A DESCRIPTION OF KINYAKYUSA REDUPLICATION[1]

Amani Lusekelo

Kinyakyusa (M31, Guthrie 1967/71) makes use of a full-copy reduplication of monosyllabic words. The process differs from that of polysyllabic words in that the former includes the infinitive and subject markers in the reduplicants. Asymmetrical reduplication is attested and divides into stem copy and segmental doubling. While the derivational and inflectional behaviour of the verbal reduplication in Kinyakyusa resembles other Bantu languages, it includes the object marker at least in the monosyllabic verb -pa 'give' > -mpampa 'give repeatedly'. Also, vowel initial words are associated with vowel deletion and lengthening processes. Reduplicants in Kinyakyusa are prefixal but the tone criterion used in Bantu languages cannot apply.

1. Introduction

Reduplication in Bantu languages is phonological in that it is prosodically constrained (Odden 1996; Kula 2004) and morphological i.e. involves morphological modifications as well (Downing 2003; Tak 2007). Also, in the Bantu area reduplication processes are either complete – since in some Bantu languages (for example, Kikerewe (Odden 1996)) the whole of the stem/base copies – or partial in other Bantu languages (for example, Kinande (Downing 2000a)) as only part of the stem/base is doubled. All in all, the repeated segment, in full or partial, becomes part and parcel of the stem (Mwita 2008: 231).

Data from different Bantu languages exhibit similarities of the reduplication processes, and pose several disagreements upon reduplication behaviours of the various word categories involved, specifically verbal reduplication. For example, in earlier research it was established that reduplication in Bantu languages was phonologically determined, i.e. minimally and maximally a reduplicant was bisyllabic and prosodologically constrained (cf. Peng 1991 for Kikuyu; Kiyomi and Davis 1992 and Downing 1997 for Swati; Downing 2000a for Kinande, among others). Other Bantu languages demonstrate only the minimality bisyllabic requirement i.e. a reduplicant must have at least two syllables (see Odden 1996 for Kikerewe; Matondo 2006 for Sukuma; Mwita 2008 for Kuria, to mention but three). Recent works in the Bantu area indicate that a reduplicant is morphologically motivated i.e. morphological constraints contribute to the reduplication processes (cf. Downing 2003 for Bukusu; Marlo 2002 for Lusaamia).

Having the foregoing in mind, the focus of the present work is on the descriptive and semantic analysis revolving around reduplication processes in Kinyakyusa, a Bantu language classified as M31 in the traditional coding system for Bantu languages that follows Guthrie (1967/71). Kinyakyusa is spoken by the Nyakyusa people in southwest Tanzania and the Ngonde people in northwest Malawi (Maho and Sands 2002). This work attempts to answer two questions:

(i)   What are the reduplication characteristics demonstrated by word categories that undergo reduplication in Kinyakyusa?

(ii)   What are the functions related to reduplication processes in the language?

2. Kinyakyusa Syllables

Since reduplication in Bantu languages involves copying material from the stem/base and repeating the copied syllabic unit to the same stem/base (Downing 1997; Hyman *et al.* 1998; Mwita 2008), it follows that syllable is essential. In Kinyakyusa, as in other Bantu languages, the syllable formations are associated with certain constraints. To be precise the following syllable structures are available in the language: (a) V, (b) N (c) CV, (d) NCV, (e) CGV, and (f) NCGV.

(1)   V   i-*filombe*   maize/corn

               ɪ-funa   boost
               e-nda   walk
               a-bana   children
               o-be   finger

               ʊ-nna   his/her mother
               u-nsi   root

       N   *m-piki*   'tree'
               n-tali   'tall'
               n-syuka   'ghost'

       CV   *ba-ba*   'hurt'
               fi-ka   'arrive'

               sʊ-mʊ-ka   'wake up'
               so-na   'sew'

       NCV   *pi-mba*   'carry'

               mbʊ-lo   'nose'
               nda-mu   'brother-in-law'

       CGV   *bwa-sɪ*   'space'
               bwi-la   'always'
               fye-la   'iron'

       NCGV   *ngwɪ-na*   'crocodile'
               po-ndwa   'miss'
               mbwe-le   'mosquito/housefly'

From (1) above we observe the following for Kinyakyusa: in general, the syllable structures are associated with consonantal onsets and vowel codas except for vowel and nasal syllable

structures. V-syllable structure is made up of only a single vowel, and its occurrence is constrained to the beginning of a word. In other words, V-syllables are disallowed within a word and if a word is composed of two morphemes at the underlying level, the first morpheme ends with the vowel and the second begins with a vowel, then phonological rules such as glide formation and deletion of one of the vowels apply to give the surface representation of a glide, as in *mu-a-na > mwana* 'child', and deletion as in *ama-ino > amino* 'teeth'.

In Kinyakyusa nasal consonants may function as independent syllables that usually occur at the initial position as well as within a word, as we will see in section 4.1, but not at the final position. The CV-syllable is the most common structure in Kinyakyusa and other Bantu languages as well. Here, the onset cannot be a nasal.

The NCV-syllable structure is made up of two or more consonants and in Kinyakyusa we may have various types of sequences of consonants as exemplified above. Note that the nasal [m] assimilates to the point of articulation of the following consonant sound, i.e. alveolar, and is realized as [n].

CGV-syllables are made up of one consonant and a glide and the first consonant must be a non-palatal consonant, followed by any type of a glide and a vowel. And lastly, in Kinyakyusa, NCGV-structure, as exemplified above, consists of three consecutive consonants – the first consonant must be a nasal articulated at the same place with the following consonant and then followed by a glide.

3. Kinyakyusa reduplication types

Reduplicative processes involve the commonest complete reduplication, partial reduplication as well as reduplication that involves changes in the copied material, i.e. segmental reduplication (Kouwenberg 2003; Atindogbé and Fogwe 2009). Both complete and asymmetrical reduplications are attested in Kinyakyusa. As we shall further elaborate in the subsequent sections, asymmetrical reduplication, or in other words, partial reduplication, following Kula (2004), divides into type I, that takes only the root, and type II, that involves only segments. Also, major word categories undergo reduplication in the language: nouns, verbs, adjectives, adverbs and numerals with some unique tendencies that are given in some detail below.

3.1 *Total reduplication*

Across world languages, total/complete reduplication involves copying of the entire base/stem (Odden 1996: 113; Ngunga 2001: 149; Tak 2007: 106). Specifically, several words with complete reduplication behaviour are attested in Kinyakyusa. Such words reveal specific tendencies presented and discussed below.

3.1.1 *Monosyllabic nominals*
Three word categories characterized by monosyllabic stems involve copying of the whole nominal in Kinyakyusa.

First, Kinyakyusa nouns with monosyllabic stems undergo complete reduplication i.e. both the prefix and stem reduplicate (2). Presumably, this happens to fulfill the bisyllabic requirement, i.e. a copied material must be disyllabic.

(2) *mw-ana* 'child'   >   *mw-ana-mw-ana*   'kind of a child'
     mu-ndu 'person'   >   *mu-ndu-mu-ndu*   'kind of a person'
     ly-ani 'leaf'   >   *ly-ani-ly-ani*   'kind of a leaf'
     ma-ani 'leaves'   >   *ma-ani-ma-ani*   'kind of leaves'
     fy-alo 'farms'   >   *fy-alo-fy-alo*   'kind of farms'

Also, in monosyllabic adjectives (both core and derived) the noun class prefix is copied (3). The copying of the base/stem without the nominal prefix renders the resulting words ill-formed.

(3) *-olo* 'lazy' >   *mwolomwolo* 'kind of lazy'   **mwoloolo*
     -elu 'white' >   *nyelunyelu* 'kind of white'   **elunyelu*
     -pa   'give' >   mpimpi   'kind/giver'   *mpipi
     -ima 'deny' >   *mwimimwimi* 'stingy'   * *mwimwimi*

Second, very few monosyllabic verbs in Kinyakyusa are consonant-initial. Such verbs copy completely. Example (4) shows that the infinitive marker *-ku-* is copied in monosyllabic verbs. This happens to fulfill the bisyllabic requirement. Note that copying of the base/stem alone is unacceptable.

(4) (a) Underlying bases   Surface bases   Gloss
          lia   *lya*   'eat'
          gua   *gwa*   'fall'
          nua   *nwa*   'drink'
          sua   *swa*   'spit'

     (b) *lya* 'eat'   >   *kulyakulya*   'eat repeatedly'   **lyalya*
          gwa 'fall' >   *kugwakugwa*   'fall carelessly'   **gwagwa*
          nwa 'drink' >   *kunwakunwa*   'drink recklessly'   **kunwanwa*
          swa 'spit' >   *kuswakuswa*   'spit repeatedly'   **swakuswa*

So far, we have presented the mechanisms revolving around reduplication of nominals and verbs. As far as the function is concerned, while noun and adjective (nominal) reduplication involves the semantic interpretation commonly known as 'the kind of N', i.e. the kind of Nominal meaning (cf. Odden 1996; Kouwenberg and Darlene 2003, among others), verbal reduplication in Kinyakyusa expresses the meaning of 'repetition', 'thoughtlessness' and 'carelessness'.

3.1.2 *Disyllabic verbs and adverbs*
Consonant-initial verbs with two syllables are numerous in Kinyakyusa and form a full copy of the base/stem as exemplified in (5):

(5)	*nyasa*	'spray'	>	<u>*nyasanyasa*</u>	'drizzle (of rain)'
	lila	'cry'	>	<u>*lilalila*</u>	'cry recklessly'
	tiima	'graze'	>	<u>*tiimatiima*</u>	'graze frequently'
	lima	'cultivate'	>	<u>*limalima*</u>	'cultivate roughly'
	seka	'laugh'	>	<u>*sekaseka*</u>	'giggle'

Kinyakyusa also makes use of total reduplication of adverbs as illustrated in (6). The data demonstrates that stems of adverbs reduplicate with the semantic function of intensification.

(6)	*muno*	>	'in here'	*munomuno*	'just in here'
	kula	>	'there'	*kulakula*	'over there'
	bwila	>	'always'	*bwilabwila*	'every day'

3.1.3 *Polysyllabic verbs, numerals and adverbs*

Several word categories are polysyllabic in Kinyakyusa and involve full copy. Such words violate the maximally bisyllabic rule available in other Bantu languages – for example, Kikuyu, Swati, Kinande and Ndebele (Peng 1991, Kiyomi and Davis 1992, Downing 1997, 2000a) – because reduplication in this case includes the complete word. The following arguments are advanced.

First, some Kinyakyusa verbs are characterized by consonant-initial appearance and three syllables and involve full reduplication. In (7) below stems that contain CVCVCV and CVNGVCV are copied as a whole.

(7)	pagula	'break'	>	<u>pagula</u>pagula	'break frequently'
	puluka	'fly (bird)'	>	<u>puluka</u>puluka	'fly repeatedly'
	sumuka	'raise'	>	<u>sumuka</u>sumuka	'raise repeatedly'
	salala	'get drunk'	>	<u>salala</u>salala	'drink frequently'
	sakula	'get out of a hide'	>	<u>sakula</u>sakula	'get out of a hide repeatedly'
	tunyuka	'down'	>	<u>tunyuka</u>tunyuka	'fall down repeatedly'
	konyola	'cut'	>	<u>konyola</u>konyola	'cut recklessly'

Second, productive verbal extensions in Kinyakyusa include the applicative (*-il/el-*), causative (*-is/es-*), reciprocal (*-an/en-*), stative (*-uk-*), passive (*-w-*), and reversive (*-ul-*) (Lusekelo 2008). The allomorphs *-il-* and *-el-* as well as *-is-* and *-es-* exist due to the vowel harmony principle: the height features of root vowels are transferred to verbal extensions. The following examples present the way derived verbs behave as far as reduplication is concerned:

(8)	(a)	*tuula*	'help'
		lima	'cultivate'
		kema	'warn'
		tem	'cut'
		<u>*koma*</u>	'beat'

(b) | *tuulana* | > | *tuulanatulana* | 'help each other repeatedly' |
limisya	>	*limisyalimisya*	'cause to cultivate frequently'
kemela	>	*kemelakemela*	'warn frequently'
limisya	>	*limisyalimisya*	'cause to farm frequently'
temeka	>	*temekatemeka*	'be cut frequently'
komigwa	>	*komigwakomigwa*	'beaten repeatedly'

(c) *Pala, bikuloganalogana*
Pala, bi-ku-log-an-a-logana
There SM-Inf-R-Rec-FV
'There, they bewitch one another always/several times'

(8b) indicates that the root, derivational affixes and the final vowel are copied; in (8c), the root, reciprocal suffix and the final vowel (Root + Reciprocal + FV) are copied. Some scholars claim that only the root and final vowel (Root + FV) reduplicate in the Bantu verbal complex (cf. Kiyomi and Davis 1992; Downing 2003, among others). But this constraint is further questioned by the Kinyakyusa data available above.

Third, aspectual marking is suffixal in Kinyakyusa. Two aspectual formatives, i.e. the perfective *-ile/-ele* and the habitual *-aga* are attested in the language. The former is associated with vowel harmony. (9) illustrates another feature of Kinyakyusa verbal reduplication.

(9) (a) | *nyasile* | 'sprayed' | > | *nyasilenyasile* | 'drizzled (of rain)' |
lilile	'cried'	>	*lililelilile*	'cried recklessly'
tiimile	'grazed'	>	*tiimiletiimile*	'grazed frequently'
twele	'brought'	>	*tweletwele*	'brought repeatedly'
nyasaga	'used to spray'	>	*nyasaganyasaga*	'used to drizzle (of rain)'
lilaga	'used to cry'	>	*lilagalilaga*	'used to cry recklessly'
tiimaga	'used to graze'	>	*tiimagatiimaga*	'used to graze frequently'

(b) *Keta ʋnna ipulilepulile anhombile*
Keta ʋn-na i-pul-ile-pulile anhombile
See NC-R SM-R-perf
'His mother struggled and paid for him'

We find that the whole data in (9) except the subject prefix (9b), indicate that, the whole base/stem, i.e. root, perfective and habitual markers (Root + ile/aga) are copied and thus reduplicate totally. This informs us that aspect formatives are copied in total reduplication in the language.

Fourth, the prefixes and roots as well as the whole bases/stems reduplicate in monosyllabic and polysyllabic numeral words in Kinyakyusa (10).

(10) (a) | *babilibabili* | 'two by two' |
| *mitatumitatu* | 'three by three (trees, mats, etc.)' |
| *jumojumo* | 'one by one' |

| | *banabana* | | 'four by four' |

(b)   *batugele <u>banabana</u>*   'They set in groups of four'
ba-tugel-e banabana
SM-R-perf

abasikari bikwenda <u>batatubatatu</u> bwila
aba-sikari bi-kw-enda <u>batatubatatu</u> bwila
NC-R   SM-Inf-R
'Soldiers march in groups of three always'

(10) above shows that the noun class prefixes, *ba-* (NC. 2 pl), *mi-* (NC. 4 pl), and *ju-* (NC. 1 sg), reduplicate together with the base/stem of numerals.

       Lastly, Kinyakyusa makes use of total reduplication of both monosyllabic and polysyllabic adverbs as illustrated in (11). So far the data demonstrate that only stems of adverbs reduplicate with the semantic function of intensification.

(11)   *panandi*   >   'little/slow'   *panandipanandi*   'very slowly'
       fiijo   >   'much'   *fiijofiijo*   'very much'
       pasɱa   >   'differently'   *pasɱapasɱa*   'various'

3.2 *Partial reduplication*

We stated in the introductory remarks of this section that two types of partial reduplications are at work in the language.

3.2.1 *Stem (CVCV) reduplication*
The stem (normally CVCV) partial reduplication in the Kinyakyusa language resembles what obtains in other Bantu languages (cf. Downing 2000b for Ndebele), i.e. it involves three types of behaviour in Kinyakyusa.

       The first tendency concerns nominals. Derived bisyllabic nouns undergo partial reduplication, i.e. the noun class prefix is not affected. (12) below indicates that the bisyllabic rule is taken into account whereby only the CVCV or NGVCV are copied and then prefixed to the stem.

(12)   *kakuku*   'small fowl'   >   *kakukukuku*   'kind of a small hen'
       lubabu   'firewood'   >   *lubabubabu*   'kind of firewood'
       basyuka   'ghosts'   >   *basyukasyuka*   'kind of ghosts'
       ukulima   'to cultivate'   >   *uku<u>lima</u>lima*   'to cultivate roughly'
       ukukuseka   'to laugh'   >   *uku<u>seka</u>seka*   'to giggle'

In addition, the noun class prefix in Kinyakyusa bisyllabic adjectival stems does not reduplicate. Such reduplication is associated with the derogatory meaning.

(13)	*batali*	'tall'	*batalitali*	'tall - derogatory'
	mpimba	'short'	*mpimbapimba*	'short - derogatory'
	tukulu	'old'	*tukulukulu*	'very old/shabby'

Two, in verbal constructions, i.e. independent sentences which are made of one verb (as it is possible in agglutinating languages like Bantu languages), the subject marker is not doubled. In (14) below the bisyllabic requirement is fulfilled i.e. only bisyllabic units are copied.

(14)	bakulila	'they cry'	>	baku<u>lila</u>lila	'they cry recklessly'
	mukutiima	'you graze'	>	muku<u>tiima</u>tiima	'you graze frequently'
	tukujenga	'we build'	>	tuku<u>jenga</u>jenga	'we build frequently'

3.2.1 Initial syllable reduplication
This involves initial syllable reduplication in that only the prefixal parts (specifically the first syllable) of the root are copied and attached to the stem at the initial position. There is an explanation following (15) that revolves around another feature of Kinyakyusa verbal reduplication.

(15)	sema	'move'	>	<u>se</u>semela	'trot'
	teela	'breed'	>	<u>tee</u>teela	'?!desire to lay an egg'
	nyʊtʊka	'jump'	>	<u>nyʊ</u>nyʊtʊka	'tip toe'
	nyala	'get dirty'	>	<u>nya</u>nyala	'feel dirty'
	<u>inda</u>ndatula	'grass sp.'	<	tatula	'untie'

In (15) only the initial segments, CV, CVV and NGV, are copied and attached at the prefix position. We can make two propositions for now: (i) that what reduplicates in Kinyakyusa verbs of such kind is prefixal, and (ii) Kinyakyusa involves segmental reduplication, as in other Bantu languages (cf. Kula 2004 for Bemba in Zone M and Ngunga 2001 for Yao P21). Also, Seidel (2008: 262) attested only sequences CVCVCV in Yeyi Bantu language (R41) with this kind of reduplication.

The shapes of some words in the language show the forms of reduplicated initial segments. (16) presents some tokens of partial reduplication in nouns which could not be verified with corresponding roots/origin words in this context.

(16)	*i-<u>ndi</u>-ndi-tila*	'earth worm'
	i-<u>ngo</u>-ngo-be	'cork'
	in-dya-lya-tila	'bird sp.'

Second, in adverbs the copying of initial segments is possible. Therefore, Kinyakyusa makes use of initial segmental reduplication of adverbs as illustrated in (17).

(17) *ulu*   'now'   >   (*uluulu*)   >   *lululu*   'just now'
       mbibi   'quickly'   >   *mbibimbibi* >   *mbimbibi*   'very quickly'

In (17) the two segments, V- and NCV- respectively, are copied and attached to the stem at the initial position. One may advance another argument, in particular, that the V- and NCV- in this case *u-* and *-bi*, are deleted as part of phonological alterations.

4. Special tendencies and the reduplicant in Kinyakyusa

This section discusses three particular tendencies attested in Kinyakyusa as far as reduplication is concerned:

   a) the agglutinative nature of the verbal template and reduplication behaviour of verbs in Bantu languages,
   b) the prefixal-suffixal dichotomy that has attracted attention of Bantuists for almost two decades since Kiyomi and Davis (1992), and
   c) reduplication of vowel initial verbs.

4.1 *Verbal template and reduplication*

Two categories of Bantu languages are obtained as far as verbal reduplication is concerned. On the one hand, there are Bantu languages whose verbal reduplication is templatic, i.e. some verbal affixes are selected, namely (i) the infinitive marker in monosyllabic verbs may double, and (ii) derivational affixes must copy; but the copying of inflectional affixes is blurred (cf. Downing 1997 for Swati; Downing 2000a for Kinande; Hyman *et al*. 1998 for Ndebele). On the other hand, there are Bantu languages whose verbal reduplication is complete, i.e. verbal affixes that are selected and copied include the copying of the infinitive marker in monosyllabic verbs; derivational affixes must double, and inflectional affixes may copy (cf. Odden 1996 for Kikerewe; Marlo 2002 for Lusaamia; Mwita 2008 for Kuria). However, one main constraint exists across Bantu languages. Out of the two types of the Bantu verbal reduplication mentioned here, inflectional morphemes, namely the subject and object markers as well as tense and aspect formatives which occur in the pre-root position (for example distal *-ka-* and past tense and aspect *-a-*) are disqualified from inclusion in the copied material.

The situation in Kinyakyusa is rather controversial because it not only involves complete reduplication of its verbs but also the object marker is copied in at least the monosyllabic verb *-pa* 'give'. In (18) below the verbal reduplicative template is given.

(18) *The verbal template for Kinyakyusa reduplication*

Inflectional Stem					
Extended Derivational Stem					Inflectional Final Suffix Stem
Derivational Stem				Derivational Suffixes	*-ile, -ag-, -a*
Pre-Root Affixes		Root	OM Affix	*-il-, -isy-, -an-, -gw-*	
SM	TAM	buk	*-m-, -ba-*		
Never Copy	Never Copy	Must Copy	(May Copy!!)	Must Copy	Must Copy

The verbal template for Kinyakyusa reduplication in (18) gives support to what we have stated above. The material which cannot copy includes only the SM and TAM in pre-root positions. As common across the Bantu area, the root, derivational affixes as well as inflection affixes must copy.

Now we remain with one slot, i.e. the OM. As we have seen earlier, for the doubling in other verbs the immediate alternative to monosyllabic verbs is to copy the infinitive marker *-ku-*. But that is not the case with the verb *-pa* 'give' in Kinyakyusa (19-21).

(19) *-pa*   'give'
      tukumpampa   'we give him/her frequently'
      tu-ku-m-pa-mpa
      SM-Inf-OM-R[2]

      tukubapabapa   'we give them frequently'
      tu-ku-ba-pa-ba-pa
      SM-Inf-OM-R

(20) *tumpelepele*   'we gave him/her several times'
      tu-m-p-ele-pele
      SM-OM-R-perf

      tubapelepele   'we gave them several times'
      tu-ba-p-ele-pele
      SM-OM-R-perf

(21) **tukumpapa*
      *tukupabapa
      * tumpelempele
      * tubapelebapele

We observe in verbal constructions in (19) above that the Object Markers *-m-* (in singular) and *-ba-* (plural) are copied presumably to fulfill the minimally bisyllabic requirement. But the traditional principle that includes the infinitive marker *-ku-* for monosyllabic verbs is violated.

Three assumptions seem feasible here. First, from the phonological point of view, once the verb has no material, in all cases the inflectional affixes *-ile* and *-aga*, that are found to the right of the root and that can be copied in order to fulfill the minimally disyllabic rule, then the language copies whatever material that exists to the left of the root. In this case it copies the object marker made of a syllabic nasal or any other syllable structure available. Such a copy violates a requirement established elsewhere in the language. (20) supports the idea that the material to the right of the root is copied. Further evidence is given in (21) where doubling of only the stem or taking any other material renders such verbal constructions ill-formed/ungrammatical.

Second, it might be assumed that semantically the monosyllabic verb *-pa* 'give' requires two participants to exist in the verbal sentence for it to be well formed – i.e. the subject and the object arguments – hence, the use of an object marker in both the stem and the reduplicant in any construction.

Third, Kinyakyusa speakers may have an option of focusing the object participant in the verbal constructions. In other words, there are other options of showing the repetitiveness of the action through doubling the numerals or any structure in the adjunct position, for example, the use of doubled numerals in (22). But if the object-participant is to be accentuated, then copying of the OM occurs.

(22)   *tukumpa kabilikabili*   'we give him/her frequently'
       tukubapa kabilikabili   'we give them repeatedly, frequently'

Further evidence can be borrowed from rare cases of the OM doubling in other monosyllabic verbs in the language. The inclusion of the object marker *-ga* for *amisi* 'water' and *amata* 'saliva' and *-fi* for *ifilomb*e 'maize' – in the reduplicant is also applicable in other monosyllabic words although not very common (23).

(23)   *-nwa*   'drink'
       tukuganwaganwa amisi   'we frequently drink some water'
       tu-ku-ga-nwa-ganwa amisi
       SM-Inf-OM-R   water

       -lya   'eat'
       tukufilyafilya ifilombe   'we frequently eat the maize'
       tu-ku-fi-lya-filya ifilombe
       SM-Inf-OM-R maize

       -swa   'spit'
       tukugaswagaswa amata   'we frequently spit saliva'
       tu-ku-ga-swa-gaswa amata

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SM-Inf-OM-R        saliva
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To make the issue clear we should leave Kinyakyusa aside for a moment and see what holds true elsewhere in the Bantu area. The best candidate that will not bring in tonal patterns that may blur the argument is Swahili. See examples (24-26):

(24)   Unreduplicated forms[3]

    Mtoto anampa mbwa chakula   'The child gives the dog food'
    Mtoto a-na-m-pa mbwa chakula
    child   SM-PRES-OM-R dog food

    Wazazi wanawapa watoto hela   'Parents give children some money'
    Wazazi wa-na-wa-pa watoto hela
    Parents SM-PRES-OM-R children money

    Mgeni anatupa misaada   'the guest gives us assistance'
    Mgeni a-na-tu-pa misaada
    Guest SM-PRES-OM-R help

(25)   Reduplicated forms with OM (Focus on the object)

    Mtoto anampampa mbwa chakula   'The child gives the dog food carelessly'
    Mtoto a-na-m-pa-mpa mbwa chakula
    child   SM-PRES-OM-R dog food

    Wazazi wanawapawapa watoto hela   'Parents give children money recklessly'
    Wazazi wa-na-wa-pa-wapa watoto hela
    Parents SM-PRES-OM-R children money

    Mgeni anatupatupa misaada   'The guest gives us assistance thoughtlessly'
    Mgeni a-na-tu-pa-tupa misaada
    Guest SM-PRES-OM-R help

(26)   Use of adverbials (Focused action)

    Mtoto anampa mbwa chakula mara kwa mara 'The child occasionally gives the dog food'
    Mtoto a-na-m-pa mbwa chakula
    child   SM-PRES-OM-R dog food

    Wazazi wanawapa watoto hela mara nyingi 'Parents frequently give children money'
    Wazazi wa-na-wa-pa watoto hela
    Parents SM-PRES-OM-R children money

Mgeni anatupa misaada mara kwa mara   'The guest occasionally gives us assistance'
Mgeni a-na-tu-pa misaada
Guest SM-PRES-OM-R help

In the unreduplicated forms of (24) the action is treated as a single one, i.e. doing it once at a defined moment. The reduplicated stems in (25) carry the OM and denote recklessness and carelessness of the action but the focus is on 'the action of giving to specific object'. However, if Swahili speakers wish to accentuate the repetitiveness of the action, then the use of adverbials becomes the best option (26).

4.2 *Prefixal-suffixal dichotomy*

Another division of Bantu languages bears on the prefixal-suffixal dichotomy. On the one hand, many Bantu languages are said to have prefixal reduplicants. For example, in Yao verbal reduplication the prefixes reduplicate (Mtenje 2002: 2) and in Bukusu there is a prefixing pattern, similar to other Bantu languages (Downing 2003: 73). On the other hand, there are Bantu languages that make use of suffixes. For example, in Ikalanga the reduplication is suffixal rather than prefixal because the copied material is without high tone (Mathangwane 2002: 51-52).

These arguments are based on the copying of tone but Kinyakyusa is not a tonal language and the decision on whether the reduplicant is prefixal or suffixal receives support only from tendencies in partial reduplication type II (initial syllable reduplication) where only CV- is copied and prefixed.

Further objections come from the Bantu language Gunu. Atindogbé and Fogwe (2009) maintain that there is a three-way traffic that surrounds the reduplicated and unreduplicated forms in Bantu languages as well, viz. (i) complete identity between the reduplicant and the base in terms of both segmental and tonemic units, (ii) partial identity between the reduplicant and the base, i.e. segmental similarity but tonal differences and vice versa, and (iii) complete difference of the two. The conclusion is that in identifying the reduplicant from the base these principles do not function in such a straightward way in Gunu and across the Bantu area.

4.3 *Reduplication of vowel initial verbs*

Kinyakyusa vowel-initial verbs result in phonological changes when undergoing reduplication as in (27) below.

(27)

Verb	Gloss	Underlying Form	Surface Form	Gloss
enda	walk	endaenda	[endeenda]	loiter
ela	flourish	elaela	[eleela]	flourish here and there
ega	marry	egaega	[egeega]	marry and divorce
isa	come	isaisa	[isiisa]	come frequently
ima	stand	imaima	[imiima]	stand frequently
imba	sing	imbaimba	[imbiimba]	sing repeatedly
oga	bath	ogaoga	[ogooga]	bath several times
ona	pour out	onaona	[onoona]	spill frequently

In (27) above we observe two vowel-related phonological processes associated with reduplication: vowel deletion and vowel lengthening.

Sequences of vowels are disallowed in Kinyakyusa. The data demonstrates that vowel deletion occurs when there is a sequence of non-identical vowels. That is to say, in Kinyakyusa some sequences of vowels are disallowed; whenever such cases arise one of the vowels deletes in order to block the sequence. Three sequences can be observed in the underlying forms above: a+e, a+i and a+o.

The a+i case: When a low vowel [a] and a high front vowel [i] are juxtaposed in Kinyakyusa, the low vowel is deleted and the high front vowel is lengthened to compensate for the duration of the deleted vowel; hence, [i:] becomes a compromise vowel as in [imiima].

The a+e and a+o case: When a low vowel [a] is juxtaposed with mid front vowels [e, o] in Kinyakyusa, the low vowel is deleted and the following vowel becomes lengthened, i.e. [e:] as well as [o:] as in [endeenda] and [ogooga], respectively.

Compensatory vowel lengthening is a process whereby a vowel's duration is increased so as to compensate for the duration of the lost underlying syllable which was represented by a vowel that has been lost due to vowel deletion. (27) illustrates that when the low vowel [a] is deleted the high vowel [i] and the mid vowels [e, o] are lengthened as in [imiima], [endeenda] and [ogooga], respectively.

5. Interpretation of reduplicated words in Kinyakyusa

Reduplication is one of the word formation processes attested in the languages of the world. In Bantu languages, the common word formation processes are affixation (the agglutinative natures of the languages), borrowing (due to contact between Bantu and beyond), compounding (specifically of nouns) and reduplication (Contini-Morava 2007). There are semantics revolving around these word formation processes and this section discusses the semantics surrounding reduplication in Kinyakyusa.

Lexical semantics of various word categories of African languages has hitherto received little attention, for example, Igbo verb semantics (Uchechukwu 2005: 67-68, 72). The case of Bantu languages is not unique because several lexicon lists and dictionaries exist but word meanings listed in them are the primary ones. As Heine and Kilian-Hatz (1994: 182) point out, in addition to dictionary meanings there are also discourse pragmatic factors whereby concepts are subjected to contextual manipulation leading to new interpretations of existing meanings. New meanings do not only arise via transfer from one domain of human cognition to another but also via inferences that are triggered by certain contexts and lead to the reinterpretation of existing meanings as new meanings. If these meanings result from the interpretation of one word, then such an instance is called polysemy (*ibid*: 184).

Reduplication changes the meaning of the base (Kouwenberg and Darlene 2003). Glancing across the Bantu area, we find that reduplication is associated with several interpretations. Therefore, the interpretation of the reduplicated stems is bound to use opragmatics as in (28).

(28) (a) *Atu anyukwile amasyabala*   'Atu pulled out groundnuts'
           Atu a-nyukw-ile amasyabala
           Atu SM-pull out-perf groundnuts

      (b) *Atu <u>anyukwilenyukwile</u> amasyabala*   'Atu pulled out groundnuts.....'
           Atu a-nyukw-ile-nyukwile amasyabala
           Atu SM-pull out-perf groundnuts

While (28a) gives a direct interpretation designated by the unreduplicated verb *anyukwile* 'pull out', the reduplicated counterpart in (28b) offers more than two meanings. It involves the manner of pulling out, i.e. 'carelessly', recklessly', 'here and there', as well as the number of actions, i.e. 'frequently/repeatedly'. The interpretation of reduplication at sentence level in Kinyakyusa is presented below.

5.1 *Purpose of intensification*

Reduplication of adverbs in Kinyakyusa is used to express intensification. Illustration sentences from Kinyakyusa are given in (29-31):

(29) *Pitasi alinkusuluka <u>panandi panandi</u> nukundingisanya umfwimí ukuti....*
      Pitasi a-lin-kusuluka <u>panandi panandi</u> nu-ku-n-dingisanya um-fwimí ukuti
      Later SM-PST-climb down slow   SM-Inf-OM-tell   NC-hunter that
      Later, he climbed down <u>very slowly</u> and instructed the hunter that….

(30) *Mila <u>mbimbibi</u>. Mwangalamu akumíle....*
      Mila <u>mbimbibi</u>. Mwangalamu a-kum-íle
      eat quickly   lion   SM-swallow-perf
      Eat <u>very quickly</u>! The lion would swallow you….

(31) *Ngosi <u>jula jula</u> alinkujonga nu nnyambala kisita kwegigwa.*
      Ngosi jula jula a-lin-ku-jonga nu n-nyambala kisita kwegigwa.
              that   SM-PST-run away NC male   without weeding
      <u>Exactly the same</u> Mr. Ngosi run away with a man.

This functional property of reduplication is attested in Bantu languages like in several Swahili words (Novatna 2000: 64).

5.2 *Purpose of repetition and carelessness*

Kinyakyusa verbal reduplication indicates habitualness and repetition (32):

(32) *uju <u>ndyasilyasimo</u> keta buno <u>ikulyakulya</u> imyuba*

uju ndyasilyasimo keta buno i-ku-lya-kulya im-yuba
this eater   see how SM-Inf-eat   NC-sugarcane
'This (person) likes eating <u>frequently</u>, see the way he <u>eats sugarcanes repeatedly</u>'

Throughout Bantu literature, verbal reduplication has semantic implications. For example, Lusaamia verbal reduplication indicates repetition, habitualness, and aimlessness (Marlo 2002: 1); Bukusu verb stems reduplicate to give the meaning like 'repeatedly' or 'carelessly' (Downing 2003: 73,74); and Kuria data demonstrates that verbal reduplication involves repetition, intensity, continuation and the lack of seriousness of the action or event (Mwita 2008: 233). This function is available in Swahili words (Novatna 2000: 65).

5.3 *Derogatory and diminutive purposes*

Adjective reduplication in Kinyakyusa may indicate derogatory or negative connotation.

(33) *alimpele umwanake <u>utalitali</u>*   'S/he gave his tall child'
      a-li-m-pele umw-an-ake utalitali
      SM-PST-OM-give NC-child-her tall

(34) *balimile kyalo <u>kisekelesekele</u>*   'They cultivated a small potion'
      ba-lim-ile kyalo <u>kisekelesekele</u>
      SM-cultivate-perf farm thin

5.4 *'The kind of N' interpretation*

As stated above, the data demonstrates that semantically full noun reduplication involves a process that accentuates the intrinsic semantic features of nouns and adjectives. (35) demonstrates that nouns in Kinyakyusa reduplicate to indicate 'the kind of N' for nouns and adjectives.

(35) *mwana*   'child'   >   *mwanamwana*   'kind of a child'
      mundu   'person'   >   *mundumundu*   'kind of a person'
      kakuku   'small fowl'   >   *kakukukuku*   'kind of a small hen'
      lubabu   'firewood'   >   *lubabubabu*   'kind of firewood'
      nsyanju   'forest'   >   *nsyanjusyanju*   'kind of a scary/big forest'

5.5 *Verbal plurality*

We can receive iconic representation of verbal ideas through reduplication in Kinyakyusa; the examples in (36) can be interpreted as the iterative and verbal plurality:

(36) *ima*   'stop'   >   <u>*imaima*</u>   'move and stop again and again'
      nyasa   'spray'   >   <u>*nyasanyasa*</u> 'spray now and then'
      sala   'pick up'   >   <u>*salasala*</u>   'pick and pause, pick and pause'

Here the subject (doer) may do the same action repeatedly.

6. Concluding remarks

The main contribution of this work bears on the inclusion of the object marker in the reduplicant, specifically with monosyllabic verbs like *-pa* 'give' as far as reduplication in Kinyakyusa is concerned. The data from Swahili supports the assumptions related to Kinyakyusa. By implication, it is likely that the object marker is included in the reduplicants of other Bantu languages. Other concluding remarks are as follows.

First, reduplication in Kinyakyusa involves nouns, adjectives, verbs, adverbs as well as numerals. This is unlike other Bantu languages, such as Ikalanga, in which only adjectives, verbs and nouns reduplicate (Mathangwane 2002: 51).

Second, the data indicates that both total and partial reduplication are attested in Kinyakyusa. Total reduplication involves copying of the entire stem – subject markers in some nouns and adjectives, derivational, inflectional and infinitive morphemes in others. Asymmetrical reduplication may involve the base/stem or only some initial (CV-like) segments. It is only the segmental (CV) reduplication that helps to derive a proposition that reduplication in Kinyakyusa is prefixal as it involves prefixation in the language . In contrast to other languages, Kinyakyusa cannot use tone data (Sukuma, Ikalanga, Kuria etc.).

Third, the minimality requirement is fulfilled across the data, i.e. the reduplicated stem/base contains two syllables but the maximality requirement is non-finality. This is also observed in other Bantu languages (cf. Matondo (2006) for Sukuma; Mwita (2008) for Kuria).

Lastly, both at word level as well as sentence level, reduplication in Kinyakyusa basically involves the intensification and the repetition meanings as well as the derogatory and the diminutive meanings, and 'the kind of N' meaning.

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Amani Lusekelo
Department of Linguistics and Literature
Faculty of Arts and Social Sciences
Dar es Salaam University College of Education
P. O. Box 2329
Dar es Salaam
TANZANIA
alusekelo@duce.ac.tz

[2] Abbreviations used include:
FV = Final vowel
Inf = Infinitive marker
NC = Noun class prefix (agreement marker)
OM = Object marker
SM = Subject marker
perf = perfective aspect formative
PST = Past tense and aspect
PRES = Present tense and aspect
R = root of the word

[3] My Swahili sentences were checked by Omar Marjan Babu. Such sentences are grammatical and can be regularly heard but we are not so certain on their applicability or correctness in standard Swahili. For Zanzibar Swahili, Omar Babu mentions a sentence like 'Wanawakulakula' in that the -wa- affix functions as an object marker and the option of the infinitive -ku- is adhered to.