This paper proposes an analysis in which Rivers Pidgin English (RPE) is basically viewed as a stress-accent language. In particular, the correlation of pitch patterns over words (when considered in isolation) which have entered RPE from stress dominant languages (such as English) with pitch patterns found over corresponding words in the acrolect seems to characterize RPE as a stress-accent language. It is argued here that a stress analysis fails to account for the behavior of pitch over word groups in connected speech. These words divide themselves into phrases that bear one of two basic pitch melodies which resemble words in many pitch-accent-dominant languages. An analysis of pitch in RPE in terms of pitch-accent is seen to be inadequate in handling words that have entered RPE from some tone-dominant basilectal languages such as Yoruba. It is argued here that an analysis which incorporate stress-accent, pitch-accent, and tone is necessary in accounting for patterns of pitch-related supra-segmentals found over RPE utterances in a comprehensive and yet elegant way.

1.0 Introduction

1.1 Purpose and Scope of study

This study represents an attempt to analyze all pitch-related suprasegmental phenomena which occur over strings of natural speech in a language which seems to resist easy classification under the traditional rubrics of 'tone language', 'pitch-accent language' or 'stress language'. The goal of the analysis is both to describe the patterns found in the data in the simplest and most general way without ignoring patterns which may not fit very nicely into an extremely abbreviated, streamlined interpretation, as well as to reflect the processes (universal language-specific, diachronic or synchronic, pragmatic, morphosyntactic, etc.) which motivate the systems under consideration and integrate them into a cognitive superstructure which can function as a unitary whole.

1.2 Language situation and sociolinguistic history

Rivers Pidgin English is the dialect of West African Pidgin (or Creole, see Hancock 1983) English (WACE) spoken by at least five million people inhabiting the Rivers, Cross River, Imo, and Anambra states of southeastern Nigeria, especially in the urban centers such as Port Harcourt, Calabar, Aba, Owerri, Enugu, etc. The peoples of southeastern Nigeria speak well over 60 clearly differentiated languages (which may be subdivided into at least 200 distinct dialects) belonging to no less than six separate subbranches of the Niger-Congo family of languages.
The various ethno-linguistic groups of southeastern Nigeria in general, and the Niger Delta in particular have traditionally maintained important relationships of exchange at all levels. Such relationships, especially those in the economic sphere (trading, etc.) would have required the acquisition by members of many different language groups of a common language to be used in the marketplace. Indeed, bi- and multilingualism are the norm rather than the exception in the Delta and such languages as Igbo and RPE have been used by Delta peoples as trade languages as well as to meet the other communication needs of people of diverse linguistic origins living together.

In the Delta, contact with traders from Europe has been long (dating from the 15th century) and sustained. Although the Portuguese, the Dutch, the French, the Germans, the Danish and others traded in the Delta, the English succeeded in establishing their hegemony over the area by the middle of the 19th century. Along with British colonialism came European education via missionaries, many of whom were Krio speakers from Sierra Leone (who were ex-slaves or descendants of 'repatriated' slaves from the Caribbean).

Whether RPE developed from the marketplace contact situation between European (primarily English) traders and traders of the various Delta ethnic groups or from the influence of missionaries from Sierra Leone remains undetermined. One must be careful not to overemphasize the role of either the traders or the missionaries in the evolution of RPE because, except at its earliest stages of development, the language has been used primarily as a means of communication among Delta peoples rather than between Delta peoples and traders, missionaries, or others from outside.

It is perhaps unfortunate, but in any case very misleading to have almost all of the West African pidginized, creolized, and decroolized speech varieties in which English has played the role of acrolect or superstrate referred to as 'Pidgin' or 'Pidgin English' (Krio, luckily, was spared this inappropriate title). The RPE speech community as well as those of the languages resembling it (Cameroonian Pidgin English, other varieties of Nigerian Pidgin English, etc.) encompass the entire pidginization-creolization-decroolization continuum. For example, for a market woman from Eleme (in Rivers state) whose use of Pidgin is restricted to business transactions, RPE is a pidgin in the true sense of the word, but for her child who uses Pidgin with his playmates from Okrika in the market, RPE is a depidginized or creolizing speech form, rather than a true pidgin. For the Ikwerre man who speaks Pidgin with his wife from Nembe and especially for his children, who speak Pidgin with their parents, RPE is not a pidgin at all, but a creole. For the child from Port Harcourt who grows up speaking Pidgin, but who hears Nigerian Standard English at home (on formal occasions) from his or her university educated parents, at school, and on the radio and television, RPE is in all probability a decroolized speech form.

The number of speakers of West African Creole English (RPE included) has increased dramatically since the Civil War (1968-1970), and it is without a doubt the most widely spoken language in Nigeria at present. As is the case with many pidgins and creoles, WACE and RPE are spoken with varying degrees of similarity to the acrolect (now Nigerian Standard English, Mafeni 1971) and/or to the basilects (Igbo, Efik, Jje, etc.) according to both the competence of the individual speaker as well as to
the sociolinguistic context in which a given utterance occurs (Faraclas et al. 1983). The number of people speaking RPE (often alongside one or more other languages) from infancy is also increasing rapidly. The RPE forms used in this work will be those typically used in casual settings among speakers who learned the language early in life and who have continued to speak it on a daily basis.

While WACE is perhaps the most logical choice for a national language for Nigeria in terms of the number and geographic distribution of speakers, ease of learning for speakers of most Nigerian languages, ethnic 'neutrality', etc., it is almost unanimously considered by those responsible for the formulation and implementation of language policy in Nigeria to be totally unacceptable. Most Nigerians, however, including those with a perfect command of Standard English, prefer to use Pidgin instead of Standard English in interethnic contexts on all but the most formal occasions. Pidgin is the language used, for example, among university students from different linguistic backgrounds outside of class. Pidgin is clearly the language of solidarity in Nigerian society, but Standard English is the language of prestige.

While the full exploitation of Pidgin as a means of mass communication has not gone nearly as far in Nigeria as in other nations where the authorities have adopted a more scientific and rational attitude towards creolized speech forms (such as Papua New Guinea), some important steps have nonetheless been taken at the local level to increase the use of Pidgin in the media. Radio Rivers Two, the state controlled radio station in Port Harcourt, now presents public service messages, commercial messages, and newscasts in 'Special English' (RPE), while several very popular soap-opera type series in WACE have run on state controlled television stations.

2.0 Pitch patterns in RPE

In Rivers Pidgin English we find such minimal pairs of words as (an accute accent indicates high pitch, a grave accent indicates low pitch, and an apostrophe precedes a stressed syllable):

- a. /gò/ 'to go' [á gó' mákēt] 'I went to market.'
- b. /gô/ future marker [á gó go mákēt 'I will go to market.]
- c. /môda/ 'mother (biological)' ['môdâ]
- d. /môda/ 'school marm' ['môdâ]

Is the pitch distinction between the two members of each pair cited above best analyzed as tonal (as in Gokana bâ 'hand' vs. bâ 'eat'), stress-related (as in English 'import vs. import), or part of a pitch-accent system (as in Igbo akâ 'tooth' vs. aâkâ 'maize')? Some of the arguments for and against each analysis are presented below.

2.1 Pitch as stress

When RPE words are considered in isolation, it becomes apparent that the great majority (perhaps 85% - 90%) of words brought into the language from languages with stress-dominant pitch patterns (i.e. Portuguese, English, Spanish, etc.) bear a high (or, if word-final, falling) pitch over the syllable which bears stress in the source language and carry low pitch over the other syllables. Since most RPE words are English-derived, most of them exhibit the pitch pattern just described. For expository purposes,
such words will be called Group A (stress-source) words in this work. Examples (falling pitch is symbolized by ". Orthographic representations are those recommended by Faracas et al. 1983):

a. ṭada [fådå] 'father' d. latrín [låtrín] 'latrine'
b. anóda [ánódå] 'another' e. pikín [pîkîn] 'child' (Portuguese)
c. parabul [pårabul] 'parable' f. panyá [pånyå] 'Spanish' (Spanish)

The pitch patterns described for Group A words seem to reflect productive processes in RPE. Consider the following items of recent origin:

a. kondokta [kôndókta] 'conductor'
b. drayva [drája] 'driver'
c. pitakwa [pïtaκwa] 'Port Harcourt'
d. jagbajantis [dågbåjåntåns] 'junk' (Ijo + English?)
e. ngwongwobiliti [ngwagon'boflÌ] 'likeability' (Igbo + English)

Another interesting parallel between stress patterns in English and pitch patterns in RPE is the fact that words with a greater grammatical than lexical function which are normally unstressed in English (i.e., non-focussed subject pronouns, auxiliary verbs, prepositions, etc.) normally bear low pitch in RPE.

Examples:

a. go [gø] future auxiliary vs. gô 'to go'
b. fò [fø] preposition vs. fô 'four'
c. dem [dëm] 'they' (non-focussed) vs. dëm 'they' (focussed)

In many (but not all) stress languages, stress is signalled by increased length and/or amplitude as well as by high or gliding pitch. In RPE, high or gliding pitch are the only reliable cues marking the syllables of Group A words which correspond to stressed syllables in their source-language cognates. The exclusive use of pitch to signal accentuation is more typical of pitch-accents than of stress languages.

2.2 Pitch as accent

When not in isolation, the above outlined stress-like pitch patterns over Group A words occur only at the end of what will be called pitch phrases in this work. Pitch phrases in RPE are identical to the phrases over which pitch-accent is assigned in such languages as Japanese (McCawley 1965) or Ijo (Williamson 1966, Efere 1981). A pitch phrase normally consists of (|| symbols a pitch phrase boundary):

a. a NON-AUXILIARY VERB or a NON-FOCUSED SUBJECT OR OBJECT:
   i) || wi go kari yam || [ || wi gò kárí jâm || ]
   'We will carry yams.'

b. an ADVERBIAL COMPLEMENT:
   ii) || wi go kari yam || fo tawn || [ || wi gò kárí jâm || fo tawn || ]
   'We will carry yams in town.'
c. a FOCUSED NOUN PHRASE:

iii) \[ \| wi\\|\\| wi \| go kər̥i yam\\|\\| fə tawn\\| [\\| wi\\|\\| gə kər̥i jəm\\|\\| fə tawn\\] \]

"As for us, we will carry yams in town."

iv) \[ \| wi\\|\\| go kər̥i\\|\\| yam\\|\\| fə tawn\\| [\\| wi\\|\\| gə kər̥i\\|\\| jəm\\|\\| fə tawn\\] \]

"We will carry yams (not cassava) in town."

Notice that in the above examples, the verb kər̥i bears two high pitches when not in pitch phrase-final position. Only when kər̥i occurs at the end of a pitch phrase (or in isolation) does it bear the high-low pitch pattern which corresponds to the stress pattern over the verb carry in English. All Group A words carry high pitch over all syllables following the syllable which corresponds to the stressed syllable in the source language, unless they occur in pitch-phrase final position. Word final high pitches do not fall unless they are pitch phrase-final as well.

Examples:

- a. anəda  'another' \[ anədə \]
- b. wan  'one' \[ wən \]
- c. giv mi anəda wan  'Give me another one.' \[ gəv mə anədə wən \]
- d. dem de lajak wan anəda  'They like each other.' \[ dəm de ləjak wən anədə \]
  pəkin  'child' \[ pəkin \]
  gud  'good' \[ gud \]
  gud pəkin  'good children' \[ gud pəkin \]
  pəkin gud  'Children are good.'

The 10 - 15% of words brought from stress-dominant languages into RPE whose pitch patterns do not correspond to those found over their counterparts in the source language (even preceding pitch phrase boundaries) divides into two groups, which will be called Group B words and Group C words in this work. Group B words simply carry more than one high pitch.

Examples:

a) wuman  \[ wuman \]  'woman'

b) animal  \[ anəmfəl\]  'animal'

c) stanop  \[ stənəp\]  'stand'

d) mochwar  \[ mətʃwar\]  'ice-fish'
  \[ də wuman stənəp \| tu pə moʃwar səp\]  'The woman stood eating ice-fish soup.'

Since the membership of a given word in Group A vs. Group B cannot be predicted, some system of marking the distinction between the two groups is necessary in phonemic representations. The need to mark distinctions between stress-dominant source language words with differing pitch patterns becomes imperative when Group C words are considered.
Examples:

a) GROUP A: [ mòdà ] 'mother' vs. GROUP C: [ mòdà ] 'school mother'
b) GROUP A: [ slstà ] 'sister' vs. GROUP C: [ slstà ] 'nurse'

Non pitch phrase-final Group C words carry low pitch over all syllables. In pitch phrase-final position, the final syllable of a Group C word bears high pitch which never falls. Monosyllabic words of this group bear rising pitch.

Examples:

a) wọta [ wọtá ] 'water'
b) sabi [ sábì ] 'know'
c) kruman sabi wọta [ ñkrúmán sábì wọtá ] 'Sailors know the water.'
d) wọta sabi kil pêsìn [ wọtá sábì ] kil pêsìn ] 'Water can kill you.'

Poser (1984) cites the fact that Japanese exhibits a limited number of pitch patterns compared to the possible number of pitch patterns (given the basic levels of pitch realized over utterances) as the primary criterion for classifying it as a pitch-accent system, rather than as a tonal system. Similar criteria are defined by Kingston (1983) for Bantu pitch systems. As shown above, words in RPE from stress-dominant source languages bear only a small number of the pitch patterns which might occur over them, even in a system with only two distinctive levels of pitch. In Ijo (Williamson 1966, Efere 1981) four classes of nouns exist, each having a different pitch melody associated with it. A pitch-accent account for the behavior of stress-source words in RPE might posit the following classes and rules:

a) CLASS 1 - NON-FINAL ACCENT: anóda [ ánódà ] 'another'
b) CLASS 2 - FINAL ACCENT: pikin [ pikín ] 'child'
c) CLASS 3 - ZERO ACCENT: wọta [ wọtá ] 'water'

CONDITION 1: AN ACCENT IS ASSOCIATED WITH RIGHT BOUNDARY OF PITCH PHRASE.
CONDITION 2: ACCENTS ARE ASSIGNED HIGH PITCH.
RULE 1: NON-PHRASE FINAL WORDS--HIGH PITCH SPREADS RIGHTWARD.
RULE 2: PHRASE BOUNDARY ACCENT→LOW PITCH AFTER AN ACCENT-BEARING WORD (CLASSES 1 and 2).
RULE 3: IF NO SYLLABLE INTERVENES, WORD AND PHRASE ACCENTS FUSE.
RULE 4: IF PHRASE FINAL WORD IS ACCENTLESS, PHASE FINAL ACCENT IS ASSOCIATED WITH FINAL SYLLABLE.
RULE 5: ALL REMAINING SYLLABLES BEAR LOW PITCH.

Sample derivations based on the above rules:

<table>
<thead>
<tr>
<th>CL. 1: anóda</th>
<th>anóda</th>
<th>/ Cl. 2: pikín</th>
<th>pikín</th>
<th>/ Cl. 3: wọta</th>
<th>wọta</th>
</tr>
</thead>
<tbody>
<tr>
<td>COND. 1: anóda anóda</td>
<td>pikín pikín</td>
<td>wọta wọta</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>COND. 2: anóda anóda</td>
<td>pikín pikín</td>
<td>wọta wọta</td>
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<td>RULE 1: anóda --</td>
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<tr>
<td>RULE 2: -- anóda</td>
<td>--</td>
<td>pikín</td>
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<td>RULE 3: -- --</td>
<td>--</td>
<td>pikín</td>
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</tr>
<tr>
<td>RULE 4: -- --</td>
<td>--</td>
<td>pikín</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RULE 5: [ánódà [ánódà ]</td>
<td>[pikín] [pikín ]</td>
<td>[wọtá] [wọtá ]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
While the pitch-accent system outlined above accounts for almost all occurrences of words from stress-dominant languages, it does not account for certain reduplicated forms, where a rising pitch melody spreads over the entire word.

Examples:

a) \( \text{waka} \) \( [\text{wåkå}]\) 'walk' \( \text{wakawaka} \) \( [\text{wåkåwåkå}]\) 'constant moving about'
b) \( \text{hala} \) \( [\text{hålahåla}]\) 'yell' \( \text{halanaia} \) \( [\text{hålahålahåla}]\) 'constant yelling'

More importantly, however, most of the words brought into RPE from non-stress-dominant languages (i.e., languages with strong tonal or pitch-accent systems) cannot be accounted for by the pitch-accent system posited for stress-words above.

2.3 Pitch as tone

Class D words. Class D or non-stress dominant source language words may bear almost any possible combination of two level pitches (high and low) and are not sensitive to the accent- or stress-like pitch phenomena associated with pitch phrase boundaries which have been outlined above. There is therefore no logical reason not to analyze pitch patterns occurring over Class D words tonally.

Examples:

a) \( \text{akom shotop} \) \( [\text{aköm shotop}]\) 'fever'
b) \( \text{loyloy} \) \( [\text{lojloj}]\) (YORUBA?) 'specially pounded cassava'
c) \( \text{ajagarana - okpokpo} \) \( [\text{ad∫agarana okpokpo}]\) \( < \) \( [\text{IJO}]\) 'junk'

As shown in section 2.2, however, full specification of pitch over every syllable is not necessary underlingly for most words in RPE.

3.0 RPE as a mixed tone-accent-stress language

There are clearly two sets of lexical items in RPE; one set which is underspecified for pitch underlingly (Classes A, B, and C) and which allows phrase-level accentuation to partially determine surface pitch patterns, and another set (Class D) which is fully specified for pitch underlingly and is not affected by phrase-level accentuation. What is the simplest account we can give of the behavior of both of these sets of words with respect to pitch which captures all of their similarities while ignoring none of their differences?

3.1 Evidence in support of a mixed system

Since non-stress-source items need to be fully specified for tone as part of a two level tonal system, we must posit two tonemes, high (\( \text{'} \) ) and low (\( \text{N} \)). These tonemes may be used, however, to account for the behavior of stress-source words in a simpler yet more adequate way than the pitch-accent system proposed in section 2.2 above, using the following conditions and rules; which apply to forms underspecified for tone underlingly:
COND. 1: ASSIGN HIGH TONE TO ALL STRESS SOURCE GROUP A & B SYLLABLES THAT OTHERWISE WOULD CARRY PITCH-ACCENT.
COND. 2: ASSIGN LOW TONE TO THE FINAL SYLLABLE OF STRESS-SOURCE GROUP C WORDS WHICH WOULD NORMALLY CARRY LOW PITCH PHRASE FINALLY.
RULE 1: PHRASE FINAL TONES BECOME GLIDES: HIGH→FALL, LOW→RISE.
RULE 2: IF A SYLLABLE BEARING A GLIDING TONE IS FOLLOWED BY A SYLLABLE UNSPECIFIED FOR TONE, THE FINAL ELEMENT OF THE GLIDE SEPARATES FROM THE INITIAL ELEMENT AND MOVES RIGHTWARD ONTO THAT SYLLABLE.
RULE 3: IF A TONE-BEARING SYLLABLE IS FOLLOWED BY ANY NUMBER OF NON-TONE-BEARING SYLLABLES, ITS TONE IS COPIED ONTO ALL OF THEM.
RULE 4: ALL OTHER SYLLABLES BEAR LOW TONE.

Note that this account also handles reduplicated forms (which could not be dealt with using the pitch-accent model; see 2.2 above) if they are assigned a single low tone.

Example:

COND. 1 & 2 /anoda/ /anoda/ /animal/ /animal/ /wota/ /wota/
RULE 1 --- /anoda/ --- /animal/ --- /wota/
RULE 2 --- /anoda/ --- --- /wota/
RULE 3 /anoda/ --- /animal/ /animal/ /wota/ ---
RULE 4 /anoda/ /anoda/ --- --- ---
SURFACE FORM [anoda] [anoda] [animal] [animal] [wota] [wota]

3.2 Conclusions and theoretical implications

The only satisfactory solution to the problem posed by pitch in RPE, that is, the only analysis that can predict pitch patterns over utterances in a unified way involves the interaction of tonal, pitch-accent, and stress units. Tone is assigned to words lexically, words from tonal languages being fully specified (one tone per syllable) and words from English being under-specified in most cases (often one tone per word). Underspecified items would
then be assigned additional pitches on the basis of their position within a stress-accent group or phrase as well as in relation to the type of tone assigned to them lexically. The existence of a mixed system of pitch assignment and realization in RPE reflects the mixed origins of the language which include stress languages (English, Portuguese) tonal languages (Igbo, Yoruba, etc.) and pitch-accent languages (Jig). At the surface, one is tempted to apply a stress analysis but the actual system is in many ways a reinterpretation of stress in terms of tone and pitch-accent. (A parallel case of reinterpretation (in the opposite direction) has been described by Li (1984) for Baonan, a Sino-Turkic creole spoken in north-central China.)

The RPE data re-affirms the importance of substrate-basilectal speech patterns on the underlying structures and processes in pidgins and creoles. In also indicates that speakers of pidgins and creoles operate from unified systems rather than from a loosely bound set of parasystems, each corresponding to the system as it exists in one or another of the input languages. In other words, a pidgin or a creole may behave at the surface in a way which is very much like the acrolect and perhaps very much unlike the basilect. A more careful analysis usually results in the discovery that the strategies used by speakers in the production and processing of surface forms are strikingly similar to those typical of basilect, rather than acrolect speakers.

Linguists are only now coming to recognize the importance of processes such as pidginization/creolization in the development of all languages. One of the implications of this realization will have to be the recognition of the possibility that mixed systems like the one outlined for RPE above are not restricted to languages generally classified as pidgins or creoles but may in fact be quite widespread and that such mixed systems, where they do exist, function as unified systems rather than as sets of parasystems. This may explain the recent successes of the autosegmental model, which in effect is supple enough to at least begin to accommodate itself to the analysis of systems which have both tonal and accentual characteristics.

There seems to have been a certain reluctance on the part of many Africanists to even consider the existence of any non-tonal pitch phenomena in the languages that they study. It is obvious that such attitudes can do nothing to advance, but much to hinder the scientific description and analysis of African languages. In many parts of Africa intermarriage, bi- and multilingualism, and other forms of interethnic contact and exchange are the rule rather than the exception. The traditional bias in linguistics against pidginization/creolization as a model for language change has had for this reason even more of a negative impact on the study of African languages than it has had in other areas. Africanists must learn to recognize, describe, and analyze mixed systems wherever they occur. Mixed systems can in fact shed much light on some unresolved questions facing the linguist in Africa. For example, the analysis of RPE pitch patterns as the result of a mixed system has allowed the division of lexical items into distinct classes, each of which corresponds to a particular historical state or source of borrowing of vocabulary items into the language. Class A words appear to have been brought into RPE directly from British and, later, Nigerian dialects of Standard English. Class C words reflect pitch patterns commonly found in Sierra Leonian Krio (Fyle and Jones 1980) and were probably introduced by Krio speakers during the late 19th century. Class B words
often seem to be the result of an old compounding process which has been replaced by the still productive Class A compounding pattern (as in 2.1 above) on one hand, and by low-toned reduplication (see Section 3.1 above) on the other. Class D words are clearly borrowings from other Nigerian languages and appear to be increasing in number along with the rise of nationalism in the post-colonial era.

In comparison with some of the neighboring dialects of West African Pidgin English (especially the Benin City-Warri-Sapele dialect to the west and the Cameroonian dialects to the east), Rivers Pidgin English appears to have undergone a limited but nonetheless significant process of decreolization. For example, many words which have final consonant clusters in RPE and Standard English have single final consonants in other dialects. Voiced plosives also occur word finally in RPE as in Standard English, where voiceless plosives occur in neighboring Pidgin speaking communities. In general, however, RPE phonology does not differ much from what has been reported for other Nigerian and Cameroonian dialects of West African Pidgin English.

REFERENCES


