Ihafa: A Journal of African Studies 7: 1
December 2015, 1-20

Hybrid Sounds in Yoruba

Kọlawọle Adeniyi
Ọbafẹmi Awolọwọ University

Abstract
Yoruba does not permit consonant clustering in its syllables and any borrowed word with consonant cluster must first be adapted to this structure. This research studies data of everyday usage of the language by three competent native speakers and reports that the constraints against the clustering of consonants are no longer sacrosanct. It is argued that Yoruba is at a stage in which the nativization of borrowed words containing consonant clusters no longer takes its full course. Thus consonant clusters, which are mainly borrowed from English, are now frequently attested in everyday use of Yoruba. The patterns of occurrence of these clusters are described and it is argued that there are significant differences between their pronunciations in Yoruba compared to English, indicating that they are semi-nativized. This is especially evident in the transitional sonority between a cluster of obstruents, as well as the release of plosives even when it is the first element in a cluster. In addition to the recorded data studied, supplementary recognition experiments were conducted whereby speakers were presented with everyday language use scenarios and were then asked to judge between fully-nativized, semi-nativized and non-nativized clusters. In almost all instances, speakers were unanimous in their choice of semi-nativized clusters. The semi-

---

Kọlawọle Adeniyi, PhD.
Department of Linguistics and African Languages
Ọbafemi Awolọwọ University, Ile-Ife, Nigeria
Phone: +234 806 222 8707; E-mail: kola.adeniyi@daad-alumni.de

nativized consonant clusters are therefore regarded as hybrid sounds. In their semi-nativized form, these hybrid sounds are gradually diffusing into the language as a result of increasing bilingualism in English among Yoruba speakers. It is shown that the diffusion is mostly driven by social class and religion.

Keywords: borrowed words; consonant cluster; transitional sonority; obstruents; hybrid.

1. Introduction

Loanword adaptation is mental in nature, and it depends largely on L1 phonology, in the sense that foreign sounds are *fit into the phonological system of the borrowing language* (Hyman 1970:12). However, while consonant clusters appear to have once fit into the phonology of Yoruba in the sense that they were nativized by inserting vowels between them, evidence from data of present-day Yoruba usage suggests that this nativization is no longer done faithfully. Consequently, some borrowed words have now entered the Yoruba lexicon along with their consonant clusters.

These consonant clusters are gradually getting diffused into the speech of the populace on the platform of the existing social stratification of the society. Thus, the syllable structure of Yoruba is currently undergoing a linguistic variation, which is already transforming into a linguistic change. While this change has not yet fully taken root, there is a need for it to be thoroughly documented such that its progress can be observed, and especially so that when the change becomes fully diffused in years to come, there will be traces of how it has come to be. This is the objective of this article.

At this point, it is pertinent to emphasise that this article is not about the general mechanism of loanword adaptation in Yoruba since a lot of comprehensive works have been done in

this area (see. Ufomota 1991; Aziza & Utulu 2006; Kentowicz 2006; Oyebade 2008; etc.). Rather, it tries to account for the existence of semi-nativized consonant clusters and syllable codas which constitute an apparently more recent phenomenon in the language.

The importation of clusters into Yoruba has not been completely spontaneous. Official involvement in the importation of consonant clusters into Yoruba is well captured by Awobuluyi (1992: 16-17)), who quoted a 1953 committee report on grammatical and scientific terms for Yoruba as listing such words as *kúọ̀ts* 'quartz', *síkàb* 'scarp', *ák* 'arc', *kíùb* 'cube', and *fókàs* 'focus'. Similarly, Bamgboṣe (1990:80-81) notes the active involvement of the educated elites in the importation of consonant clusters in Yoruba; among his list of the pronunciations of the educated elites are such words as *dráífà* 'driver' and *mínístà* 'minister'. Whereas these indications exist, consonant clusters in Yoruba have been considered negligible and not deserving of scholastic study. Thus the focus has always been on mechanisms of adaptation and data has always been of nativized words. The need to provide an account of this process of change was highlighted in Taiwo & Adeniyi (2011), and this article is thus a follow-up to that work.

In the remainder of this article, we outline the method of data collection and analysis in section 2 and engage in the presentation and analysis of the data in section 3. Platforms of consonant cluster diffusion into Yoruba are identified and discussed in section 4. In section 5, findings are summarised and the article is concluded.

2. Methodology

Data for this research were collected from three competent speakers of Yoruba. In collecting the data a corpus of one hundred and twenty (120) words borrowed from English to

Yoruba was built, after which each of the collected words was inserted into larger linguistic units such as phrases and clauses in order to fit them into everyday use scenarios. The phrases were then said in English while the language consultants were required to render them in Yoruba. Examples include *The book of Chronicles*, Yoruba rendition of which would then contain the word *Krónìkà; Her blouse is beautiful*, Yoruba rendition of which was expected to contain the word *bláòsì*. In addition, language consultants were asked questions, answers to which were expected to contain the words being investigated. Examples of this include: *What do you use to rub your body after bathing?* to which *krîmù* 'cream' was the expected response; *What do you press to stop a car?* To which *bréèkì* 'brake' was the expected response.

In some instances, English concepts were explained to the language consultants who then rendered them in Yoruba. Such concepts include *ministry of Agriculture, a place where football tournaments are played*, etc. It should be emphasised that no particular rule was followed in determining which of these methods to use for particular words; the whole idea was to ensure that the respondents were made to be as natural as possible without appearing to be overtly prompting them. Another advantage of these measures is that the respondents would not be "forced" to supply words that they would not use naturally.

Since data were recorded directly onto the computer laptop using *Praat* it was possible to repeatedly play them as well as zero in on portions suspected to involve partial nativization. This allowed for proper perceptual discrimination. Furthermore, clusters that appeared to contain transitional sonority between the clustering consonants were acoustically examined on *Praat* for traces of this sonority. Confirmed instances of sonority, either perceptually or acoustically were thus taken to be the

signals of the *Yorubaness* of the words. This is similar to the case of German coda devoicing which is not fully implemented, and that is a clue to recognition of each sound for native speakers even in the environments of neutralisation (Beckman, Jessen & Ringen 2006). For instance, although the voiced alveolar fricative /z/ in *gruslig* 'spooky' is devoiced, this devoicing does not result in loss of distinction between /z/ and /s/ because other discriminatory cues are not lost. These other discriminatory cues include the fact that a voiced fricative, even though devoiced, is shorter in duration than a voiceless one (Beckman, Jessen & Ringen 2006:84).

It is worth noting that there only exists a thin line between loanwords and code-mixing. Even then, it is clear that L1 phonology reflects in L2 usage such that the Morpheme Structure Conditions (MFCs) of L1 are overlaid on L2, which is often referred to as speaking L2 with an accent (Hyman 1970b:45-46). *Accent* is however one easy way of locating a person's mother tongue even when speaking a foreign language (Wolff 2000:303). On the basis of this, the seeming overlap of code-mixing with loanwords has no negative effect on the quality of the data, and as a matter of fact, Wolff (2000:317) notes that borrowing is itself a form of code-mixing deployed to remedy lack of vocabulary.

A supplementary recognition experiment was conducted in which for many items in the corpus, respondents were asked which forms (fully nativized, semi-nativized, or non-nativized) they would use in everyday conversation. As much as possible, everyday conversation scenarios were painted and their choices in such scenarios were sought. It should be noted that in writing the data, faithfulness to the speech of language consultants was considered superior to strict compliance with the standard conventions of writing Yoruba. As such, the writing of some items in the data violates Yoruba writing convention. These

include *kọ́stọ́m* ‘custom’ in (2n), *làtrín* ‘latrine’ in (4m), *plọ́gì* ‘plug’ in (7b) and *klíkì* ‘click’ in (7l) in which word-medial vowels are required by orthographical convention to be doubled. In the way these words are written in this research, they accurately represent the speech of the competent speakers that served as consultants and this difference from the standard writing might just be indicative of further subtle variations in the language which may be obscured should standard writing convention be enforced.

3. Data Presentation and Analysis

It has been reported by Bamgbose (1990:76-77) and many other researchers that the nativization of English words containing consonant clusters in Yoruba involves the breaking of the clusters via epenthesis (1a-i), or more rarely consonant deletion (1j). This is still well attested throughout Yorubaland, both in the speech of monolingual speakers and educated elites.

(1) a. ọ̀bùrẹ́là ‘umbrella’
b. bíléèdì ‘blade’
c. gírámà ‘grammar’
d. àgíríìkì ‘agric’
e. búlúù ‘blue’
f. búrẹ́dì ‘bread’
g. mílíìkì ‘milk’
h. sákáráméńtì ‘sacrament’
i. tíráfù ‘travel’
j. fọ́ọ̀tì ‘fault’

In spite of the many fully nativized English words in Yoruba, consonant clusters frequently occur in everyday Yoruba of speakers of the language, especially those that are bilingual in English (2-7). This is because, for reasons we shall discuss

shortly, speakers deliberately leave the clusters unbroken. The corpus studied for this research reveals that this importation is more frequent in fricative-initial clusters (2-3). As a matter of fact, the language consultants whose speech was analysed rarely break fricative-initial clusters. Even in English, the clustering of consonants is guided by principles that are largely phonetic. For instance, clusters of three consonants, which is the most complex in word-initial position, must have the voiceless alveolar central fricative /s/ as C_1 (McMahon 2002:106). This indicates the ease with which /s/ can be co-articulated with other consonants in English; it also explains why Yoruba speakers find it easy enough to articulate clusters containing it without epenthesising. In English where words with the clusters are borrowed, initial /s/ in a non-word final cluster is regarded as *pre-initial* (Roach 2009), a reference that emphasizes the ease with which it slots into these positions both in English and in the borrowing Yoruba. Notice specifically that the examples in (2) all contain the sequence /s/ plus plosive, thus highlighting the role of the /s/ phoneme in clusters imported to Yoruba. In example (3a) which contains a cluster of four consonants /k-s-t-r/, there is a reduction in the consonants to /s-r/ with the plosives deleted; it is important to note that the ease of /s/-articulation is the reason for its survival as the first member of the eventual /s-r/ cluster.

Examples such as (2b; 3e-f; 4a,i; 7j-k) that contain nasal-initial clusters (such as [nt] in 2b) present no apparent problem because Yoruba speakers are familiar with the articulation of homorganic nasals. While the nasal in this position is only homorganic in English, it is both homorganic and syllabic in Yoruba. Since its syllabicity qualifies it to stand as the peak of the syllable, we are not quite dealing with consonant clusters. The only process is that of syllabifying the nasal consonants in those sequences.

(2) Fricative-stop clusters
a. Krístì ‘Christ’
b. péntíkóstì ‘penticost’
c. Damáskù ‘Damascus’
d. sìstá ‘sister’
e. skáàfù ‘scarf’
f. Àpọ́stù ‘Apostle’
g. Filístínì ‘Philistine’
h. skáòtù ‘scout’
i. stúlù ‘stool’
j. skúù ‘school’
k. stọ́ọ̀ ‘stall’
l. skíìlì ‘skill’
m. mínístà ‘minister’
n. kọ́stóm ‘custom’
o. stédíọ̀m ‘stadium’
p. ọspítù ‘hospital’
q. ístà ‘easter’

(3) Fricative-sonorant clusters
a. ẹ́srà ‘extra’
b. slóò ‘slow’
c. slípás ‘slippers’
d. slọ́ọ̀tì ‘slot’
e. ínflúẹ́ńsì ‘influence’
f. kọ́ńfrẹ́ńsì ‘conference’
g. rẹfrí ‘referee’
h. faslíìn ‘vaseline’
i. nọ́srì ‘nursery’

On the other hand, clusters involving plosives are less frequently attested; when they occur the plosive is more likely to be followed by sonorants (4a-m). First of all, the infrequent

involvement of plosives in the clusters imported to Yoruba can be viewed in the light of plosives being the least sonorous of human speech sounds (McMahon 2002:107). Another explanation can be derived from the fact that plosives in Yoruba must be released, and this, as I shall argue shortly, allows for a fleeting moment of sonority between a given set of clusters such that it no longer comes out as a cluster. On the contrary, the first element of a plosive-plosive cluster in English is not released, hence inaudible (Roach 2009:59). It must be emphasised that although plosive-initial clusters are attested, they are less consistent than fricative-initial ones. This means that such sequences often come out with transitional sonority.

(4) Stop-sonorant clusters
- a. kọ̀mplîìtì ‘complete’
- b. tríì ‘three’
- c. tróìn ‘throw-in’
- d. dráífà ‘driver’
- e. drọ́ọ̀ ‘draw’
- f. dìkríì ‘decree’
- g. príf̣ẹ́t/ príf̣ẹ́ẹ̀tì ‘prefect’
- h. Krísmásì ‘Christmas’
- i. kọ̀ǹtróò ‘control’
- j. ẹ̀lẹ́tríìkì ‘electric’
- k. pẹtróò ‘petrol’
- l. bátrì ‘battery’
- m. làtrín ‘latrine’

(5) Stop-stop clusters
- a. skríptì ‘script’
- b. ẹlikọ́ptà ‘helicopter’
- c. dọ́ktọ̀ ‘doctor’

(6) Stop-fricative clusters
    a. infrasrọ́kṣọ̀ ‘infrastructure’

To now return to the argument that in many of the instances where the consonant clusters appear unbroken; there occurs a sort of transitional vowels between them. As is shown in Figures (1-3) this sonority does not equal the normal vowel of CVCV structure of Yoruba since it is significantly shorter in duration. It is called transitional because of the brief moment of sonority at the transition stage between the clustered consonants. As is apparent from (7a-n), this affects plosive-initial clusters much more than other types of clusters. Articulatorily, the three stages of plosive articulation (shutting, closure, and release) must be executed in Yoruba, whereas in English the release phase flows into the following sound (Roach 2009). This may not be unconnected with the fact that every consonant must be followed by a vowel in Yoruba. It also explains why clusters are split by epenthesising. In addition, it is the presence of the following vowels that enhances auditory discrimination between the consonants. Thus the presence of these transitional vowels between supposed consonant clusters is consistent with Yoruba Morpheme Structure Conditions MFC; only that what we are dealing with in this case is of considerably shorter duration. Figure (1) is of a word that contains three occurrences of the phoneme /i/, the first being a transitional vowel. Observe that the duration of the transitional vowel /i/ is less than half of each of the following occurrences of the phoneme within the same word. The situation is similar in Figures (2 and 3) where the transitional vowel /u/ lasts only 0.037 sec and 0.035 sec respectively. Also observe that visually the duration of the transitional vowels in comparison with other vowels is rather too short.

The brevity of transitional vowels is similar in a way to the observation by Kentowicz (2006:140) that epenthetic vowels tend to be brief; only that these transitional vowels are too fleeting to be categorised as vowels in the true sense.

(7) a. kríîmù ‘cream’
b. plọ́gì ‘plug’
c. klọ́ọ̀sì ‘clutch’
d. préè ‘pray’
f. trúù ‘through’
g. ópnà ‘opener
h. ábráhámù ‘abraham’
i. bláòsì ‘blouse’
j. blàńkẹ́ẹ̀tì ‘blanket’
k. tọ́mblà ‘tumbler’
l. klíkì ‘click’
m. krímínà ‘criminal’
n drọ́ọ̀ ‘draw’

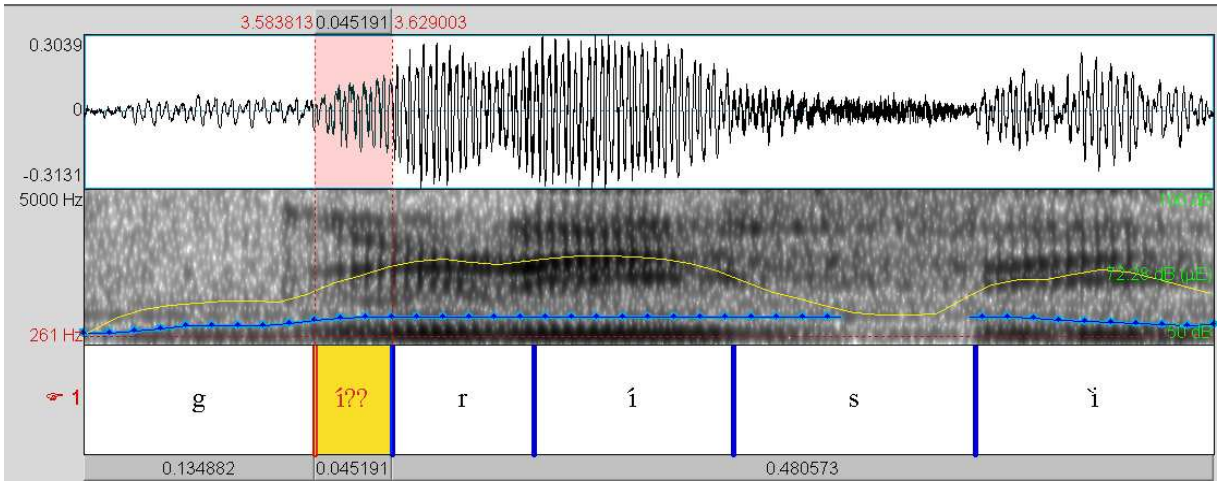

Fig. 1: Spectrogram of *grísì* “grease” showing a fleeting moment of sonority between /g/ and /r/ sounding /i/-like

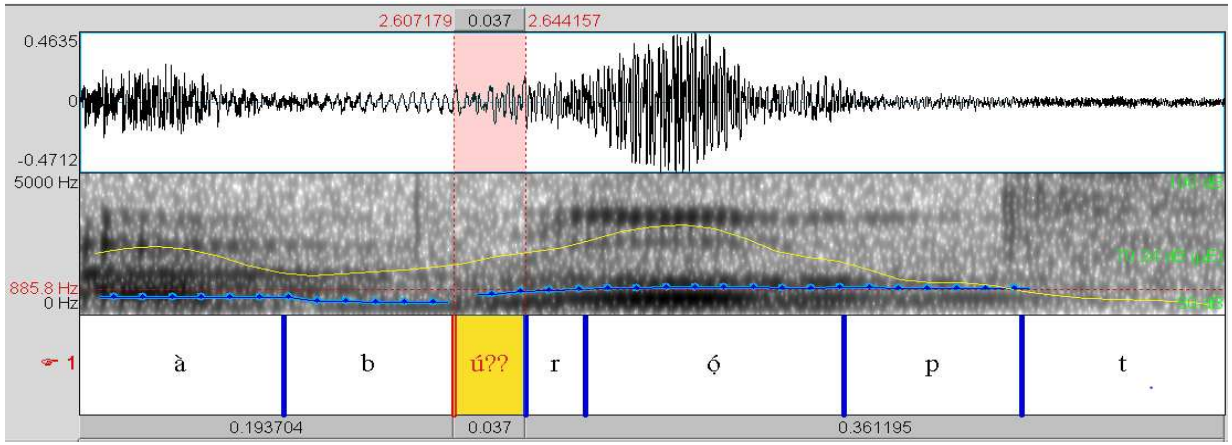

Fig. 2: Spectrogram of *àbrọ́pt* ‘abrupt’ showing a fleeting moment of sonority between /b/ and /r/ sounding /u/-like

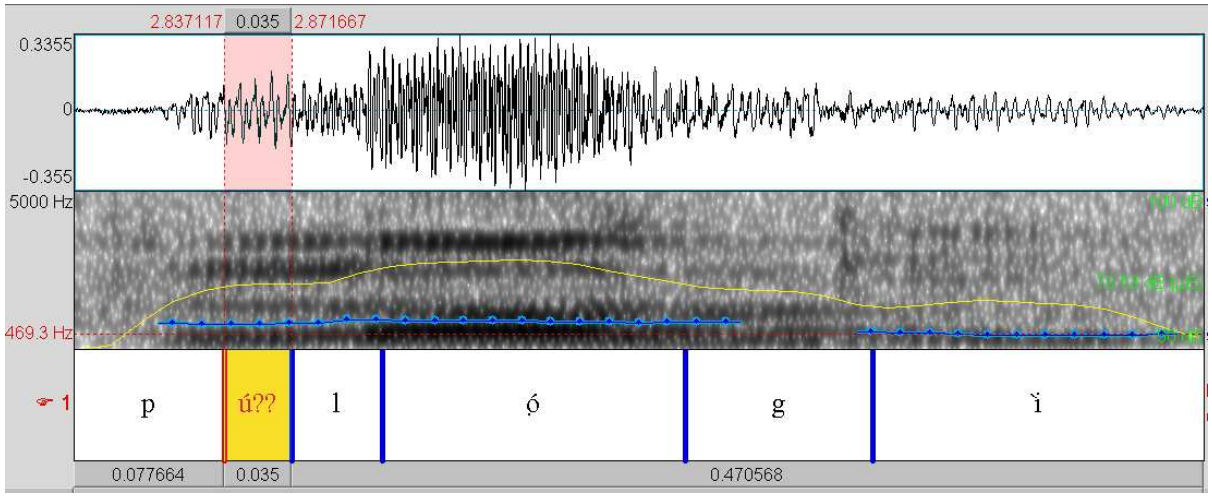

Fig. 3: Spectrogram of *plọ́gì* ‘plug’ showing a fleeting moment of sonority between /p/ and /l/ sounding /u/-like

4. Discussion

In the foregoing sections, it has been shown that in everyday use of Yoruba, speakers contemporarily use a lot of consonant clusters due to borrowings from English. It has also been shown that in many instances where it appears that clusters are nativized, transitional sonority is clearly perceived. This sonority is not present in English where the words are borrowed, and is also not equivalent to the usual vowels of Yoruba. In this section, we shall discuss the implication of these to the language. First, it has become apparent that there is a progression from the strict prohibition of consonant clusters to permission of same, with the stage of transitional vowels somewhere in-between. One can expect that with time, even the transitional vowels will disappear to give way to general and wide-spread use of consonant clusters in the language. This is the idea of linguistic change and it is not strange, given that language is dynamic. For instance Avatime, a language spoken in the Volta Region of Ghana, originally has two tones with two more developing along the line. Now four tones must be recognised for modern Avatime (Schuh 1995: 60). Another wide-spread example is how CV syllables become V through consonant deletion even in the basic vocabularies of African languages (see Adive (1989) for Ebira, and Bamgbose (1990) for Yoruba examples).

4.1. The Role of Social Class in Cluster Importation

Social impression has substantial influence on loanword adaptation with more and more Yoruba people now becoming bilingual in English, and full nativization of words loaned from English is now considered a sign of illiteracy. Bamgbose (1990) draws a distinction between the handling of borrowed words by *puruntu* ‘layman’ and the elite. The list of borrowed words used by the elites contained consonant clusters. But Bamgbose

provides neither elaboration of the forms nor any idea of what his observed trends could result in. This is similar in a way to the observation by Paradis and LaCharite (2011:754) that in some situations, full adaptations may be considered insulting. This explains the fact that it is the educated elite that imported consonant clusters and syllable codas into Yoruba, and it is the same class driving its diffusion into the larger society. This is possible simply because English, being an official language in Nigeria, is perceived to be prestigious (Wolff 2000:308), and ability to handle its phonology is in a way a sign of sophistication, whereas not being able to cope with such phonology (consonant clusters, syllable codas, central vowels, and certain difficult sounds) is associated with backwardness (Wolff 2000:308). Inability to cope with these aspects of English phonology is regarded as backward because it indicates either illiteracy or inadequacy of education.

Previous works have reported that Yoruba usually breaks consonant clusters. This is in line with the phonology and still largely consistent with the uneducated monolinguals. However the bilingualism level of the Yoruba society is rapidly increasing with its attendant contribution to the picture which cannot be ignored since the structure of the society favours diffusion of this trend. Paradis & LaCharite (2011:776) reported an abandoned project on Spanish loanwords in Guarani, a Paraguayan/Uruguayan language because Guarani speakers had become so bilingual and had stopped adapting Spanish words. A similar trend is observable in the contemporary Yoruba society (especially among the educated elites) whereby speakers now often import English words wholesale into their speech, and this then appears superficially like code mixing. All of this affirms the fact that languages are prone to change over time.

The diffusion of this phonological importation is not out of place since *status* and *roles* are at the root of social stratification

within a speech community (Wolff 2000: 301), and it is these that dictate the direction and nature of the observed diffusion. At the moment even illiterate monolingual speakers of Yoruba have a relatively large amount of English words in their lexicon (Bamgbose 1992:11) and in their bid to sound *sophisticated* they make conscious effort to cope with structures imported along with such words. This is because they continue to encounter these words in their daily lives.

4.2. The Role of Religion in Cluster Importation

Examples (1g; 2a-d, f-g, r; 4h; 7h) are all indications of the volume of semi-nativized words that are imported to Yoruba through the Christian religion. These words are found in the Yoruba Bible as well as various hymn and religious books. The corollary of this is that these words continue to be used during worships and thus their diffusion into the general society. Complementing this is the practice of interpretation during worship services. The speed at which interpreters have to find foreign words that have no correspondence in their native languages usually result in their either simply adopting the foreign words wholesale or versions of them.

5. Summary and Conclusion

In a general sense, the emergence of consonant clusters and syllable codas in Yoruba may be viewed as a result of phonological approximation whereby bilinguals operate in the bilingual mode, having access also to English phonological categories and structures. These bilinguals thus loan words from English, implement incomplete adaptation of those words, possibly not as far as will make them sound uneducated, and stop. The role of social stratification then diffuses their semi-

nativized items into the society[1]. As a matter of fact, Paradis & LaCharite (2011:763) are of the view that *the more bilinguals there are in a community, the more non-adaptations we find*. The role of social context is therefore paramount in the coming of consonant clusters into Yoruba (cf. Paradis & LaCharite 2011:754). Although the primary data studied for this article was of the educated elite, adequate confirmation was informally sought in everyday conversation of uneducated members of the speech community[2].

A question worth answering at this point is in respect of syllable structures and language change: how susceptible is syllable structure to change? The answer to this is simple: syllable structure is one of the phonological units most resistant to change. This is why a language can impose series of rules in order to preserve its syllable structure (cf. Hyman 1970 for Nupe example). This is what makes the importation of consonant clusters and syllable codas and their diffusion into Yoruba the more unique. When we consider that younger generations of Yoruba speakers, now being exposed to English from childhood, tend to handle these borrowed words as if there were no morpheme structure conditions to impose on them, we see the possibility of this change thoroughly diffusing into the society with time.

Nupe is a related language to Yoruba that also disallows consonant clustering (Hyman 1970:24); Hyman states that the

---

[1]In the Yoruba speaking region of Nigeria, proficiency in English is a symbol of high and enviable social status; in fact, proficiency in English is equal to being educated and a university graduate that fails in this respect is considered a disgrace.

[2]An example of this is the case of two electricians whose education was apparently minimal who used the word *gló̀bù̀* 'globe/bulb' freely while fixing electrical issues in the phonetics laboratory in Obafemi Awolowo University, Ile-Ife, Nigeria, during the course of this research.

vowel insertion rule employed to break the clusters of foreign words in the language is so productive that it is consistent in borrowed words as well as when Nupe people speak foreign languages with *an accent*. Since Yoruba was also like this diachronically and has now begun to accommodate these sequences it will be interesting to see (in a follow-up research to Hyman 1970) whether the morpheme structure conditions of Nupe are still sacrosanct in loanword nativization.

Another question worth attending to is whether this article is a study of competence or of performance. To the old, largely monolingual generation, this cannot be said to be on competence. However to contemporary bilingual Yoruba speakers, the distinction is simply not clear-cut; it depends on one's disposition. Most importantly are the children presently acquiring Yoruba and English concurrently for whom the use of clusters may sooner or later be regarded as indication of competence. This is usually the result when linguistic change is accomplished.

References

Awobuluyi, O. 1992. 'Lexical Expansion in Yoruba: Techniques and Principles'. *Research in Yoruba Language and Linguistics* 2.

Bamgbọṣe, A. 1990. *Fonọ́lọ́jì àti Girámà Yorùbá*. Ibadan: University Press Plc.

Bamgbọṣe, A. 1992. Corpus Planning in Yoruba: the radio as a case study. *Research in Yoruba Language and Linguistics* 2.

Beckman, J., M. Jessen, & C. Ringen.2006. Phonetic Variation and Phonological Theory: German Fricative Voicing. Baumer, D., D. Montero, & M. Scanlon (eds.) *Proceedings of the 25th West Coast Conference on Formal Linguistics*. Somerville, MA: Cascadilla Proceedings Project, 76-86.

Davenport, M. & S. J. Hannahs. 2010. *Introducing Phonetics and Phonology*. London: Hodder Education.

Hyman, L. M. 1970. The Role of Borrowing in the Justification of Phonological Grammars. *Studies in African Linguistics* 1 1: 1 – 46.

Kentowicz, M. 2006. Tone Loans: the Adaptation of English Loanword into Yoruba. Mugane, J. et al. (ed.) *Selected Proceedings of the 35th Annual Conference on African Linguistics*. Somerville, M.A.: Cascadilla .

McMahon, A. 2002. *An introduction to English Phonology*. Oxford: Oxford University Press.

Oyebade, F. O. 2008. 'Prosodic Structure Preservation and English Loanwords in Yoruba: a Constraint-based Account'. Ndimele, O. M, I.I.L. Udoh, and O. Anyawu (eds.) *Critical Issues in the Study of Linguistics, Languages & Literatures in Nigeria*. Port Harcourt: M & J Grand Orbit & Emhai Press.

Paradis, C. & D. LaCharite. 2011. 'Loanword Adaptation: from Lessons Learned to Findings'. Goldsmith, J., J. Riggle & A. C. L. Yu (eds.). *The Handbook of Phonological Theory*. Oxford: Blackwell.

Roach, P. 2009. *English Phonetics and Phonology* (4th Edition). Cambridge: Cambridge University Press.

Schuh, R. G. 1995. 'Aspects of Avatime Phonology'. *Studies in African Linguistics,* 24, 1: 31 – 67.

Taiwo, O. & K. Adeniyi. 2011. 'The Emergence of Non-conforming Syllables in Yoruba'. *Ago-Iwoye Journal of Language and Literary Studies*, Vol. 2: 111-120.

Wolff, H. E. 2000. 'Language and Society'. Heine, B. & D. Nurse (Eds.) *African Languages: an Introduction*. Cambridge: Cambridge University Press.