CONTRASTIVE ANALYSIS HYPOTHESIS: INSIGHT INTO PRONUNCIATION ERRORS OF IGALA LEARNERS OF ENGLISH

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ABSTRACT

This paper studies English and Igala phonemes with the aim of contrasting them and knowing which phonemes of English are difficult for Igala learners of English as second language (L2). Contrastive analysis (CA) is used to examine the sound systems of the two languages. Both the consonantal and vocalic phonemes of these are languages as discussed showing the nature of their production. From contrasting the differences and similarities between the phonemes of the two languages, the result shows that English has more phonemes than Igala; Igala does not distinguish between long and short vowels; there are no diphthongs in Igala sounds.

The implication of the differences between the sound systems of English and Igala is that Igala learners of English phonemes find it difficult to learn and pronounce them correctly. And this leads to mother tongue interference whereby the learner’s first language (L1) influences his L2. With constant learning and production of the problematic phonemes, the Igala learners of English may overcome the mother tongue interference in pronunciation.

KEY WORDS: Igala, Contrastive Analysis (CA), Diphthongs

INTRODUCTION

The theoretical background of what is today known as contrastive analysis hypothesis (CAH) stemmed from Lado’s ‘Linguistics Across Cultures’ (1957). In his study, Lado observes that “those elements which are similar to learner’s native language will be simple for him/her and those elements that are different will be difficult” While this was not a strange suggestion, however, Lado was the first scholar to provide a clear – cut theoretical ‘dose’ and to suggest a systematic array of technical methods for the contrastive study of languages, which include describing the languages, comparing them and predicting learning difficulties (Wilkins, 1972) in Agbedo (2000).

Contrastive analysis is the best method to foreseeing the potential difficulties of a second language learner. “It is possible to establish patterns of difficulty for learners of a given language, learning a certain target language with the use of different testing techniques and elicitation procedures though not from only linguistics point of view” (Mukattson, 1984:354). Agbedo (2000) says that the relevance of CA in language teaching cannot be quantified. CA is one of the few investigations into language study that has improved pedagogy as its aim.

It studies the differences between the mother tongue or L1 and the target language of the learners and predicts the possible difficulties the learners will have. This determines what the learners have to learn and what the teacher has to teach. CA results are, therefore, built into language teaching materials, syllabuses, tests and researches.

CA also focuses on the effect caused by the native language on the language being learnt (L2). Weinreich (1953:88) says: “It is the conclusion of a common experience, if not yet a finding of psycholinguistic research, that the language which has been learnt first or the mother tongue, is in a privileged position to resist interference”.
Oluikpe (1978) in Udegbunam (2004) propounded two basic theories of interference: positive and negative interference. Positive interference occurs when learner’s L1 closely approximates the structure in his L2 while negative interference occurs when a structure in L2 is lacking in L1. Lado (1957) notes that an adult speaker of one language finds it difficult to pronounce speech sounds of another language even though he has no speech impediment. In an attempt to learn such speech sounds, interference will set in. “In his efforts to make utterance in the foreign language the, learner is influenced not only by the sounds that exist in his mother tongue, but also by their distribution and phonological status (Wilkins, 1972:191; Udegbunamu 2004).

Phonemes are sets of smallest units of speech in a language that distinguish one word from another (Ladefoged, 1993). “The communication process cannot be fully understood unless one understands how sounds and prosodies of language organize themselves into meaningful units (Anagbogu, Mbah and Eme, 2010:96). Any meaningful unit or sound than can distinguish meaning in a language is, therefore, known as a phoneme. A phoneme is best described using minimal pair. A minimal pair is a pair of words which differ in only one segment or phoneme in the same environment and this difference brings about a difference in meaning (Anagbogu, Mbah and Eme,2010; Omachonu, 2000).

Mbah and Mbah (2010) define phonemes as discrete sounds that cannot be further decomposed. Phonemes possess some phonetic properties which make them distinctive. These properties or features make them stand distinguished from one another. A good number of scholars have extensively discussed the term phoneme (see Chomsky and Halle, 1968; Clark and Yallop, 1990 &1995; Fromkin and Rodman 1981; Halle and Clements, 1983; Hyman, 1975; Jakobson and Halle, 1956; Katamba, 1989; Mannell, 2011; Oyebade, 2008; Williamson, 2007; Yul-Ifode, 2007; Crystal, 2008 Davenport and Hannahs, 2006; Ladefoged 2006; Yule, 1996).

Using CA, predictions can be made on possible difficulties which Igala learners of English phonemes may encounter and this is the focus of this paper.

DATA PRESENTATION

In this section, both the consonantal and vocalic phonemes of English and Igala are presented one after the other.

Consonants

Consonants are speech sounds produced with some levels of obstruction to the air streams from the lungs at some point in the vocal tract (Ladefoged, 1993). The English and Igala consonants are described below showing the state of the glottis, the place of articulation and the manner of articulation.

Consonants of English

<table>
<thead>
<tr>
<th>Sound</th>
<th>Articulatory Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>[p]</td>
<td>voiceless, bilabial, plosive as in ‘pin’</td>
</tr>
<tr>
<td>[b]</td>
<td>voiced, bilabial, plosive as in ‘bin’</td>
</tr>
<tr>
<td>[t]</td>
<td>voiceless, alveolar, plosive as in ‘ten’</td>
</tr>
<tr>
<td>[d]</td>
<td>voiced, alveolar, plosive as in ‘den’</td>
</tr>
<tr>
<td>[k]</td>
<td>voiceless, velar, plosive as in ‘cab’</td>
</tr>
<tr>
<td>[g]</td>
<td>voiced, velar, plosive as in ‘good’</td>
</tr>
<tr>
<td>[m]</td>
<td>voiced, bilabial, nasal as in ‘moon’</td>
</tr>
</tbody>
</table>
Contrastive Analysis Hypothesis: Insight into Pronunciation Errors of Igala Learners of English

<table>
<thead>
<tr>
<th>Consonant</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>[n]</td>
<td>voiced alveolar nasal as in ‘noon’</td>
<td></td>
</tr>
<tr>
<td>[ŋ]</td>
<td>voiced velar nasal as in ‘king’</td>
<td></td>
</tr>
<tr>
<td>[ŋ]</td>
<td>voiceless postalveolar affricate as in ‘catch’</td>
<td></td>
</tr>
<tr>
<td>[dʒ]</td>
<td>voiced postaveolar affricate as in ‘jaw’</td>
<td></td>
</tr>
<tr>
<td>[f]</td>
<td>voiceless labio-dental fricative as in ‘fan’</td>
<td></td>
</tr>
<tr>
<td>[v]</td>
<td>voiced labio-dental fricative as in ‘van’</td>
<td></td>
</tr>
<tr>
<td>[θ]</td>
<td>voiceless dental fricative as in ‘theme’</td>
<td></td>
</tr>
<tr>
<td>[ð]</td>
<td>voiced dental fricative as in ‘thee’</td>
<td></td>
</tr>
<tr>
<td>[s]</td>
<td>voiceless alveolar fricative as in ‘sip’</td>
<td></td>
</tr>
<tr>
<td>[z]</td>
<td>voiced alveolar fricative as in ‘zip’</td>
<td></td>
</tr>
<tr>
<td>[ʃ]</td>
<td>voiceless postalveolar fricative as in ‘sure’</td>
<td></td>
</tr>
<tr>
<td>[θ]</td>
<td>voiced postalveolar fricative as in ‘pleasure’</td>
<td></td>
</tr>
<tr>
<td>[h]</td>
<td>voiceless glotal fricative as in ‘hope’</td>
<td></td>
</tr>
<tr>
<td>[l]</td>
<td>voiced alveolar lateral approximant as in ‘lake’</td>
<td></td>
</tr>
<tr>
<td>[r]</td>
<td>voiced alveolar flap as in ‘rate’</td>
<td></td>
</tr>
<tr>
<td>[j]</td>
<td>voiced palatal approximant as in ‘yawn’</td>
<td></td>
</tr>
<tr>
<td>[w]</td>
<td>voiced Labial-velar approximant as in ‘warn’</td>
<td></td>
</tr>
</tbody>
</table>

Consonants of Igala

<table>
<thead>
<tr>
<th>Consonant</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>[p]</td>
<td>voiceless bilabial plosive as in p ʰ ‘bend’</td>
<td></td>
</tr>
<tr>
<td>[b]</td>
<td>voiced bilabial plosive as in b ʰ ‘dilute’</td>
<td></td>
</tr>
<tr>
<td>[t]</td>
<td>voiceless alveolar plosive as in t ʰ ‘jump’</td>
<td></td>
</tr>
<tr>
<td>[d]</td>
<td>voiced alveolar plosive as in d ʰ ‘call’</td>
<td></td>
</tr>
<tr>
<td>[k]</td>
<td>voiceless velar plosive as in k ʰ ‘pluck’</td>
<td></td>
</tr>
<tr>
<td>[g]</td>
<td>voiced velar plosive as in g ʰ ‘sew’</td>
<td></td>
</tr>
<tr>
<td>[kp]</td>
<td>voiceless labiovelar plosive as in kpa ‘kill’</td>
<td></td>
</tr>
<tr>
<td>[gb]</td>
<td>voiced labiovelar plosive as in gba ‘read’</td>
<td></td>
</tr>
<tr>
<td>[kw]</td>
<td>voiceless labialized velar plosive as in u ʰkwu ʰ ‘death’</td>
<td></td>
</tr>
<tr>
<td>[gw]</td>
<td>voiced labialized velar plosive as in u ʰgwu ʰ ‘pumpkin’</td>
<td></td>
</tr>
<tr>
<td>[m]</td>
<td>voiced bilabial nasal as in a ʰm ‘they/them’</td>
<td></td>
</tr>
<tr>
<td>[n]</td>
<td>voiced alveolar nasal as in a ʰn ‘in-law’</td>
<td></td>
</tr>
</tbody>
</table>
Vowels

Vowels are speech sounds produced without obstruction of the airstream from the lungs. The description and classification of vowels are based on the distance between the tip of the tongue and the root of the mouth, the retraction or extension of the tongue and the shape of the lips (Ladefoged, 1993; Omachonu, 2000; Mbah and Mbah, 2010).

Vowels of English

Vowels of English are mainly classified into monophthongs and diphthongs. Monophthongs are produced without any change in quality in a single syllable. The English monophthongs are classified based on a three-label description thus:

[i]: close front unrounded as in ’feet’

[I]: close front unrounded as in ’fit’

[เบ]: close back rounded as in ’pool’

[พ]: close back rounded as in ’pul’

[เร]: close-mid front unrounded as in ’beg’

[ร]: close-mid central unrounded as in ’berg’

[เ]: close-mid central unrounded as in ’about’

[]: open back rounded as in ’court’

[]: open back rounded as in ’cot’

[ะ]: open back unrounded as in ’park’

[า]: open, back unrounded as in ’pack’

[ฤ]: open central unrounded as in ’son’
Diphthongs, on the other hand, are vowels produced with gradual gliding of one vowel to another vowel. English diphthongs could be described as closing or centering based on the direction of the gliding or movement.

When a diphthong is produced with gliding from a more open position to a more close position, it is referred to as closing diphthong. The English closing diphthongs are:

- [İı]; as in take, make, fake
- [ɛɛʊʊ]; as in ‘no, go, low’
- [ɔɔɪɪ]; as in ‘bite, light, fight’
- [ɔɔʊʊ]; as in ‘how, cow, now’
- [ʊʊ]; as in ‘boy, boil, toy’

However, when the direction of the glide or movement is from a non-central position to a central position, a centering diphthong is produced.

The following are English centering diphthongs:

- [ɪɪɛɛ]; as in ‘hear, ear, fear’
- [ɛɛɪɪ]; as in ‘bare, fare, hair’
- [ʊʊɛɛ]; as in ‘poor, lure, tour’

**Vowels of Igala**

- [i]; close, front, unrounded as in mɪ ‘rest’
- [ʊʊ]; close, back, rounded as in mʊ ‘catch’
- [ʊʊ]; close-mid, front, unrounded as in mɛ ‘borrow’
- [o]; open-mid, back, rounded as in ro ‘fart’
- [ɪɪ]; mid-close, front, unrounded as in re ‘close’
- [ʊʊ]; open, back, rounded as in dʊ ‘call’
- [ʊʊ]; open, back, unrounded as in dα ‘cut’

**Syllable Structures of English and Igala**

A syllable is a sequence of vowels or consonants in a language which can be said in a single vocal impulse. It obligatorily comprises a vowel or a syllabic consonant. The English syllabic consonants are: /l/ and /n/ (Omachonu, 2000; Oyebade, 2008; Agbedo, 2000). The basic elements of a structure of a syllable are the onset (the consonant before the nucleus), the nucleus (the vowel or syllabic consonant) and the coda (the consonant after the nucleus).

**The Syllable Structure of English**

English has the following syllable structures:

- V as in or /ʊʊ/ and ear /ɛɛʊʊ/
CV as in you /qu/ and me /mu/
CVC as in pen /pen/ and fat /f/t/
VC as in at /t/ and it /i/
VCC as in ask /a&/ and apes /ap/
CVCC as in pence /ap/ and desk /ek/
CCVC as in trap /ap/ and step /ap/
CCCVC as in stress /ap/ and spread /ap/
CCVCCC as in prompts /ap/ etc.

Syllable Structure of Igala

Igala syllable structures could be in the following forms according to Omachonu (2000) are only V and CV as in:
Mono-syllabic words: as in ka CV ‘to say’
Di-syllabic words: as in aCV ‘mouth’

DISCUSSIONS

The differences and similarities between English and Igala phonemes are discussed in this section based on the data presented in the previous section. This will enable us to predict difficulties which Igala learners of English phonemes will face.

Differences between English and Igala Phonemes


The English voiced labiodentals fricative /v/; voiceless dental fricative /f/; voiced dental fricative /Δ/; voiceless alveolar fricative /s/; voiced alveolar fricative /z/; voiceless post alveolar fricative /s/; voiced post alveolar fricative /θ/ are lacking in the Igala consonantal system. Also, the Igala voiceless labio velar plosive /kp/; voiced labio velar plosive /gb/; voiceless labialized velar plosive /kw/; voiced labialized velar plosive /gw/; voiced palatal nasal /u/; voiced labialized nasal /ŋ/ do not occur in English.

Similarly, the English close-mid, central, unrounded vowels /e/ and /I/; open, front, unrounded vowel /a/; open, central unrounded vowel /o/ are not found in the vocalic system of Igala. Also, English has diphthongs /ap/, /a/, /a/, /a/, /a/, /a/ and distinguishes between short and long vowels but Igala does not. However, the Igala open-mid, back, unrounded vowel /o/ and mid-close, front, unrounded vowel /e/ do not occur in the English vocalic system.

Following from the above, it is evident that while English has a total of nine (9) fricatives, Igala has only two fricatives /f and h/. And while Igala has a total of ten (10) plosives sounds, English has only six (6). Igala also has five (5) nasals but English has three of them.
Differences between English and Igala Syllable Structures

English and Igala operate different syllable structures. While English operates both open and close systems of syllable structures, Igala operates only open system of syllable structure. Open and close systems in this sense means when a syllable is without a coda, it is termed as an open system but when it is with a coda, it is described as a close system. It is also important to note that while consonant cluster is possible in English, it is does not occur in the Igala syllable structure. The only syllable structures in Igala are V and CV.

Phonemic Similarities between English and Igala

The differences between English and Igala phonemes notwithstanding, there are a couple of similarities between the phonemic systems of the two languages. The voiceless and voiced bilabial plosives /p/ and /b/; voiceless and voiced alveolar plosives /t/ and /d/; voiceless and voiced velar plosives /k/ and /g/, bilabial nasal /m/; alveolar nasal /n/; velar nasal /ŋ/; voiceless and voiced alveolar affricates /ʧ/ and /ʤ/; voiceless labiodental fricative /f/; voiceless glottal fricative /h/; alveolar lateral approximant /l/; alveolar trill /r/; palatal approximant /j/; labial velar approximant /w/ occur in the consonantal systems of both languages.

Also similar to the sound systems of the two languages are vocalic sounds such as: the close, front, unrounded /i/; close, back, rounded /u/; close-mid, front ,unrounded /æ/; open, back, rounded /ɒ/; open, back unrounded /æ/.

Predictions

Owing to our thus far discussion and or analysis of English and Igala phonemes i.e the differences and similarities between the two languages’ phonemes, it is important to make predictions at this juncture. The implication of the differences between English and Igala phonemes is that Igala learners of English as L2 will find it difficult to learn or pronounce those English speech sounds which do not occur in Igala.

It was earlier noted that the English voiced labiodental fricative /v/; voiceless and voiced dental fricatives /θ/ and /ð/; voiceless and voiced alveolar fricatives /s/ and /z/; voiceless and voiced postalveolar fricatives /ʃ/ and /ʒ/ do not occur in the Igala consonantal system. Also not found in the Igala sound system are the English vocalic sounds such as: the close-mid central unrounded vowels /ɛ/ and /ɨ/; open, front, unrounded vowel /ɹ/; open central, unrounded vowel /ɹ/; the English diphthongs: /ɛɪ, ɑɪ, ɔɪ, ʊɪ, ʊə, ɤɪ, ɚɪ, ɚə, ɚʊ, ɚɛ/ as earlier discussed.

Suffice it to say that mother tongue interference will set in if Igala learners of English as L2 try to learn the above English phonemes so that the following words containing some of such sounds are pronounced wrongly thus:

1. favour /ˈfævər/ instead of /ˈfɛvər/
2. with /wɪt/ instead of /wɪt/
3. the /ði/ instead of /θi/
4. security /ˈsekərəti/ instead of /ˈsɛkərəti/ Ḗkuriti
5. Zebra /ˈzɪbə/ instead of /ˈziːbə/ Ḗbra
6. washing /ˈwæʃɪŋ/ instead of /ˈwæʃɪŋ/ Ḗn
7. pleasure /ˈplɛʒər/ instead of /ˈplɛʒər/ Ḗg
8. bird /bɜːd/ instead of /bɜːd/
Furthermore, Igala learners of English may wrongly structure English syllables as a result of the differences between the syllables of English (their L2) and Igala (their L1). So that the word *pen* is pronounced /pEni/ by Igala learners of English, where a vowel /i/ is inserted at word final position to agree with the Igala phonotactics. In fact this is also the case with every English word ending in a consonant. A vowel but not necessarily, /i/ is inserted.

**CONCLUSIONS**

This paper has studied English and Igala phonemes using contrastive analysis as its theoretical basis. It has discussed both the consonantal and vocalic phonemes of the two languages noting their differences and similarities respectively. The paper reveals that English has more phonemes than Igala. The paper predicts that the differences between the two languages’ phonemes may lead to pronunciation difficulty for Igala learners of English as L2. Based on the prediction, learning materials and/or syllabuses could be derived or designed for pedagogic purpose. And this will improve upon Igala learners’ knowledge of English phonemes.

**REFERENCES**
