A contrastive study of reduplication in the Igbo and Hausa languages

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Abstract

The Igbo and Hausa languages belong to different language families, and are agglutinative and inflecting languages respectively. As languages of two of the majority ethnic groups in Nigeria, their speakers may have interest in learning each other's language. However, possible differences in structures of the two languages may hamper their easy learning and teaching. This paper presents a contrastive study of reduplication in Igbo and Hausa aimed at identifying their differences and similarities and aiding in learning and teaching them. The primary data obtained through oral interview of speakers of the two languages and the secondary data from literature are analysed using the descriptive analysis and contrastive analysis methods. The results reveal some similarities and differences in the reduplication processes of both languages. Both languages operate complete and partial reduplication, and their complete reduplication involves doubling the entire word. The reduplication process in Hausa is more complex than in Igbo, especially the partial reduplication, which most often results into geminate consonant that is disallowed in Igbo. Complete reduplication in Hausa does not involve inter-fix of a morpheme to the reduplicated form as sometimes witnessed in Igbo. The learners and their teachers should obtain copies of contrastive study done on grammar of these languages, including this one, and the teachers carefully should drill the students on those areas they foresee difficulties in learning the languages.

Keywords: Language teaching, contrastive analysis, language education, reduplication, second language learning.

Introduction

Earlier studies, including Okorji and Okeke (2009), Eme and Uwaezuoke (2015), and Uwaezuoke and Ogunkeye (2017), attest that differences in structures of two different languages could be problematic for learners and teachers of the languages. The differences are often experienced at all levels - phonetics/phonology, morphology, syntax and semantics. Dialects of a language also differ. Through a contrastive analysis, the

differences between two languages are identified with a view to aiding in their learning and teaching.

In a multilingual nation like Nigeria, the citizens are encouraged to learn another language other than theirs. The belief is that this will engender cross fertilization of ideas, enhance communication and lead to national development and national integration. With a contrastive analysis, therefore, areas of differences in the languages, which could constitute problem in learning and teaching them, would be established; while the learners and their teachers would have the fore-knowledge of the possible problems and be prepared to overcome them when they occur.

This study contrastively examines the reduplication processes in the Igbo and Hausa languages. These languages are among the languages of the majority ethnic groups in Nigeria and among the languages the National Policy on Education (NPE) encourages Nigerians to learn in addition to their mother tongue. Although both languages are of different language families, and belong to different language typologies, they are spoken by two of the majority ethnic groups in Nigeria. Therefore, their speakers may have interest in learning each other's language, but possible differences in their structures may hamper their easy learning and teaching. Hence, a contrastive study of reduplication in Igbo and Hausa, which is aimed at identifying their differences and similarities and aiding in learning and teaching them.

Hausa is of Chadic branch of Afro-Asiatic language family. It is spoken in the Northern part of Nigeria, precisely, in Adamawa, Jigawa, Kaduna, Kano, Katsina, Kebbi, Kogi, Kwara, Nasarawa, Niger, Plateau, Sokoto, Taraba, Yobe and Zamfara states. It is spoken by about 50 million speakers in Nigeria, Cameroon, Togo, Benin Republic, Burkina Faso, Ghana, Chad, Bile Nile province and Western region of Sudan (Adamu, 1978; Wolff, 2023; Humbolbt-Universität zu Berlin, 2015). It is also spoken in the Southern areas of the neighbouring Republic of Niger (Caron, 2015). Igbo is a member of the Kwa language family. It is spoken in the eastern part of Nigeria in Anambra, Enugu, Imo, Abia, Ebonyi states and some parts of Delta, Rivers, Cross River and Akwa-Ibom States. This study focuses on standard Igbo and standard Hausa.

The study primarily describes the derivational and inflectional processes of reduplication in the Igbo and Hausa languages as well as identifies their areas of differences and similarities. It is guided by the Contrastive Analysis framework of Lado (1957). The rest of the sections discuss reduplication, contrastive analysis, empirical studies, methodology, data presentation, analysis and comparison, and summary and conclusion following this order.

Explication of Reduplication

Every language has different ways of forming new words that makes it unique. One of such ways is through the reduplication process. Reduplication is a morphological process whereby there is a repetition of a radical element (that is, the part of a derived word which is phonetically and semantically the vehicle of the basic meaning) or part of it occurring usually at the beginning of a word and occasionally within the word (Pei, 1966 p. 230). O' Grady and Guzam (1996), Osuagwu et al (1997), and Bauer (2003) do not differ from Pei (1966).

O' Grady and Guzam (1996, p. 143) define reduplication as "a common morphological process in certain languages which duplicates all or part of the base to which it applies to mark a grammatical or semantic contrast". To Osuagwu et al (1997 p. 59), reduplication is "a process by which a root or stem is repeated in the derivation of a new form". That is to say that either a part of a whole stem is copied and affixed to the stem of a word either as a prefix or as a suffix. Reduplication, according to Bauer (2003, p. 31), is "a morphological process that deals with identity in a word due to the repetition of the root or stem of the word or part of it".

The definition of reduplication by Inkelas and Zoll (2005) agrees with others. In their opinion, reduplication is the repetition of part or all one linguistic constituent to form a new constituent with a different function. This last definition clearly shows that in reduplication, a part of a word could be repeated or the entire word.

From the foregoing, reduplication is simply a morphological process by which a root or stem or an entire word is repeated or doubled in the derivation of a new form. More preferably, it is a process of repeating a root or a stem wholly or in part or the entire word wholly in order to derive a different form with different semantic content. It is also clear from the definitions that two forms of reduplication exist: partial reduplication and complete/full reduplication.¹ While partial reduplication may involve copying only the consonant, vowel or a syllable and prefixing or suffixing it to the root, complete/full/total reduplication involves total copying of the root words. Data in (1) and (2) exemplify partial and complete reduplication respectively in the Hausa and Yoruba languages.

(1)	a. Hausa:	i.	kyawa 'beauty' → kyakkyawa 'beautiful'
		ii.	zùngùre 'to poke' \rightarrow zùngùrere 'poking'
	b. Yoruba:	i.	tà 'to sell' \rightarrow t+i+tà \rightarrow títà 'selling'
		ii.	ló 'to use' \rightarrow l+í+lò \rightarrow lílò 'using'

¹ See Oyebade (1992), Bauer (2003), Booij (2005) and Matthews (1993).

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(2)	b. Hausa:	i.	maza 'quick' → mazamaza 'quickly'
		ii.	nawà 'how' \rightarrow nawànawà 'how much'
	b. Yoruba:	i.	jagun 'fight war' \rightarrow jagunjagun 'warrior'
		ii.	wolé 'look house' \rightarrow woléwolé 'sanitary inspector'
			(Arokoyo p. 136-137)

According to Matthews (1993), in complete reduplication, the segment or reduplicated form is exactly like the original, while in partial reduplication, only a part of the root is repeated or reduplicated in order to have different shades of meaning. Similarly, Bauer (2003) and Booij (2005) state that total reduplication is the type of reduplication which occurs when the entire base is reduplicated, making the reduplicate and the base totally identical; but partial reduplication involves only a part of the word being reduplicated which is added at the beginning or end of a base as an affix. Through reduplication, different shades of meaning are realized, such as: plurality, intensification or a new word. The next section presents an overview of contrastive analysis.

Contrastive Analysis: An overview

Contrastive analysis has been an old field of study in linguistic study of language learning since its introduction by Lado (1957), and it has attracted the attention of many scholars. Through this approach, scholars (including Arokoyo 2006; Ativie 2011; Zubairu and Ahmed 2012; Ubi 2015; Uwaezuoke and Ogunkeye 2017; and Ziegelmeyer 2022) have tried to contrast different languages and dialects of a language in order to identify their areas of differences, which might constitute a problem for L1 learners of L2.² These studies centre on different levels of grammatical description of language, such as: phonetics/phonology, morphology, syntax and semantics. The initiator of contrastive analysis, Lado (1957), avers that similar elements to learner's native language will be simple for him/her, while differing elements will be difficult. Eme and Uwaezuoke (2015) and Uwaezuoke and Ogunkeye (2017) agree with Lado (1957). Eme and Uwaezuoke (2015, p. 22) submit:

although it may not always be the case that interference errors occur in the speech of L2 or FL learners, it is usually the case. With contrastive analysis, errors could be predicted and efforts made to prevent them from manifesting or readily correct them when they appear in the speech of language learners.

² Lado (1957) emphasizes that differences in structures of two languages may constitute problem for the learners and their teachers.

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The first language affects the acquisition or learning of the second language (Weinreich, 1953). Where the structures of both languages are the same, positive effect occurs leading to positive transfer; but negative effect takes place where there are differences in the structures of the languages thereby leading to negative transfer.³ Negative transfer results into error, which contrastive analysis aims at finding solution to. However, it is possible for similar items in languages to make learning one of the languages very difficult because of language-specifics. As noted by Lado (1957) & Eme and Uwaezuoke (2015), contrastive studies are imperative for effective learning and teaching of languages by learners and their teachers respectively. That is why this paper discusses a contrastive study of reduplication in the Igbo and Hausa languages in order to add to the existing literatures on contrastive analysis in other aspects of grammar of both languages for the benefit of Igbo and Hausa learners of each other's language, and the teachers. Next section is a review of some empirical works on contrastive analysis.

Empirical Studies

Several works have been done on contrastive analysis with focus on different aspects of grammar. In a contrastive study of Igbo and English derivational affixes, Ojukwu (2018) discovers that word formation through affixation is a general method in the structures of the English and Igbo languages, but with different realizations. While prefixes in Igbo are limited to a few vowels that are conditioned by vowel harmony rule and in some cases, the syllabic nasals, about eight types of prefixes exist in the English language. She states that Igbo derivational affixes involve prefix, suffix, interfix, circumfix, and a combination of these forms, e.g. in **djee** 'goer', where **o**- is the prefix, **-je**- is the verb root and **-e** is the suffix; **erimeri** 'food/eatable', where **e**- is the prefix, **-ie**- is the verb root, **-m**- is the interfix and **-eri** is reduplicated form; **èsi...nri** \rightarrow **èsimunri** 'act of cooking', where circumfixes **èsi...nri** are simultaneously attached to the root or stem **mu** initially and finally. There are only prefix and suffix in English, e.g. **teacher** has **teach** (verb) as the root word and the morpheme **-er** is the suffix affixed to it to derive a noun; **inhuman** 'lacking the quality of kindness or pity'/'very cruel', where **in**- is the prefix attached to the root **human** 'having the quality of kindness or pity'.

Uwaezuoke and Ogunkeye (2017) is a contrastive morphological study of tenses in the Igbo and Yoruba languages. The study is limited to tenses only excluding aspects. Their findings show that there are differences in the processes of forming tenses in both languages. For instance, Igbo has indicative suffix –rV which may be deleted or optionally used with certain verbs in the present, and obligatorily used for verbs in the past; but in Yoruba, the present tense and past tense are unmarked. Also, a hyphen is written between the future morpheme and the verb in Igbo, but Yoruba has a separate free

³ Smith (1979) discusses issue of positive and negative transfers in language acquisition/learning.

morpheme to express the future.⁴ The 1st person singular pronoun and the 3rd person plural pronoun can come after the future morpheme -ga which is prefixed with *a* followed by the prefixed verb root in Igbo, but in Yoruba all the subject pronouns come before the future morpheme. This is illustrated in (3).

(3) a	i.	m gà- 1SG FU' 'I shall che			Or	m 1SG	gà shall	ịtā to che	W
	ii.	a/gà Pref/FUT 'I shall che	m 1SG w'	àta chew	Or	a/gà Pref/F	UT	m 1SG	itā to chew
	iii.	a/gà Pref/FUT 'They will	hà 3PL chew'	àta chew	Or	a/gà Pref/F	UT	hà 3PL	ịtā to chew
b.	i.	Mo máa 1SG FU' 'I shall go'	•						
	ii.	Emi yíò 1SG FU' 'I shall wri			(Uwaez	zuoke ai	nd Ogur	nkeye 20	017, p. 212-213)

The scholars point out that the areas of differences pose learning difficulties, and advocate that the teachers should avail themselves of the available materials on contrastive analysis and use them to guide the students to know the formation of tenses in these languages and immediately correct any error that might occur or better prevent the errors from manifesting. They should be more attentive to their students' speeches and write-ups in order to immediately correct any error that might occur.

Arokoyo (2006) compares reduplication in the Hausa and standard Yoruba. Using descriptive analysis, the scholar examines some features of reduplication peculiar to each of the languages, and notes that these features have a lot to do with the nature of the languages. The Hausa language, for example, is observed to be a very inflectional language; while Yoruba is a non-inflectional language. This attests to why there is vowel

⁴ In Yoruba, two morphemes are used to express future tense and they are yí and máa (á), and they are known as preverbal auxiliaries.

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alternation in Hausa, as seen in **turà** 'to push' which in reduplicated form is **tureture** 'pushing', and it is clearly absent in standard Yoruba, as observed in **wolé** 'look house' which changes in the reduplicated form to **woléwolé** 'sanitary inspector' (Arokoyo 2006, p. 137-140). The areas of differences notwithstanding, the study establishes that reduplication is an important word formation process in both languages, and highly productive too.

Zubairu and Ahmed (2012) also contrast reduplication in the Hausa and Yoruba languages, but they focus on nominal reduplication. They observe some similarities and differences in the reduplication processes of both languages. They submit that the two languages make use of total and partial reduplication, and that the reduplication process leads to derivation and formation of nominal in both languages, as exemplified with **nama** 'meat' \rightarrow **nama nama** 'meaty/partly meat' and **buga** 'beat' \rightarrow **bugagge** 'beaten one' in Hausa, and **iya** 'mother' \rightarrow **iyaiya** 'grandmother' and **je** 'to eat' \rightarrow **jije** 'edible' in Yoruba. They also discover reduction in the intensification function of a word to a lesser function in both languages through reduplication process, as illustrated with **gurgu** 'cripple' \rightarrow **gurgu-gurgu** 'a bit cripple'/seemingly cripple' in Hausa, and **kuru** 'short' \rightarrow **kukuru** 'shorter' in Yoruba. The researchers point out that despite the fact that Hausa and Yoruba are entirely from different African language groups, they still have some similar features. They, however, note that Hausa is a gender language, while Yoruba is not; and therefore, undertaking a lot of scholarly researches in these languages will help to explain more about these complexities.

Ziegelmeyer (2022) surveys attenuation by reduplication in the Hausa and some other Chadic languages. The study reveals that forms that are semantically attenuated are a result of the process of complete reduplication that is usually accompanied by shortening or apocope of the final vowel. It is also established that attenuation by full reduplication basically exists in West Chadic languages, such as: Hausa, Gashua Bade, Bole, Zaar, and Margi; except in Ngamo, where the first syllable of a word is reduplicated to the left. Ziegelmeyer concludes that full and partial reduplication are very common processes in Chadic languages as earlier noted by Al-Hassan (1998), example: $\mathbf{5uw}\hat{\mathbf{a}}$ 'red' \rightarrow $\mathbf{5uw}\hat{\mathbf{5buw}}\hat{\mathbf{a}}$ 'reddish' in Bade, and $\mathbf{5bb}\hat{\mathbf{a}}$ 'big' \rightarrow $\mathbf{5bb}\hat{\mathbf{5b}}\hat{\mathbf{abb}}\hat{\mathbf{b}}$ 'biggish' in Hausa (Ziegelmeyer 2022, p. 105). The scholar wonders how, apart from being associated with 'pluractional' verbs, nominal plurality, and functioning like intensification, distributiveness, etcetera, it is also linked with semantic attenuation.

The foregoing show that contrastive analysis is an effective tool for predicting and identifying the structural similarities and differences, which may pose difficulties in second language learning. Contrastive analysis of two languages helps to proffer solutions to the problems that might be encountered in the teaching and learning of a target language. That is why we have chosen to use contrastive analysis for this study, as it would enable easy identification of areas of differences in the reduplication processes of the Igbo and Hausa languages. There has not been a contrastive study of reduplication in these two languages. With such work available, speakers of the languages learning the other's language, and their teachers, will be well informed in time and be able to overcome possible problem that would have occurred.

Methodology

This study is designed to be both descriptive and contrastive. The data are first described, followed by a contrastive analysis of the results of the descriptive analysis.

As at 2021, Igbo had a population of 27 million speakers, while there were 48.3 million speakers of Hausa (Sasu, 2022). The data are obtained from both the primary and secondary sources. Specifically, the Hausa language data are obtained partly from Arokoyo (2006), Zubairu and Ahmed (2012) and Ziegelmeyer (2022) and partly by one of the researchers, who is literate in the language. As native speakers of the Igbo language, the researchers provided most Igbo data and obtained some through oral interview of two native speakers of the language. Some Igbo data, especially on inter-fix, are obtained from Ezikeojiaku (1978), as cited by Anigbogu (1990).

The data are presented in tables. Each table for the same semantic expression in the Hausa and Igbo languages is followed immediately by an analysis. At the end of the entire presentation and analysis of data, reduplication in the two languages are compared to bring out their inherent similarities and differences. The major findings are also identified. All the Hausa data are tone marked, while for the Igbo data, Green and Igwe's (1963) tone marking convention is adopted whereby the high tone is left unmarked, the low tone is marked with grave accent / / and the down-stepped tone is marked with a macron / /.

Data Presentation, Analysis and Comparison

The data are presented in tables before analysis and comparison.

No	Root word	Meaning	Grammatical Function	Reduplicated form	Meaning	Grammatical Function
1	nawà	How	adverb	nawà-nawà	how much	adverb
2	kàdán	little	adjective	kàdán-kàdán	gently	adverb

Table 1: Complete reduplication in Hausa

3	wànké	Wash	verb	wànké–wànké	washing	noun (gerund)
4	sànnú	slow	adjective	sànnú-sànnú	slowly	adverb
5	kàràmí	small	adjective	kàràmí-kàràmí	very small	adjective
6	namà	Meat	noun	namà-namà	meaty	adjective
7	mázá	quick	adjective	mázá-mázá	quickly	adverb
8	wari	odour	noun	wari-wari	smelly	adjective
9	kúlún	daily	adjective	kúlún-kúlún	everyday	adjective
10	sàntal	Tall	adjective	sàntal-sàntal	tall/well built	adjective
11	kàràmí	Small	adjective	kàràmí-kàràmí	very small	adjective
12	bákí	Dark	adjective	bákí-bákí	darkish	adjective
13	kàdán	Little	adjective	kàdán-kàdán	very little	adjective
14	túrà	to push	verb	tùrè-tùré	pushing	noun
15	bugù	to hit	verb	bùgè-bùgé	hitting	noun
16	tabà	to touch	verb	tàbè-tàbé	touching	noun
17	ruwā	Water	noun	ruwa-ruwa	watery	adjective

(cf. Arokoyo, 2006; Zubairu & Ahmed, 2012; Ziegelmeyer, 2022)

Table 2: Complete reduplication in Igbo (1)

No	Root word	Meaning	Grammatical Function	Reduplicated form	Meaning	Grammatical Function
1	oberē	Small	adjective	oberē-oberē	very small	adjective
2	mmirī	water	noun	mmiri-mīmiri	watery	adjective
3	nwayọ	Slow	adjective	nwayò-nwayò	slowly	adverb
4	ajā	sand	noun	aja-āja	sandy	adjective
5	mmanų	oil	noun	mmanų-mīmanų	oily	adjective

6	nnà	father	noun	nnà-nnà	grand father	noun
7	òji	dark	adjective	òji ōji	darkish	adjective
8	nnē	mother	noun	nne-nnē	grand mother	noun
9	ųwà	world	noun	<u>ù</u> wàtuùwà	eternity	noun
10	anų	Meat	noun	anụmànụ	animal	noun
11	ngọ	a bend	noun	ngọlịngọ	crookedness	noun
12	mpe	Small	adjective	mpelimpe	little bits	adjectival phrase
13	mkpụ	anthill	noun	mkpụtamkpụ	elevation	noun
14	ogō	height	noun	ogonogo	length	noun

(Partly from Ezikeojiaku, 1978, cited by Anigbogu, 1990)

This type of reduplication in the two languages involves the doubling of the entire word. The word is simply repeated. Reduplication in the two languages sometimes leads to a change in the grammatical function of the root word, as seen in Table 1(3) for Hausa in wànké 'wash' (verb) \rightarrow wànkéwànké 'washing' (noun); and mmirī 'water' (noun) \rightarrow mmirimmiri 'watery' (adjective) for Igbo in Table 2(2). Complete reduplication in Hausa and Igbo sometimes does not affect tone, and sometimes affects tone leading to weakening or strengthening⁵ of tone in both languages as Table 1(15) presents **bugù** 'to hit' which becomes **bùgè-bùgé** 'hitting' in Hausa, where the high tone of the first syllable is weakened to a low tone, and the low tone of the final syllable is strengthened to a high tone; The final vowel of the reduplicated word is also changed to 'e' (Arokoyo 2006, p. 134). What happens in Table 2(2) for mmirī 'water' which changes to mmiri-mmiri 'watery' is tone strengthening, where the low tone of the initial syllable and the down stepped tone of the final syllable are strengthened to a high tone. Reduplication also could lead to tone metathesis⁶ as in $aj\bar{a}$ 'sand' $\rightarrow aja-\bar{a}ja$ 'sandy' in number 4 of Table 2 where the tones of the initial and final syllables exchange positions. From Table 2(9-14) reveal that sometimes, complete reduplication involves circumfix or inter-fixing of a

 ⁵ Uwaezuoke (2019) discusses weakening and strengthening of tone in Igbo.
 ⁶ Uwaezuoke and Onwudiwe (2022) identify tone metathesis in Igbo.

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morpheme to the reduplicated form. The morpheme to be inter-fixed does not have any link with the root word.

No	Root word	Meaning	Part of speech		Reduplicated form	Meaning	Part of Speech
1	kúsà	close	adjective	kùr	kùr-kúsà	very close	Adverb
2	bùgu	to hit	verb	bùb	bùbbùgu	Hitting	Verb
3	ràbá	Share	verb	ràr	ràr-ràbá	sharing	Noun
4	yànká	cut	verb	yán	yán-yànká	cut several times	verb phrase
5	kyáwá	beauty	noun	kyàk	kyàk-kyáwá	beautiful	Adjective
6	bíyú	two	numeral	bíb	bíbbíyú	two each	quantifier
7	sàyé	Buy	verb	sàs	sàs-sàyé	buy several times	verb phrase
8	fásá	break	verb	fáf	fáffásá	break several times	verb phrase
9	sáfé	morning	adverb	sás	sássáfé	early in the morning	adverb
10	mátsá	squeeze	verb	mám	mámmátsá	squeeze several times	verb phrase
11	múnì	ugliness	noun	múm	múm-mùná	ugly	adjective
12	tàrá	collect	verb	tàt	tàttàrá	collection	noun
13	kásà	down	adverb	kàk	kàkkásà	deep down	adverb
14	bùgá	hit	verb	bùb	bùbbùgá	hitting	noun
15	zùngùré	to poke	verb	re	zùngùréré	Poking	noun

Table 3: Partial reduplication in Hausa

(Partly cf. Arokoyo, 2006; Zubairu & Ahmed, 2012)

No	Root word	Meaning	Part of Speech	Prefix	Reduplicated form	Meaning	Part of Speech
1.	ga	go	verb	ò	ògiga	going	noun
2.	kè	create	verb	ò	òkìkè	creation	noun
3.	re	sell	verb	ò	òrire	selling	noun
4.	gwu	dig	verb	ò	ògwugwu	digging	noun
5.	nyụ	defecate	verb	ò	ònyụnyụ	defecating	noun
6.	ta	chew	verb	ò	òtịta	chewing	noun
7.	ZŅ	buy	verb	ò	òzụzụ	buying	noun

Table 4: Partial reduplication in Igbo

Tables 3 and 4 show that partial reduplication uses a part of the word, typically a syllable that is repeated and not the entire word. Partial reduplication in Hausa involves repetition and prefixing or suffixing of part of the word to the root word. This sometimes leads to consonant clusters as seen in Table 3(1) kùr-kúsà 'very close', number (4) yán-yànká 'cut several times' or geminate consonant at the morpheme boundary as is the case with sàs-sàyé 'buy several times' in number (7), ràr-ràbá 'sharing' in number (3), múm-mùná 'ugly' in number (11), tàttàrá 'collection' in number (12), kàkkásà 'deep down' in number (13), bùbbùgá 'hitting' in number (14) and sássáfé 'very early in the morning' in number (9) in table 3. Sometimes, there is a change in the grammatical function of a word, e.g. tàrá 'collect' (verb) and tàttàrá 'collection' (noun).

For Igbo, partial reduplication is done by repeating the consonant of the stem followed by 'i' or 'i' based on the vowel harmony group of the vowel of the stem if it is 'a' or 'e' and prefixing same to the stem. A low toned $\mathbf{\hat{o}}$ or $\mathbf{\hat{o}}$ is prefixed to the derivation, also based on

the vowel harmony group of the vowel of the stem, e.g. $ga \, go' \rightarrow \dot{o}giga \, going'$ in Table 4(1), $k\dot{e} \, create' \rightarrow \dot{o}k\dot{k}\dot{e} \, creation'$ in Table 4(2). Unlike in the Hausa language, there is no consonant clusters nor geminate in partial reduplication in Igbo. Partial reduplication here results into a change in the grammatical function of a word.

No	Root word	Meaning	Reduplication form	Plural
1	kófà	door	kófófi	doors
2	rùbùtú	writing	rùbùcé – rùbùcé	writings
3	yànká	cut	yán- yànká	cut several times
4	sàyé	buy	sàs- sàyé	buy several time
5	gyárá	repair	gyáré-gyáré	repairs
6	kírà	call	kìràyé- kìràyé	calls
7	kídà	music	kìdé- kìdé	musics
8	túrà	push	tùrè- tùré	pushing
9	búgù	to hit	bùgè-bùgé	hitting
10	tàfiyà	travel	tàfiyè- tàfiyè	travels
11	bátú	issue	bátú-túwà	issues

Table 5: Reduplication in Hausa for Plural Formation

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12	ájì	class	ájújúwà	classes
13	cuta	disease	cututtukà	diseases

(Partly cf. Arokoyo, 2006; Zubairu & Ahmed, 2012)

Table 6 Reduplication in Igbo for plural formation

No	Root word	Meaning	Reduplicated form	Meaning/ plural
1	òkwutē	stone	òkwutē-ōkwutē	stones
2	nnu	salt	ททน-ททิน	salty
3	aji	hair	aji-āji	hairs
4	mmanwụ	masquerade	mmanwụ-m̄manwụ	masquerades
5	òbàrà	blood	ọ̀bàra-òbàrà	plenty blood
6	ozu	corpse	ozu-ōzu	corpses
7	ugwu	hill	ugwu-ūgwu	hills
8	nli	food	nli-nli	foods
9	akwụkwọ	book	akwụkwọ-ākwụkwọ	books
10	nchà	soap	nchà-nchà	soapy

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11	ahụhụ	suffering	ahụhụ-āhụhụ	sufferings
12	ewu	goat	ewu-ēwu	goats

Plural formation in the Hausa language seems to be a complex system as revealed by table 5. In some cases, plurals are formed in the language by partial copying of some sounds or syllables from the base and prefixing or suffixing same to the base sometimes with or without modification. Table 5(1) shows that there is copying of the initial syllable of the base and prefixing it to the base with the nucleus of the final syllable changed from 'a' to 'i'. For table 5(2), the entire word is copied, but the third syllable 'tú' is replaced with 'ce' to yield plural. In table 5(3&4), the first syllable is copied and prefixed to the base to yield plural, but the prefixed first syllable has its consonant copied and suffixed to it. Examples (5-11) of table 5 reveal that the entire word is copied. However, while the morpheme 'yé' is suffixed to both the base and its duplicate in (6), the vowel of the final syllable is changed to 'e' in (7-10). This kind of reduplication sometimes leads to tone modification, e.g. kírà 'call' \rightarrow kìràyé-kìràyé 'calls' where the high tone of the first syllable changes to a low tone. Table 5(12&13) indicate that the plural is formed by first changing the vowel of the final syllable to 'u' and copying the final syllable of the base and suffixing 'wa/ka' with a low tone to it; then the modified final syllable is suffixed to the base.

For the Igbo language, it is observed in table 6 that plural formation can take the form of complete reduplication of the word. This is simpler compared to what obtains in the Hausa language. While the system of plural formation in the Hausa language is complex and involves complete (with modification of the final vowel) or partial reduplication, the Igbo language operates complete reduplication for its plural formation. Where the copied word is suffixed to the base, the tone of the first syllable is mostly a down stepped high pitch, e.g. **aji** 'hair' \rightarrow **aji-āji** 'hairs' in Table 6, number (3); but where the copied word is prefixed to the base, the final vowel of the last syllable is modified as witnessed in Table 6, number (5) where **obara** 'blood' \rightarrow **obara-obara** 'bloody'. There is tone weakening in number (3) and tone strengthening in number (5).

No	Root word	Meaning	Reduplication form	Quantification	
1	gùdá	one	one gùdá-gùdá one		
2	kwabò	one kobo	kwabò-kwabò	one kobo each	
3	bíyú	two	bỉbbíyú	two each	
4	hurdu	four	Hurhudu four e		
5	gómà	ten	gómà–gómà	ten each	
6	àshìrín	twenty	àshìrín–àshìrín	twenty each	

Table 7 Reduplication in Hausa for Quantification

Table 8: Reduplication in Igbo for Quantification

No	Root word	Meaning	Reduplication form	Quantification
1	otù	one	otù-otù	one by one
2	àbụọ	two	àbụ̀ọ-àbụ̀ọ	in twos
3	ìtọ	three	ìtọ-ītọ	in three

4	ìnọ	four	ino-ino	in four
5	ìri	ten	ìri-īri	ten each
4	ìriàbụọ	twenty	ìriàbụ̀ọ-īriàbụ̀ọ	in twenties

Table 7 reveals that the Hausa language sometimes copies the initial syllable of the base and prefixes it to the base followed by a duplicate of the initial consonant of the base; sometimes, it completely copies the base without any modification. Table 8 shows that Igbo operates a system whereby for deriving quantification, the base is complete reduplication of the numerals.

No	Root word	Meaning	Reduplication form	Intensity
1	kàdán	little	kàdán-kàdán	very little
2	dógó	long	dógó–dógó	very long
3	kúsà	close	kúr–kúsà	very close
4	sáfé	morning	sás-sáfé	very early in the morning
5	sàntál	tall	sàntál-sàntál	tall/well built
6	zúngúrúm	beautiful	zúngúrúm- zúngúrúm	very beautiful

Table 9 Reduplication in Hausa showing intensification

	1	1				
7	gùngùn	thick	gùngùn-gùngùn	very thick		
8	fárkán	big	fárkán-fárkán	very big/huge		
9	dàbam	differently	dàbam-dàbam	very differently		
10	gúrgú	cripple	gúrgú-gúrgú	a bit cripple		
11	samà	above	samà–samà	a bit higher		
12	sábó	new	sábó-sábó	a bit new		
13	fárí	white	fárí–fárí	a bit white		
14	sáurí	fast	sáurí–sáurí	a bit fast		
15	dányé	raw	dányé-dányé	a bit raw		
16	bāya	behind	bāya-bāya	slightly behind		
17	tsakiya	middle/centre	tsakiyà-tsakyà	around the centre		
18	dà dāmā	quite a lot	dà dāma-dāma	moderately		
19	sányí	cold	sányí–sányí	a bit cold/ coldish		
20	ƙásà	below	ƙásà-ƙásà	a bit lower		
(cf. Arokoyo, 2006; Zubairu & Ahmed, 2012; Ziegelmeyer, 2022)						

(cf. Arokoyo, 2006; Zubairu & Ahmed, 2012; Ziegelmeyer, 2022)

No	Root word	Meaning	Reduplication form	Intensity/Habitual action
1	ọnwụ	death	ọnwụ-ọnwụ	increase in deaths
2	orī	robbery	ori-ōri	continuous rubbery
3	nnu	salt	ททน-ททิน	salty
4	iwe	anger	iwe-īwe	habitual anger
5	ògbugbu	killing	ògbugbu-ōgbugbu	continuous killing
6	òlile	selling	òlile-ōlile	continuous selling
7	anwụrų	smoke	anwụrụ̀-anwụrụ̀	much smoke
8	osè	pepper	osè-osè	much pepper
9	ụkā	sour	uka-uka	very sour
10	ọhụ <u>u</u>	new	ọhụụ-ọhụụ	looking new
11	oberē	small	oberē-oberē	very small
12	òcha	white	òcha-ọ̄cha	a bit white

Table 10 Reduplication showing intensification in Igbo

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Through reduplication, the intensity or degree of a particular action can be revealed. Table 9 shows that intensification can be derived in the Hausa language by complete or partial reduplication process. Complete reduplication for adjective in the Hausa language can change the intensity of adjective by either increasing or reducing it as seen in table 9. While in table 9(1,2,5-8), the intensity is increased, Table 9(10-17,19&20) shows that the intensity is reduced. Similarly, complete reduplication for adverb in Hausa can change the intensity of adverb as table 9(9&18) has revealed. Table 9(3&4) reveals instances of change in the intensity of an adverb and an adjective by partial reduplication. In this case, the first syllable of the word is copied and a consonant suffixed to it, then the copied syllable is prefixed to the base.

It is noticed in table 10 that intensification in Igbo is derived by complete reduplication of the word only. It means that Hausa operates both complete and partial reduplication, and Igbo has complete reduplication for intensification. Complete reduplication for intensification or degree in both languages sometimes leads to tonal modification.

No	Root word	Meaning	Reduplication form	Meaning	Plural	Meaning
1	mum	ugliness	mummuna	ugly	munana	ugly ones
2	karfi	strength	kakkarfi	strong	karfafa	strong ones
3	kyau	beauty	kyakkyawa	beautiful	kyawawa	beautiful ones

 Table 11: Reduplication showing Agreement Marker for plural in Hausa

(cf. Arokoyo, 2006)

In Table 11, adjective agrees with the noun it qualifies in both gender and number in Hausa. This is done by reduplicating the final syllable. This kind of reduplication is not witnessed in the Igbo language. It is also revealed that an adjective can be formed from a noun, e.g. **kárfí** 'strength' (noun) \rightarrow **kákkárfí** 'beautiful' (adjective) in Table 11(2).

Findings

From the data analysis and comparison, the following findings are made:

The Hausa and Igbo languages operate complete and partial reduplication.

Complete reduplication in the two languages involves doubling the entire word. For Igbo, complete reduplication sometimes involves inter-fixing of a morpheme, which does not have any link with the root word, to the reduplicated form. This system of inter-fixing of a morpheme to the reduplicated form is not witnessed in the Hausa language.

Partial reduplication in Hausa involves repetition and prefixing of part of the word to the root word, sometimes leading to consonant clusters or geminate consonant at the morpheme boundary; but in Igbo, partial reduplication is done by repeating the consonant of the stem followed by 'i' or 'i' based on the vowel harmony group of the vowel of the stem and prefixing same to the stem, and prefixing of a low toned $\mathbf{\hat{o}}$ or $\mathbf{\hat{o}}$ to the derivation, also depending on the vowel harmony group of the vowel of the stem. Igbo does not allow geminate consonant.

The Hausa language operates a complex plural formation than Igbo. In some cases, plurals are formed in the language by partial copying of some sounds or syllables from the base and prefixing or suffixing same to the base with or without modification; while the Igbo language operates complete reduplication for its plural formation.

The Hausa language sometimes partially copies the initial syllable of the base and prefixes it to the base followed by a duplicate of the initial consonant of the base; and sometimes, it completely copies the base without any modification. In Igbo, there is complete reduplication of the numerals for deriving quantification.

Intensification can be derived in the Hausa language by complete or partial reduplication process. Complete reduplication for adjective and adverb in the Hausa language can change the intensity of the adjective or adverb, as the case may be, by either increasing or reducing it. There is a change in the intensity of an adverb and an adjective by partial reduplication where the first syllable of the word is copied and a consonant suffixed to it; the copied syllable is then prefixed to the base. Intensification in Igbo is also derived by complete reduplication of the word. Unlike Hausa, Igbo does not operate partial reduplication for intensification.

Just as Zubairu and Ahmed (2012) have noted that Hausa is a gender language, it is observed that adjective agrees with the noun it qualifies in both gender and number in Hausa; and this is done by reduplicating the final syllable. This kind of reduplication is not witnessed in the Igbo language.

Summary and Conclusion

This paper has been discussing a contrastive study of reduplication in the Igbo and Hausa languages in order to identify possible areas of differences in the two languages that might constitute problem for their speakers learning the other's language as L2. From the analysis and comparison of primary and secondary data of the two languages, some similarities and differences in the reduplication processes of both languages were revealed. Among the differences is that the reduplication process in the Hausa language is more complex than in Igbo, especially the partial reduplication, which most often results into geminate consonant that is disallowed in Igbo. In complete reduplication in the Hausa language, there is no inter-fix of a morpheme to the reduplicated form as witnessed in Igbo. Also, while Hausa involves both complete and partial reduplication for quantification and intensification; in Igbo, it is only by complete reduplication.

These differences pose a problem for learners and their teachers. Therefore, in order to help speakers of the languages learning the other's language as L2, it is recommended that the learners and their teachers should obtain copies of contrastive study done on grammar of these languages, including this one. They should study them carefully in order to minimize possible errors. The teachers should ensure that they drill the students on those areas they foresee difficulties in learning the languages. Further studies on reduplication in Igbo and Yoruba as well as on other aspects of grammar among the three major Nigerian languages will be a good idea as that would strengthen the number of contrastive studies available for the three languages, and enhance learning and teaching them.

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