

COMPOUNDING AND REDUPLICATION IN KRIO

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This paper discusses the processes of compounding and reduplication in Sierra Leone Krio. I argue for a productive process of compounding and reduplication that sometimes involves the application of the tonal processes of High deletion and Low spreading. The paper examines the application of these processes in a number of compounds in Krio including reduplicated compounds. Reduplication is used as a general reference to repetition of a form in order to satisfy different functions such as attributive, intensive, iterative, and compounding. Two common and productive types of reduplication in Krio are discussed. Iterative reduplication is generally used to indicate intensity or emphasis, to accentuate the qualities of the lexical item that is reduplicated. The meaning basically stays the same, and the reduplicated item does not involve any tonal changes. This should be distinguished from compound reduplication, which undergoes tonal changes and usually results in the formation of a new lexical item. This new item is different in meaning from the reduplicated form used in isolation. I present examples of the application of tonal processes on compounds in Krio and argue for some possible influence of West African languages in both the forms and functions of compounding in Krio. I further present examples of iterative and compound reduplication and demonstrate that the application of some tonal processes is used to distinguish one from the other.

Cette étude discute les procédés de composition et de redoublement dans le krio de Sierra Leone. Je postule que ces deux procédés sont souvent le résultat de l'application des procédés tonals de suppression d'un Haut et expansion d'un Bas. Nous examinons ici l'application de ces procédés dans un certain nombre de composés krio, y compris ceux à redoublement. Ce terme sert de référence générale à la répétition d'une forme pour remplir diverses fonctions, telles que attributive, intensive et compositive. Nous discutons deux types de redoublement krio. L'itératif indique généralement une intensité ou une emphase afin d'accentuer les qualités de l'élément lexical qui se redouble. Le sens en reste foncièrement identique, et le redoublement s'y fait sans changement tonal. Ceci est à différencier du redoublement compositif, qui subit, lui, des changements tonals, et qui résulte normalement en la formation d'un élément lexical nouveau, dont le sens diffère de celui de la forme isolée que l'on redouble. Je présente des exemples de l'application des procédés tonals aux composés du krio, et je propose l'influence possible de certaines langues ouest-africaines, si bien dans la forme que dans la fonction des composés krio. En outre je présente des exemples des redoublements itératif et compositif, et je démontre l'application de certains procédés tonals qui servent à les distinguer les uns des autres.

0. INTRODUCTION

Krio is an English-derived creole that is used as a first language by a small percentage of the population of Sierra Leone living primarily in Freetown. More important, however, is the fact that the language is used as a lingua franca in the country. Though there is evidence in Krio of some universal, simplified morphological rules, the language has evolved morphologically partly as a result of interaction with languages of West Africa (mostly from the Kwa and Mande groups), with which Krio now shares some morphophonemic and morphosyntactic properties. McWhorter (1998) argues for a prototypical creole grammar that exhibits very little or no inflectional morphology and very little or no contrastive use of tone at the lexical and syntactic levels. Using examples of compounding, including compound reduplication, I provide evidence of a much more complex morphological system that involves the application of tonal rules, which is arguably partly a result of the influence of some West African languages.

1. THE INFLUENCES OF WEST AFRICAN LANGUAGES ON KRIO

Krio has a rich history of contact with other West African languages. These languages and the traditions of their speakers have had a strong influence on the social

life and customs of Krio speakers in Freetown. The abolition of the trans-Atlantic slave trade and the resettlement of some of the freed slaves, including Recaptives (those captured on the high seas) in Freetown, Sierra Leone, contributed to this influence. These slaves were primarily from West Africa and brought along a variety of West African languages, with Yoruba being the most influential. A large number of lexical borrowings in Krio from West African languages, particularly Yoruba, are well documented. Fyle & Jones (1980) and Bradshaw (1966) contain an impressive list of lexical items originating from Yoruba. These borrowings have generally retained the tonal patterns assigned by the source languages with occasional minor phonemic variations. Yoruba is second only to English as the largest contributor to the Krio lexicon. The influence of West African languages on Krio may be evident not only in lexical borrowings but also in borrowed grammatical properties, such as compounding.

As the lingua franca of Sierra Leone, Krio continues to be influenced in its development and expansion by speakers for whom it is a non-native language. It is thus conceivable that, over time, some of the morphological properties (both segmental and suprasegmental) of the primary languages of these speakers have been incorporated into Krio.

2. CONTRASTIVE USE OF TONE IN KRIO

Stevens (1966) in his discussion of the pronunciation of English in West Africa distinguishes three broad categories. The English of speakers of the first two categories, he argues, is strongly influenced by the phonological patterns of their native African languages. The third category, Stevens asserts, is used only in Freetown, Sierra Leone, and is closest to Standard English pronunciation, possessing "a system of stress and intonation of the same nature as that of Received Pronunciation ..." (1966:116). This, Stevens maintains, is due to the fact that the native language of these speakers—Krio—is closely related to English, and this greatly facilitates their communication in English. Unlike speakers of the other categories, Freetown speakers of English do not acquire English as a foreign language, because their native language shares a lot in common with Received Pronunciation. One of Stevens's claims is that though Krio contains a large number of Yoruba borrowings, the tonal system of Yoruba has disappeared from the language, and that Krio exhibits "... a sentence-stress and intonation pattern broadly like that of Received Pronunciation".

This assertion sparked a number of responses disputing Stevens's claim that Krio had a stress and intonation pattern similar to English (Berry 1970a, 1970b; Jones 1971; Johnson 1974; Fyle & Jones 1980), with arguments being advanced to support the position that Krio rather exhibits characteristics of a tone language. Perhaps the most significant phonological feature distinguishing Krio from English is that Krio is a tonal language (Berry 1961, 1970a, 1970b; Fyle & Jones 1980; Johnson 1974; Jones 1971), and tone must be included in the lexical entries of each item, including borrowings from English.

Contrary to McWhorter's (1998) claim that creole grammar utilizes very little or no tone, Krio does exhibit contrastive use of tone. Tone may be used to minimally distinguish one lexical item from another. For example:¹

- (1) a. **ale** go away
 LH
 ale herb with irritating effects on the skin
 LL
- b. **baba** a type of drum that is played with one stick
 H H
 baba a barber
 H L
 baba a young boy
 L H
- c. **gbangba** a wide, open public place
 H H
 gbangba a medicinal herb
 L H
- d. **kanga** a species of fish
 H H
 kanga a personal name
 H L
 kanga magic
 L L
- e. **pata** small knickers worn by babies
 H H
 pata (N) a slap; (V) to hit with palm of hand
 L H
- f. **soso** only; nothing but...
 H H
 soso so-so; not too good, not too bad
 H L
 soso Susu (a language); a native speaker of Susu
 L H

In compound formation in Krio, however, including compound reduplication, tone assignment is to some extent predictable. It involves a process of High tone deletion

¹The source for most of the examples in this paper is Fyle & Jones (1980), but the examples used are only those whose tone assignment is supported by my intuitions as a native speaker of Krio.

and a corresponding spreading of Low tone. This process possibly emerged in Krio as a result of contact with West African languages since tone deletion and spreading are common processes among Mande and Kwa languages.

3. COMPOUND FORMATION AND THE APPLICATION OF TONAL PROCESSES

Compound formation is very productive in Krio and it utilizes the processes of High tone deletion and Low tone spreading to derive a new lexical item. These processes are triggered by the tonal quality of the lexical items involved and they apply to a variety of compounds in Krio. Compounding generally involves both monosyllabic and polysyllabic lexical items, and the tonal processes of High deletion and Low spreading operate on HL sequences associated only to the initial component of the compound, regardless of the position of this sequence in the constituent. It cannot “see” the low on the following constituent of the compound. That is, the High of a High-Low tonal sequence is deleted, followed by spreading—from Right to Left—of an adjacent Low tone on to the vowel with the deleted tone. This process, I further demonstrate, applies iteratively. The processes are stated as follows:

- (2) a. HL → ØL (Ø = Deleted Tone)
 b. ØL → LL (Low tone spreading from right to left)

This satisfies the Well-Formedness Condition (Goldsmith 1976) that all vowels be associated with at least one tone. For compounds whose initial constituents contain only a High-Low sequence, no tonal changes occur.

4. NON-REDUPLICATED COMPOUNDING IN KRIO

The tonal processes of High deletion and Low spreading apply to the polysyllabic initial constituent of non-reduplicated Krio compounds, as long as the constituent contains a HL sequence. The syllabic or tonal composition of the final syllable has no effect on these processes. For example:

(3) *Polysyllabic + Polysyllabic Compounds*

- | | | | |
|----------------------|--------------------------------|---------------|------------|
| a. finga | finger | pokit | pocket |
| H L | | HL | |
| finga-pokit | to pick-pocket | | |
| L L HL | | | |
| b. skwaya | to adjust accounts | balans | to balance |
| H L | | H L | |
| skwaya-balans | to settle accounts or finances | | |
| L L HL | | | |
| c. rɔtin | rotten | bele | stomach |
| H L | | LH | |
| rɔtin-bele | a gluttonous person | | |
| L L LH | | | |

d. ayen	iron; metal	bɔ̃di	body
HL		LH	
ayen-bɔ̃di	great physical endurance		
LL LH			
e. koko	a bump on the body	ɛsɛ (Yoruba)	leg
HH		LH	
koko-ɛsɛ	anklebone		
HH LH			
f. mami	mother	wata	water
LH		LH	
mami-wata	mermaid		
LHLH			

The initial constituents of the compounds in (3a–d) meet the requirements, i.e. a HL sequence, for the tonal processes of High deletion and Low spreading to apply. The processes do not apply in (3e) and (3f), as the requirements are not met. In (3e), the initial constituent has only High tones, while in (3f) the initial constituent has a LH sequence.

(4) *Polysyllabic + Monosyllabic Compounds*

a. berin	funeral	grɔ̃n	ground
HL		HL	
berin-grɔ̃n	a cemetery		
LL HL			
b. langa	long; tall	trot	throat; neck
HL		HL	
langa-trot	enviously watching someone's food		
LLHL			
c. mɛresin	medicine	man	man
HHL		HL	
mɛresin-man	a witchdoctor		
LLL HL			
d. bɔ̃bi	breast	mɔ̃t	mouth
LH		HL	
bɔ̃bi-mɔ̃t	nipple		
LHHL			

e. rare	to roam the streets	gyal	girl
HH		HL	
rare-gyal	a prostitute		
HH HL			

The initial constituents of the compounds in (4a–c) all undergo the tonal processes of High deletion and Low spreading. The derivation of (4c) demonstrates the iterative application of these processes. The initial constituent of the compound has a High, High, Low sequence. The second High is followed by a Low and becomes Low through High deletion and Low spreading. The result is an initial High tone now being followed by a Low tone. The processes apply again converting the initial High tone to a Low tone. That is, the initial HHL sequence changes to a HLL sequence, which, in turn, changes to a LLL sequence.

Monosyllabic lexical items in Krio are invariably marked with a falling tone, arguably a combination of a High and Low tone, following the proposal that a falling tone is a sequence of the level tones High and Low (Goldsmith 1976; Kenstowicz & Kisseberth 1979). Hence the process of High tone deletion applies in compounds containing initial monosyllabic lexical items as well. The H in the HL sequence of the initial constituent of the compound is deleted, and the falling tone on the vowel now becomes a Low. Spreading is not necessary, as the deletion of the H in the HL sequence does not result in a toneless vowel. For example:

Monosyllabic + Polysyllabic Compounds

(5) a. lef	leave	andul	handle
HL		H L	
lef-andul	carefree; give up		
L H L			
b. pan	zinc for roofs	bɔdi	body
HL		L H	
pan-bɔdi	a house made of zinc		
L L H			
c. plet	plate; dish	pis	rag; cloth
HL		HL	
plet-pis	an effeminate male		
L HL			
d. tay	tie	wata	water
HL		L H	
tay-wata	water treading		
L LH			

The initial constituents of the compounds in (5) are monosyllabic, with an underlying falling tone. The High of the falling tone is deleted leaving the Low segment as the only tone for this constituent.

Monosyllabic + Monosyllabic Compounds

(6)	a.	big HL	big		yay HL	eye
		big-yay L HL	greedy; gluttonous			
	b.	čam HL	chew		mət HL	mouth
		čam-mət L HL	to mumble the words of a song			
	c.	rəb HL	rub		an HL	hand
		rəb-an L HL	doing a temporary job			
	d.	swit HL	sweet		pis HL	urine
		swit-pis L HL	diabetes			

In the compounds in (6) both constituents of the compounds are monosyllabic with underlying falling tones. The High in the HL sequence of the initial components is deleted leaving only the Low as the tone for the vowel.

5. ITERATIVE AND COMPOUND REDUPLICATION IN KRIO

Bickerton (1975, 1977, 1988) proposes that reduplication in creoles is an indication of pronunciation difficulty as a result of phonological complexity, that it is a process of simplification evident in baby-talk and foreigner-talk. This assertion may not be justified in Krio. Both iterative and compound reduplication in Krio are very productive, are used rather extensively, and perform a variety of functions. Reduplication in general is applied to both monosyllabic and disyllabic lexical items. Iterative reduplication is generally used to express emphasis or intensity, and tone marking on the lexical items remains unchanged from the tone markings on the lexical item that undergoes reduplication. The general meaning of the item is also retained. Iterative reduplication serves the purpose of emphasizing or intensifying the qualities of the lexical item. The tonal processes of High deletion and Low spreading, when applicable, are applied on the initial constituent in compound reduplication if it contains a HL sequence. In addition, the lexical item resulting from compound reduplication is assigned a meaning that is different from that of the original lexical item when used in isolation. Compound reduplication generally results in the formation of an exocentric compound (the examples in (7) illustrate this). Compound reduplication, in particular, is thus different from the reduplication that is observed in baby-talk or foreigner-talk both in form (tonal changes) and function (derivation of a new lexical item).

The following examples illustrate the application of the tonal processes of deletion and spreading on compound but not iterative reduplication (IR = Iterative Reduplication; CR = Compound Reduplication):

- (7) a. **ala** (N) shout; scream; (V) to shout or scream
HL
- ala ala** (V) to shout intensively (IR)
HL HL
- ala-ala** (N) a quarrel; (A) quarrelsome (CR)
LL HL
- b. **waka** (N) a walk; (V) to walk
H L
- waka-waka** (V) to walk continuously (IR)
H L HL
- waka-waka** (A) promiscuous; (V) living promiscuously (CR)
L L HL
- c. **kɔna** (N) corner
H L
- kɔna kɔna** deep in the corner (IR)
H L HL
- kɔna-kɔna** (N) a secret lover (CR)
L L HL
- d. **bɛn** (A) bent; crooked
HL
- bɛn bɛn** (A) very crooked; twisted (IR)
HL HL
- bɛn-bɛn** (A) not being straightforward (CR)
L HL
- e. **čuk** (V) prick; stab
HL
- čuk čuk** (V) prick (or stab) all over (IR)
HL HL
- čuk-čuk** (N) thorns (CR)
L HL
- f. **pik** (V) to pick
HL
- pik pik** (V) to pick intensively (IR)
HL HL

pik-pik (A) kleptomania (CR)
L HL

Thus, in disyllabic compound reduplication, the final constituent of the compound does not undergo any change. The initial constituent is subject to High tone deletion followed by a right-to-left Low tone spreading from an adjacent Low tone. In monosyllabic compound reduplication, the High component of the HL sequence is deleted leaving only the Low component as the tone on the vowel.

6. COMPOUNDS WITH **man** AS AGENTIVE MARKER

Compound formation involving the agentive marker **-man** ('man') is also a productive process in Krio and, as in other compounds, the initial constituent undergoes the tonal processes of High deletion and Low spreading, if applicable:

- (8)
- | | | | |
|----------------|-------|-----------------|--------------------|
| a. buk | book | buk-man | an educated person |
| HL | | L HL | |
| b. kres | crazy | kres-man | a crazy man |
| HL | | L HL | |
| c. tif | steal | tif-man | a thief |
| HL | | L HL | |

The term **man** may also be attached to the name of a language or country meaning: 'speaker of that language' or 'citizen of that country', and compounds formed in this manner also undergo the tonal processes involved in compound formation:

- (9)
- | | | | |
|-------------------|--------------|--------------------|------------------|
| a. afrika | Africa | afrika-man | an African |
| H H L | | L L L HL | |
| b. amerika | America | amerika-man | an American |
| L H H L | | L L L L HL | |
| c. gana | Ghana | gana-man | a Ghanaian |
| H L | | L L HL | |
| d. jameka | Jamaica | jameka-man | a Jamaican |
| L H L | | L L L HL | |
| e. gambe | Gambia | gambe-man | a Gambian |
| L H | | L H HL | |
| f. kriyo | Krio | kriyo-man | a Krio speaker |
| L H | | L H HL | |
| g. mende | Mende | mende-man | a Mende speaker |
| L H | | L H HL | |
| h. salon | Sierra Leone | salon-man | a Sierra Leonean |
| L H | | L H HL | |

In (9a-d), High deletion and Low spreading occur since the initial constituents contain a HL sequence. Example (9b) illustrates the iterative nature of spreading. The second High in the sequence LHHL first becomes a Low, through deletion and spreading.

That in turn creates the environment for the first High to become a Low. That is: LHHL → LHLL → LLLL.

7. 'COMPOUND NAMES' IN KRIO

Personal names in Krio can sometimes be combined to form what is generally referred to as a 'compound name'. This may take the form of either two first names combining to form another first name, or two surnames combining to form another surname. These are also subject to the tonal processes of High deletion and Low spreading if the conditions are met. For example:

- | | | | | | | |
|------|----|-------------------------|---|------------------------|--|----------------------|
| (10) | a. | abdul (Abdul) | + | karim (Karim) | | abdul-karim |
| | | H L | | L H | | L L L H |
| | b. | amadu (Amadu) | + | ba (Bah) | | amadu-ba |
| | | H H L | | HL | | L L L HL |
| | c. | jɔnsin (Johnson) | + | kol (Cole) | | jɔnsin-kol |
| | | H L | | HL | | L L HL |
| | d. | kamara (Kamara) | + | telɔ (Taylor) | | kamara-telɔ |
| | | L H L | | HL | | L L L HL |
| | e. | akibo (Akibo) | + | bets (Betts) | | akibo-bets |
| | | L HH | | HL | | L HH HL |
| | f. | kutubu (Kutubu) | + | koroma (Koroma) | | kutubu-koroma |
| | | H H H | | L L H | | H H H L L H |

The initial constituents of the compound names in (10a–d) satisfy the conditions for deletion and spreading. In (10b) the processes apply iteratively. In (10e) and (10f), the conditions are not met; thus no tonal changes occur.

8. DERIVATIONAL SUFFIXES IN COMPOUNDING IN KRIO

Derivational suffixes are almost non-existent in Krio. There are however a few compounds in which the forms **na** and **o** are attached to lexical items in their derivation, resulting in the meaning: 'Someone (something) having the qualities of the lexical item to which it is bound'. This is similar in function to the use of the agentive marker **man** discussed in §6. For example:

- | | | | | | |
|------|----|---------------|---------------------|----------------------------|-------------------------|
| (11) | a. | day | (A) dead | day-d-o² | a weakling |
| | | HL | | L H | |
| | b. | dray | (A) dry; thin | dray-na | a very thin person |
| | | HL | | L H | |
| | c. | krabit | (A) greedy; miserly | krabit-o | a greedy/miserly person |
| | | H L | | L L H | |

² The components of this compound are the stem **day** and the suffix **-o**. The reason for the **d** preceding the suffix is not clear. One possible explanation is that it is inserted to prevent vowel clash.

e. kray	(V) to cry	kray-na	a cry-baby
HL		L H	
f. pwel	(A) spoilt; incompetent	pwel-o	an incompetent player
HL		L H	
g. trit	(N) street	trit-na	(N) one who is always out
HL		L H	

This form of compounding is not very productive and is limited to a few examples.

9. DISCUSSION AND CONCLUSION

Though Krio is a tonal language in which tone is generally used lexically and contrastively, this paper has attempted to show that tone assignment may be partially predictable in different kinds of compounds even though tone marking is generally unpredictable in simple lexical items. There are predictable processes of High tone deletion and Low tone spreading affecting initial constituents of compounds. Even the stress pattern of lexical items borrowed from English is ignored when these items are used in compounds or borrowed as compounds into Krio.

The nature of tone marking on words borrowed or derived from English is a debatable issue in creole linguistics. Most creoles are classified as tonal languages even though a substantial portion of their lexicon is generally borrowed from a stress (accented) language. This has led to proposals of a correspondence between stress and pitch in such languages (Alleyne 1980; Devonish 1988; Hall 1966; Schneider 1966). That is, High tones in words borrowed or derived from stress (accent) languages generally coincide with the location of primary stress. This may be the case for some non-compounds borrowed into Krio from English. When compounds are borrowed from English, the tonal processes are applied regardless of the requirements of the English compound stress rule. The English compound stress rule assigns primary stress (which generally carries high pitch) to the initial member of a compound while the main stress of the second member becomes subordinate (i.e. secondary) to that of the initial member so that it is pronounced with less intensity, regardless of the composition of the compound. In Krio, the initial constituents of compounds borrowed from English may lose their primary stress or high pitch and the tonal processes of High deletion and Low spreading may apply. For example:

(12) <i>English</i>	<i>Krio</i>	<i>Tone marking as simple words</i>
blackboard 1 st 2 nd	blakbod L HL	blak bod HL HL
prayer-book 1 st 2 nd	prea-buk LL HL	prea buk HL HL
station-master 1 st 2 nd	stesɔn-masta L L H L	stesɔn masta H L H L

To summarize, tone in Krio has to be included in the lexical entries for simple lexical items. In the formation of compounds, however, the High tones of the initial component of a compound are deleted when followed by a Low tone. This process is

followed by the spreading of Low tone, from right to left, on to the resultant toneless vowels. These processes are iterative and will reapply if a previous application creates the right environment.

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