

“I hope you are all find”: pre-pausal and phrase-internal post-coronal [t] and [s] epenthesis in a variety of L2 Nigerian English.

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1. Introduction

L2 speakers of Nigerian English in parts of north-eastern Nigeria occasionally insert a coronal stop [t] or fricative [s] following a word-final coronal pre-pausally, as in (1), and phrase-internally, as in (2).

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| <p>(1) pre-pausal</p> <p>a. How is Paris[t]?</p> <p>b. Control-X [-ikst]</p> <p>c. I want to use three days[t]</p> <p>d. (It) is cool[t]</p> <p>e. So the girl spen(t) one night[s] ...</p> <p>f. By the morning the husban(d) left[s]</p> <p>g. If the hole is sealed by the soil[s] ...</p> | <p>(2) phrase-internal</p> <p>a. So my original plan[t] is that...</p> <p>b. She don('t) have even[s] a spot on her body</p> <p>c. And the girl[s] realised that this is the man, that she know(s) him</p> |
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The paper discusses this typologically unusual phenomenon for the L2 Nigerian English of speakers whose L1 is Bena (ISO 639-3:yun), currently classified as Adamawa (Niger-Congo stock). At least the [t] epenthesis is not restricted to Bena L1 speakers, but the exact areal distribution of this phenomenon is not known for the moment.

2. What is interesting about the epenthesis in Bena English (BE)?

- This phenomenon is typologically highly unusual (cf. Vaux 2002, Ohala 2003:681-682, Morley 2012)
- The only vaguely resemblant typological parallel that I am aware of, is arguably found in Amharic (Semitic; Ethiopia). Thus, Morley (2012:70) cites Broselow (1984) who analyses Amharic “as inserting /t/ to satisfy templatic morphology; as a result, /t/ surfaces word-finally or as the second member of a two-consonant sequence”.
- No similar morphological explanation is possible with Bena L1.
- Remarkably, Bena L1 itself does not have pre-pausal consonant clusters.
- Furthermore, phrase-internally the sequence of a stem-final coronal /t, d, d/ and a non-stem-initial /s/, such as that of the suffix/clitic *sa*, is normally simplified to /ss/ or /s/.
- There is some evidence for the speakers’ phonological awareness of the epenthesis, at least for the utterance-final epenthetic [t].

3. Bena English (L2) consonants

Table 1. Word-initial consonants in BE (after a pause or the final vowel of a preceding word)

	Bilabial	Labiodental	Alveolar	Postalveolar	Palatal	Velar	Labial-velar	Glottal
stop & affricate	p ^h b		t ^h d	tʃ ʈ		k ^h g		(ʔ)
fricative		f v	s z	ʃ				h
nasal		m		n				
trill / approximant				r				
lateral approximant				l				
central approximant					j		(w)	

Table 2. Word-final consonants in BE before a pause

	Bilabial	Labiodental	Alveolar	Postalveolar	Velar
stop & affricate	p ^(h)		t ^(h)	tʃ	k ^(h)
fricative		f	s	ʃ	
nasal		m		n	
lateral approximant				l	

Table 3. Word-final consonants in BE not before pause

	Bilabial	Labiodental	Alveolar	Palatal	Velar
stop & affricate	p ^(h) b		t ^(h) d	tʃ	k ^(h) g
fricative		f v	s z	ʃ	
nasal		m		n	
lateral approximant				l	

4. Bena (L1) consonants

Table 4. Word-initial consonants (after a pause or the final vowel of a preceding word)¹

	Bilabial	Labiodental	Alveolar	Postalveolar	Palatal	Velar	Labial-velar	Glottal
plain stop & affricate	p ^h b		t ^h d tʃ			k ^h g	kp gb	(ʔ)
implosive	ɓ		ɗ					
fricative		f v	s z ʃ					h
nasal	m		n			ŋ	ŋm	
trill / approximant			r					
lateral approximant			l					
central approximant					j ʃ		w ɰ	

Table 5. Word-final consonants before pause

	Bilabial	Labiodental	Alveolar	Palatal	Velar	Labial-velar	Glottal
stop	pʔ		tʔ (t ^(h))		kʔ (k ^(h))		(ʔ)
fricative		f(?)	s(?)				
nasal	m(?)		n(?)		ŋ(?)		
trill			r(?)				
lateral approximant			l(?)				
central approximant				j(?) ʃ(?)		w(?) ɰ(?)	

- Post-pausal glottalization
- Pre-pausal glottalization
- Word-final consonant clusters are not allowed in Bena.

¹ Although the aspiration of the word-initial voiceless stops is moderate, I use the aspiration sign to emphasize the difference with non-word-initial stops of the same place of articulation before a pause or a vowel, where they are not as much or not aspirated at all.

- In their citation form, most words end in an open syllable.
- Utterance-internally, the final vowels are often reduced and in some constructions deleted. Thus, this is what happens with the final vowel of the head N1 in a genitive construction N1 N2. When the final vowel is deleted, the result is a word-final closed syllable. At least in the case of the genitive construction, the resulting final consonant may be optionally glottalised comparably to the pre-pausal context.

Table 6. Word-final consonants not before pause

	Bilabial	Labiodental	Alveolar	Palatal	Velar	Labial-velar	Glottal
plain stop	p b		t d		k g		(ʔ)
implosive	ɓ		ɗ				
fricative		f v	s z				
nasal	m		n		ŋ		
trill			r				
lateral approximant			l				
central approximant					j ʃ		w ɰ

5.1. BE epenthesis: contexts

- [t]
 - Pre-pausally (especially, utterance-finally), after coronal continuants [n], [l] and [s].
 - Phrase-internally and word-finally before a vowel, at least after [n]
- [s]
 - Pre-pausally (especially, utterance-finally), after a coronal stop [t] and at least after [l].
 - Phrase-internally and word-finally before a vowel (also an epenthetic one before [r], as in (2c)), after coronal continuants [n] and [l].

5.2. BE epenthesis: phonetics

- Pre-pausal epenthetic [t]
 - The audible release of an epenthetic [t] is generally weak, lacking aspiration, comparably to Bena pre-pausal [tʔ] rather than [t^(h)].
 - The audible release can occasionally be nasal, as in *three days*[tʰ], comparably to Bena pre-pausal [tʔⁿ] rather than [t^(h)].

- Acoustically, the difference between the audibly released pre-pausal epenthetic [t] in BE and the audibly released pre-pausal glottalised [tʔ] Bena appears to be primarily that of closure duration. Thus, the closure duration of BE epenthetic [t] is much shorter and comparable to that of a non-glottalised [t] in Bena.
- Pre-pausal epenthetic [s], phrase-internal word-final epenthetic [t] and [s]
 - I found no clear phonetic differences between the epenthetic consonants and their non-epenthetic counterparts in these contexts.

5.3. BE epenthesis: phonological status

- The insertion is optional and speakers vary in its frequency. Both better English proficiency and more formal situations of English use appear to reduce the amount of epenthesis.
- The situation-bound decrease in the frequency of the epenthesis may point to speakers' phonological awareness of the epenthesis, at least to a certain extent.
- An alternative account relegating the epenthesis to the status of a lower level phonetic phenomenon could explain the differences in the epenthesis frequency by differences in speakers' abilities in approximating the target pronunciation of more standard varieties of NE. This alternative account would be strengthened, should we find that for a given speaker, the frequency of correct productions of lexical word-final clusters with [t] and [s] would increase in the situations where the frequency of the epenthesis decreases. My impression is however that this does not happen.
- Another fact that can be interpreted both ways is that speakers use epenthesis also in words that they have never encountered before, such as uncommon proper names, e.g. *Willys[t]*.
- Finally, the fact that at least the utterance-final epenthetic [t] has been found reflected in written BE, as in *I hope you are all find*, is more suggestive of the phonological awareness interpretation.

6. BE epenthesis: phonological status

- ❖ **Morphological Hypercorrection Hypothesis:** [s] and [t] are over-applied as a result of an imperfect internalisation of the Standard NE rules for using the nominal PL suffix *-s*, the verbal PRS.3SG suffix *-s* and the verbal PST suffix *-ed*.

Rather **unlikely**, because...

- The epenthetic [s] and [t] appear on elements of any part of speech
- The epenthetic [s] and [t] appear only after coronals and mostly before a pause

In BE, the nominal morpheme *-s* and especially the verbal TAM morphemes *-s* and *-ed* are often lacking even when phonotactically, they would be rather uncontroversial, for instance after a vowel, as the PRS.3SG suffix *-s* in (2c).

- ❖ **Phonological Hypercorrection Hypothesis:** [s] and [t] are over-applied as a result of misguided attempts to repair the tendency for word-final consonant cluster simplification transferred from L1.

The following two observations may suggest an explanation in terms of phonological hypercorrection.

- In BE, the nominal morpheme *-s* and especially the verbal TAM morphemes *-s* and *-ed* are often lacking.
- In BE, in lexical word-final consonant clusters, the second consonant, especially [t], is often dropped, as the final [t] of *husband* in (1e) or of *gold* in *all the glitters are not gold*. This is a general tendency in NE (cf. Gut 2008:47). Furthermore, this is equally unsurprising in BE, since there are no word-final consonant clusters in Bena itself.

On its own, this explanation **cannot be sufficient**, because...

- It is not clear why [s] and [t] would be the only epenthetic consonants.
- It is not clear why the epenthetic [s] and [t] would appear only after coronals and mostly before a pause.

However, it has probably contributed to the development of the post-coronal [t] and [s] epenthesis.

- ❖ **L1 phonetic interference & perception based reanalysis:**

The following properties of Bena as L1 that are absent in more standard varieties of NE are relevant here:

- Pre-pausal glottalisation, either as (for all consonants) a glottal closure with an audible release or (for voiced continuants only) as a fall in the intensity of the sound
- Pre-pausal lengthening of the consonants, suggesting a sustained articulatory effort in their realization.

The proposed scenarios for the development of epenthetic consonants in BE share the following two steps:

1. Pre-pausal glottalisation and consonant lengthening are transferred from Bena into BE.

2. A correction for the shorter audible duration of pre-pausal continuants in NE is attempted by compressing the glottalisation over the final part of the continuant with the oral closure being relaxed into a narrow constriction.

- Pre-pausal epenthetic [t] after continuants
 - 1 & 2. (glottalisation = glottal closure)
 2. The glottal closure is released too quickly, while the oral articulation of the preceding coronal continuant is still largely sustained, which may occasionally result in a percept of an audibly released [t].
 3. This may later become phonologised, probably under the stimulus of the phonological hypercorrection (cf. above).
- Pre-pausal epenthetic [s] after [t]
 - 1 & 2. (glottalisation = glottal closure)
 3. The glottal closure is released just a moment after the oral closure sounding as a weak ejective and which may occasionally result in a percept of a sibilant following [t].
 4. Phonologisation (cf. above).
- Pre-pausal epenthetic [s] after continuants
 - 1 & 2. (glottalisation = intensity fall)
 3. Largely devoiced period of friction in the final part of the continuant may occasionally result in a percept of a sibilant following the continuant.
 4. Phonologisation (cf. above).
- Phrase-internal word-final epenthetic [s] and [t]
 - The same as above, but the glottalisation comes from the word-initial vowel that follows.
 - Alternatively, the phrase-internal epenthesis does not have an independent phonetic source but is subsidiary to the phonologisation of the word-final epenthetic consonants in the pre-pausal context.

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