonly found. There may also be limited instances of *y* or *w* followed by a vowel, after a syllable-initial consonant. It is never safe to accept such an orthography as representing the real structure of the language. In most cases, the orthographic conventions were established without any critical investigation of syllable types, or particularly of the function of tone. In the case of many languages, an adequate description of the tonal system is unnecessarily difficult, or even impossible, if the usual written form of the language is unquestioningly accepted.

In the case of Urhobo, a preliminary look at the established orthography is enough to raise one's suspicion. The sequences *hw* and *ghw* appear, but not *kw* or *gw*, which might be expected by analogy. Further, the sequence written *guo* does not give the immediate impression of being 'two syllables' any more than does the sequence written *hwa*. A number of sequences of *u* followed by another vowel appear, and perhaps even more of *i* followed by another vowel. The question must be asked as to whether these may not be more satisfactorily interpreted as *w* and *y* plus a vowel—or whether the exceptional *hw* and *ghw* should not also be interpreted as *hu* and *yu*.

On the basis of a careful study of the tonal patterns of one-syllable and two-syllable verbs—though they admittedly involve very rapid sequences which are difficult to identify unmistakably, and in which some variation in the investigator's imitation may be accepted as the inevitable weakness of a beginner—it would appear that the orthography of Urhobo is, in this respect, based on a completely valid native intuition as to the correct analysis. There do appear to be clusters *hw* and *yw* and no others. On the basis of specific structural evidence—not necessarily matched in all cases by impressionistic reactions to apparent syllabic prominence, forms like the following are accepted as written (in respect to this problem) in the established orthography:

kùà	to pack	ùà	happen
vùẹ̀	inform	rìẹ̀	(also rẹ̀) eat
írúó	work (noun)	díẹ̀	what?
gùòṅò	want, look for	àfíá	knife
èryúẹ̀	cow	ùryíé	river
bùèbù	a lot	kídìà	sit down

But:

íhwè	ten	áywá	bush
hwà	pay	òywá	load
òhwó	person	ýwù	die
hwòré	wash		

A somewhat similar problem involves sequences which in many languages are uncritically written as a consonant followed by *r* and then a vowel. In many languages, it can easily and quickly be demonstrated that, although the transition from the syllable-initial consonant to the *r* sound may be very rapid, it nevertheless involves a significant tone which must not be ignored; in such cases, a valid analysis requires writing a vowel between the syllable-initial consonant and the *r*, and assigning a tone to that vowel. In the case of Urhobo, a few sequences of consonant plus *r* appear in the established orthography, and were immediately suspected. In the following, however, there is every evidence that there is not an extra tone involved, and the sequence may therefore be recognized as a valid interpretation:

brù	cut up (as meat); go to (a person)
ébrùbà	blessing

In one instance, the interpretation remains questionable for the present. The numeral 'seven' is written with a complex sequence: *ighwrẹ*. Impressionistically, however, it appears to be three syllables. It hardly seems likely that *íywrẹ* would be the most satisfactory interpretation; however, the bilabial sound in the middle of the word is such that either of the following might be valid:

íywúrẹ or *íyúrẹ*

For purposes of this study, the first of the above is used, with no further defense.

1.5. An intonational modification of the tones as described above indicates questions which may be answered by 'yes' (ê) or 'no' (ẹzyó). Although this interrogative intonation can conveniently be marked by a question mark at the end of the utterance, it must be rigidly observed that this does not imply an English question intonation with its inevitable raising of the voice at the very end of the question. In fact, every yes-no question in Urhobo ends with a low tone; an otherwise final high tone becomes a fall from high to low. Apart from this, the tonal distinctions of a statement are never obliterated in a question—as they are bound to be if an English question intonation is superimposed on an Urhobo utterance. In an Urhobo question, the last high tone, or series of consecutive high tones, is raised somewhat above the level used in a statement, and there is a slight tenseness of voice which may give a speaker of English an impression of mild surprise. If a series of two or more high tones is so raised, it appears that the last high tone in the series is slightly more raised than the others. As noted above, a low tone must always follow. The following are some question and answer exchanges (with unnecessarily full answers to illustrate the contrast in intonation); again, vowel elisions are reflected by omitting the elided vowel and writing words together, which is not necessarily the ideal orthography for all purposes, but is useful here:

wò gùṅnágà nàná?	Do you want this chair?
ê, mè gùṅnéró.	Yes, I want it.
wò gùṅnámá nàná?	Do you want this cloth?
ẹzyó, mè gùṅnéró.	No, I don't want it.

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wò gùṣṣànmá?	Do you want cloth?
ê, mè gùṣṣànmá.	Yes, I want cloth.
wò dúkò?	Did you buy a cup?
ê, mè dúkó.	Yes, I bought a cup.
ò ryé nónè?	Is he coming today?
ê, ò ryé nónè.	Yes, he's coming today.

2. NOUNS AND NOUN PHRASES

2.1. The citation forms of a number of nouns are given in the preceding section as illustrations of tone sequences. It will be noted that every noun begins with a vowel. This initial vowel is structurally a prefix, and for many of the nouns cited it is specifically a singular prefix. Most nouns which are susceptible of enumeration have a plural form with a different vowel prefix. (For this and certain other reasons, it may be suggested that alphabetizing words by their first 'letter' in a vocabulary file is by no means the only possible indexing technique. It is equally possible, it is probably more convenient for a language such as Urhobo, and it may provide insights into etymology to alphabetize by the first consonant of the root, ignoring the prefix vowel except as a subordinate basis for alphabetization.) Pluralization is to a large extent predictable in Urhobo.

If the singular prefix vowel is one of the low vowels a, ɛ, ɔ, the plural prefix is e. A few examples are:

Sg.	Pl.		Sg.	Pl.	
ádà	édà	forked stick	ésè	ésè	gift
àṣmá	èṣmá	cloth, piece of cloth	ògò	ègò	bottle
àgà	ègà	chair	òsò	èsò	hawk
èbè	èbè	leaf, book	ómò	émò	child

If the singular prefix vowel is any of the higher vowels, i, u, e, o, the plural prefix is i with some exceptions noted later. Some examples are:

Sg.	Pl.		Sg.	Pl.	
ìsá	ìsá	ring	úfi	ífi	rope, snare
ébò	íbò	bag	úkó	íkó	cup
èkì	ìkì	market	òró	ìró	wasp
étō	ítō	pumpkin	òzé	ìzé	basin

A few cases have been recorded, however, of a singular prefix o and a plural e rather than i:

Sg.	Pl.	
òdà	èdà	cutlass
òkò	èkò	canoe
ónā	énā	basket (sp.)

It may be significant that in these cases the second or stem vowel is one of the lower vowels a, ɛ, ɔ, while in each case where o pluralizes as i the stem vowel is a higher vowel. All of the instances of e pluralizing as i also happen to have high vowels in the stem syllable; there is one recorded case of e pluralizing as e (so that the singular and plural are identical), and here also the stem has a low vowel:

Sg.	Pl.	
èwǎ	èwǎ	bone

This may prove to be a completely consistent pattern: a, ɛ, ɔ pluralize as e; i, u pluralize as i; and e, o pluralize as e before low vowels and as i before high vowels.

One plural has been recorded which is more fully irregular; there may well be others, very possibly among common personal nouns:

Sg.	Pl.	
àyè	èyà	woman

2.2. It has already been noted that a mid tone occurs only in final position; it also seems to be confined to the final syllable of nouns and numerals. The final mid tone of a noun becomes low when anything at all follows the noun. This alternation is illustrated here with some modifiers:

ódō:	ídò ívè	two mortars
	ódò mɛ	my mortar
òsɛ:	òsɛ wɛ	your father
	òsɛ ráyè	their father
údyū:	údyù òvò	one farm
	ídyù rɔyè	his farms
òhɔ:	éhò éréṛē	eight chickens
	òhò nà	the chicken
íyō:	íyò nà	this money
	íyò yènà	that money
	íyò róbói	that money over there

2.3. As implied by the last four examples, nouns may be followed by demonstrative modifiers. The ranges of meaning are approximately as follows:

úkó nà	the cup, this cup under consideration
òzé nà	this basin near me or us, not another one
àgà yènà	that chair near you
úryé róbói	that tree over there, away from both of us

There are also independent forms, singular and plural, for each of these demonstratives; these function as nouns:

ònà	this (one)	pl.: ènà	these
ònà	this one here	pl.: ènà	these
òyènà	that one	pl.: èyènà	those
òróbói	that one over there	pl.: èróbói	those

2.4. As also suggested by examples above, nouns may be followed by numeral modifiers. This section will merely outline the numeral system of Urhobo. The system is basically vigesimal (i.e. based on 'twenty'), with a subordinate decimal division (based on ten). First, there are unique numerals for 'one' through 'ten':

òvò	one	ésá	six
ívè	two	íywúré	seven
éryà	three	éréṛē	eight
énè	four	íryíri	nine
íyòri	five	íhwè	ten

(Brief exposure to another informant, as well as another transcription which has been seen, suggest that the final vowels in 'five' and 'six' may commonly be nasalized.)

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From 'eleven' through 'fifteen', the form for 'ten' is followed immediately by the forms for 'one' through 'five' with a tonal alternation: the final vowel of 'ten' is elided, but its low tone remains as the onset of a low-high glide; the following numeral then takes high tone throughout, rather than ending with one or two low tones. For 'sixteen' through 'nineteen', the numerals 'six' through 'nine' are added to 'ten' with a conjunctive word of which the basic form is tentatively recorded as *gbè*, though its vowel is elided in these combinations; the forms for 'six' through 'nine' do not undergo any alternation. There is a new, unique form for 'twenty':

íhwǝvó	11	íhwè gběsá	16
íhwívẹ	12	íhwè gbǝwúrẹ	17
íhwěryá	13	íhwè gběrerē	18
íhwẹné	14	íhwè gbǝryírí	19
íhwǝyórí	15	ùzyè	20

From 'twenty-one' through 'twenty-nine', *gbè* is used to indicate the addition of all digits, without tonal alternation. There is a new unit for 'thirty', and similar additions are performed for 'thirty-one' through 'thirty-nine':

ùzyè gbǝvò	21	ùzyè gbǝryírí	29
ùzyè gbívẹ	22	ọgbà	30
ùzyè gběryà	23	ọgbà gbǝvò	31
etc.		etc.	

Beyond 'thirty-nine', 'twenty' is the basis for the formation of higher numbers. Multiples of twenty through 180 are formed as illustrated below; to each, additions of 'one' through 'nineteen' are performed with *gbè*. There is another new unit for 'two hundred'.

ùzyúvẹ	40:	ùzyúvẹ gbǝvò	41
		ùzyúvẹ gbǝhwè	50
		ùzyúvẹ gbǝhwǝyórí	55
ùzyóryà	60:	ùzyóryà gbǝhwè	70
		ùzyóryà gbǝhwè gběsá	76
ùzyónè	80:	ùzyónè gbǝhwè	90
ùzyóri	100:	ùzyóri gbǝhwè	110
ùzyósà	120		
ùzyúwúrẹ	140		
ùzyórerē	160		
ùzyúryírí	180		
ùrí	200		

Higher numerals have not been investigated, but it is likely that comparable additions continue, and that 'two hundred' is further multiplied until a new basic unit is reached—perhaps 4,000 or possibly 2,000.

A convenient addition to a discussion of numerals is monetary terminology. The basic units are nouns which are invariable as far as pluralization is concerned:

ìkǝbǝ ọvò	1d.	ìsénì ọvò	1s.
ìkǝbǝ ívẹ	2d.	ìsénì íyòrì	2s.
ìkǝbǝ ẹnè	4d.	ìsénì íhwè	10s.
ìkǝbǝ íhwǝvó	11d.	èkpáọ éryà	£3

There are also unique forms for the following units:

itóró	3d.
ityíbẹ̀	6d.
inái	9d.

Complex amounts are expressed with gbè to indicate addition:

isèni ívẹ̀ gbityíbẹ̀ 2s. 6d.

In rapid speech, vowel elision in phrases like the above is common. However, the vowel *i* does not elide before other vowels; the same is true of *u*. The full forms will also be heard fairly frequently if the speaker is doing mental computation while speaking.

(It is suggested that practice with numerals, including monetary calculations and change-making, is an excellent approach to fluency; but just as much care must be taken with precision in pronunciation, including tone, as at any other point in the process of language learning.)

The ordinal numerals are formed with a conjunctive element *rẹ̀*, which will be further discussed in the following section. The remainder of the form for 'first' is unrelated to the numeral 'one', but for all other ordinals the expected numeral stem is present. Through 'tenth', there is a tonal alternation in all but two cases; for the higher ordinals, the tone appears to be regular. There are independent nominal forms for the ordinals, with a prefix, and attributive forms without the prefix. In every case, the vowel of the conjunctive *rẹ̀* is elided, but its tone (as may be noted in 'twentieth') is retained:

òrẹ̀sòsò	the 1st one	òhwó rẹ̀sòsò	the first person
òrívẹ̀	the 2nd one	òhwó rívẹ̀	the second person
òréryá	the 3rd	ẹ̀dẹ̀ réryá	the third day
òréné	the 4th	ẹ̀dẹ̀ rẹ̀ne	the fourth day
òríyórí	the 5th	ògọ̀ ríyórí	the fifth bottle
òrésá	the 6th	ẹ̀bẹ̀ rẹ̀sá	the sixth book
òríyúrẹ̀	the 7th	ẹ̀bẹ̀ ríyúrẹ̀	the seventh book
òrẹ̀rẹ̀rẹ̀	the 8th	ùwẹ̀wẹ̀ rẹ̀rẹ̀rẹ̀	the eighth house
òríyírí	the 9th	úryé ríyírí	the ninth tree
òríhwé	the 10th	ùwẹ̀wẹ̀ ríhwé	the tenth house
òríhwívẹ̀	the 12th	àsò ríhwívẹ̀	the twelfth night
òrúzyè	the 20th	ẹ̀dẹ̀ rúzyè	the twentieth day

2.5. Possessive modifiers of nouns must be taken in a larger context of modifiers expressing a wider variety of relationships. Only two pronouns, those for the first and second persons singular, have what may be described as possessive forms. These are illustrated by the following:

úkó mẹ̀	my cup	ọ̀sẹ̀ wẹ̀	your father
àyè mẹ̀	my wife	òkó wẹ̀	your friend

For other pronouns and for all nouns, possession is indicated by the conjunctive element *rẹ̀*—as in the ordinal numerals above—followed by the appropriate possessor. Again the vowel of *rẹ̀* is elided, but its tone is retained, cancelling a following low tone.

For example,

àgà rọ̀yẹ̀	his chair, her chair
íkó ráuárẹ̀	our cups
ónì róuà or ónì róuàúá	your (pl.) mother
èryúẹ̀ ráyè	their cow

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ùwèùì rọ̀sẹ̀ mẹ̀	my father's house
údyù rókó wẹ̀	your friend's farm
èvù rúwèùì	the inside of the house
énù róráyā	the top of the rock

It is important to note that the element rẹ̀ is by no means confined to a possessive meaning. It occurs also in many phrases like the last two above, and like the following:

èràvè ráywá	wild animal (animal of the bush)
òmàmọ̀ róhwó	a fine person (much of a person)

In such phrases, 'the bush' is not the possessor of the animal, nor is 'person' the possessor of 'much'; the animal is simply associated with the bush, and the person is associated with a large amount (metaphorically, quality). A wide variety of other such 'associative' concepts can be expected to be expressed by rẹ̀. One of them has already appeared in the ordinal numerals: 'the third day' is expressed as 'day associated with three'. Another will appear in connexion with a verbal construction. In most instances, the general translation 'of', or any suggestion of a Latin 'genitive', is meaningless and misleading. A far deeper insight into the language will be made possible if, from the beginning, all such constructions with rẹ̀ are thought of as 'associative', and if 'possession' is thought of as merely one specialized type of associative construction. Only the very common 'my' and 'your (sg.)' do not regularly fit into this category.

2.6. It is very probable that Urhobo—like many related languages—has no word class or 'part of speech' which may appropriately be labelled 'adjective'. There are, to be sure, attributive forms which translate English adjectives such as 'big', 'new', and 'rotten', but these appear either to be derived from verbs (like 'be-big, become-hot, rot'), or to be nouns ('oldness' or 'an old one'). A number of the attributive forms display a reduplication of the first syllable of the (probably) verbal stem. In the examples below, corresponding to each phrase consisting of a noun with an attributive modifier, a sentence is given showing the parallel predicative construction. The grammatical status of many of these is not entirely clear at this stage, but at least it will be evident that the English category 'adjective' cannot be blindly applied to Urhobo. In some sentences, a high tone—which is here written separately, but which could be written as the last part of a glide with the preceding vowel, ˥—may reflect an omitted subject pronoun.

ùwèùì ọ̀ryóáryò	a big house
(ùwèùì nà ryórò)	the house is big
úkó ọ̀háhàùè	a small cup
(úkó nà hǎùéèrè)	the cup is small
èmù ọ̀vèùèrè	good-tasting food
(èmù nà vèrèrè or èmù nà ọ̀vèùèrè)	the food is good
àmè ódyídyìrò	cold water
(àmè nà dyìròrì)	the water is cold
àṅmá ọ̀yáyàrè	expensive cloth
(àṅmá nà yàrèrè (or yǎrè))	the cloth is expensive
àṅmá ọ̀vávàrè	red cloth
(àṅmá nà 'vàrà)	the cloth is red
àṅmá óbíébi	black cloth
(àṅmá nà 'biè)	the cloth is black

àḡmá ófóáfò (àḡmá nà ' fòà	white cloth the cloth is white)
émámò ógbógbò (émámò nà ' gbóri	rotten fruit the fruit is rotten)
àmè ọ́ryóryò (àmè nà ' ryòryà or àmè nà ryòryórò	hot water the water is hot)
àḡmá óyóyòuì (àḡmá nà óyóyòuì	fine cloth the cloth is fine)
ùwèuì kpókópò (ùwèuì nà ọ́kpókópò	a new house the house is new)
ènẹ́ búébù or ènẹ́ bùèbù (ènẹ́ íbúébù	a lot of yams yams are plentiful)
àḡmá ókúékù (àḡmá nà ókúékù	cheap cloth the cloth is cheap)
àfíá ráwàrè (àfíá nà kpáwàrèrè	an old knife the knife is old)

The last pair of examples is at least different from all the others. The attributive construction is another example of an associative: 'a knife associated with oldness'. The parallel sentence is a normal verbal construction, meaning 'the knife has gone to oldness'. Underlying both is a noun áwàrè (or perhaps àwàrè) 'oldness'.

3. NON-VERBAL PREDICATIONS

A number of Urhobo sentences do not contain a verb. These are expressions of identification, description, and location. It is entirely likely that some of the sentences given as examples in the preceding section (like àḡmá nà ókúékù 'the cloth is cheap') are sentences of this type; the similarity will be clear from the following.

3.1. Identification or description may be expressed simply by the juxtaposition of the noun or pronoun under consideration with the descriptive noun or noun phrase. In somewhat deliberate speech, if the first or 'subject' part of such a sentence ends with high tone, a low tone may be added. This low tone (written separately in the examples below) is optional; it apparently reflects the tone of a pronoun form ọ́, which is not used in this construction in its full form. Even if the 'subject' is simply 'he/she/it', the pronoun is apparently optional in most cases. Examples of these non-verbal sentences are:

ọ́nà nà úkó	this is a cup
ọ́yè nà ẹ̀bè mẹ́	that's my book
ọ́róbóí úryé	that (yonder) is a tree
ènà nà èbè rọ́yè	these are his books
ọ́ òkó mẹ́ or òkó mẹ́	he's my friend
wẹ́ òkó mẹ́	you are my friend
mẹ́sẹ́ òkó rọ́yè	I am his friend
àè ìkó mẹ́	they are my friends
òuà uá ` ìkó mẹ́	you (pl.) are my friends
à uà rẹ́ ìkó rọ́yè	we are his friends
ọ́sẹ́ mẹ́ ` ọ́wẹ́rẹ́	my father is a farmer
òkó mẹ́ ` ọ́sẹ́ mẹ́	my friend is your father

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The above sentences also include illustrations of the 'independent' or 'nominal' forms of all the pronouns; these are not to be confused with subject pronoun forms which go with verbs, which will be introduced in connexion with verbal constructions.

3.2. Expressions of location appear on the surface to be formed in precisely the same way as the above, but there is an important tonal difference. The initial vowel of the locative expression—which in many cases is low in the independent form of the word—is always high. The locative expressions themselves are nouns—the labels 'adverb' and 'preposition' will only be misleading. The words for 'here' and 'there' are nouns; they can also be used as subjects of sentences. Expressions translated by phrases like 'in the house' also use nouns, in associative constructions: 'the inside of the house', etc.; many such locative nouns refer in other contexts to body parts. The following are some locative sentences; note the significant high tone at the beginning of the locative phrase or word:

èbè mɛ̀ `étínè	my book is here
ónì mɛ̀ `étíyì	my mother is there
òsẹ̀ ráyò óréḗ	his father is in town
àè ótáfè	they are outside
ò ényúwèù	he's in the back yard
ónì mɛ̀ `évù rúwèù	my mother is inside the house
ò óbàró rúwèù	he's in front of the house
ò óbúkò rúryé	he's behind the tree
ò ómà rúwèù	he's beside the house
óyógyòrì énú róráyā	there's a lizard on the rock
òròdékò nà ótò róráyà nà	the snake is under the rock
(or òròdékò nà óbótò róráyà nà; cf. òbòtò 'under part')	

Locative phrases of the types used in the above, which here indicate only where something or someone is, may also be used with verbal sentences; in the latter case, the initial high tone does not appear unless it is part of the independent form of the word. Two examples are:

ò rú írúó èvù rúwèù	he's working in the house
ò rú írúó údyū	he's working on the farm

4. VERBS AND VERBAL CONSTRUCTIONS

4.1. In any given verbal construction, all verb stems of the same segmental type (i.e. all mono-syllabic verbs, or all bi-syllabic verbs) have identical tones. A corollary of this statement is that no verb stem has a distinctive 'lexical' tone of its own; two verb stems cannot differ from each other in tone. The tone accompanying a verb stem in any particular sentence is determined not by the stem used, but by the construction in which it appears. In the verbal system, tone—accompanying subject pronouns and verb stems—is part of the grammatical indication of various verbal constructions.

The majority of verb stems appear to be monosyllabic; the following are some typical examples, written here without tone marks, though they will probably be cited with low tone in isolation:

oo have	dɛ buy
mu carry	syɛ sell
da drink	se call, read
gba tie	hwa pay

kẹ	give	ru	do
kpo	go to	sye	cut down
rye	come to (place)	si	pull
bru	come to (person)	bi	push
vu	dig up	ru	enter
ra	go away	ta	tell
ua	be at, live at	du	cut up (as firewood)
kọ	plant	bru	cut up (as meat)
uẹ	pick up, use	re	eat (also rie)

There are also a number of two-syllable verbs; several of these end with the syllable *-re* or *-rẹ*, but there is no evidence at this point that this syllable is in any way separable. Some two-syllable verb stems, which will probably be cited with low-high or possibly low-low tones, are:

kpare	lift	reyọ	take
tyere	cook	fọrhẹ	launder
uureẹ	sever	nyauẹ	cut in two
uareẹ	tie up, wrap	uia	happen
karẹ	carve	vuẹ	tell, inform
hworeẹ	wash	riẹ	know

The verb stem *guọnọ* 'look for, what' functions as a two-syllable stem, though it is (and probably should be) written with three vowels; the interpretation *gwọnọ* is not excluded, but see 1.4 above.

4.2. Before discussing individual verbal constructions, it may be noted that Urhobo very frequently uses a sequence of two verbs to express what in English is viewed as a single action. Such sequences have sometimes been referred to as 'split verbs'. However, they do not involve single verbs which are split into two parts; rather, there are two separate verbs used in sequence. In some cases, there is also a temptation to refer to one of the verbs—sometimes the first, sometimes the second, depending entirely on the English translation, which ought to be irrelevant—as a 'preposition'. But the forms in question enter into verbal constructions, and most of them can be used independently as verbs; they should be recognized as verbs. A few such verbal sequences are illustrated in the following sentences; the verbs are separately identified, and then written in the sentences with vowel elision if appropriate:

uẹ 'take up' ...rye 'come':	
uàfiá ryè	bring a knife
uàgà ryè	bring a chair
zye 'draw' (?) ...rye 'come':	
zyàmè ryè	bring water
uẹ 'take up' ...sye 'cut down':	
ò úsyùrè syíryé	he cut down the tree with an axe
hwa 'pay' ...kẹ 'give':	
mê hwíséni ívẹ kẹ	I'll pay (him) two shillings
ru 'do' ...kẹ 'give':	
mè gùọnọ ` rú írúó kẹ wẹ	I want to work for you
ta 'tell' ...kẹ 'give':	
ọ tóbò rẹ uíarẹ kẹ uẹ	he told me what happened

nyauẹ 'cut in two'...oure 'sever'	ò nyàúfì nà úúrẹ	he cut the rope right in two
uẹ 'take up'...ya 'hang'	ò uáḡmá yà	he hung up the clothes
uẹ 'take up'...ta 'spread out' (?):	ò uáḡmá tà	he put the clothes out to dry

4.3. Subject pronoun forms, and also certain particles which may be called 'construction markers', have two forms, depending fairly regularly on the vowel of the verb stem. (This phenomenon, rather widespread in West African languages, is known as 'vowel harmony'.) The determining vowel is the only vowel of the verb in the case of monosyllabic verbs; it appears normally to be the second vowel in sequences like uẹ, iẹ; otherwise it is the first vowel of the verb stem. Before the determining vowels i, u, o the forms on the left below are used; before the determining vowels a, ẹ, ọ the forms on the right are used; if the vowel of the verb stem is e, the forms on the left are used with some verbs, and the forms on the right with others, with no apparent secondary conditioning factor. (It just may be significant that the verbs recorded with the forms on the right are re, reyọ, and rye, all beginning with r.) The subject pronoun forms are identified below; the construction markers will be identified in following sections. Since subject pronouns vary in tone in different constructions, tone is not indicated here.

I	mi	me
you (sg.)	wo	wọ
he/she/it	o	ọ
we	me	ma
you (pl.)	we	wa
they	ai	ae
	tyè	tyà
	dê	dâ

If there are other particles which follow vowel harmony, they can be expected to have comparable alternants: with the vowels i, e, o before higher vowels, and with e, a, ọ before lower vowels.

4.4. In some verbal constructions—as in the one used in the examples below—the verb stem must be interpreted as having (in the case of a monosyllable) or ending with (in the case of a disyllable) high tone. If the verb is followed by a noun object, the vowel of the verb stem is normally elided in fairly rapid speech, except for the vowels i and u. When such elision takes place, the high tone ending the verb stem is transferred to the initial vowel of the noun object. If that tone is high to begin with, the effect of this transfer is zero; but if the noun object begins independently with low tone, it must begin with high in this combination. The following are examples of all possible combinations of a verb stem ending with high tone plus a noun object; the noun object is cited separately to show its independent tone, then a sentence is given without indication of vowel elision, and finally the rapid speech form is given:

úkó:	ò dẹ úkó:	ò dúkó	he bought a cup
ódō:	ò dẹ ódō:	ò dódō	he bought a mortar
ébò:	ò dẹ ébò:	ò débò	he bought a bag
àḡmá:	ò dẹ àḡmá:	ò dàḡmá	he bought cloth

àgà:	ò dẹ́ àgà:	ò dágà	he bought a chair
íkó:	ò rẹ̀yọ́ íkó:	ò rẹ̀yíkó	he took cups
úfi:	ò rẹ̀yọ́ úfi:	ò rẹ̀yúfi	he took a rope
ẹ̀sẹ̀:	ò rẹ̀yọ́ ẹ̀sẹ̀:	ò rẹ̀yẹ̀sẹ̀	he took a gift
ìsá:	ò rẹ̀yọ́ ìsá:	ò rẹ̀yìsá	he took a ring
òdyà:	ò rẹ̀yọ́ òdyà:	ò rẹ̀yọ́dyà	he took soap

In some other verbal constructions, the verb stem must be interpreted as having low tone. In this case, the initial tone of a following noun object is dominant. In careful speech, the final low tone of the verb plus an initial high tone in the following noun may be heard as a low-high glide; but often the final tone of the verb is completely lost in the following high tone. Parallel examples of this type are as follows:

úkó:	ò dẹ́ úkó:	ò dúkó	he's buying a cup
ódò:	ò dẹ́ ódò:	ò dódò	he's buying a mortar
ébò:	ò dẹ́ ébò:	ò débò	he's buying a bag
àṅmá:	ò dẹ́ àṅmá:	ò dàṅmá	he's buying cloth
àgà:	ò dẹ́ àgà:	ò dàgà	he's buying a chair
íkó:	ò rẹ̀yọ́ íkó:	ò réyíkó	he's taking cups
úfi:	ò rẹ̀yọ́ úfi:	ò réyúfi	he's taking a rope
ẹ̀sẹ̀:	ò rẹ̀yọ́ ẹ̀sẹ̀:	ò réyẹ̀sẹ̀	he's taking a gift
ìsá:	ò rẹ̀yọ́ ìsá:	ò réyìsá	he's taking a ring
òdyà:	ò rẹ̀yọ́ òdyà:	ò réyọ́dyà	he's taking soap

4.5. Now that all other variables have been accounted for, what remains is to outline the formation of the various verbal constructions themselves. The first to be considered involves a complication in form, and is also difficult to label unambiguously. A hundred examples could be given which would clearly suggest the label 'past'—but the next example might have to be translated by an English 'present'. There are two semantic classes of verbs in Urhobo. Many verbs indicate actions: doing, calling, cutting, eating, and the like. For such verbs, this construction is usually translatable as a past tense. The second type of verb indicates a situation or state: having, being on the watch for (looking for, wanting), and some of the concepts expressed in English by 'predicate adjectives'. For such verbs, this construction indicates a present situation.

In form, this construction is marked by a subject pronoun with low tone, and high tone with a monosyllabic stem or low followed by high with a bisyllabic stem. The examples in the first group in the preceding section illustrate this construction with a noun object. However, if nothing follows the verb, there is in addition a suffix after the verb stem; the suffix has the form -rì after the vowel i, -rù after the vowel u, and -rè after other vowels. And one final complication: if this construction is used after an emphasized word or phrase at the beginning of the sentence (including interrogatives, which are by definition so emphasized), the subject pronoun takes high tone instead of low. All of these variations in form appear to be completely predictable in accordance with the above statements, and are illustrated in the following. Vowel elision, which is normal in fairly rapid speech, is not indicated here at all, in order that the component elements can be more readily identified:

ò syé íryé	he cut down trees
mì syé íryé	I cut down trees
ò rhéré (stem rhe)	he came

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àè rhéré	they came
wò rhéré	you (sg.) came
díé wó kòrè	what did you plant?
mè kó íróso	I planted rice
díé wó vúrù	what did you dig up?
mì vú ónẹ	I dug yams
díé ó rúrù	what did he do?
ò rú írúó	he worked
díé áí tyèrèrè (tyèrè)	what did they cook?
ài tyèrè ónẹ	they cooked yams
tivó wó rárè	where did you go?
mì kpó ékì	I went to market

Although the ramifications of this verbal construction are virtually limitless, since it is one of the commonest constructions in the language and can be used with more complex subjects and objects, the basic ingredients of the construction are defined and illustrated above; if irrelevant complications are stripped away, the essentials of the construction will become clear.

4.6. The above construction can be modified to express action that has taken place and is complete. This modification is in the form of a sentence-final particle *ré*. In the first two examples below, a contraction occurs which is probably regular. A more explicit expression of completed action uses *nùré* (probably 'has finished') rather than simply *ré*.

ò rhèèré (for ò rhérèré)	he has come
ò ráàré (for ò rárèré)	he has gone, he is gone
ò tyèrè émù ré	she has cooked
ò tyèrè émù nùré	she has finished cooking
mè ré émù ré	I have eaten

4.7. The construction described in this section indicates action that is urged or required ('let's go, he should go, he must go'), but seems also to indicate—at least in some contexts—an assured future action. This differs from the 'past-present' construction described in 4.5 above only in that the subject pronoun has a falling tone. (Noun subjects are accounted for in a later section.) The verb stem again is high for monosyllables, low-high for disyllables. Some examples of this construction are:

ò dẹ áǹmá (ò dǹmá)	he should (must, certainly will) buy cloth
ò kpó ékì (ò kpéki)	he should go to market
mê hwá ísèni ívẹ kẹ	I'll pay him two shillings

4.7. A more general future construction uses subject pronouns with high tone, a construction marker *tyà* or *tyè* (depending on vowel harmony, see 4.3 above), and the verb stem with high tone throughout (high-high rather than low-high for two-syllable stems). For example,

ò tyà dẹ áǹmá	he's going to buy cloth
mí tyè kpó ékì nónẹ	I'm going to go to market today
áé tyà fọryẹ áǹmá	they're going to do the wash

When the verb in this construction is not followed by a noun, it appears to have a suffix; on the basis of one recorded form in this construction, plus several in another

construction, it is likely that this suffix is -ê after the vowels u and i, simply a low tone after a, ɛ, and ɔ, and possibly a low tone only after e and o. The one example actually recorded with the future is:

bró wọ tyà hwâ how much are you going to pay?

The construction marker tyà (which is its basic form) functions also as the verb meaning 'come' in the present continuous construction (see next section); the stem rhe is not used in the present.

4.8. A construction indicating present continuous action uses subject pronouns with a rising tone, followed by the verb stem with low tone throughout. The second group of examples in 4.4 above uses this construction; it will be remembered that the final low tone of the verb becomes high before a noun beginning with high. When no noun object follows, however, both the pronoun and the verb stem have high tone, and the verb takes a suffix as described for the future above:

ɔ̌ tyà	he's coming
ɔ̌ rú írúó	he's working
mě rú írúó	we're working
mě rè èmù	I'm eating
ɔ̌ fọryè àǹmá	he's doing the wash
díé wó rúê	what are you doing?
díé wó síê	what are you pulling?
díé wọ kọ	what are you planting?
tivọ wọ râ	where are you going?
díé wó tyèê	what are you cooking?

4.9. A construction indicating customary action uses subject pronouns with high tone, followed by the verb stem with low tone throughout. (It is quite possible that this coalesces with the present continuous if there is no noun object, but there is inadequate evidence at present.)

ó dẹ ègà	he buys chairs
ó fọryè àǹmá	he does the laundry

A review of the past-present, the hortative or certain future, the present continuous, and the customary will now give the background for the four-way contrast in tone cited in 1.3 above. In the first two instances, the verb stem is high by the definition of the construction; in the last two, it is low in some other cases, but this low becomes high before the initial high tone of the following noun (in fact, the vowel and tone of the verb are elided in rapid speech). The four forms can now be traced through the above statements; they are:

Past:	ò syíryé	Hort.:	ô syíryé
Present:	ɔ̌ syíryé	Cust.:	ó syíryé

4.10. A construction apparently identical with the customary just described is used in certain subordinate combinations like the following:

mè gùṣṣọ nẹ ɔ̌ dẹ àǹmá	I want him to buy cloth
mè gùṣṣọ nẹ wọ fọryè àǹmá	I want you to do the wash

4.11. A 'conditional' construction, translatable by English clauses of the type 'When he goes', 'If he goes', uses subject pronouns with high tone, a construction marker dâ

or *dê*, and the verb stem with low tone throughout; in addition, the conditional clause must end with a low tone, which is added to a final high tone if such occurs. (It is not known whether this clause-final low tone is a unique part of this particular construction, or typical of other subordinate clauses as well.) The following examples also include some instances in which the low tone of the verb is replaced by high to indicate a third person object pronoun.

ó <i>dê</i> tyèrè èmù, mē ré.	When she cooks (food), I'll eat.
ó <i>dê</i> tyèrê, mē ré.	If she cooks it, I'll eat it.
ó <i>dê</i> rú írúó màmò, mē hwá ísèni ívè kẹ́.	If he works hard, I'll pay him two shillings.
ò <i>dâ</i> fòrhyè àṅmá nà, ...	If he does the wash, ...
ó <i>dê</i> sè uẹ, mē ryé.	When he calls me, I'll come.
mí <i>dê</i> sè àè, àè ryé.	When I call them, they'll come.
mí <i>dê</i> sê, ò ryé.	When I call him, he'll come.

In the case of all other constructions recorded, the corresponding negative is formed by a regular rule described in 4.13 below. For the conditional, however, there are other characteristics of the negative in addition to the clause-final high tone. The subject pronoun has low instead of high tone in the negative, and the construction marker is *râ* or *rê*; the clause-final low tone follows the added high tone of the negative:

ò <i>rê</i> rú írúó màmò̀, mē hwá íyò kẹ́.	If he doesn't work hard, I won't pay him.
ò <i>râ</i> fòryè àṅmá̀, ...	If he doesn't do the wash, ...

4.12. A 'hypothetical' construction is introduced by *ké*, uses subject pronouns with high tone, a construction marker *à* or *è*, and the verb with low tone:

<i>ké</i> mé à kwà òsà kẹ́.	I would pay him.
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This may be preceded by a conditional clause which uses the subordinate construction described in 4.10 above:

ò <i>díá</i> nè <i>ké</i> ó rú írúò, <i>ké</i> mé à hwà òsà kẹ́.	If he were working, I would pay him.
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A corresponding sentence referring to past time uses the same subordinate clause, but for the main clause uses a normal past construction introduced by a conjunctive phrase:

ò <i>díá</i> nè <i>ké</i> ó rú írúò, mà nè mè hwá ósà kẹ́.	If he had worked, I would have paid him.
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The conjunctive phrase *mà nè*, which here expresses a past hypothetical, may be replaced by *zyè* or by the combined phrase *mà nè zyè*. In both of the last examples, the subordinate clause again ends with a low tone, which may be typical of all subordinates.

4.13. Apart from the conditional negative described in 4.11 above, negatives seem regularly to be formed by a high tone at the end of the sentence. If the sentence ends with a high tone in the affirmative, the negative high tone must be preceded by a low tone. The pattern of the following can be applied to virtually every sentence cited in preceding sections:

ò <i>kpéki'</i>	he didn't go to market
(cf. ò <i>kpéki</i>)	he went to market)
ò <i>dáṅmá</i>	he didn't buy cloth
(cf. ò <i>dáṅmá</i>)	he bought cloth)

4.14. If a noun rather than a pronoun is used as the subject of a verbal sentence, the final tone of the noun or noun phrase must under certain circumstances add a tone which

