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# A Lexicostatistics Comparison of Standard Yorùbá, Àkùré and Ìkàré Àkókó Dialects

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## Abstract

This paper studied the differences and similarities in the lexicon of Standard Yoruba, Ìkàré Àkókó and Àkùré dialects. We examined the lexicostatistics comparison of the lexicons in Standard Yorùbá, Ìkàré Àkókó and Àkùré dialects. The paper aims at determining the level of mutual intelligibility in Standard Yorùbá, Ìkàré Àkókó and Àkùré speech forms. The objectives of this study were: (i) to find out the areas of similarities and differences of the lexical items of

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the dialects, (ii) to examine the phonological relatedness of the three dialects and (iii) to determine the cognate percentage of relatedness among the three dialects. The data for this paper were collected from six native speakers using the SIL Comparative African Wordlist of basic lexical items. The numeral system, animal nouns and edible nouns were selected from the wordlist in which they were compared using the comparative method and a lexicostatistics analysis was done. The comparative method and the lexicostatistics analysis were used as the framework for Standard Yorùbá, Ìkàré Àkókó and Àkùré dialects to determine the level of lexical correspondence among them. The findings of this study revealed that there is a higher cognate percentage between Standard Yorùbá and Àkùré with 86.40% cognates, with Ìkàré Àkókó and Àkùré having 74.60% cognates and Standard Yorùbá and Ìkàré Àkókó with 78.90% cognates. This paper concluded that there is a higher level of mutual intelligibility between Standard Yorùbá and Àkùré than Standard Yorùbá and Ìkàré Àkókó while the level of mutual intelligibility between Ìkàré Àkókó and Àkùré is low.

Keywords: Standard Yorùbá, Ìkàré Àkókó, Àkùré, lexicostatistics, cognate, comparative method, Yoruboid

## 1. Introduction

Lexical comparison has gained a lot of attention in the field of linguistics. Arokoyo (2016a, 2016b), Bamigbade & Oloso (2016), Obisesan (2012) to mention just a few have worked in different areas of lexical comparison using different Nigerian languages and dialects. Moving outside the shore of Nigeria, scholars like Parkhurst & Parkhurst (2003), Castro, Flaming & Youliang (2012) have also worked in this area. Their study revealed how they compared the different languages they worked on using the comparative method and the lexicostatistics analysis approach to derive cognate percentage in order to determine the level of the dialects' mutual intelligibility. Yoruba language,

according to Arokoyo (2010: 8-9), ‘has very many dialects with varying degree of mutual intelligibility’. Even though a number of studies on lexical comparison have been done, no study has examined the level of mutual intelligibility in Yorùbá, À kùré and Ìkàré À kókó.

Based on Arokoyo’s (2010) claim that varying degree of phonological, lexical and grammatical differences are noted in the dialects of Yoruba, and Oyetade’s (2007) classification that Ìkàré À kókó belongs to the Yoruboid language of the varieties in Akokoland instead of the Akokoid varieties, this paper aims to fill such vacuum by determining the level of mutual intelligibility of Yorùbá, À kùré and Ìkàré À kókó based on their genetic classification i.e. if they belong to the same language family. This will help to examine their various linguistic features and resources and serve as a documentary data for future researchers. In the course of our research, there is paucity of works on lexical comparison in Standard Yorùbá, À kùré and Ìkàré, hence the need for this research work. The objectives of this study are to find out the areas of similarities and differences of the lexical items, their phonological relatedness and to determine the cognate percentage of relatedness of the three speech forms.

In this study, the lexicon of Yorùbá, À kùré and Ìkàré À kókó were examined. Six native speakers were used for this study; two native speakers of À kùré, two native speakers of Ìkàré À kókó and two native speakers of Yorùbá. The data for this paper were collected using the SIL Comparative African Wordlist (SILCAWL) of basic lexical items in sessions of focus group discussions in the three locales. The researcher used a recording device to elicit the lexical data with the aid of the research instrument. The data were presented in a table which made it easy to identify the areas of similarities and differences of the dialects. This paper adopted a comparative method for the numeral analysis, animal and edible nouns and also presented the lexicostatistics analysis for the three dialects. The numerals were

compared by looking at their formations and mathematical derivations and animal and edible nouns were compared by observing the sound alternations while the lexicostatistics analysis was done to derive the cognate percentage. Basic vocabularies and other related items from the three speech forms were considered and the following criteria were used to determine the lexical items that are similar and different:

- i. Words are counted as similar if their pronunciations are identical barring only their tones.
- ii. Words with more than one syllable were counted as dissimilar if at least one of their component syllables is dissimilar.
- iii. Words that are different in forms but have same meaning are considered different words.
- iv. Derived words were seen as a case of compounding i.e. two separate morphemes combined to form new compound word.
- v. Borrowed words that are different in forms are different words.

This paper is organised into six sections. The first section introduces the work while Section 2 gives a brief history of Yoruba, Ìkàré Àkókó and Àkùré dialects. In Section 3, we discussed the literature review. The fourth section examined the theoretical framework. The fifth section of the paper is the data presentation, analysis and the discussion of findings while the final section concludes the work.

## **2. History of Yoruba, Ìkàré Àkókó and Àkùré Dialects**

Yorùbá is one of the three major Nigerian languages spoken in South-western Nigeria. According to Akinlabi & Adeniyi (2017: 31) ‘all the various tribes of the Yoruba nation trace their origin from a leader called Oduduwa and the city of Ile-Ife, in today’s south-western Nigeria’. Yorùbá is spoken by about forty million people in Nigeria

and the diaspora (Eberhard, Simons & Fennig 2019). Yoruba has many dialects which differ from one another to a very large extent. We therefore see the diverse varieties of the Yorùbá language, used by groups smaller than the total community of speakers of the language within the geographical area, as dialects of the same language. Yoruba is a tone language and its basic word order is SVO (Ilori 2012).

There have been various classifications by scholars such as Adetugbo (1967), Oyelaran (1970), and Awobuluyi (1998). For the purpose of this study, we will adopt Adeniyi's (2010) classification which is the most recent classification. He classified Yorùbá dialects into seven as indicated below:

- i. Eastern Yorùbá (EY): Ù kàré, Òbà, Şúpáre, Ìdó-àní, etc
- ii. North-Eastern Yorùbá (NEY): Ìyàgbà, Ìjùmú, Owé, Ọwórò, Gbèdè, Ìkírí, Bùnú, Àyèré
- iii. Central Yorùbá (CY): Ifè, Ìjèşà, Èkítí, Àkúré, Mòbà
- iv. South-Western Yorùbá (SWY): Èkó, Àwóri, Ègbá, Yewa
- v. Western Yorùbá (WY): Ànàgó, Kétu, Ifè (Tógò), Ọhòrí, Tsábe, and other dialects spoken in other parts of the World
- vi. South-Eastern Yorùbá (SEY): Ìjèbú, Ìlàje, Ìkálè, Ọ̀ndó, Ọ̀wò
- vii. North-West Yorùbá (NWY): Ọ̀yó, Ọ̀nkò, Ọ̀şun, Ìbòlò, Ìgbómìnà

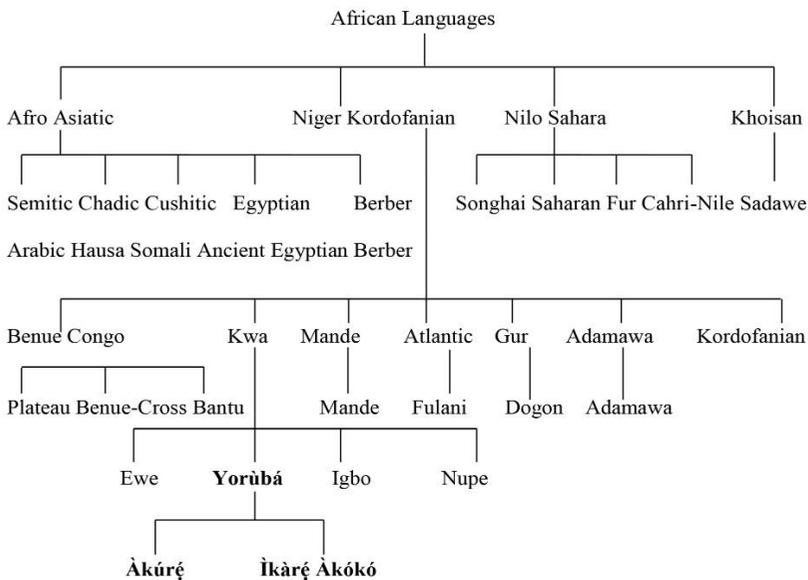
Standard Yorùbá is regarded as the official language used in politics, schools, education, entertainment, media and it is also recognized by the government as a regional language. The Standard Yorùbá is the form that every Yoruba can speak and it serves as a common heritage of the Yorùbá people.

The Ìkàré À kókó people are also descendants of Odùduwà and migrated from Ilé-Ifè. Ìkàré left Ìlàré quarters in Ilé-Ifè for À kókó in the 18<sup>th</sup> century. Ìkàré was founded by an ancestor called À gbà-Ò de who was one of the grandchildren of Odùduwà. Oyetade (2007: 2) classified Ìkàré À kókó as a member of the Yoruboid languages found

in Akokoland i.e. the Benue Congo languages spoken in Akokoland.

À kùré is a city in south-western Nigeria and it is the capital of Ondo State, Nigeria. Oral tradition has it that a prince, Ọmọremí Ọmọlùàbí, one of the grandsons of Odùduwà left Ilé-Ifè in search of a place to settle. When they arrived at the location where he would settle along with his entourage, the string holding the heavy royal beads on his neck snapped, thus causing the people to exclaim *Àkún rẹ* (the beads have snapped). This exclamation became the name of the settlement they established on the site, *Akure* and also the dialect of Yoruba that they speak. Figure 1 below shows the genetic relationship of standard Yoruba and the two dialects.

Figure 1. Genetic Classification of African Languages (Adapted from Yusuf 2007: 124)



### 3. Lexical Comparison

Lexical comparison is a comparative analysis with the aim of investigating the similarities and differences between two languages. Crystal (2008: 279) defines the lexicon as “the component containing all the information about the structural properties of the lexical items in a language, i.e. their specification semantically, syntactically and phonologically”. Comparative study could be carried out in the lexicon (vocabulary), phonology (pronunciation), and grammar (morphosyntax and grammar). Parkhurst & Parkhurst (2003: 1) identified two different approaches to lexical comparison each with distinct objectives; lexical similarity and historical relatedness.

Lexical similarity investigates to what extent the words of two languages are similar, often with the hopes of making a further correlation to the intelligibility between languages. For example, *family* and the Spanish equivalent *familia* are very similar to each other. If an English speaker heard the word *familia*, he might be able to guess the correct meaning. In most cases, the greater the lexical similarity between two variations, the more likely it is that they will be able to understand each other. Lexical similarity is only one of many factors that determine intelligibility; nevertheless it is a relatively easy place to start (Parkhurst & Parkhurst 2003).

The second approach is historical relatedness. Two words that are historically related are called cognates. While lexical similarity is most concerned with how languages appear at the present time, cognate studies are most concerned that the two varieties had the same historical root. It is possible that at one time two words may have been historically very similar, but with the natural changes that occur over time, the two words have evolved into forms that are so distinct as not to be easily recognizable. For example, the words *eight* and the

Spanish equivalent *ocho* do not look or sound at all similar, yet they can both be traced to the Latin word *octo* (Campbell 1998). In making judgements about similarity, the assumption is that a monolingual Spanish speaker would not understand the English word. For the person studying similarity, this lack of potential intelligibility is significant. For the historical linguist, it is of little concern (Parkhurst & Parkhurst 2003).

From the two approaches to lexical comparison; lexical similarity and historical relatedness, we can say that two words can be cognates without much similarity in how they appear in the language. Similarity is relatively easy to judge while cognates are more difficult because sometimes words can appear to be cognates but really they are not. If two languages are related, there will be relatedness across linguistics disciplines such as phonology, morphology, syntax etc. Some languages can borrow lexical items from a dominant language while the rest of the language remains different from the other language.

Ayeomoni (2012) conducted a research on the lexico-syntactic exploration of Ondo and Ika dialects of the Yoruba language. The study was a comparative study with a view to finding out the areas of convergence and divergence between the two dialects especially in the area of auxiliary verbs. It was discovered that the two dialects are closely related in the areas of lexical usage and syntactic structures. Also, they have the same lexical items in both the subject and verbal (predicate) positions and also at the adjunct position; some of the lexemes are the same in both dialects.

Castro, Flaming & Youliang (2012) described the various known dialects of Western Miao within Honghe, which include Hmong Lens, Hmong Dleub, Hmong Dlob, Hmong Bes, Hmong Soud, Hmong Ndrous, Hmong Shib, Hmong Nzhuab, Hmong Buak, Hmong Dlex Nchab and Hmong Sat. They showed that the vocabularies of the

Honghe Miao dialects are extremely similar and the vast majority of words are historical cognates. They employed “lexicostatistics” method to determine the relative number of historical cognates shared by the different dialects. Pericliev (2006) carried out a computational lexical similarity analysis between five languages; Xokleng (Southeastern Brazil), Tagalog and Malay (Southeast Asia), Fijian, Samoan and Hawaiian (languages of Oceania) using 100-word lists of basic vocabulary. He found a statistically highly significant resemblance between them which he explained as being historical. He suggested the existence of genetic affinities between Brazilian Indians and Southeast Asian and Oceanic populations.

Arokoyo (2016a) conducted a study on the lexicostatistics comparison of Yorùbá, Ìgbò and Olùkùmi languages. The study carried out a comparative and lexicostatistical analysis of two varieties of Olùkùmi; Ugbodu and Ukwunzu with Yorùbá, and Ìgbò in order to discover their cognates. The essence of the study was to discover the similarities and differences and to examine the level of mutual intelligibility that exists among them. It was discovered that the two varieties examined are very different from each other. Bamigbade & Oloso (2016), while tracing the various clans of the Izon group and accessing the level of mutual intelligibility between Arogbo and Mein dialects of Ijaw language, employ lexico-semantic approach to judge the level of mutual intelligibility and ascertain the point of divergence of the dialects under study. Their findings show that 63% of the lexical items considered are similar, 21% are the same while 16% are absolutely different, hence 84% level of mutual intelligibility between the two dialects, which is an indication that both are close dialects of Ijaw. Olajide (2017) in his study observed that Obulom and Abua Languages are not dialects of the same language. However, evidence shows that they belong to the same language family. Going by the percentage of same lexical items (11%) and similar (37%) and the percentage of the

lexical items that are different (52%), and considering that Swadesh's principle indicate that languages with less than 80% cognate count should be regarded as belonging to the same language family and not dialects of the same mother language, it is convenient to conclude that Abua and Obulom belong to the same family since the cognate count is quite low.

We can deduce from the review that some of the scholars used cognate method to determine the level of relatedness and historical root in their language of study; some scholars did a comparative study, some scholars used the lexical similarity approach of comparison to investigate the extent to which words of two languages are similar with the hopes of making a further correlation to the intelligibility between languages. Furthermore, some scholars did a comparative study in the area of phonology to ascertain the phonological concepts of the language of study. Since our focus is the determination of cognate percentage in order to ascertain the level of relatedness among the dialects, it is helpful to approach the analysis using a comparative method and lexicostatistics to determine the cognate.

## **4. Theoretical Framework**

This paper adopts two theoretical approaches; lexicostatistics and comparative method. These approaches will be examined in the following subsections.

### **4.1. Lexicostatistics**

Lexicostatistics aims at establishing linguistic relations on the basis of a quantitative comparison of vocabulary; it is the statistical study of vocabulary to discover whether languages are historically related

by counting the percentage of cognates (Romaine 2000). Cognates refer to words that have the same meaning and descended from common ancestors. It is calculated by dividing the total number of items multiplied by 100 to obtain percentage cognates.

$$\frac{\text{Cognates}}{\text{Total Number of Lexical Items}} \times 100$$

Gudschinsky (1956) identified three levels of cognate scores to determine relatedness:

- i. 0%–35% cognate means separate language family.
- ii. 36%–80% cognate means separate language, same family.
- iii. % and above cognate means it is the same language.

Bankale (2006) identified three basic assumptions of lexicostatistics approach as follows:

- i. It assumes a basic or core vocabulary which is relatively culture-free and which is less susceptible to change as other kinds of vocabulary.
- ii. The rate of retention of the basic vocabulary is constant through time and as such about 81 percent of the vocabulary will be retained over a millennium.
- iii. The rate of loss is also constant, about 14 percent will be lost over a millennium. With this in mind, the cognation count will surely give information about sub grouping of related languages.

## 4.2. Comparative Method

Comparative method is a technique for studying the development of languages by performing a feature-by-feature comparison of two or more languages with common descent from a shared ancestor (Beekes

1995). This comparative method helps in filling historical gaps of a language and discovering the development of phonological, morphological and other linguistic systems between languages. It also helps in confirming or refuting perceived relationship between languages. This method was developed in the 19<sup>th</sup> century by Rasmus Rask and Karl Verner. Two languages are genetically related if they descended from the same ancestral language. For example, Italian and French come from Latin and therefore belong to the same family; Romance languages. It is of importance to note that languages have been compared since antiquity. For instance, in the 1<sup>st</sup> century BC, the Romans were aware of the similarities between Greek and Latin which was a result of Rome being a Greek colony speaking a debased dialect. According to Arokoyo (2016a), the essence of comparative method is to discover whether languages have historical connections. Similarly, this same approach was used by her to examine the phonological similarities and differences between Yorùbá, Owe, Igala and Olukumi languages (Arokoyo 2016b).

We compare languages to discover differences and similarities and to establish mutual intelligibility. Mutual Intelligibility is a major criterion in differentiating a language from a dialect. It is referred to the ability of people to understand each other. Every dialect has its linguistic origins and backgrounds which makes them either mutually intelligible or unintelligible. If two varieties of speech are mutually intelligible, they are strictly dialects of the same language; if they are mutually unintelligible, they are different languages (Hudson 2003).

According to Millar (2007: 259-260), comparative method works in the following ways:

- i. We first decide by inspection that certain languages are probably genetically related and hence descended from a common ancestor.
- ii. We place side by side a number of words with similar meanings from the language we have decided to compare.
- iii. We examine these for what appear to be systematic correspondences.
- iv. We draw up tables of systematic correspondences we find.
- v. For each correspondence we find, we posit a plausible-looking sound in the ancestral language, one which could reasonably have developed into the sounds that are found in the several daughter languages.
- vi. For each word surviving in the various daughters, we look at the results of (v) and thus determine what the form of that word must have been in the ancestral language.
- vii. Finally, we look at the results of (v) and (vi) to find out what system of sounds that the ancestral language apparently had and what the rules were for combining these sounds.

## **5. Data Presentation and Analysis**

This section presents and analyses the data. The data to be presented and analysed were collected from native speakers of the three speech forms using the SIL Comparative African Wordlist of basic lexical items which are divided into sets such as animal nouns, edible nouns and numerals for easy comparison. The section is broadly divided into two;

- i. Phonological and lexical comparison
- ii. Lexicostatistics analysis

The speech forms are represented as SY (Standard Yorùbá), IK (Ìkàré À kókó) and AK (À kùré) respectively.

## 5.1. Phonological and Lexical Comparison

This section analyses the different sets of the lexical items based on their phonological and lexical similarities and differences. The phonological comparison; either the vowels or consonants different occurrence and observe whether it affects the meaning or not in the dialects while the lexical comparison aims to compare the lexemes of the dialects to know their areas of similarities and differences.

### 5.1.1. Animal Nouns

Animal nouns refer to living things which comprise of insects, amphibians, birds and four-legged animals. In the data in Table 1 below, we analysed 19 of them.

Table 1. Animal Nouns

S/N	Standard Yorùbá	Ìkàré À kókó	À kùré	Gloss
1.	[ìgbín]	[ùgbén]	[ùgbín]	snail
2.	[alàṅgbá]	[ògbògbò]	[alàṅgbá]	lizard
3.	[agẹmọ]	[agẹmọ]	[agẹmọ]	chameleon
4.	[omólé]	[omólúí]	[omólúlé]	gecko
5.	[ekòlọ]	[ikòlọ]	[kòlọ]	earthworm

6.	[ájón]	[ájón]	[aj ǰón]	cockroach
7.	[aláɲtakù]	[aláɲtakù]	[alá ɲtakù]	spider
8.	[ɛ̀fɔ̀n]	[ɪmurén]	[ɛ̀fɔ̀n]	mosquito
9.	[ɔ̀nɪ]	[ahór ínhón]	[ɔ̀nɪ]	crocodile
10.	[ɔ̀kù]	[ɔ̀kùmɛ̀]	[ɔ̀kù]	millipede
11.	[ɪdũ]	[ɪdɛ̃]	[ɪdũ]	maggot
12.	[ikón]	[kpókpo]	[ikón]	termite
13.	[àgùntàn]	[àgùntàn]	[àgùntàn]	sheep
14.	[àgbò]	[àgbò]	[àgbò]	ram
15.	[tòlótóló]	[tòlótóló]	[tòlótóló]	turkey
16.	[awó]	[ayó]	[awó]	guinea fowl
17.	[kpékpejɛ]	[kpékpejɛ]	[kpékpejɛ]	duck
18.	[àdàbà]	[àdàbà]	[àdàbà]	dove
19.	[igú]	[igón]	[igú]	vulture

From the animal nouns data above, we discovered similarities in the lexical items. For instance, the word *snail* is [ɪgbín] in SY, [ùgbén] in IK, and [ùgbín] in AK have the same tone and pronunciation with different vowels at their initial positions; the high front close unrounded vowel /i/ is at the word initial position in SY while the high back rounded vowel /u/ is at the word initial position in IK and AK showing that some of their lexical items begin with the high back rounded vowel /u/. We also see that the high front unrounded nasal vowel /ĩ/ in [ɪgbín] in SY and [ùgbín] in AK is substituted with the [ùgbén] in IK. In item 11, the word *maggot* is [ɪdũ] in SY and AK but

[ɪdɛ̃] in IK having the same tone but we note that the nasal high back unrounded vowel /ũ/ in SY and AK is substituted with the nasal half-open unrounded vowel /ɛ̃/ in IK with meaning still constant. Items 13, 14, 15, and 18 are cognates too.

It is also observed in item 16 that there is an instance of consonant alternation; the word *guinea fowl* for [awó] in SY and AK but [aɣó] in IK. The voiced labia-velar approximant /w/ is substituted with the voiced velar fricative /ɣ/ in IK. There are differences in the lexical items too. For instance; in item 5; the word *earthworm* for [ekòlò] in SY, [ikòlò] in IK and [kòlò] in AK, we observed that there is a case of vowel deletion at the initial position in the word [kòlò] for earthworm in AK but we see vowel alternation in SY and IK; the half-close unrounded vowel /e/ in SY is substituted with the high front close unrounded vowel /i/ in IK. We can see in the data generally that there are regular sound changes either at the initial, medial or final position. In item 19, the word *vulture* is [igù] in SY and AK but [igón] in IK; we realized the differences in the vowel at the word final position in the dialects. The nasal high back unrounded vowel /ũ/ in SY and AK is substituted with nasal half-open rounded vowel /ɔ̃/ in IK. In item 2 for the word *lizard*, SY and IK are cognates while AK has a different one. This likely occurrence can be seen in items 8, 9 and 10 in the data above. We see an instance of different morphemes coming together give us a new word. For instance in item 4 for the word *gecko*, it is referred to as [ɔmólúí] in IK, [ɔmólúlé] in AK and [ɔmólé] in SY. This can be analysed in (1) below:

- (1) a. Standard Yorùbá  
       ɔmɔ + ilé                    →    [ɔmólé]  
       house    child                    “gecko”

Here, we observed a case of vowel deletion in SY. However, the forms are different in IK and AK as shown in (1b and 1c) below.

- b. Ìkàré À kókó  
 ɔmɔ + oní + ulí → [ɔmɔlúlí]  
 child owner house “gecko”
- c. À kúré  
 ɔmɔ + oní + ulé → [ɔmɔlúlé]  
 child owner house “gecko”

### 5.1.2. Edible Nouns

Edible nouns refer to something that is suitable or safe to eat. They also refer to something that can be eaten as food and consumable. There are presented in Table 2 below.

Table 2. Edible Nouns

S/N	Standard Yorùbá	Ìkàré À kókó	À kúré	Gloss
1.	[ògèdè]	[ègèdè]	[ògèdè]	banana
2.	[ɔsàn]	[ɔsàn]	[ɔsàn]	orange
3.	[ìbékpe]	[ògòlòmàfín]	[dèdèrèkùn]	pawpaw
4.	[ata]	[ita]	[ata]	red pepper
5.	[ifju]	[ìdžé]	[ifju]	yam
6.	[ónɔdʒe]	[ɔdʒerí]	[ɔdʒídʒe]	food
7.	[èkpà]	[èkpà]	[èkpà]	groundnut
8.	[ilá]	[ilá]	[ilá]	okra

9.	[obì]	[obì]	[obì]	cola nut
10.	[ìrèsì]	[rèsì]	[ìrèsì]	rice
11.	[ɛdʒa]	[ɛdʒa]	[ɛdʒa]	fish
12.	[bùrédì]	[bùrédì]	[bùrédì]	bread
13.	[ìrèkè]	[èrèkè]	[ìrèkè]	sugarcane
14.	[àgbàdo]	[ìgbàdo]	[àgbàdo]	maize
15.	[èso]	[èso]	[èso]	fruit
16.	[erɔ̃]	[erɔ̃]	[erɔ̃]	meat

Looking at the data in Table 2 above, we see instances of vowel alternations in the lexical items. For instance; in item 1 in Table 2, the word *banana* for [ɔ̀gɛ̀dɛ̀] in SY and AK, and [ɛ̀gɛ̀dɛ̀] in IK; we note that the half open rounded vowel /ɔ/ in SY and AK is substituted with the half-open unrounded vowel /ɛ/ in IK. Similarly in item 4, we see that there is a case of vowel substitution at the initial position. There are cases where SY and AK share cognates while IK has a different cognate. For instance in item 5, the word *yam* is [iʃu] in SY and AK but [idʒé] in IK. We also observed some differences in the lexical items i.e. lexical items from the three dialects that do not share cognates. These can be seen in item 3 and item 6. Looking at item 7 for the word *food* which is [ónɔ̀dʒɛ̀] in SY, [dʒɛ̀rɪ̀] in AK and [dʒɪ̀dʒɛ̀] in AK; the morpheme ‘dʒɛ’ is constant in the dialects which means “to eat”. In item 10, high front close unrounded vowel sound /i/ in SY and AK is deleted in IK. In item 13 and item 14, we note the vowels at the initial position in the different lexical items. For instance, the word *sugarcane* for [èrèkè] in IK, the high front close unrounded vowel sound /i/ in SY and AK is substituted with the half-close

unrounded vowel /e/ in IK. Similarly, in the word *maize* for [ìgbàdo] in IK, the open central unrounded vowel /a/ in SY and IK is substituted with the high front close unrounded vowel /i/ in IK.

### 5.1.3. Numerals

Numeral pattern has to do with the counting system in a particular language. Every language has a counting system which is language specific. It is usually mathematical with the use of addition, subtraction or multiplication. This means that a numeral system has a particular base to which we can add to, subtract from or multiplied to generate another number (Comrie 2005). The numerals exemplified in Table 3 below are cardinal numerals from one to thirty, forty, fifty, sixty, seventy, eighty, ninety, hundred, two hundred, five hundred and one thousand.

Table 3. Cardinal Numerals in Standard Yorùbá, Ìkàrẹ̀ Àkókó and Àkùré

S/N	Standard Yorùbá	Ìkàrẹ̀ Àkókó	À kùré	Gloss
1.	[enɪ]	[inɛ́]	[èni]	one
2.	[èdʒì]	[èdʒì̀]	[èdʒì]	two
3.	[ɛ̀ta]	[ɛ̀ta]	[ɛ̀ta]	three
4.	[ɛ̀rɪ]	[ɛ̀rɛ̀]	[ɛ̀rɪ]	four
5.	[àrú]	[ɛ̀rú]	[àrú]	five
6.	[ɛ̀fà]	[ɛ̀fà]	[ɛ̀fà]	six
7.	[èdʒe]	[èdʒe]	[èdʒe]	seven
8.	[èdʒɔ]	[èdʒɔ]	[èdʒɔ]	eight

9.	[èsán]	[èsán]	[èsán]	nine
10.	[èwá]	[èwá]	[èwá]	ten
11.	[mókàlá]	[ókàlá]	[ókàlá]	eleven
12.	[médzìlá]	[èdzìlá]	[èdzìlá]	twelve
13.	[mètàlá]	[ètàlá]	[ètàlá]	thirteen
14.	[mèrìlá]	[èrìlá]	[èrìlá]	fourteen
15.	[méèdógú]	[àrùdílógú]	[àrùdílógú]	fifteen
16.	[mèrìdílógú]	[èrìdílógú]	[èrìdílógú]	sixteen
17.	[mètàdílógú]	[ètàdílógú]	[ètàdílógú]	seventeen
18.	[médzìdílógú]	[èdzìdílógú]	[èdzìdílógú]	eighteen
19.	[mókòndílógú]	[òkòndílógú]	[òkòndílógú]	nineteen
20.	[ógú]	[ógú]	[ógú]	twenty
21.	[mókòléléógú]	[òkòléléógú]	[òkòléléógú]	twenty one
22.	[médzìléléógú]	[èdzìléléógú]	[èdzìléléógú]	twenty two
23.	[mètàléléógú]	[ètàléléógú]	[ètàléléógú]	twenty three
24.	[mèrìléléógú]	[èrìléléógú]	[èrìléléógú]	twenty four
25.	[màrùndílógbò]	[àrùléléógú]	[àrùléléógú]	twenty five
26.	[mèrìdílógbòn]	[èfàléléógú]	[èfàléléógú]	twenty six
27.	[mètàdílógbòn]	[èdzèléléógú]	[èdzèléléógú]	twenty seven
28.	[médzìdílógbòn]	[èdzòléléógú]	[èdzòléléógú]	twenty eight
29.	[mókàndílógbòn]	[òkòléléógú]	[òkòléléógú]	twenty nine

30.	[ɔgbòn]	[ɔgbòn]	[ɔgbòn]	thirty
31.	[ogódzì]	[ogódzì]	[ogódzì]	forty
32.	[àádóta]	[àdóta]	[àádóta]	fifty
33.	[ɔgóta]	[ɔgóta]	[ɔgóta]	sixty
34.	[àádórì]	[àádórì]	[àádórì]	seventy
35.	[ɔgórì]	[ɔgórì]	[ɔgórì]	eighty
36.	[àádórù]	[àádórù]	[àádórù]	ninety
37.	[ɔgórù]	[ɔgórù]	[ɔgórù]	hundred
38.	[igba]	[ugba]	[igba]	two hundred
39.	[èdégbèta]	[èdégbèta]	[èdégbèta]	five hundred
40.	[εgbèrù]	[εgbèrù]	[εgbèrù]	thousand

It can be observed in the data above that the basic words for one to ten from the À kùré and Ìkàré À kókó dialects are the same with the Standard Yorùbá; the difference here is that the numbers one, two, four and five in the Ìkàré À kókó dialect is different from the Standard Yorùbá. For instance, the word *two* for [èdzì] in item 2, we noted a difference in the vowel at word final position; the high front close unrounded vowel sound /i/ in SY and AK is substituted with the nasal high front unrounded vowel sound /i/ in IK and also applies to item 31. Similarly in item 5, where the open central unrounded vowel /a/ in SY and IK is substituted with the half-open unrounded vowel /ε/ in IK. The other number words in the data involve mathematical processes such as multiplication, addition and subtraction. For instance; from number 11–20 involves 1+10, 2+10, 3+10, 4+10 for eleven to fourteen which indicate addition; and 20–5, 20–4, 20–3, 20–2, 20–1 for fifteen

to nineteen which indicates subtraction while twenty (ogún) is a basic word.

We also observed that Ìkàré Àkókó and Àkùré dialects have the same counting pattern from twenty one to twenty nine which is  $20+1=21$ ,  $20+2=22$ ,  $20+8=28$ ,  $20+9=29$  etc. which indicates addition of the numbering words. But in the Standard Yorùbá, from twenty one to twenty four indicates addition while twenty five to twenty nine indicates subtraction i.e.  $30-5=25$ ,  $30-4=26$ ,  $30-3=27$ ,  $30-2=28$  and  $30-1=29$ . The number words; forty, sixty, eighty, hundred and thousand indicates multiplication. The formations of these words indicate coalescence; a phonological process that involves merging of two adjacent segments at the underlying level to produce a third segment at the surface level. These can be illustrated below:

- (2) a. [ogù] × [èdʒi] = (20×2)=40 [ogódʒi]  
 twenty two
- b. [ogù] × [èta] = (20×3)=60 [ogóta]  
 twenty three
- c. [ogù] × [èrĩ] = (20×4)=80 [ogórĩ]  
 twenty four
- d. [ogù] × [àrù] = (20×5)=100 [ogórù]  
 twenty five

The number word; *thousand* indicates multiplication i.e. 200 multiplied by five which can be seen below:

- e. [igba] × [àrù] = (200×5) = 1,000 [ɛgbèrù]  
 two hundred five

In Ìkàré Àkókó, since the word *two* is [èdʒì], hence *forty* is [ogódʒì] which indicates multiplication i.e. twenty multiplied by two. The difference between the Ìkàré Àkókó and Standard Yorùbá and Àkùré is that the high front close unrounded vowel sound /i/ in SY and AK is an oral vowel sound while it is a nasal vowel sound in Ìkàré Àkókó.

## 5.2. Lexicostatistics Comparison

Lexicostatistics comparison amongst different dialects is done by counting the number of all the lexical items and then finding the percentage of cognates from the sum of all the lexical items i.e. the number of cognates divided by the total number of all lexical items multiplied by hundred. This is indicated below:

$$\frac{\text{Cognates}}{\text{Total Number of Lexical Items}} \times 100$$

Hence, we counted the number of all the lexical items from Standard Yorùbá, Ìkàré Àkókó and Àkùré in order to derive the percentage cognate. The total number of cognates counted is 1,000. Hence:

- i. In order to determine the level of relatedness between Standard Yorùbá and Ìkàré Àkókó, a total number of 789 cognates were counted and below is the lexicostatistics analysis:

$$\frac{789}{1,000} \times \frac{100}{1} = 78.90\%$$

- ii. In order to determine the level of relatedness between Ìkàré Àkókó and Àkùré, a total number of 746 cognates were counted and below is the lexicostatistics analysis:

$$\frac{746}{1,000} \times \frac{100}{1} = 74.60\%$$

- iii. In order to determine the level of relatedness between Standard Yorùbá and Àkùré, a total number of 864 cognates were counted and below is the lexicostatistics analysis:

$$\frac{864}{1,000} \times \frac{100}{1} = 86.40\%$$

### 5.3. Discussion of Findings

From our analysis, we discovered that there is a higher percentage of cognates between Standard Yorùbá and Àkùré with 86.40%, while Ìkàré Àkókó and Àkùré have 74.60% cognates and Standard Yorùbá and Ìkàré Àkókó have 78.90% cognates. We also found out that Ìkàré Àkókó and Àkùré dialects have the same counting pattern of addition of the numbers from twenty-one to twenty-nine. In Standard Yorùbá, from twenty one to twenty four indicates addition while twenty five to twenty nine indicates subtraction and forty, sixty, eighty, hundred and thousand indicates multiplication.

The lexical items compared are similar although there are phonological variations especially vowel substitutions among the three dialects but this does not affect intelligibility. Some lexical items in Standard Yorùbá, Ìkàré Àkókó and Àkùré dialects are formed through a morphological process called compounding. This means that compounding is evident in the dialects.

## 6. Conclusion

This paper carried out a comparative study on the lexicons of Standard Yoruba, Ìkàré À kókó and À kùré dialects in order to determine their level of mutual intelligibility. By implication, the level of mutual intelligibility between Standard Yorùbá and Ìkàré À kókó is lesser even though they belong to the same language family – Yoruboid, while the level of mutual intelligibility between Standard Yorùbá and À kùré qualifies them as variant of the same language which the former is the standard form, the latter is the variant. The percentage cognate was done to determine the level of relatedness of the three dialects. We discovered that lexical items are similar in the varieties and we also discovered that there is intelligibility despite the various phonological variations.

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