

A CONSTRAINT-BASED ANALYSIS OF ENGLISH LOANWORDS ADAPTATION IN IGALA

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Abstract

There is no language in the whole world that is free from borrowing. Languages have contact with one another through trade, civilization, marriage, migration and lots more which lead to incorporation of new words. Igala as one of the Kwa Languages (new Benue Congo) has different English loanwords that incorporate new ideas which were not present in the language. It is observed that there is constant insertion of vowel phoneme at word initial of loanwords in Igala version of English Loanwords. There is alternation of some consonants and vowel sounds in Igala version of English loanwords. This study is to analyses the English loanwords adaptation in Igala using optimality theory. Specifically, this study identifies the English loanwords in Igala; ascertains the phonological and morphological assertion that English loanwords have to conform to Igala phonotactics and reveals the ranking hierarchy of Optimality constraints in Igala. Respondents (3 males and 3 females Igala native speakers) were selected from living in Igala communities of Idah, Ayingba and Dekina in Kogi State through random sampling technique. Data were collected through structured interview. Igala inserts vowel sounds to separate clusters, to avoid word initial onset and also to open the closed syllable of the source language. This paper concludes that there is no direct borrowing in Igala because all the loanwords must undergo the phonotactics of Igala based on the phonology and morphology of the language.

Keywords: loanwords adaptation, optimality theory, Igala, alternation and contact.

Introduction

Linguistic adoption results when a speaker imports a foreign word or expression and incorporates it into target language. According to Idakwoji (2015), the word or expression so incorporated becomes a loan-word in the vocabulary of the first language. Words are borrowed from one language to another due to language contact. Rafiu (2011: 24), asserts that one of the obvious consequences of contact is linguistic borrowing, and borrowing. That is, borrowing is one of the morphological processes that involve taking words from one language to another due to contact. Arokoyo (2017), explains that, the essence of borrowing is to cope with new ideas and concepts that are unfamiliar to the receiving language which have to conform to the phonological and morphological specifications of the host language.

Many scholars such as Omachonu (2001), Omachonu and Abraham (2012) among others have mentioned Igala loanwords but to the best knowledge of the researcher no one has been able to account for English loanwords in Igala under the framework of OT. However, this article fills the gaps that the previous studies were not able to fill. English loanwords present in the Igala vocabulary are words used in reference to objects, concepts or nomenclatures that have European origin, for which the Igala language had no equivalent. However, this study analyzed the English loanwords in Igala on constraint-based using Optimality theory.

Igala is a minority language spoken by over two million people who lived on the Eastern part of Kogi state. Williamson (1973), classifies Igala under Yoruboid group which belongs to New Benue Congo sub-family of Niger-Congo phylum. Igala is spoken far beyond her boundaries of eastern part of Kogi State, (Idoma, Nsukka), western Igbo (Lokoja, Etsako, Ebu, Asaba etc). Igala speakers occupy the bulk of the territory within the lower Niger basin, surrounded by the rivers Benue and Niger.

Linguistic Adoption and Borrowing

Linguistic adoption is the borrowing of words from the source language to the target language. it has to conform to the phonotactics of the target language for acceptability. Arokoyo (2018: 146) asserts that borrowing is a common morphological process that involves taking words from one language to another. Kemmer (2019) describes loanwords as borrowed words that are adopted by the speakers of one language from a different language without literal lending process. That is, the loanwords usually undergo some changes in order to conform with the phonological and morphological speculations of a particular language though the process of borrowing is language specific.

Hardman and Stork (1972: 13) referred to loanwords as words introduced into a language directly from foreign language by either translation or adaptation. In other words, borrowed words from a source language can be rendered based on translation or adaptation, which has to adapt to the phonological pattern of the target or host language.

Types of Borrowing

There are two types of borrowing;

- 1). Direct borrowing
- 2). Indirect borrowing.

Direct Borrowing

Direct borrowing is the type of borrowing whereby loanwords retain their original forms and meaning. Arokoyo (2017), described this type of borrowing as assimilator borrowing where words are not subjected to phonological or morphological modifications. That is, the form and meaning of the loanwords from the source language are retained in the target language. e.g

1. Source language		Target language	
English.	Word	Yoruba	Gloss
	table	tébù	'table'
	barber	bábà	'barber'
Hausa.	suya	súyà	'barbeque'
	aluabarka	àlùbàríkà	'blessing'
English.		Igbo	
	atom	atom	'atom'
	Limbo	limbo	'limbo'
Hausa.	súyà	súyà	'barbeque'
	wàyó.	wàyó	'cheat, trick'

The above data were extracted from Arokoyo (2017: 147)

Indirect Borrowing

Indirect borrowing is the process of borrowing whereby the loanwords undergo modification on phonological and morphological pattern of the host language. Arokoyo (2017: 148) asserts that, it involves both phonological and morphological adaptation of the borrowed word to suit the target language. The modification can be based on either the sounds, tone or meaning. e.g

2. Source language	Words	Urhobo.	Target Language
English.			Gloss
	radio	irédíò	'radio'
	television	itènevishòni	'television'
	school	isùkùrù	'school'

The above data were extracted from Arokoyo (2017: 149).

Igala Phonotactic Constraints

Phonotactics was coined from Ancient Greek *phōnḗ* 'voice/sound' and *tacticós* 'having to do with arranging'. Phonotactics speculate permissible syllable structure, consonant clusters (complex onset and complex coda) and vowel sequences by means of phonotactic constraints. Jones (2006) defined phonotactics as the study of permissible syllable sequences. Kenneth (2003) says Phonotactic rules determine which sounds are allowed or disallowed in each part of the syllable. The syllable phonotactics of the language refers to the way sounds are combined in the language to produce acceptable sounds sequence.

Harrington and Cox (2009) said in their view that, all languages have constraints on the way the phonemes can be arranged to form syllables. For example, English allows very complex syllables whereby syllables may have up to three consonants at the onset, e.g

3. strap /stræp/
 spray /sprei/
 splash /splæʃ/

The syllable structure of Igala has only onset and peak (nucleus), without coda. The onset is optionally present in Igala syllable, while complex onset *(cccv) is not permissible in any positions of Igala words. Also coda and complex coda are not permissible *(vc(cc)) in the language. However, three basic combinatory possibilities syllable types in Igala phonotactics are, the V, the CV and the N '(c)v, N'. In Igala, single segment (vowel phoneme and nasals) can form a syllable especially pronouns that are made up of only one vowel standing as a syllable. Igala phonotactics forbid word initial onset of nouns in the language. Word initial onset can only be found in monosyllabic verb in the phonotactics of the language e.g.

4. tà /tà/ 'to sell'
 yá /já/ 'to melt'
 mà /mà/ 'to know'

Finally, nasal syllabic consonant /n/ and nasal vowel /ũ/ can appear at word initial of the Igala phonotactics, e.g.

- 5a. nyá /njá/ 'to price'
 ñwá /ñwá/ 'to fall'
 nyógbá /njɔgbá/ 'to move forward'

5b. ùnyógbá /ũjɔgbá/ ‘progress’
 unyí /ũjí/ ‘house’

Theoretical Framework

Optimality theory was developed by Prince and Smolensky in 1993 to address the inadequacies of the generative model.

OT (henceforth) is a constraint-based theory which proposes that the observed form of language arises from the optimal satisfaction of conflicting constraints. Kager (1999: 21) referred to the optimal candidate as the ‘actual output of the grammar of a language while Prince & Smolensky, (2004: 3) termed it as the ‘grammatically well-formed structure’.

In view of Kager (1999), the universal constraints in OT are violable. Bennett (2002) affirms Kager’s claim that the core tenet of OT is the assumption that constraints are innate, universal, and violable, although the violations must be minimal. Adekunle (2019), also says ‘a constraint is a structural requirement that may be either satisfied or violated by an output form and a surface form’. It is not mandatory to satisfy the constraint set all the time because they are violable though violation must be minimal.

According to Bermudez-Otero (2006) OT is strictly a surface-based or output-oriented theory in that no constraints directly evaluate input representations. However, no structural conditions are placed on the input; just that Markedness and Faithfulness constraints evaluate the well-formedness of possible outputs.

Following McCarthy (2002: 3), OT is not operational, rule-based, or transformational; rather, it is comparative: it compares candidates in a set with respect to a given input by applying a hierarchy of violable constraints which is done with the help of 3 crucial components: GEN (generator), CON (constraints) and EVAL (evaluator). GEN generates the candidates set (possible outputs) to be evaluated. CON provides a set of universal constraints that are ranked in a language precise hierarchy. EVAL determines the optimal candidate based on the set of constraints available with respect to the ranking hierarchy. If candidates satisfy the higher ranked constraint and violate the lowest ranked constraint, the degree of violation will be assessed for selecting the optimal candidate (winner).

Conventionally, violation of the constraints is indicated by a star or an asterisk (*). Also (*W) indicates that the winner satisfies that particular constraint ranked higher in the language, while (*L) indicates that the loser satisfies the same lower ranked constraint violated by the winner. A tumb-up, a pointed finger or an arrow in the tableau indicates the chosen optimal candidate that best satisfies the constraint set.

Constraints adopted for the study

There are several constraints under the tenets of OT, However, the following constraints will be adopted for the analysis of this study;

- a. No Coda (*coda): the constraint prohibits closed syllables. That is syllable must not end with consonant sound.

- b. PARSE: input segment must be parsed (into syllabic portions).
- c. Avoid Substitution of sounds (*SUBST): This constraint does not welcome replacing an input segment with another in the output.
- d. *FILL: no insertion of C, V or empty node.
- e. Dependency- Input, Output (DEP-I,O): This constraint requires that no segment which does not appear in the input must surface in the output.
- h. *IONS: It requires that syllable must not have an onset.

Research Methodology

Research of this nature should involve many Igala speakers in order to get the actual data involved. However, due to time constraint, the target population for this study is 6 Igala native speakers (3 males and 3 females) which were selected from Idah, Ayingba and Dekina in Kogi State through random sampling techniques. Structured interview was used with use of 50 selected English loanwords in Igala which will be analyzed using Optimality Theory. Data were recorded on a recorder for proper transcription with the consent of the respondents.

Data Presentation and Analysis

Data are presented in three categories; the first set of data concentrates on alternation of sounds in the input to the output, the second set of data concentrates on insertion while the third set of data concentrates on syllable.

Data Group A

Alternation

English	Igala Version	Gloss
a. /bred/	/ibúlédì/	'bread'
b. /dʒeims/	/idʒémíʃi/	'James'
c. /biskit/	/ibíʃíkítì/	'biscuit'
d. /sʌndeɪ/	/iʃɔ́dédè/	'Sunday'
e. /tʃiə/	/iʃʒjà/	'chair'
f. /fraɪdeɪ/	[ífuláidédè]	'friday'
g. /velvet/	[ibélibéti]	'velvet'
h. /volvo/	[íbólíbò]	'volvo'
i. /telɪvɪʒʰn/	[itélébíʃɔ́ni]	'television'
j. /ɪlɪzəbəθ/	èlɪʒabɛti]	'Elizabeth'

Data Group B

Insertion

English	Igala Version	Gloss
i. /teɪbl/	[ítébùlù]	'table'
ii. /swi:t/	[iʃùwítì]	'sweet'
iii. /sʌndeɪ/	[iʃɔ́dédè]	'sunday'
iv. /biskɪ:t/	[ibíʃíkítì]	'biscuit'
v. /velvet/	[ibélibéti]	'velvet'
vi. /volvo/	[íbólíbò]	'volvo'
vii. /telɪvɪʒʰn/	[itélébíʃɔ́ni]	'television'

viii. /bred/	[íbúlédì]	'bread'
ix. /fraidei/	[ífúláidéè]	'friday'
x. /ɪlɪzəbəθ/	[èlídʒabɛ̀tì]	'Elizabeth'

Data Group C

Syllable

English	Igala Version.	Gloss
i. /teɪ.bl/	[í.té.bù.lù]	'table'
ii. /sʌn.dei/	[í.ʃ.ɔ.ɔ.d.é.è]	'sunday'
iii. /tʃiə/	[í.ʃí.yà]	'chair'
iv. /bred/	[í.bú.lé.di]	'bread'
v. /frat.dei/	[í.fú.lá.i.dé.è]	'friday'
vi. /ɪ.lɪ.zə.bəθ/	[è.lí.dʒa.bɛ̀.tì]	'Elizabeth'
vii. /vel.vet/	[i.bé.li.bé.ti]	'velvet'
viii. /vol.vo/	[í.bó.li.bò]	'volvo'
ix. /te.lɪ.vɪʒ.ˈn/	[i.té.lé.bí.ʃɔ̀.ɲì]	'television'
x. /bɪs.krɪ:t/	[i.bi.ʃí.kí.ti]	'biscuit'

Tableau 1

*CODA>>*IONS >>DEP-IO>>SUBST



Input	*CODA	*IONS	DEP-IO	*SUBST
/bred/ 'bread'				
a. íbuled	*W		**	*
b. búlédi		*W	**	*
c. buréd	*W	*W	*	
d. bred	*W	*W		
e.  íbúlédì			***	*

Tableau 1 presents five candidates, candidates (a), (b), (c) and (e) incurred fatal violations for violating the higher ranked constraint(s) *CODA and *IONS. However, candidates (a), (b), (c) and (d) are ruled out of the contention. Candidate (e) emerges as the winner due to its faithfulness to the highly ranked constraints regardless of its violation of the lowly ranked constraints. In other words, candidate (e) is the grammatically well-formed structure in the language.

Tableau 2

*CODA>>*IONS >>*FILL>>SUBST

Input	*CODA	*IONS	*FILL	*SUBST
/velvet/ 'velvet'				
c. bélibét		*W	*	****
b. bélibét		*W	**	****
c. velvet	*W	*W		
d.  íbélibéti			***	****
e. íbélibet	*W		**	***

Out of the five candidates contesting on tableau 2, candidates (a), (b), (c) and (e) violate the highly ranked constrain, therefore they can no longer contest for optimal candidate. Candidate (d) on the other hand becomes the winner since it is the only candidate that adheres strictly to the highly ranked constraints with minimal violation of the lowly ranked constraint.

Tableau 3

*CODA >> *IONS >> PERSE >> *SUBST				
Input	*CODA	*IONS	PERSE	*SUBST
/bɪskɪt/ 'biscuit'				
a. i.bi.si.kít	*W			
b. bɪs.kít	**W	*W		
c. → i.bi.ʃi.kí.tì				*L
d. bɪsikítì		*W	*W	

In tableau 3, four candidates are contesting for optimal position. Unfortunately, the first two candidates, candidates (a) and (b) incurred fatal violation of the most highly ranked constraint (*CODA). Consequently, they were knocked out of the contest. Candidate (d) also is unfaithful to the other highly ranked constraint though lesser than constraint *CODA, nonetheless, candidate (d) cannot emerge as the optimal candidate since candidate (c) is faithful to all the highly ranked constraints with minimal violation of the lowly ranked constraint *SUBST.

Discussion of Findings

Igala forbid word initial onset in its syllable node of nouns. It should be noted that onset is present in the language syllable structure just that onset cannot appear at word initial in the language. For this reason, there is always an insertion of vowel phoneme /ɪ/ at every word initial of English loanwords that has word initial onset. However, the language ranks the markedness constraint *IONS higher in order to accommodate the loanwords. There is always an alternation of /s/ → /ʃ/, /v/ → /b/, /r/ → /l/, /ʒ/ → /ʒ/, /ʌ/ → /ɔ/ which makes this study to rank the faithfulness constraint *SUBST lower in the language.

There is constant insertion of /u/ and /ɪ/ to separate clusters, and to open a closed syllable. Therefore, this study ranked the markedness constraint *CODA higher in Igala. The vowel inserted must agree with the labial features of the vowel preceding the coda or the complex coda. This becomes a reverse case if the coda has [+labial] feature, the vowel inserted will have nothing doing with vowel preceding the coda but strictly agree with the coda itself. However, /u/ is placed after consonant that has [+round] feature, e.g

ítébùlù
íbulédi

In case of diphthong vowels in source language (SL), some were pronounced as two separate vowels while there is insertion of consonant sound in some context also there is alternation of such diphthong to single vowel in target language (TL).

6.	SL	TL	Phonological Process
	/teɪbɪl/	[íté <u>b</u> ùlù]	Alternation
	/ʃiə/	[í.ʃi.yà]	Insertion of consonant

/fraudeɪ/ [í.fú.lá.ì.dé.è] Splitting of diphthong

Finally, there is increment in the number of the syllables of loanwords in the target language compared to the source language, e.g

7.	SL	TL	
	/sʌn.deɪ/	/ì.ʃ̣.ɔ.ɔ.d.é.è/	'sunday'
	/tʃɪə/	/ì.ʃ̣í.yà/	'chair'
	/bred/	/í.bú.lé.dì/	'bread'

Conclusion

This study sheds light on constraint analysis of English loanwords in Igala. It focuses on the phonological claim that loanwords English have to conform to Igala phonotactics. Using optimality theory for this study, the markedness constraints *CODA and *IONS were ranked higher while the faithfulness constraints *SUBST, *FILL, DEP-IO and PERSE were ranked lower in the language. The analysis reveals that there is no direct borrowing in Igala since words must comply with the phonotactics constraints of the language.

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