Lexical Innovation in Anaang

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Abstract

Lexical innovation occurs in a language because of the inability of a child or an adult to recall conventional words for the expression of ideas or as a result of an attempt to invent new words to fill in existing gaps in a language. Loanwords constitute the most common ground for lexical innovation in a language. They are known as innovations which cannot be accounted for in terms of inheritance, and, which share a resemblance with the lexical items of the donor language. Loanwords are said to occur in a language as a result of language contact, leading to lexical enrichment. The contact between Anaang and the English language and culture have created room for the adaptation of English lexical items into Anaang with some forms of innovations/alterations. The study examined the phonological implications of lexical innovations in Anaang-English loan items. The objective of this paper is to describe the structure of the loan items, using a phonological descriptive model and to examine the effects of these innovations on the structure of the affected language. Several diverse phonological processes were applied in the modification of the English loan items to comply with the Anaang phonotactics. Anaang words were said to be closely tied to the internal structure of the syllable and severely guided by the Anaang phonotactics. Therefore, the combination of segments into words was equally constrained by the Anaang phonotactics. This phonotactics further extended to govern the distribution of segments in lexical constructions. Certain segments were restricted to specific environments; therefore loanwords were modified to comply with the phonotactics of the language. Phonotactics therefore played a vital role in defining Anaang well-formed words. This paper is relevance for the understanding of the aspects of word formation processes in language.

INTRODUCTION

Lexical innovation is a language phenomenon which is based on novel rules and language play including code switching, code mixing, pidginization, Anglicization, hybridization and loan adaptation among others. At the same time, lexical innovation occurs in the process of language acquisition by children or word usage by the adults. In the process of language acquisition, a child/ an adult often invents new words for the expression of ideas for which they have no words or cannot recall conventional words. Lexical innovation also occurs in a language as a result of contact. Many usages seem to be based on common and productive word-formation devices, particularly with loan calgues. Various influences on the development of lexical innovation have been discussed. Innovation mechanisms proposed by Alderete and Frisch (2007) and Bermudez-Otero (2007) involve failures of coordination, the listener does not parse the statement in a way that the speaker intended. Innovation following Alderete and Frisch evolves in four stages: phonologization, stabilization, morphologization and lexicalization. Phonologization involves the addition of a new phonological constituent to the item. Stabilization involves restructuring of the phonological representation. Morphologization is a situation where a phonological rule is shaped to morphological operation, while lexicalization

deals with the actual lexical representation. This shows that an item which occurs initially in a language as an innovative form can stabilize and eventually become absorbed into the language as an acceptable lexical item of the language. We shall present data and analyse the processes involved in lexical innovation in Anaang rather than concentrate on stages of innovation. This study describes the phonological processes involved in the modification of English lexical items in loan formation in Anaang owing to language contact.

Anaang and English are two unrelated languages used in South-South Nigeria for interaction. Anaang is a member of the Lower Cross languages of the Niger Congo family of African languages, while English is an Indo-European language. English is stress-timed in the sense that stress is the dominating features of the rhythmic timing among other several interacting factors. Anaang on the other hand is syllable-timed and tonal. The syllable structures of the two languages are wide apart, therefore the interaction between English and Anaang will have variant structures. The contact between Anaang and English is as a result of the adoption of Western education and culture in Nigeria. English is officially used for education and for all official transactions alongside Nigerian languages. Therefore, bilingualism is the norm of the Nigerian speech community. Since English culture has been adopted and practiced in Nigeria alongside Nigerian culture, there is a greater influence of English on indigenous language usage which leads to all kinds of lexical innovations in language usage.

The theoretical model for this work cuts across phonology-morphology interface in the sense that the data is on the structure of the words, while the analysis is phonological based. Morphology centres on the forms and structure of words, while a phonological study is on the sound pattern of a language. This paper therefore adopts a description phonological model for analysis. Data for this study is curled from an enlarged research work on Anaang syllable structure. The presentation model involves English phonological pattern, Anaang phonological pattern, syllable and tonal structures of Anaang, plus the English gloss.

1. LOANWORDS

Loanwords are lexical items taken from one language to another as a linguistic material. They are features of bilingualism, which come into a language as a result of linguistic borrowing. A special type of borrowing is described as loan translation (Yule, 2006, p.54). It is otherwise known as morphological change (Anderson, 1992). Spencer (1991), Campbell (1998) and Heine and Nurse (2008) outline borrowed materials to include sounds, phonological rules, grammatical morphemes, syntactic pattern, semantic association, discourse strategies among other things. Loanwords have their

origin from a foreign language but they automatically become part of the recipient language when borrowed.

Studies in sociolinguistics, historical linguistics and comparative linguistics all arrive at a conclusion that loanwords exist in a language owing to languages in contact (Wolf, 2000; Ehret, 2000; Campbell, 1998). The contact between Anaang and the English languages for instance has led to the borrowing of some English items to fill in existing lexical gaps where there is no one word calque. At the same time, loanwords in Anaang can occur as a result of an attempt by the less educated learners of English to produce certain English words. Transferred error is bound to occur because Anaang and English do not have the same phonological inventory. This error becomes fossilized with time and eventually adopted by the speakers and used interchangeably with the Anaang version. For instance, in words like:

English	Anaang		
English	Anaang		English	Anaang
1. /sop/	/àsuɔ́p/	/tiːʧə/	/àtîtiǎ/
	/àtɔ́ŋ/		/àkpéep ḿkpɔ́/
	'soap',		'teacher'

Either of the pairs can be used depending on the speakers' choice.

Loanwords are also adopted and used in most Nigerian languages. The process of the development of metalanguage material for the Igbo language for instance, involves a wider range of lexical borrowing. Example:

Oditorium	'auditorium'
Prizin	'prison'
Silinda	'cylinder'

When languages adopt loanwords, they typically modify the new items in keeping with the pre-existing structure of the recipient language (Campbell, 1998; Spencer, 1991). In other words, loanwords are modified to fit the phonological as well as the morphological structures of the recipient language. For instance the sound /θ/ in the English word 'thousand' /θauznd/, is replaced with Anaang /t/ /atausin/. /θ/ is absent in Anaang, therefore since /t/ and /θ/ share same phonetic similarity in place feature and voicelessness, /t/ is substituted for /θ/. Where adaptation is impossible, deletion or insertion rule is applied to modify such words. Details of these processes are presented in the subsequent sections.

2. ANAANG-ENGLISH LOANWORDS

Loanwords constitute the most common ground for lexical innovation in Anaang. They are known as innovations which cannot be accounted for in terms of inheritance and which share a resemblance with the lexical items of the donor language. It comes into existence in order to fill a gap that appeared as a result of the inability of a language to capture all aspects of the culture of the speakers (Jowitt, 1991; Spencer, 1991). Newman (2000), in a comparative study of African languages, reveals that

it is difficult to determine the true avenue of loanwords in certain contexts. This analogy is not applicable to Anaang. It is very easy for one to determine the true sources of borrowed items in Anaang especially when dealing with unrelated languages.

Loanwords are more widespread in Anaang adjectives and nouns. Let us consider the following nouns borrowed from English. The emboldened segments are the segments that are introduced by vowel epenthesis, to repair the loan items into Anaang.

The data in this section shows detailed phonological representation of the source language (English) and the target language (Anaang) plus the gloss.

2.	English source	Anaang	
(i)	/məut/	[m̀mótó]	'motor'
(ii)	/meʃin/	[m̀màʃĭn]	'machine'
(iii)	/beisn/	[àbésìn]	'basin'
(iv)	/bləŋkit/	[àbàláŋkìt]	'blanket'
(v)	/pəli:s/	[àbòlísì]	'police'
(vi)	/gla:s/	[àkàlásì]	'glass'
(vii)	/spirit/	[àsìbìlit]	'spirit'
(viii)	/θauznd/	[àtáúsìn]	'thousand'
(ix)	/tʃɔ:k/	[àtʃɔk]	'chalk'
(x)	/dʒɒn/	[àdʒìɔn]	'john'
(xi)	/endʒin/	[ńdʒìn]	'engine'
(xii)	/endʒiniə/	[ńdʒìníà]	'engineer'

The bold segments are the segments that are inserted into the borrowed words to repair those items to comply with the syllable structure of the Anaang nouns.

3. ANALYSIS AND DISCUSSION OF DATA

The data present typical examples of Anaang loan items from the English source. Several processes are employed here to repair these items into Anaang. These are insertion, otherwise known as epenthesis (Schane, 1973; Spencer, 1996), deletion, assimilation, segment modification, adaptation (Matthews, 1991; Urua, 2007; Michael, 2009b) resyllabification, and tonal placement, as will be discussed shortly. In our analyses, examples are drawn from the data presented in (2) throughout our discussion of borrowed words with the addition of other data where necessary.

3.1 Vowel Insertion Processes

Insertion is one of the processes adopted to modify the structure of loanwords to comply with the Anaang syllable structure. Epenthetic vowels can be introduced at word initial, medial, and final positions. In the items in example (2), it can be observed that an initial insertion rule is used in all the items when borrowed into Anaang to comply with Anaang noun class structure since nouns in Anaang start with a syllabic element. Epenthetic rule is equally applied word medially to separate consonant clusters because Anaang does not permit consonant clusters. Final vowel insertion rule is applied to prevent certain

segments from occurring at word final position. Details are presented in the subsequent sections.

3.1.1 Word Initial Insertion Process

Observe that the loanwords belong to the noun items. Nouns in Anaang do not have non-initial syllabic segment, therefore initial syllabic prefix is employed to repair the English loan items into Anaang. Prefixation process here is applied to modify the borrowed items to fit into the morphological; structure of Anaang. There is a uniformity in the prefixation process: words with initial oral consonant take on a vowel prefix /a/, whereas a syllabic nasal is prefixed to items with initial nasal segment (Michael, 2010).

3.	Prefixation		
	English	Anaang	
(i)	/beisn/	[à-bésìn]	'basin'
(ii)	/bləŋkit/	[à-bàláŋkìt]	'blanket'
(iii)	/pəli:s/	[à-bò-lí:sì]	'police'
(iv)	/gla:s/	[à-kàlá-sì]	'glass'
(v)	/spirit/	[à-sì-bì-lit]	'spirit'
(vi)	/θauznd/	[à-táú-sìn]	'thousand'
(vii)	/tʃ]:k/	[à-tʃɔ:k]	'chalk'
(viii)	/dʒɒn/	[àdʒìɔn]	'john'

There is a syllabic vowel affixed to all the items in Anaang whereas the English source has an initial consonant segment. The prefixed segment is always predictable. If the initial segment of the source language is an oral consonant other than /l, r/, the low vowel /a/ is prefixed to the loan items as seen in example (3). Generally, the low vowel /a/, occurs more frequently as a syllabic prefix in loan items and even in the production of lexically similar items in related languages of the Lower Cross where the lexical items begin with one of /o, ɔ/ since these vowels are not possible initial segments in Anaang. Example follows.

4.	Efik/Ibibio	Anaang	
(i)	/òkón/	[àkón]	'night'
(ii)	/òbót/	[àbót]	'creator'
(iii)	/òkpókóró/	[àkpókóró]	'table'
(iv)	/ɔkɔ/	[àkɔ]	'fence'

In another instance, /u/ rather than /a/ is prefixed to the base.

5.	English	Anaang	
(i)	/reidiəu/	[ùrádìò]	'radio'
(ii)	/rais/	[ùlásì]	'rice'
(iii)	/reit/	[ùrét]	'rate'

/u/ is inserted before a following /l, r/ whereas other oral consonants take on the /a/ prefix.

If the loan item has an initial nasal consonant segment, a syllabic nasal is prefixed as follows.

6.	Syllabic Nasal Prefix		
	English	Anaang	
(i)	/məutə/	/m̀mótò/	'motor'
(ii)	/meʃin/	/m̀maʃĭn/	'machine
(iii)	/meri/	/m̀mèri/	'Mary'

The syllabic nasal copies the feature specification of the initial consonant of the base completely as in the initial segment of (6). This generalization does not hold for words with initial VC or VN-structure. Let us consider the following data.

7.	English	Anaang	gloss
(i)	/endʒin/	[n-dʒìn]	'engine'
(ii)	/endʒiniə/	[ń-dʒì-níà]	'engineer'
(iii)	/ɒnvələup	[m̩-fé-lòp]	'envelope'
(iv)	/iŋk/	[ŋ-kì]	'ink'
(v)	/iŋgliʃ/	[ŋ-kì-rì-sì]	'English'

There is an alteration of the syllable at the initial position of the items in (7) even though the words all have an initial (vocalic) syllabic segment. The reason is that Anaang has no VC syllable structure. If the structure of the word is adopted without repair, it will violate onset constraints, which states that a syllable cannot be closed by a coda (consonant) if it does not have an onset element. (Details are presented as follows).

a. vowel initial segment is deleted leaving behind the nasal consonant so that we have structure such as in (8).

8. (i)	/ndʒìn/	CCVC
(ii)	/ndʒiníà/	CCV-CVV
(iii)	/nfélòp/	CCV-CVC
(iv)	/ŋkì/	CCV
(v)	/ŋkìrìsì/	CCV-CV-CV

The effect of this deletion is the formation of initial CC sequences.

b. Since Anaang syllable does not have nouns with initial consonant segment, the initial syllable is further repaired to comply with Anaang phonotactics. Where a consonant is preceded by an initial nasal segment word initially, the nasal always manifest as [+syllabic]. Based on this, the initial nasal in (8) takes on [+syllabic] feature respectively to manifests as syllabic nasals as presented in example (9).

9. (i)	[ń-dʒìn]	N-CVC
(ii)	[ń-dʒì-nià]	N-CV-CVV
(iii)	[m̩-fé-lòp]	N-CV-CVC
(iv)	[ŋ̩-kì]	N-CV
(v)	[ŋ-kì-rì-sì]	N-CV-CV-CV

Recall that syllabic nasals on their own can constitute independent syllable structure in Anaang. Therefore the structure of the initial syllable now becomes N while the adjacent following consonant forms the initial segment of the second syllable of the loanword.

3.1.2 Word Medial Insertion Process
Medial insertion rule is applied to parse consonant clusters as follows.

10.	English	Anaang clusters		
			inserted segment	
(i)	/swetə(r)/	[àsíbétà]	/sw/	/i/
	sweater			
(ii)	/skelitn/	[àsìkélétèn]	/sk/	/i/
	skeleton			
(iii)	/kla:k/	[àkàlăk]	/kl/,	/a/
	clerk			
(iv)	/wenzdi/	[àwénésìdè]	/nzd/, /e/, /i/	
	Wednesday			
(v)	/iŋgliʃ/	[ŋ́kìrìsì]	/gl/,	/i/
	English			

Items (10 i-iii) involve words with initial consonant clusters. While items (10 iv-v) involve consonant clusters at word medial position. In (10 i-iii) a vowel is inserted to parse the initial consonant clusters. The feature specification of the inserted segment is predictable. The epenthetic segment copies the feature of an adjacent segment to the right or to the left if there is no preceding vocalic segment.

Observe that:

/i/ is inserted to parse /sw/ cluster in (i).

/i/ epenthesis is applied in (ii) to parse /sk/ cluster

/i/ is equally used in (v) to parse /gl/ cluster.

(iv) involves the insertion of more than one vocalic segment. /e/ and /i/ are applied to parse triconsonantal clusters in (iv).

The pattern of epenthesis here is equally predictable just like in word final position, where one of the clusters is a sibilant, the vowel /i/ is inserted to parse such clusters; whereas others involve a copy of an adjacent vowel to parse the clusters. Generally, medial and final insertion processes involve progressive vowel copying in an environment of non-sibilants.

3.1.3 Word Final Insertion Process
Epenthetic vowel is inserted word finally if the loan items end in a consonant other than one of /p k t m n ŋ/.

Let us consider the data in (11).

11.	English	Anaang	gloss
(i)	/maikl/	[m̀maíkèdè]	'Michael'
(ii)	/saiəns/	[àsáínsì]	'Science'
(iii)	/dʒeimz/	[àdʒémsì]	'James'
(iv)	/sailəs/	[àsálàsì]	'Silas'
(v)	/ælis/	[àdìsì]	'Alice'
(vi)	/dʒʌdʒ/	[à dʒɔdʒi]	'George'
(vii)	/lʌv/	[àdɔfù]	'Love'

The high vowel is inserted syllable finally in (11) after a sibilant irrespective of the feature specification of a preceding vowel. Whereas non-sibilants copy the vowel feature of a proceeding segment (11 i). The vowel /i/ is affixed to items in (11 ii-vi), while /u/ is added to (11 vii). The choice between rounded and unrounded vowel alternation is borne out of the fact that the lips are wide spread in the production of fricative /s/ and the affricate /dʒ/, whereas, lip spreading is reduced to a kind of narrowed space which approximates to lip rounding in the articulation of /f/. Therefore rounded high vowel is added to a preceding /f/ while unrounded high vowel is inserted after a final /s/ or /dʒ/. Generally Anaang phonotactics do not permit segments other than voiceless stops or nasals at word/syllable final position hence the need for final vowel

insertion. Sibilants and liquids are not possible word final segments in Anaang as a result cannot constitute the closing elements of a syllable. The tones borne by the inserted loan items are fixed for segment initial and final positions. Apart from syllabic nasal epenthesis, all the inserted segments carry low tone.

3.2 Loanwords and Segment Deletion Processes

Deletion here affects both consonant and vowel segments.

3.2.1 Consonant Deletion

Consonant deletion in this context takes place mainly to repair the loan items to correspond to the structure of the Anaang syllable. Therefore, where we have consonant clusters, deletion rule is applied to parse such clusters where epenthesis is impossible. Let us consider the following items.

12. English   Anaang inserted segment gloss
(i)   /θauznd/   [à-táú-sín]   /d/   'thousand'
(ii)   /bæŋk/   [à-bâŋ]   /k/   'bank'
(iii)   bærəks/   [à-bá-ràk]   /s/   'barracks'
(vi)   /peint/   [à-bên]   /t/   'paint'
(v)   /pʌmp/   [à-bóm]   /p/   'pump'
(vi)   /siment/   [à-sè-mén]   /t/   'cement'

The above data has a cluster of C_1C_2 as the coda element.

Deletion affects C_2 in (ii-v). Generally, if the two segments in the cluster are possible coda elements, deletion will affect C_2 as shown in (ii-v). Consonant deletion is only possible at syllable final position in Anaang. Where the clusters occur in a position other than syllable final position, insertion rule is used to separate such clusters as in words like: /àkàlási/ 'glass' /asìbìlìt/ 'spirit' where a vowel is inserted to parse /gl/ and /sp/ respectively.

3.2.2 Vowel Deletion

Vowel deletion is not commonly employed in the repair of loanwords. This is in tune with the preservative principle of loanwords which states that segments in the source language should be maximally preserved (Campbell, 1998). However, in a situation, where phonological adaptation requires more than a certain number of changes, certain segments of the source language can be deleted. Let us repeat the data in (7) for our discussion here.

13. English   Anaang
(i)   /ɒn-vələup/   [ń-fé-lòp]   'envelope'
(ii)   /iŋk/   [ŋ́-ki]   'ink'
(v)   /iŋ-gliʃ/   [ŋ́-kì-rì-sì]   'English'

In the source language, there is an initial VC syllable structure. The V of the VC is deleted in conformity to Anaang syllable structure which does not permit any coda without an onset (Michael, 2009a). The initial vowel of the loan items is deleted while a syllabic feature is added to the nasal that constitutes an independent syllable structure.

3.3 Adaptation

Under normal circumstances, Anaang phonotactics do not permit consonant sequences other than a nasal and a following consonant (Michael, 2009b). This notion is modified in the examples such as the following.

14. English   Anaang   gloss
(i)   /ʧæptə/   [àʧáptà]   'chapter'
(ii)   /bæptizm/   [àbàptísìm]   'baptism'
(iii)   /kɒtist/   [àkàtkísì]   'catechist'
(iv)   /dɒkət(r)/   [àdóktɔ]   'doctor'
(v)   /kmpju:tə(r)/   [àkómpútà]   'computer
(vi)   /kæptin/   [àkáptèn]   'captain'

Apart from initial vowel prefix, the consonants are allowed to remain the way they appeared in the source language without any alteration. An analysis of the structure of the word shows that representation such as this violates the constraint on segment combination into words without violating the constraints on the structure of the syllable of such items. Observe that the structures are made up of the following consonant sequences.

15. (i)   /àʧáptà/   /pt/
(ii)   /àbàptísìm/   /pt/
(iii)   /àkáptèn/   /pt/
(iv)   /àkàtkísì/   /kt/
(v)   /àdɔktɔ́/   /kt/
(vi)   /àkɔmpútà/   /mp/

Apart from (15 v) all others produce a sequence of two stops, which is rare in Anaang.

Syllabification rule states that syllable boundary should be inserted between two consonants to prevent consonant clusters in Anaang (Michael, 2010). Following this rule, if we insert a syllable boundary between the stops, it will produce the following structures.

16. Syllabification
(i)   /àʧáptà/   V-CVC-CV
(ii)   /àbàptísìm/   V-CVC-CV-CVC
(iii)   /àkáptèn/   V-CVC-CVC
(iv)   /àkàtkísì/   V-CVC-CV-CV
(v)   /àdɔktɔ́/   V-CVC-CV
(vi)   /àkɔ́mpútà/   CV-CVC-CV-CV

The initial stop in each of the sequences is a possible syllable final segment while the second segment is a possible syllable initial segment. Based on this, these structures are therefore adapted into the target language without any modification of the consonant sequences.

It should however be noted that words that do not undergo complete repair process in Anaang such as above are those words that are rather represented with circumlocution since they do not have one word calques in Anaang as example (17) shows. Historically, such words represented educated speakers intuition, which have become fossilized and actually adopted by the native speakers as arbitrary Anaang words without modification.

17. Anaang   description
(i) /àʧáptà/   igʷuó ŋgʷét
'chapter'   'the head of a book'
(ii) /àbàptísìm/ m̀búrɔ ké ŋŋʷɔ̀ɔŋ
'baptism'   'immersion'
(iii) /àkàtkísì/ àkpéep m̀kpɔ̀ ùfɔ̀rábàsì
'catechist'   'one who teaches in the church'
(iv) /àdɔ́ktɔ̀/   ábià ibɔk m̀bákárá
'doctor'   'English medicine specialist'
(v) /àkáptèn/   àtìé itàk ùbóm
'captain'   'the director of the canoe'

Sometimes the spelling remains the way it appears in the source language, with slight modification in pronunciations. Example follows.

18. English   Anaang   gloss
(i) /baibl/   [abaibulu]   'bible'
(ii) /sa:m/   [asa:m]   'psalm'
(iii) /vain/   [afain]   'vine'
(iv) /eksrei/   [ekseare]   'X-ray'

Ukut (1996) refers to this phenomenon as complete borrowing.

3.4 Segmental Alterations

In the previous sections, we demonstrated the changes affecting the syllable and morpheme structures of the loanwords through the process of segment deletion, assimilation, or insertion. These changes occur mainly to make the loanwords to conform to the constraints on syllabification and of course the syllable organization of Anaang. In what follows, we shall discuss segmental alterations as they occur in Anaang loanwords. These include consonantal and vocalic alterations.

3.4.1 Vowel Alteration

Vowel alteration occurs as a result of the variation in the number and feature specifications between the vowels of the source and recipient languages. The result of these variations leads to the substitution of one vowel in the source language with another vowel in the recipient language. Let us consider the following data.

19. English Anaang altered segments
(i) /fræŋk/   [àfàráŋ]   /æ/➝[a]'frank'
(ii) /kæmfə/ [àkɔmfʉ̀] /æ/➝[ʉ]'camphor'
(iii) /pʌmp/ [àbɔm/   /ʌ/➝[ɔ]'pump'
(iv) /tauŋ/   [àtâŋ]   /au/➝[a]'town'
(v) /reidiəu/ [ùredìò]   /əu/➝[o]'radio'

The reason for the alteration is that Anaang has a fewer number of vowel inventory compared to the English language. What happens is a replacement of all English vowels with approximate phonetic vowel features of Anaang where variations occur. Details of the alteration are as follows.

a. The low vowel /æ/ is absent in Anaang, it is realized as the Anaang equivalent [a] as shown below.

20. English Anaang gloss
(i) /fræŋk/ [àfàráŋ] /æ/➝[a]'frank'
(ii) /kæmfə/ [àkámfʉ̀]/æ/➝[a]'camphor'

(iii) /bæŋk/ [àbâŋ] /æ/➝[a]'bank'
(iv) /mæŋgəu/[m̀máŋkò]/æ/➝[a]'mango'

b. The central vowel /ʌ/ does not occur in Anaang. There /ʌ/ in loanwords is substituted with Anaang [ɔ].

21. English Anaang gloss
(i) /pʌmp/   [àbɔ́m]   /ʌ/➝[ɔ]'pump'
(ii) /gʌvnə/ [àkɔ́funɔ̀] /ʌ/➝[ɔ]'governor'
(iii) /klʌp/ [àkɔ̀lɔ́p/ /ʌ/➝[ɔ]'club'
(iv) /kʌp/   [àkɔ́p]   /ʌ/➝[ɔ]'cup'
(v) /drʌm/   [àdùrɔ́m] /ʌ/➝[ɔ]'drum'
(vi) /kʌmfət/ [àkɔ̀mfɔ́t] /ʌ/➝[ɔ]'comfort'

c. The central vowel /ə/ is not present in Anaang therefore, syllables with /ə/ are realized as one of [o a e ɔ] as illustrated in (22).

22. English   Anaang
(i) /kəmiʃnə/   [àkɔ̀mísíɔ́nà] /ə/➝[a]
'commissioner'
(ii) /komən/   [àkɔ́mɔ̀n]   /ə/➝[ɔ]
'common'
(iii) /məutə/   [m̀mótò]   /ə/➝[o]
'motor'
(iv) /kəmjuniən/   [àkɔ̀muniɔ̀n]   /ə/➝[ɔ]
'communion'
(v) /məri/   [m̀mèrí]   /ə/➝[e]
'Mary'
(vi) /kɔrəs/   [àkɔ́rɔ̀si]   /ə/➝[ɔ]
'chorus'

The choice of what vowel to be substituted with is determined by the English spelling form of the word, the English vowels are produced the way they are written by Anaang speakers and thereby transferred to Anaang with some kind of approximation to the English version where there is similarity in the two languages. This is borne out of the fact that there is no remarkable difference between the written form of Anaang and the spoken form especially in vowel representation.

d. Other vowels like /ɪ ʊ ɜ / are substituted with Anaang /iue/ respectively.

23. English Anaang   gloss
(i) /ʃʊgə/   [àʃúkà] /ʊ/➝[u]'sugar'
(ii) /pɪn/   [àbîn]   /ɪ/➝[i]'pin'
(iii) /kofɪ/ [àkɔfi] /ɪ/➝[i]'coffee'
(iv) /kɜʧif/ [ŋ́kèsí] /ɜ/➝[e]'ker-chief'
(v) /skɜt/   [àsìkét] /ɜ/➝[e]'skirt'
(vi) /mɜsi/   [m̀mèsí] /ɜ/➝[e]'mercy'

The reduced or short vowels in English are substituted with full vowel equivalents in Anaang since there are no reduced or short vowels in Anaang (Udoh 1998).

e. Anaang does not have diphthongs but single vowels or vowel clusters within a syllable. Therefore English diphthongs are replaced with single vowel equivalence in Anaang loanwords as follows.

/ei/ is substituted with /e/

24. English Anaang gloss
(i) /beisn/ [àbésìn] /ei/➝[e]'basin'
(ii) /seitn/ [àsétàn] /ei/➝[e]'Satan'

(iii) /mædʒistreit/[m̀madʒisiteret]/ei/━►[e]'magistrate'

(iv) /steidiəm/[àsìtédìɔm] /ei/━►[e]'stadium'

(v) /dʒeimz/ [àdʒémsì] /ei/━►[e]'James'

f. /iə/ is substituted with / ie/ or /ia/ so that we have;

(i) [biə(r) /àbié/ /iə/━►[e]'beer'

(ii) [endʒiniə] /ńdʒìnià/ /iə/━►[e]'engineer'

g. /uə/ is replaced with /ɔ/ so that we have [inʃɔran] for /inʃuərns/ 'insurance', [à tɔ] for /tuə(r)/ 'tour'.

h. /əu/ is replaced with /o/ as in (25).

25. English Anaang alteration   gloss

(i) /təul/ [atôd] /əu/━►[o]'tool'

(ii) /stəuv/ [àsítófù] /əu/━►[o]'stove'

(iii) /mæŋgəu/[m̀máŋkò] /əu/━►[o]'mango'

(iv) /kəukəu/ [àkókò] /əu/━►[o]'cocoa'

(v) /təmatəu/[àtòmátò] /əu/━►[o]'tomato'

3.4.2 Consonant Alteration

We have seen that loanwords must take into consideration the phonetic feature specifications of the segments of the recipients' language. Consider the data in (26).

26. English Anaang altered segment gloss

(i) /junivɜsitɪ/[àjùnìfésítì] /v/━►[f]'university'

(ii) /sigəret/ [àsíkàlêt] /r/━►[l]'cigarette'

(iii) /gʌm/ [àkɔ̂m] /g/━►[k]'gum'

(iv) /pitə(r)/ [àbíta] /p/━►[b]'peter'

(v) /profɪt/ [àbɔ̀rɔ́fèt] /p/━►[b]'prophet'

(vi) /rəuz/ [údósi] /z/━►[s]'rose'

(vii) /isθə/ [àsíta] /θ/━►[t]'Esther'

(viii) /bæristə(r)/[àbádístà] /r/━►[r]'barrister'

(ix) /rais/ [ùlɔ́ɔsì] /r/━►[l]'rice'

(x) /ka:d/ [àkâ:t] /d/━►[t]'card'

The reason for alterations such as above can be attributed to the variations in the consonant inventory in the two languages as follows.

a. The voiced fricatives /v/ and /z/ are absent in Anaang. These segments become devoiced when adapted into Anaang so that;

/junivɜsiti/ [àjùnìfésítì] /v/━►[f] 'university'

/rəuz/ [ùdósì] /z/━►[s]'rose'

b. [ʧ/ and /s/ are in free variation in Anaang. In this case /ʧ/ can be realized as [s] or [ʃ] as in

/tɔʧ/━►[àtɔ̀sì]

c. The dental fricative /θ/ is substituted with the stop [t]. The stop shares the same state of the glottis and place feature specification with the fricative.

/θauznd/━►[àtáusìn] /θ/ [t]

d. /r/ is substituted with one of [r, l, d]

/sigəret/━►[àsìkarêt] /r/━►[ɾ]'cigarette'

/bæristə(r)/━►[àbádístà] /r/━►[d] 'barrister'

[ɾ, l, d] are in free variation in Anaang. Therefore loan items with /r/ can be substituted with any of these since Anaang does not have /r/

e. The bilabial /p/ does not occur syllable initially or as an intervocalic element in Anaang except as geminate. On this basis, the English initial and the intervocalic segment /p/ undergoes a process of voicing.

where /p/━►[b]

/peint/━►[àbên] /p/━►[b]'paint'

/pʌmp/━►[àbɔ́m] /p/━►[b]'pump'

/spirit/━►[àsìbìlìt] /p/━►[b]'spirit'

f. On the other hand, the voiced counterpart becomes devoiced syllable finally, since voiced stops cannot occur at syllable final position in Anaang so that

/ka:d/━►[àkât] /d/━►[t]'card'

g. The voiced stop /g/ is absent in Anaang therefore, loanwords with /g/ are realized as devoiced [k] since the voiceless counterpart is present in Anaang.

/gʌm/━►[àkɔ̂m] /g/━►[k].'gum'

Generally, segmented alterations occur as a result of contrast between the two languages or speakers' judgments identity and distinctiveness. As observed by Steriade (2007, p.143), speakers' judgments of identity and distinctiveness are rendered at the lexical level; listeners perceive speech sounds in terms of the grid provided by the lexical alphabet of the languages they speak.

3.4.3 Tonal Placement

Another area of modification is in the use of pitch. Anaang is said to be a tonal language where tone is placed on every syllable just like other Lower Cross languages (Williamson & Blench, 2000). English is stressed timed in that stresses are the dominating features of the rhythmic timing among other several interacting factors.

Observe that English on the other hand uses stress as presented in example (27), whereas Anaang uses tone.

27. English Anaang tone   gloss

(i) /ˋkofi/ [à-kɔ́-fì] L-L-H 'coffee'

(ii) /trein/ [à-tè-ɾên] L-L-HL 'train'

(iii) /ˋkɔrəs/ [à-kɔ̀-ɾɔ́-sì] L-H-L-L'chorus'

(iv) /ˋki-ʧɪn/ [à-ki-ʧîn] L-H-L 'kitchen'

(v) /ˋprai-mri/ [à-bà-dí-mà-ɾì] L-L-H-LL 'primary'

(vi) /tˋiʧə/ [à-tí-sà] L-H-L 'teacher'

(vii) /ˋsiŋ-glet/[à-síŋ-kì-nì] L-H-L-L'singlet'

(viii) /flut/ [a-fù-rût] L-H-HL 'flute'

(ix) /kraist/ [à-ká-raí-sì] L-LH-H-L 'Christ'

(x) /ˋkris-məs/ [à-k-ìdísì-mɔ̀-sì] L-L-H-L-L 'Christmas'

(xi) /ˋprin-səpl/ [à-bì-lìn-sì-bà] L-L-H-L-L 'principal'

(xii) /junìˋvɜsiti/ [àjùnìfésítì] L-L-H-H-L 'university'

Every syllable in Anaang has at least one tone. In English, stress occurs on different syllables in ways that are somewhat perceptible. In contrast to the nature of tones, (Ladefoged, 1993, 2001; Yip, 2002; Grabe & Warren, 1995) stressed sounds are those sounds in which the speaker expends more muscular energy. Two types of stress are placed on the English source: primary and secondary stress. The unstressed syllable is not marked. Analyses on stress pattern reveal that primary stress is more prominent than secondary stress (Beckman, 1994; Haraghuchi, 1991; Zech, 2007). The difference between the two languages lies in the fact that; in English, only one syllable per word may carry primary stress in the case

of disyllabic words, whereas all syllables in Anaang carry the same strength (Udoh, 1998) since there is no reduced vowel in Anaang. This shows that all tones in Anaang are produced with the same strength.

3.4.4 Syllable Structure Alteration

Another area of alteration manifests in the structure of the syllable as the following examples show.

28.　English syllable Anaang syllable structure structure
(i)　/təul/　CVVC　[à-tɔ́-wèt] CV-CV
(ii)　/eindʒəl/ VCCVC [ń-dʒé-lè] N-CV-CV
(iii)　/greis/　CCVC　[àkìrísì] V-CV-CV-CV
(iv)　/swetə/　CCVCV [àsìwétà]　V-CV-CV-CV
(v)　/kəmpleint/CVC-CCVC　[àkɔ́mbèrên]
　　V-CVC-CV-CVC

English has clusters of consonant in (28ii-v), the clusters are resyllabified and simplified in Anaang. Observe that there is no monosyllabic structure in the Anaang borrowed items in (28), whereas the source language has quite a large number of monosyllabic structures. The reason behind the difference lies in the fact that the data for analysis are adopted from nouns only. Nouns in Anaang have a minimum structure of two syllables including the syllabic prefix. Therefore loanwords such as presented in (28) are restructured to comply with the minimum acceptable shape of the structure of Anaang nouns. Secondly, the English examples have structures with initial consonantal segments. Whereas all the items in Anaang take on syllabic elements word initially since all nouns in Anaang must have a syllabic prefix.

4.　ANAANG-IGBO LOANWORDS

As earlier stated, loanwords exist in a language owing to language contact. Anaang and Igbo share a common geographical boundary, this makes it possible for certain Igbo lexical items to be adopted and used in Anaang. Let us consider the following words.

29.　Igbo　　　Anaang
(i)　/okirika/ [akirika] 'second hand materials''
(ii)　/okproko/[akporoko]
　　'stock fish
(iii)　/obioma/[abioma]　　　mobile tailor'
(iv)　/utazi/　[utasi]
　　'a kind of bitter leave'

In the Igbo version, items (i-iii) all begin with the vowel /o/, these are all replaced with /a/ in Anaang because Anaang does not permit the vowel /o/ word initially. In (iv), /z/ in Igbo is replaced with /s/ in Anaang. The relevance of this illustration confirms that all loanwords in Anaang are modified to comply with the phonotactics even when the items are from closely related languages.

CONCLUSION

Loanwords as discussed in this work are centred on nouns only. Other word classes are not considered here. Nouns in Anaang have specific syllable structure where all the words must have an initial syllabic segment either /V/ or /N/. At the same time, there are restrictions on the distribution of segments at the various positions of the words. Some vowels cannot become word initially. Generally Anaang phonotactics permit only four vowels / a e i u / word initially, whereas, only two of these vowels /u/ and /a/ are permitted as loan prefix. This form is typical of the verbal style adopted by the Anaang native speakers in the production of proper nouns, where a vowel prefix, specifically /a/ or /u/ is added in the production of personal names in a discourse. Historically, this form of prefixation was originally adopted for emphatic purpose, but has, with time become part of the native speakers' style of pronunciation of personal names across all age including children speech form. This generalisation does not affect personal names that have an initial vowel segment.

Anaang words are said to be closely tied to the internal structure of the syllable. The combination of segments into words is equally constrained by Anaang phonotactics. This phonotactics further extends to govern the distribution of segments in lexical constructions. Certain segments are restricted to specific environments; therefore loanwords have to be modified to comply with the phonotactics of the language. Phonotactics therefore plays a vital role in defining a well-formed word.

REFERENCES

Alderete, J. D., & Frisch, S. (2007). Dissimilation in grammar and the lexicon. In P. De Lacy (Ed.), *The Cambridge handbook of phonology* (pp.379-398). Cambridge: CUP.

Anderson, S. (1992). *A-morphus morphology*. Cambridge: CUP.

Beckman, M. (1994). Articulatory evidence for differentiating stress categories in phonological and phonetic form. In P. Keating (Ed.), *Papers in Laboratory phonology III* (pp.733-742). Cambridge: CUP.

Bemudez-Otero, R. (2007). Diachronic phonology. In Paul de Lacy (Ed.), *The Cambridge handbook of phonology* (pp.520-538). Cambridge: CUP.

Campbell, L. (1998). *Historical linguistics: An introduction*. Edinburgh: Edinburgh University Press.

Ehret, C. (2000). Language and history. In B. Heine & D. Nurse (Eds.), *African languages: An introduction* (pp.161-193). *Cambridge*: CUP.

Grabe, E., & Warren, P. (1995). Stress shift: Do speakers do it or do listeners hear it? In B. Connell & A. Arvaniti (Eds.), *Papers in laboratory phonology IV: Phonology and phonetic evidence* (pp.95-110). *Cambridge*, CUP.

Haraghuchi, S. (1991). *A theory of stress and accent*. Dordrecht: Foris Publications.

Heine, B., & Nurse, D. (Eds.) (2008). *A linguistic geography of Africa* (pp.1-15). Cambridge: CUP.

Jowitt, D. (1991). *Nigerian English usage. An introduction*. Nigeria: Longman.

Kay, W., & Blench, R. (2000). Niger Congo. *African Languages: An introduction* (pp.11-43). In B. Heine & D. Nurse (Eds.) *Cambridge*: CUP.

Ladefoged, P. (1993). *A course in phonetics* (3rd ed.). Harcourt Brace: Jovanovic Inc.

Ladefoged, P. (2001). *Vowels and consonants*. Oxford: Blackwell.

Matthews, P. (1991). *Morphology* (2nd ed). Cambridge: CUP.

Michael, I. (2009a). *The syllable structure of the Anaang language* (Doctoral thesis). University of Ibadan, Ibadan.

Michael, I. (2009b). Syllabification in Anaang. *USEM. JLLL*, 42-53.

Michael, I. (2010). Insertion in Anaang. *USEM. JLLL*, 22-35

Newman, P. (2000). Comparative linguistics. In B. Heine & D. Nurse (Eds.), *African Languages: An introduction* (pp.123-160). *Cambridge*: CUP.

Schane, S. (1973). Generative phonology. New Jersey: Prentice-Hall Inc.

Spencer, A. (1991). *Morphological theory: An introduction to Generative gram*mar. Oxford: Basil Blackwell.

Spencer, A. (1996). *Phonology: Theory and description*. Oxford: Blackwell.

Steriade, D. (2007). Contrast. In P. de Lacy (Ed.), *The Cambridge handbook of phonology* (pp. 139-158). Cambridge: CUP.

Udoh, I. (1998). *The effect of duration on the intonation of Anaang learners of English* (Doctoral dissertation). University of Calabar, Calabar.

Ukut, S. (1996). Word borrowing: A feature of vocabulary development in Ibibio. *Journal of Humanities*, 5, 20-29.

Urua, E.-A. E. (2007). *Ibibio phonetics and phonology* (2nd ed.). Cape Town: CASAS.

Yip, M. (2002). *Tone*. Cambridge: CUP.

Yule, G. (2006). *The study of language* (3rd ed.). Cambridge: CUP.

Zec, D. (2007). The syllable. In P. de Lacy (Ed.), *The Cambridge handbook of phonology* (pp.159-185). Cambridge: CUP.