Plural strategies and devices in Igbo

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This study examines strategies and devices adopted in Igbo to mark plurality on lexical items at both word and phrasal levels. The study provides additional evidence, adequate description, and explanation, as well as a theoretical background to the phenomenon which hitherto was not provided by earlier studies. Data were collected through observation, oral interview, and from existing literature. Data were analysed based on the principles and operations of the Minimalist Program. The study finds that five basic strategies could be employed to mark plurality in Igbo. These include merging of singular nouns with plural words or morphemes, via reduplication, use of conjunctions, use plural sensitive verbs, and context of speech. Plural devices include nouns with an inherent PL feature such as *ndị* 'persons' and *ụmụ* 'offspring'; the third person plural pronoun, *ha*; quantifiers such as *niile/dum* 'all'; numerals *abụọ* 'two' and above; mass nouns, *igwe/igwurube* 'group'; clitics *ga* and *nụ*; reduplicated nouns; conjunctions *na* 'and'; and plural-sensitive verbs such as *chịta* 'bring', and *ju*, 'be'. The study concludes that Igbo belongs to the set of languages that syntactically mark plural by using independent morphemes/words; i.e. *plural words*.

Keywords: plural devices, percolation, feature valuation, Igbo

1. Introduction

The goal of this study is to examine the various ways by which plural is expressed in Igbo;[1] specifically, the strategies and plural marking devices. Plural expression is universal across languages. It is used to express number indicating more than one, e.g. dual (two), trial (three), paucal (few), etc. (Crystal, 2008). Existing works such as Dryer (1989), Collins (2001), Cope (1993), Ajíbóyè (2005, 2010), and Iḷọri (2013) among others show that plurality is not expressed similarly across languages due to certain particular language parameters. These authors show two broad ways of marking the plural cross-linguistically. These are *morphological* and *syntactic* plural marking. For the morphological plural marking strategy, plural marking is achieved via noun inflection by the process of prefixation as in Bantu languages (e.g. Igala, Swahili etc.) and Tagalog, or suffixation as in English and Lele (a Chadic language; Cope, 1993) as in (1).

(1) a. *wa-toto*
PL-child
'children' (Swahili)

b. *Mga-aso*
PL-dog
'dogs' (Tagalog; Ajíbóyè, 2010, p. 142)

c. *n* *hindi-wi* *Pierre*
1SG insult-PL Pierre
'I insult (repeatedly) Pierre.' (Lele; Cope, 1993, p. 73)

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[1]Igbo is a Benue-Congo language spoken by a culturally homogeneous group of people located at the Southeastern part of Nigeria. Presently, it is made up of five states. They are Anambra, Imo, Enugu, Abia and Ebonyi. The language is also spoken in parts of the Delta and Cross River, Rivers, Benue, and Akwa Ibom States. It is spoken as first or second language by at least 35 million people (cf. Anurudu, 1999; Nweya, 2010; Emenanjo, 2011).

d. *shoe-s*
shoe-PL
'shoes' (English)

In (1), Swahili and Tagalog (1a, 1b) employ prefixes to mark plural while Lele and English (1c, 1d) employ a suffix to achieve a similar purpose. Most times, languages that fall in the latter category have obligatory plural marking and obligatory agreement.

In contrast, languages that syntactically mark plural often employ independent morphemes or words which may perform other functions in the language. These syntactic objects are often called *plural words*. Plural words are morphemes whose meaning and function is similar to that of plural affixes in other languages (Dryer, 1989). According to Dryer, plural words vary from language to language and do not belong to a syntactic natural class[2] because they could be pronouns (2a), grammatical number words (2b, 2d), determiners/articles (2c), grammatical plural words (2e),[3] or demonstratives (2f).

(2) a. *Mo kí* **àwọn ọkùnrin** *tí ó wà níbẹ̀*
1SG greet PL man that RP be there
'I greeted the **men** that were there.' (Yoruba; Ajíbóyè, 2010, p. 143)

b. *ea*[4] *gal kaarrooo neey*
DL car this
'these two cars' (Yapese; Dryer, 1989, p. 868)

c. *les*[5] *pommes*
DET.PL apple
'the apples' (French; Dryer, 1989, p. 873)

d. *ha ongo puha*
INDEF DL box
'two boxes' (Tongan; Churchward, 1953, p. 28)

e. *he pi' miš ʔaʜkš*
DET little boy PL
'the little boys' (Mixe; Van Haitsma and Van Haitsma, 1976, p. 74)

f. *Mo ta ilé wọ̀n-**yẹn** ní pọ́ńtọ̀*
1SG sell house PL-DEM for cheap
'I sold **those houses** at a ridiculously low price.' (Yoruba; Ajíbóyè, 2005, p. 168)

Works exist on plural formation in Igbo such as Okonkwo (1974), Ikekeonwu et al. (1999), and Nwokeiwu and Ilechukwu (2013), among others.[6] This work notwithstanding, the present study is relevant for the following reasons. First, the earlier works did not exhaust the strategies of marking plural in Igbo.[7] Second, the works are descriptively inadequate as they do not fully account for the semantic and syntactic properties of the plural words employed in the language. Lastly, the above works do not have a theoretical background except in a few instances where issues related to plural expression are mentioned in passing.

The paper addresses these issues by examining the strategies involved in plural expression and the words that serve this purpose in the language. The following questions are designed to guide the study:

1. What are the strategies of marking plural in Igbo?

[2]Though they do not belong to a natural syntactic class, they perform similar semantic functions.

[3]In this case, the plural morpheme does not perform other functions in the language aside from marking plurality on the noun.

[4]According to Dryer, *ea* is a particle identified by Jensen (1977) as a 'noun phrase connector' used in NPs that lack articles in Yapese.

[5]Spoken French has lost plural suffixes on nouns. As a result, the article *les* solely indicates plurality but it is also an article since it codes definiteness as well.

[6]Some scholars discussed plural formation in passing: Anurudu (1999, 2010), for instance.

[7]For instance, the present study shows that Igbo can express plurality by the use of the 3rd person plural pronoun *ha* and this is not pointed out in any of these works.

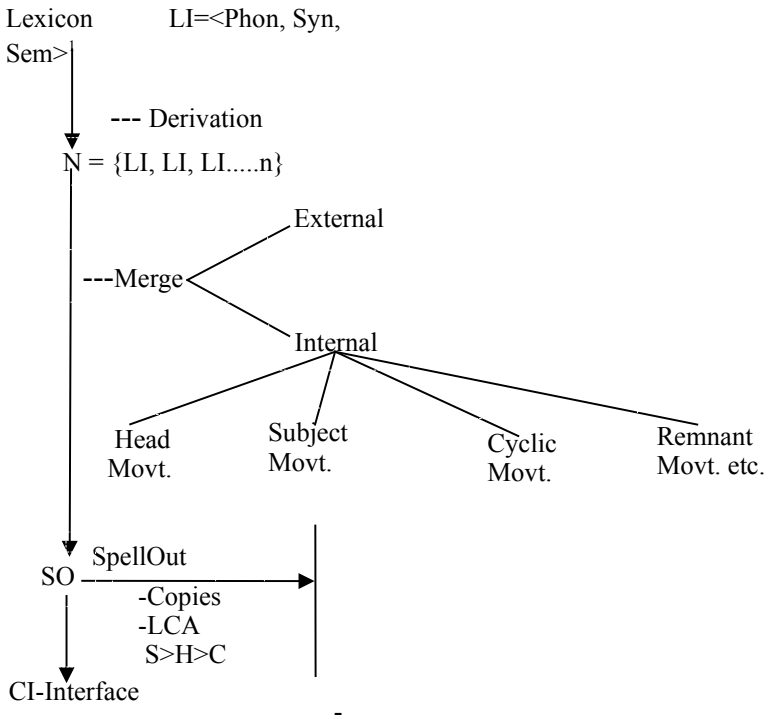
2. What are the syntactic devices that function as plural words in the language?
3. How do plural words behave syntactically and semantically in the language?
4. What generalizations could be made based on the behavior of plural words?

In the sections that follow, we shall look at the theoretical framework (§2), the feature percolation mechanism proposed in Ajíbóyè (2005, 2010) (§3), the strategies of expressing plurality as well as the plural words that exist in the language (§4), and the final summary and conclusions in §5.

2. Theoretical framework

This paper is developed within the principles and operations of the Minimalist Program (henceforth MP). MP is a more economical approach to the analysis of grammars of I-languages advanced by Chomsky (1993, 1995, 2000, 2008, 2013) and work by other linguists. Its major goal is to reduce the theoretical apparatus used to describe syntactic structure to a minimum (Radford, 2009; Cook and Newson, 2014). Chomsky (1993, p. 168) assumes that the performance system of languages fall into two types, PF and LF, which are the interface levels. The language determines the set of pairs drawn from the PF and LF levels. MP holds that language consists of two components: a lexicon and a computational system with their idiosyncratic properties. The computational system uses these elements to generate derivations and structural descriptions (SDs). The program is schematized as follows:

(3)



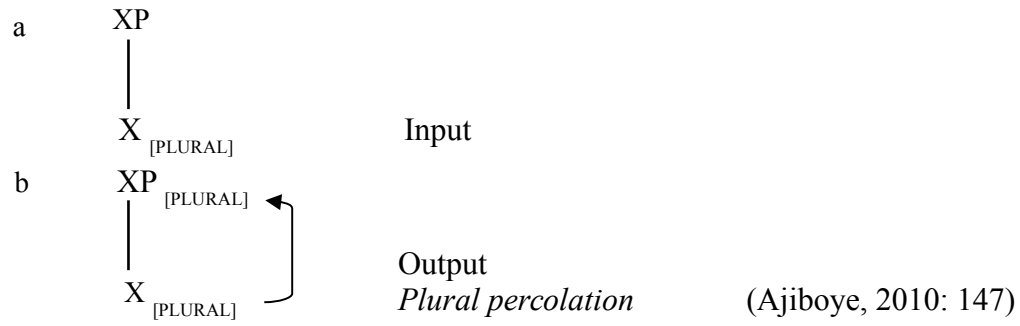
The schema above demonstrates the operations of MP. It shows that the human mind is a complex computational machine that processes language. The basic computational process takes pre-selected lexical items (LIs) and builds them into a structure by successive application of Merge. Merge is external when LIs are new in the derivation and internal when any of the items is already in the derivation and undergoes scrambling in the forms of head movement, subject movement, cyclic movement and/or remnant movement to form a syntactic object (SO). The derivation splits at the point of Spell Out where the phonetically

relevant materials are sent to PF and the grammatical and semantically relevant features sent to LF. The computational procedure continues to apply similar processes to build fully formed structure at the PF and LF which are the interface levels. At these points, the syntactic objects are presented for appropriate interpretation. If the PF is phonetically interpretable and the LF semantically interpretable, the derivation converges; otherwise, it crashes.

3. The percolation mechanism

This proposal is meant to capture the fact that languages that syntactically[8] mark plural employ certain lexical items which, by virtue of having the [PLURAL] feature, enforce plural interpretation of nouns in their environment. To account for this, Ajíbóyè (2005, 2010)[9] proposed a feature percolation[10] mechanism in the sense of copying which assumes that the feature mechanism copies the plural feature of a node onto the node that dominates it. This assumption is represented in the diagram below:

(4)



Percolation, as demonstrated above, can come from one or more nodes within an NP. The Plural feature theory proposal falls within the theory of features in syntax as manifest in PERSON (1st, 2nd, 3rd), TENSE (Past, Present, Future), and GENDER (Male, Female).

4. Syntactically determined plural marking in Igbo

In Igbo, nominal expressions may be marked as plural in the following ways: (1) use of specialized plural words such as *ndị* 'persons' and *ụmụ*[11] 'offspring'; (2) use of clitic (morphemes) such as *ga*; (3) use of *ha*, the third person plural pronoun (3PL); (4) use of quantifiers and numerals; (5) use of reduplicated nouns; and (6) use of conjunctions and contextually determined plural marking. These shall be accounted for in the sections that follow.

4.1. Marking plural with inherent plural words, *ndị* and *ụmụ*. The Igbo language has nominal expressions with inherent [PLURAL] features that interpret adjoining nouns as plural. In other words, they serve to mark plural whenever they are merged with other nouns in a construction. Observe the examples below:

(5) a. i. **Mmadụ** *nọ̀* *n'ụlọ́ụ́kà*
person be P-church
'Many people are in the church.'

[8]Two mechanisms of plural marking exist cross-linguistically as discussed in the literature. They are feature percolation and feature matching. Languages that mark plural syntactically adopt the feature percolation mechanism, while languages that mark plural morphologically adopt feature matching.

[9]See Ajíbóyè (2010, pp. 147, 228-229).

[10]Ajíbóyè (2010, p. 146) explains that percolation employed in this sense is different from its broad use. In its broad use Owolabi (1995) defines it as a device that enables a complex word to inherit the syntactic features of its head.

[11]The tonal marking convention adopted here is that the *low* and *downstep* tones are marked while the *high* tones are left unmarked.

ii. **Ndị mmadụ** *nọ n'ụlọ ụkà*
PL person be P-church
'Many people are in the church.'

b. i. **Onye agbòrò** *nà-a-lụ ọgụ*
person$_{SG}$ tout AUX-AGR-fight fight
'The tout is fighting.'

ii. **Ndị agbòrò** *nà-a-lụ ọgụ*
person$_{PL}$ tout AUX-AGR-fight fight
'The touts are fighting.'

c. i. **Onye obòdò** *jè-rè ikpē n'ụlọ igwē*
person$_{SG}$ village go-PST judgment P-house king
'The villager went to the king for settlement of dispute.'

ii. **Ndị obòdò** *jè-rè ikpē n'ụlọ igwē*
person$_{PL}$ village go-PST judgment P-house king
'The villagers went to the king for settlement of dispute.'

d. i. *Ha zụta-rà* **ụgbọalà ā**
3PL buy-PST car DEM
'The bought this car.'

ii. *Ha zụta-rà* **ụgbọalà ndị ā**
3PL buy-PST car PL DEM
'The bought these cars.'

e. i. **Akwà ahụ** *dị oke ọnụ*
cloth DEM be too costly
'That cloth is too costly.'

ii. **Akwà ndị ahụ** *dị oke ọnụ*
cloth PL DEM be too costly
'Those clothes are too costly.'

f. i. **Ewu ā** *à-nwụ-ọ-la*
goat DEM AGR-die-OVS-PERF
'This goat is dead.'

ii. **Ewu nd$_i$ ā** *à-nwụ-ọ-la*
goat PL DEM AGR-die-OVS-PERF
'These goats are dead.'

In (5) above, the bolded expressions in example (5ai–5fi) indicate singular while those in (5aii–5fii) indicate plural. In (5ai) the noun *mmadụ* 'person', needs no SG marking device to be interpreted as SG for the fact that it shares the feature [+HUMAN] with the SG marking device. Hence, it could be construed as either SG or PL depending on context. Examples (5bi) and (5ci) could be unambiguously interpreted as singular due to the presence of *onye* 'person'. Similarly, (5di) and (5fi) express singular because they involve bare nouns merged with the demonstratives, *a* (5di) and (5fi) or *ahụ* (5ei). It is important to note that *onye* cannot be used to mark singularity in (5di, 5fi) because it has the feature [+HUMAN]. Consequently, it cannot occur adjacent to nouns that bear the feature [−HUMAN]. On the other hand, (5aii–5fii) show that the sole function of *ndị* 'persons', is to give the preceding or following nouns plural interpretation. It occurs pre-nominally in (5aii–5cii) and post-nominally in (5dii–5fii), thus yielding a [±HUMAN] dichotomy. In (5aii–5cii) where it is used to pluralise a [+HUMAN] noun it occurs pre-nominally. Whereas, it occurs post-nominally in (5dii–5fii), having been used to pluralise a [−HUMAN] noun. Therefore, it could be deduced that if *ndị* 'persons' occurs before a [−HUMAN] noun, the derivation crashes or converges to give a different interpretation at LF. For instance,

(6) a. * *Ndị akwā āhụ̀*
PL cloth DEM
'Those clothes'

b. * *Ndị ewu ā*
PL goat DEM
'These goats'

c. **Ndị akwā** *āhụ̀*
Person$_{PL}$ cloth DEM
'Those cloth dealers/sellers'

d. **Ndị ewu** *ā*
Person$_{PL}$ goat DEM
'These goat dealers/sellers'

In (6a–b) *ndị* pre-modifies *ewu* 'goat' and the derivation crashes. But it converges in (6c–d) because it is pronominal with intrinsic plural interpretation. In contrast, *ụmụ̀* 'offspring', as a plural word, does not have a similar syntactic distribution as *ndị* because it only occurs pre-nominally. Nevertheless, they behave alike semantically because *ụmụ̀* has the features [+HUMAN, +PLURAL] and therefore could be used to pluralise [+ANIMATE] nouns; but unlike *ndị*, it has the feature [−ANIMATE]. Hence, it is not used with inanimate nouns since it literarily means children/offspring. Rather, it is often used with nouns that have a reproductive capacity either pre-nominally or pronominally. The semantic and syntactic features of *ndị* and *ụmụ̀* are summarised in the feature matrix below:

(7)

	Ndị	*ụmụ̀*
[PLURAL]	+	+
[HUMAN]	+	+
[INANIMATE]	+	−
[PRONOMINAL]	+	+
[PRE-NOMINAL]	+	+
[POST-NOMINAL]	+	−

In the following phrases where *ụmụ̀* 'offspring' is merged with [−ANIMATE] nouns, the expression crashes at PF.

(8) a. * *ụmụ oche*
PL chair
'chairs'

b. * *ụmụ akwa*
PL cloth
'clothes'

To demonstrate that nouns are interpreted as plural via plural percolation when they are merged with *ụmụ̀* 'offspring', observe the examples in (9) below:

(9) a. **Ụmụ̀ ákwúkwọ̄** *gà-a-nọ̀ nzùkọ taā*
child$_{PL}$ book FUT-AGR-hold meeting today
'The students will hold a meeting today.'

b. **Ụmụ̀ ntàkịrị̀** *nà-à-gba egwū*
child$_{PL}$ small PROG-AGR-dance dance
'The children are dancing.'

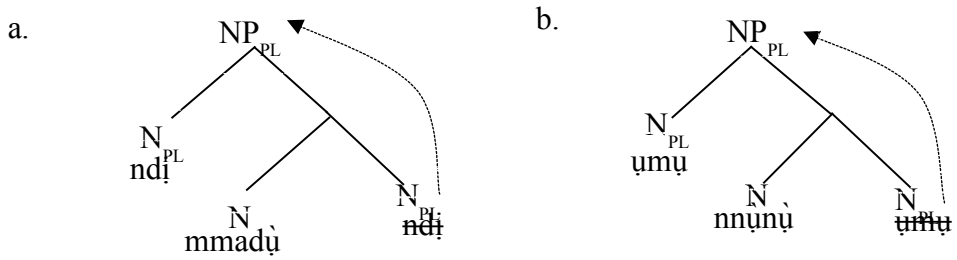
c. **Ụmụ̀ azụ̀** *jùrù na mmirī̀*
child$_{PL}$ fish be P water
'There are baby fish in the water.'

d. **Ụmụ̀ nnụ̀nụ̀** *nà-è-fe-gharị̄ n'elū*
child$_{PL}$ bird PROG-AGR-fly-around P-sky
'Birds are flying in the sky.'

e. **Ụmụ̀ mmadụ̀** *à-nwụ-chaā-lā*
child$_{PL}$ person AGR-die-finish-PERF
'People are dead.'

In the examples above, *ụmụ* serves to mark the following nouns as plural. The diagram below demonstrates how the feature percolation mechanism applies to the data presented.

(10)



In summary, the [PL] feature of the nominal expressions *ndị* and *ụmụ* respectively percolates onto the higher NP prior to movement, interpreting the entire nominal expression as plural.[12] This is shown by the arrows in (10).

4.2. Marking plural with *ha*, 3PL pronoun. Generally, personal pronouns are used to express the plural cross-linguistically.[13] Igbo is not an exception. Singular 1st, 2nd, and 3rd personal pronouns in the language have their plural counterparts as shown in Table 1.

(11)

	Subject		Object	
Person	**Singular**	**Plural**	**Singular**	**Plural**
1st	*m/mụ* 'I'	*ànyị* 'we'	*m/mụ* 'I'	*ànyị* 'us'
2nd	*Ị/gị* 'you'	*unù* 'you'	*gị* 'you'	*unù* 'you'
3rd	*o/ọ/ya* 'he/she/it'	*ha* 'they'	*ya* 'him/her/it'	*ha* 'them'
Impersonal	*a/e* 'some person(s)'	–	–	–

Table 1: Personal pronouns in Igbo.

Table 1 shows that the 2SG *Ị* 'you' and 3SG *o/ọ* 'he/she/it' is restricted to the subject position. The impersonal pronoun *a/e* is also restricted to the subject position and is unspecified for number. Hence, there is less overt manifestation of structural case in the language.

However, there is a special use of the 3PL pronoun *ha* 'they', where it is merged often with a proper name to indicate more than one. In this case, the noun precedes the pronoun as if they are appositives, but this is not the case since the singular function of the pronoun is to give the preceding nominal a plural reading. What could be understood from this kind of structure is that the R-expression marks specificity while the 3PL pronoun marks plurality. Observe the examples below:

[12] Anurudu (1999, pp. 47-50) asserts similarly that Igbo has no number-encoding morpheme similar to English plural morphemes, but employs number-bearing nouns to achieve the same purpose. He holds that *ụmụ* is inherently plural and has a plural feature which it introduces to the adjoining noun in which case it becomes the projecting head. This study provides further evidence on its syntactic and semantic distribution.

[13] This study is not unaware of the fact that the DP hypothesis which holds that all definite noun expressions are DPs including those not containing an overt determiner. However, the study prefers to ignore this fact for ease of analysis since Igbo is a determiner-final language. In this regard, Anurudu (1999) and Mbah (1999) posit that Igbo is a SPEC-last language though certain features of the specifier such as [GRADE] or [MEASURE] may force the specifier to prepose making the modifier become the modified. In that way, the modifier-last parameter of the language is retained. In addition, determiners (even those of the same class) co-occur in a construction. The analysis is beyond the scope of this study.

(12) a. **Uchē ha** *bịà-rà ebe ā*
Uche 3PL come-PST place this
'Uche and other(s) came here.'

b. **Ngọzị hà** *à-la-wa-la ụlọ̀*
Ngozi 3PL AGR-go-Incept.-Perf. house
'Ngozi with other(s) have gone home.'

c. *Mmadụ nwụ-rụ nà be* **Ugoo hà** *ụnyaahụ̄*
someone die-PST in house Ugoo 3PL yesterday
'Someone died in Ugoo and others' house yesterday.'

d. *Nnà ha zụ̀tà-à-rà* **Ebere ha** *akwà*
father 3PL(POSS) buy-for-PST Ebere 3PL cloth
'Their father bought clothes for Ebere and others.'

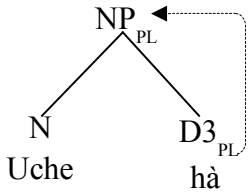
e. **Mama anyi ha** *je-re ahia*
mother 1PL(POSS) 3PL go-PST market
'Our mother went with others to the market.'

From the examples above, it may be observed that the 3PL pronoun serves to mark the preceding nominal as plural. In (12a), *ha* shows that the nominal *Uchè* came with other person(s) who share some kind of relationship with him/her. Similar interpretations could be given to (12b–12d). In (12d), *ha* (3PL) occurs twice in the sentence. In the first instance, it does not mark plural but functions as a 3PL possessive pronoun where *Nna* 'father' is the possessed; But in the second instance, it functions to mark the preceding nominal *Eberè* as plural. This example is common with proper names but it is possible with GEN constructions as shown in (12e). However, when the GEN construction involves the 3PL pronoun *ha* as in (12d), the derivation crashes at PF as in (13) below:

(13) * *Nnà ha ha zụ̀tà-à-rà [Ebere ha] akwà*
father 3PL(POSS) 3PL buy-for-PST Ebere 3PL cloth
'Their father bought clothes with others for Ebere and others.'

In summary, this study assumes that *ha* (3PL) is a post-nominal determiner that functions as a plural word and is obligatorily merged with a noun [+HUMAN], and that the PL feature of *ha* percolates onto the NP to give the entire nominal expression a plural interpretation. This is illustrated with diagram below:

(14)



4.3. Plural formation with quantifiers and numerals. When nouns are modified with quantifiers in Igbo, they are not independently marked plural; rather, the [PLURAL] feature of the quantifier percolates onto the noun. In languages that mark plural morphologically, where feature matching obtains, the nouns are independently marked plural, such that there is an agreement between the two as in the examples below:

(15) a. Many men
Most women
Two houses
Four boys

b. *Many man
*Most woman
*Two house
*Four boy

In (15) above, (15a) converges after merge has taken place while (15b) crashes because the quantifier and the noun do not agree in number. Such agreement is not required for Igbo and other languages such as Yoruba and Igala that syntactically mark plural.[14]

4.3.1 Quantifiers as plural words. It is observed that when Igbo nominals occur with group-denoting expressions (such as quantifiers and numerals) that are intrinsically plural in an NP configuration, they are unambiguously expressed as plural. Quantifiers and numerals have the semantic feature [PLURAL] denoting a group. Quantifiers that enter derivation to produce such expressions include: *ọtụtụ* 'many'; *olemaole* 'few'; *dum/niile/ncha* 'all'; *imirikiti* 'most'; *ụfọdụ* 'some', etc. In the examples below, quantifiers are merged with bare nouns and thus, the entire nominal expression is understood as plural.

(16) a. i. **Mmadụ̄** *dà-rà* *ùle* *ahụ̄*
person fail-PST examination DEM
'Some student(s) failed the examination.'

ii. **Ìmìrìkiti** **mmadụ̄** *dà-rà* *ùle* *ahụ̄*
A lot/most person fail-PST examination DEM
'A lot of students failed the examination.'

b. i. **Azụ̀** *nwụ̀-rụ̀* *na* *mmiri* *ahụ̄*
fish die-PST in water DEM
'A fish/some fish died in the water.'

ii. **Ọ̀tụtụ** **azụ̀** *nwụ̀-rụ̀* *na* *mmiri* *ahụ̄*
a lot/many fish die-PST P water DEM
'A lot of fish died in the water.'

c. i. *Gọvmentị̀* *kutù-rù* **ụlọ̀** *n''Ọnịchà*
government demolish-PST house P'Onitsha
'Government demolished a house/houses in Onitsha.'

ii. *Gọvmentị̀* *kutù-rù* **ụlọ̀** **òlemaolē** *n'Ọ̀nịchà*
government demolish-PST house few P'Onitsha
'Government demolished a few houses in Onitsha.'

d. i. **Ewu** *dị̀* *n'ahịa* *bụ̀* *ewu* *Awụsā*
goat be P'market be goat Hausa
'The goat(s) in the market are Hausa goats.'

ii. **Ewu** **niī̀le** *dị̀* *n'ahịa* *bụ̀* *ewu* *Awụsā*
goat all be P'market be goat Hausa
'All the goats in the market are Hausa goats.'

e. i. **Mmadụ̄** *à-gbaa-lā* *ọsọ̄*
person AGR-run-PERF run
'Someone has run away.'

ii. **Mmadụ̄** **dum** *à-gbaa-lā* *ọsọ̄*
person all AGR-run-PERF run
'Everybody has run away.'

f. i. **Akwụkwọ** *da-ra* *n'ala*
book fail-PST P'ground
'A book/books fell down.'

ii. **Ụ̀fọdụ̄** **akwụkwọ** *da-ra* *n'ala*
some book fail-PST P'ground
'Some books fell down.'

[14] Ilọri (2013) studies plural devices in Igala. He posits that Igala syntactically marks plural using plural words such as *àmo* and *àbo* which undergo some phonological processes to become *am-* and *ab-* after merge has taken place and consequently interprets the entire derivation as plural.

Data (16) above shows that in (16ai-16fi), the nouns occur without quantifiers and hence may be construed as either singular or plural. While those in (16aii-16fii) occur with quantifiers and unambiguously receive plural interpretation. Therefore, bare nouns cannot be unambiguously interpreted as plural until they are merged with quantifiers. However, it has to be pointed out that the syntactic position of these quantifiers varies (See also Emenanjo, 1978; Mbah, 1999; Anurudu, 1999, 2010). For instance, *niīle* or *dum* 'all' (16dii, 16eii) obligatorily follow the nouns they modify; *ìmìrìkiti* and *ọ̀tụtụ* (16aii, 16bii) obligatorily precede the nouns they modify while *olemaole* and *ụ̀fọdụ* 'few' (16cii, 16fii) optionally pre-modify a noun.[15] The syntactic positions of *olemaole* and *ụ̀fọdụ* (i.e. whether pre-nominal or post-nominal) do not have any effect on the quantificational interpretation of the noun. It was mentioned earlier that when a modifier shifts positions, it becomes the head while the noun becomes the modifier. Quantifiers also co-occur with other plural devices[16] in appropriate constructions. In such contexts, one can easily claim multiple plural marking. Consider the examples below:

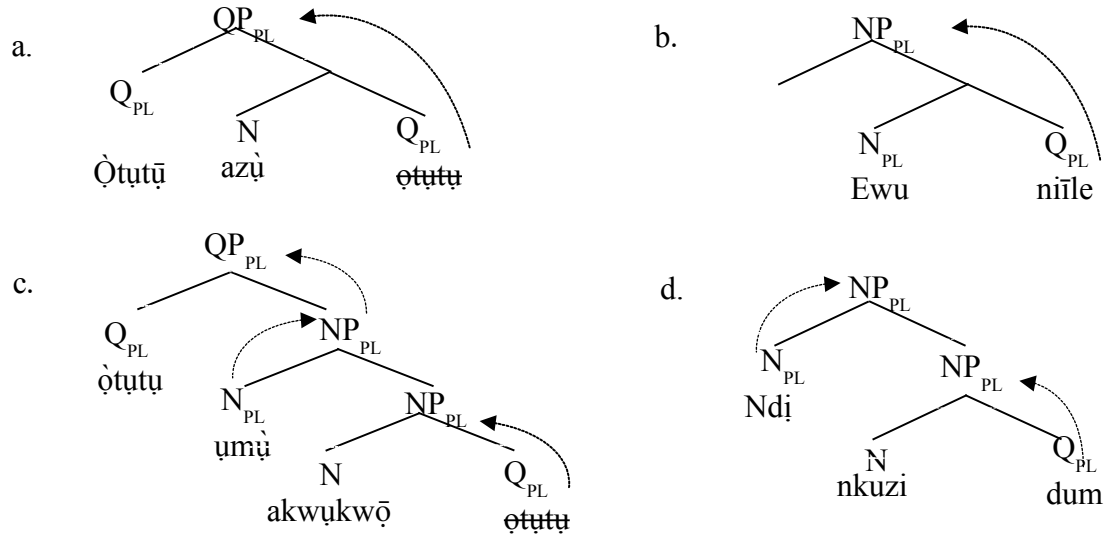
(17) a. *Ọ̀tụtụ ụmụ̄ akwụkwọ*
Q$_{PL}$ child$_{PL}$ school
'Many students'

b. *Imirikiti ụmụ̄ akwụkwọ*
Q$_{PL}$ child$_{PL}$ school
'Most school children'

c. *Ndị nkūzi dum/niīle ahụ̀*
person$_{PL}$ teaching (Q) PL DEM
'All the teachers'

d. *Ndị ụka olemaole*
person$_{PL}$ worshipper few
'Few worshippers'

(18)



The fact that these Q can occur with both singular and plural nouns justifies Ajiboye's assertion that languages that syntactically mark plural do not have obligatory agreement. This may further be attributed

[15] Anurudu (2010, p. 89) posits a Noun-Quantifier structure as follows: In Igbo, a head N is modified by a quantifier post-nominally, obligatorily pre-nominal and in some cases optionally pre-nominal. According to him, it is the inherent features of the modifier that determines the position.

[16] Such plural devices include *ndị* and *ụmụ*. This is possible because these words have a [+HUMAN] feature besides their Plural feature which also percolates to the adjoining noun.

to the ability of bare nouns to be interpreted as either singular or plural in such languages. The diagram in (18) shows the application of the feature percolation mechanism to the data presented in (16) and (17).

In (18a-b), the Q *ọ̀tụ̀tụ́* moves to the SPEC of the higher node to derive the modifier-NP linear order while in (18c-d) the Q, *dūm*, need not move since it occupies its appropriate position and bears a weak [MEASURE] feature. It is assumed here that the PL feature of the Q and N percolates onto the higher nodes QP and NP, respectively.

4.3.2 Numerals and numeral quantifiers as plural words. Similarly, numerals and numeral quantifiers perform the function of plural marking in Igbo. When nouns are merged with cardinal numerals or numeral quantifiers two and above, they are interpreted as plural. This assertion is demonstrated in the examples below:

(19) a. *Nnà ha nà-à-lụ nwaānyì* **àbụ̀ọ**
father 3PL(POSS) PROG-AGR-Marry woman two
'Their father is marrying two wives.'

b. *O nwè-rè* **ụlọ ātọ**
3SG has-STAT house three
'S/he have three houses.'

c. *Ndị nītọ tò-rọ* **narī̄ mmadū̀**
person$_{PL}$ kidnap kidnap-$_{PST}$ hundred person
'Some kidnappers kidnapped hundred persons.'

d. **Puku mmādù itoolū** *ka e wèrè n'ọrū́*
thousand person nine that 3IMP take-PST P'job
'Nineteen thousand persons were employed.'

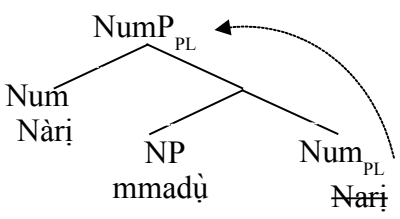
e. **Mmadù naàbò** *nwùrù n'ihe mbèrède ahù*
person two die-PST P'thing accident DEM
'Two persons died in the accident.'

f. **Ụzō niī̄se** *sì Ọ̀nìchà jewe Abūja*
road five from Onitsha go Abuja
'Five roads lead from Onitsha to Abuja.'

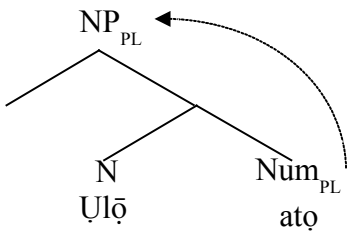
The foregoing is an indication that nominal expressions are interpreted as plural when they are merged with numerals just like quantifiers. Hence, it is proposed that numerals have an abstract [PLURAL] feature that could be realised on the nouns they are merged with. They need no other independent pluralising morpheme to realize plural in such constructions. However, they can co-occur with another plural morpheme and we assume such cases as double plural marking. The diagram below demonstrates how the feature percolation mechanism could be applied to NPs as shown in (19) above.

(20)

a.



b.



In (20a), *nari* moves to the pre-modifying position because of its strong measure feature. The diagram demonstrates that the plural feature of the numerals percolates onto the NP and in that way enhances their interpretation as plural expressions.

4.4. The clitics *gà* and *nụ̀* as plural morphemes. In Igbo, enclitics such as *gà*[17] are employed to express plurality. The enclitic, *gà* occurs post-nominally and is written separately from the noun[18] while *nụ̀*[19] occurs post-verbally and is written together with the verb as shown below:

(21) a. *Arụsị̄ ga*
deity PL
'deities'

b. *Ekwu ga*
tripod PL
'tripods'

c. *Mmadụ̀ gà*
person PL
'persons'

d. *Motò gà*
car PL
'cars'

e. *Bịa-nụ̀ ebe ā*
come-2PL place DEM
'(You$_{PL}$) come here.'

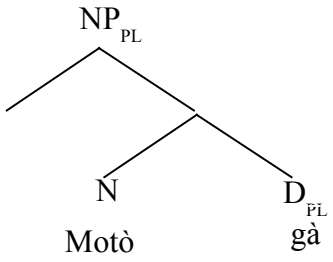
f. *Jẹ̀-ẹ-nụ ahịa ugbu ā*
go-IMP-2PL market now DEM
'(You$_{PL}$) go to the market now.'

g. *Ṅ̀ụ̀-ọ-nụ mmanya a*
drink-IMP-2PL wine DEM
'(You$_{PL}$) drink this wine.'

h. *Gbù-o-nu ewu ahụ*
kill-IMP-2PL goat DEM
'(You$_{PL}$) kill this goat.'

In (21a-d), the expressions are interpreted as plural after merge has taken place. It was also observed that if the nominal ends in a low tone, the enclitic also ends in low tone. The study posits that the [PLURAL] feature of the enclitic percolates onto the noun preceding it giving the whole expression a plural reading as schematised below:

(22)



Conversely, (21e-h) shows that the post-verbal clitic, *nụ̀* bears obligatory low tone and obeys the vowel harmony principle operational in the language (cf. 21e, 21h). It occurs in subjunctive and imperative constructions where the external argument is optionally covert. Below are some subjunctive expressions (such as greetings) in the language.

(23) a. *Dàalu*-**nụ̀**
thank-2PL
'Thank you all.'

b. *Ǹdeēwo*-**nụ̀**
greetings-2PL
'Good morning/afternoon/evening you all.'

[17] Apart from the enclitic *ga*, all other plural words or morphemes perform other functions in the language.

[18] Nwokeiwu and Ilechukwu (2013) give two reasons for writing the enclitic, *gà*, separate from the noun; first, is to show that it is not a suffix and secondly, to prove that nouns do not accept affixes whether inflectional or derivational in Igbo. In my view, the reasons are tenable because there are other clitics in the language such as *kwa* and *cha* used just for emphasis and same rule applies.

[19] Conversely, *nụ* is written together with the verb since it is only verbs that accept affixes in the language. Dr. B. M. Mbah (classroom communication) explained that *nụ̀* is the remnant of the second person plural subject pronoun *unu* which is deleted by transformation in imperative sentences. The enclitic *nụ* serve to interpret the null subject of the imperative sentence as plural. One evidence in support of this view is that the second syllable of *unù* 'you' PL bears an inherent low tone which is retained in the derivation. However, the clitic is realised as *nu/nụ* due to the influence of vowel harmony operational in the language.

c. *Ǹnọ̀ọ̄*-**nù**
welcome-2PL
'You are all welcome.'

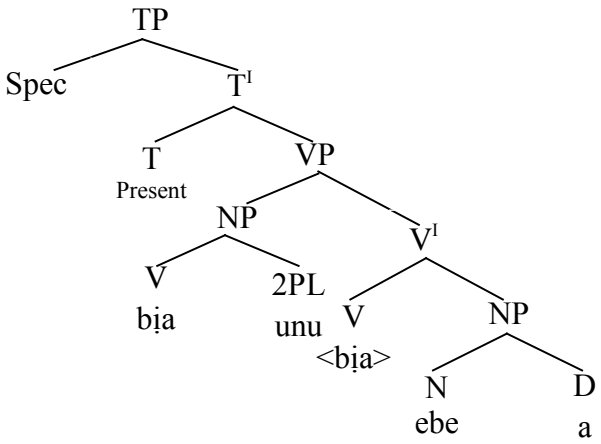
The examples in (23) show that the understood subject in each of the expressions is more than one. The clitic PL morpheme is attached to the nominal expressions. This study posits that *nù* is the remnant of the second person plural subject pronoun *unù* 'you' PL that cliticised to the verb.[20] The full form is presented in (24) below:

(24) a. *Bịa*-**nù** *(ebe ā)*
come-PL place DEM
'(You$_{PL}$) come here.'
b. *Jè-ẹ*-**nụ** *ahịa*
go-IMP-PL market
'Go to the market now.'

(25) a. **Unu** *bịa (ebe a)*
2PL come place DEM
'(You$_{PL}$) come here.'
b. **Unu** *jè-ẹ ahịa*
2PL go-IMP market
'You, go to the market.'

The set of data above show the plural clitic (24) and its full form (25). It seems to be the case that in these constructions, the 2PL pronoun grammaticalized to a number marker. Hence, they cannot be used to address one person in natural expressions. Nevertheless, the question that arises is how to account for this clitic using the MP and percolation theory. It is plausible to assume that the clitic enters derivation in its full form via merge having been numerated as the external argument of the VP. At some point in the derivation, the verb adjoins to it before moving to T. At PF, the phonological process of elision and assimilation takes place to realise the clitic in appropriate constructions. This assumption is schematized as (26) below.

(26)



4.5. Mass nouns as plural words. Mass nouns could also be used to express plurality in Igbo. Such nouns include *igwe/igwurube* 'group/crowd/herd' and *ukwu/ọyọkọ/ajụ* 'bunch'.[21] The former are used before animate nouns while the latter are used before inanimate nouns as demonstrated below:

(27) a. **Ìgwe** *atụrụ̄*
group$_{PL}$ sheep
'herd of sheep'

[20]B. M. Mbah (personal communication 10 August, 2011) explained that *nù* is the remnant of the second person plural subject pronoun *unù* 'you' PL which is deleted by transformation in imperative sentences.
[21]These examples were taken from Nwokeiwu and Ilechukwu (2013).

b. **Ìgwe** *mmadụ̄*
group$_{PL}$ person
'a crowd'

c. **Ìgwùrùbè** *ndị* *uweojii*
group$_{PL}$ person$_{PL}$ police
'a group of policemen'

d. **Ìgbwùrùbe** *aṅụ̄*
PL bees
'a group of bees'

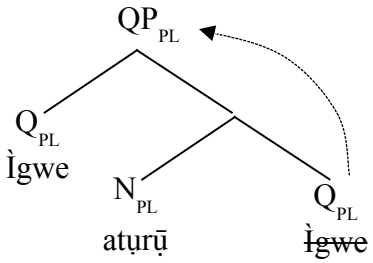
e. **Ukwù** *nkụ̄*
PL firewood
'a bunch of firewood'

f. **Ajụ** *unèrè*
bunch$_{PL}$ banana
'a bunch of bananas'

g. **Ọ̀yọ̀kọ** *ntughē/ìgòdò*
bunch$_{PL}$ key
'a bunch of keys'

Semantically, using the following mass nouns before singular nouns makes them plural. This implies that the nouns have literal plural reading. Syntactically, the mass nouns obligatorily pre-modify a NP. Hence, the study holds that the [PLURAL] feature of the mass nouns percolates onto the bare nouns and interprets them as plural expressions as illustrated below:

(28)



4.6. Reduplication as a strategy for expressing plural in Igbo. Another strategy employed to achieve plural in Igbo is reduplication.[22] Nouns or NPs could be reduplicated to express plural in Igbo. In some cases, the sentence is structured such that it obligatorily selects reduplicated nouns or NPs as object. For example,

(29) a. *Àla* *āhụ* *bụ* **osisi** **osisi**
land DEM be wood wood
'The land is filled with woods.'

b. *Ụlọ̄* *ekperē* *bụ* **mmadụ** **mmadụ**
house prayer be person person
'The prayer house is filled with people.'

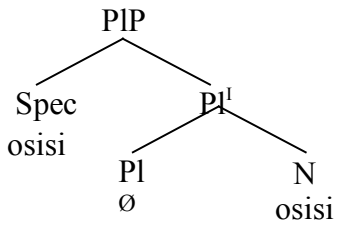
[22]Reduplication whether partial or complete could also be employed to achieve customary activity, partitiveness, increase in size, added intensity and continuance. In Igbo, aside from plural formation, it is used to achieve intensity and adverbial notion. Expressions that could be reduplicated in Igbo include nouns, agentives, gerunds, infinitivals, quantifiers, numerals and PPs (See Okonkwo, 1974; Anurudu, 2010). Reduplication as a plural strategy in Igbo, is reported by Anurudu (2010) and Nwokeiwu and Ilechukwu (2013) among others. However, the strategy is also employed in other languages such as Yoruba (Ajíbóyè, 2010) and Igala (Iloṛi, 2013).

c. *Àzụ ụlọ̄ ha bụ* **ọkpụkpụ ọkpụkpụ**
back house 3PL be bone bone
'Their backyard is filled with bones.'

d. **Ulọ elū ụlọ elū** *jù-rù n'Ọ̀nìchà*
house storey house storey be-PST in Onitsha
'Onitsha is full of storey buildings.'

Following the operations of MP, the study posits that the derivation of this structure begins with the numeration of the lexical items or syntactic objects (SOs) indicating the number of times they would be used in the derivation (e.g. Numeration: $osisi_2$); and that there is a null functional head, pl^0, which selects [±ANIMATE] nouns as complement to project plural words which is merged with the null Pl head to form Pl^1. The derived structure is externally merged with the second copy of the SO to form a PlP. It is believed that for some morphological reasons, Pl^0 requires similar SO to occupy its complement and SPEC positions for the derivation to converge at LF. These contentions are diagrammatically presented below.[23]

(30)



4.7. Use of conjunctions. In grammatical analysis, conjunctions generally serve to join two elements of a construction. Thus it could be used to join two singular nouns or NPs and the resulting expression could be interpreted as plural. Consider the following examples:

(31) a. **Chịmà nà Chụkwụkà** *à-nụ-la ihe me-renụ̄*
Chịma CONJ Chụkwụka AGR-hear-PERF what happen-PST
'Chima and Chukwuka have heard what happened' (Ofomata, 2001, p. 68)

b. *O nyè-rè yà* **otu iko nà otu efere**
3SG give-PST 3SG one cup CONJ one plate
'He/She gave him/her one cup and one spoon'

c. **Nne nà Nnā Chinèdu** *a-ma-ghị ihe ha gà-ème*
mother CONJ father Chinedu(POSS) AGR-know-NEG thing 3PL FUT-do
'Chinedu's parents do not know what to do.' (Odilora, 1996, p. 3)

d. *Ha bụ* **nwannē nà nwannē**
3PL be sibling and sibling
'They are siblings'

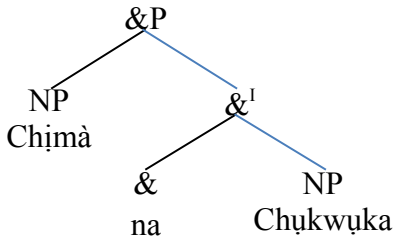
e. **Mụ nà Ngọzị** *nà-àgba egwū*
1SC and Ngozi PROG-Agr-dance dance
'Ngọzi and I are dancing.'

In (28) above, merging two NPs peripherally in a construction gives the resulting expressions plural interpretation. This kind of construction involves simple mathematics such that two singular entities joined together equals two. Therefore, the study posits that when two singular NPs are joined to be headed by

[23]This can also be accounted for using the percolation mechanism following the assumption of Ajíbóyè and Dechaine (2004) that copied entities occupy the left edge of the base; following this proposal, copied nouns that serve as plural marker is left adjoined to the noun.

a Conjunction Phrase, represented here as &P following Radford (2009, p. 53), the &P would have plural interpretation as in the tree below:

(32)



In the schema above, Chịma is the specifier of the &P while Chụkwụka is its complement. The &P has plural reading having been built of two nominal entities (persons). According to Radford (2009, p. 53), structures of this nature permit multiple specifiers to accommodate more items. This mechanism serves to increase the numeral quality of the &P.[24]

4.8. Plural sensitive verbs. Some verbs in Igbo are sensitive to plural arguments such that they select only plural arguments in a construction.[25] Such verbs are *chị*[26] and *kpo*[27] 'bring or take [+PL]'[28] depending on their extensional suffix or adjoining simple verb. They are transitive verbs that obligatorily select a plural internal argument and a volitional agent.[29] Their singular counterpart is *we* 'bring [+SG]'. This is evident in the examples below:

(33) a. *Uchè* **wè-tè-rè** **akwụkwọ̀**
Uche bring(+SG)-forward-PST book(SG)
'Uche brought a book.'

b. *Uchè* **chị̀-tà-rà** **akwụkwọ̀**
Uche bring(+PL)-forward-PST book(+PL)
'Uche brought books.'

c. *O* **we-pù-rù** **eferē**
3PL take(+SG)-away-PST plate(SG)
'He/She took away a plate.'

d. *O* **kpo-pù-rù** **eferē**
3PL took(±SG)-forth-PST plate(+PL)
'He/She took away some plates.'

In (33a, 33c), the verbs *wète* 'bring' and *wepù* 'take' are sensitive to [SG] internal arguments. Hence, they give the NP object a SG reading after merge has taken place. While the verbs, *chịta* 'bring' and *kpopù* 'take' in (28b, 28d) are sensitive to plural internal arguments. Thus, they give the object NP (*efere* 'plate') a plural reading. The study posits that *chịta* 'bring' and *kpopù* 'take' being two place predicate[30] verbs assign

[24]This simply means that structures like *Chima, Chukwuebuka, Uche na Chioma* could be represented following the proposal for multiple specifier.

[25]Similar observations have been made in Ilọri (2013) for Igala.

[26]It was also observed that aside from selecting a PL internal argument, the verbs also select items that have mass such as *akwa* 'cloth', *ntụ* 'ash', *aja* 'sand', etc.

[27]These verbs take extensional and inflectional suffixes which serve to extend their semantic index or modify their grammatical function like other verbs in the language, as shown in (33).

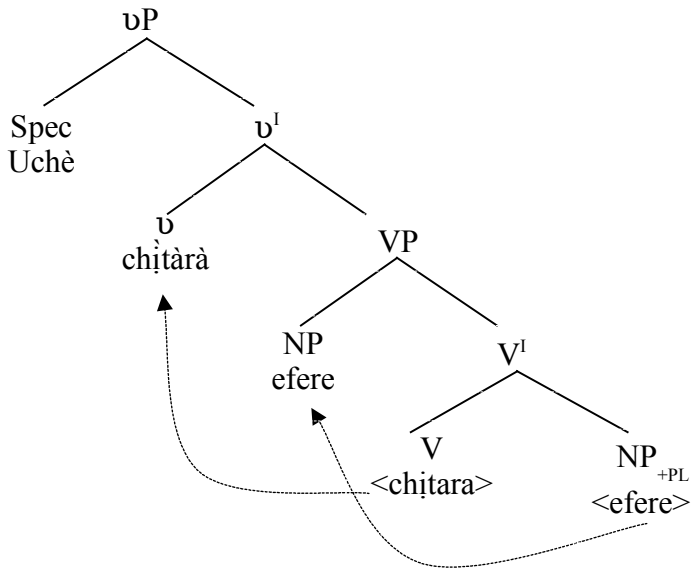
[28]It is the extensional suffix or the simple verb merged with it that captures this aspect of meaning.

[29]A volitional verb or construction is one where the action takes place as a consequence of the agents choice.

[30]It is possible for the verbs to subcategorize for direct and indirect object but it is only the direct object that inherits the plural feature of the verb. We shall not go into the details here since it is beyond the scope of this work. However, the reader is referred to Uwalaka (1995), Mbah (1999), and Uchechukwu and Mbah (2010) among many others.

theta roles of agent and theme to their subjects and objects respectively. Therefore, the derivation could be accounted for using the VP shell structure with an outer υP shell to generate its subject following the internal subject VP hypothesis and an inner core VP to value their accusative features. This is shown in the schema below:

(34)



In (34), *chịta* 'bring' and *efere* 'plate' enter the derivation with unvalued and valued PL features, respectively. *Chịta* 'bring' assigns a theta role theme to the object, *efere* 'plate', prior to movement. Since the motivation for movement is to value unvalued features, *efere* 'plate' moves to the Spec-VP to value its case and number features. In the Spec-VP, they take a probe-goal position to value the unvalued features while the uninterpretable features are deleted. The derivation converges because the number feature plays a role in the semantic interpretation. This structure is merged with a light υP taking into consideration the Internal VP Hypothesis and thus, the full structure in (34) was derived.

In contrast, *nu* 'surge' and *ju* 'be' are sensitive to PL subject NP. Therefore, it is assumed that the plural feature of the DP external argument is checked before it occupies Spec-TP. Both verbs are two-place predicate verbs but while *nu* 'surge' denotes an action, *ju* 'be' denotes a state. Observe the following examples:

(35) a. *Motò ga-fè-rè ebe ā*
car pass(±SG)-across-PST place DEM
'A car passed across this place.'

b. *Motò nu-fè-rè ebe ā*
car pass(+PL)-across-PST place DEM
'Cars passed across this place.'

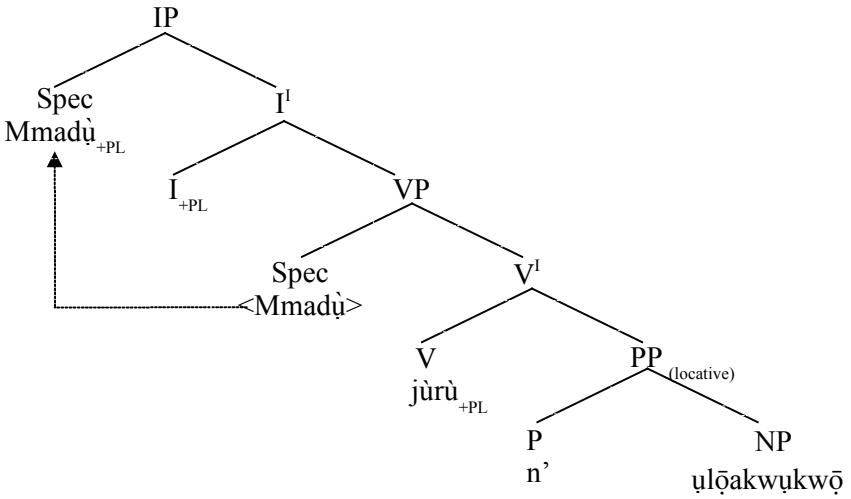
c. *Mmadụ̀ nọ̀ n'ụlọ̄akwụkwọ̄*
person be(±SG) P'school
'Somebody is in the school.'

d. *(Ndi) Mmadụ̀ jù-rù n'ụlọ̄akwụkwọ̄*
PL person be(+PL)-STAT P'school
'Many persons are in the school.'

In (35a-d) *ga* 'pass' and *nọ* 'be' have [±SG] features and therefore can select a [±SG] subject in a sentence, while the verbs *nu* 'surge' and *ju* 'be' unambiguously select a plural subject. How can one account for the

plural feature of these verbs that permit the selection of an appropriate external argument? One plausible way is to suggest that T values the PL feature of the external argument before it moves to occupy Spec T. If it has the PL feature, it moves to occupy Spec T, otherwise, the derivation crashes after the first phase. The implication is that any subject that would be merged as the external argument of *nu* or *ju* should be unambiguously interpreted as plural. The subjects in (35b, 35d) meet this requirement. Though *motò* and *mmadụ̀* are without overt PL markers, they are unambiguously interpreted as plural NPs. The complement position of the verbs could be filled by locative adjuncts or an NP complement. This proposal is schematised below:

(36)



In (36) above, the subject of the sentence is generated at the Spec of VP and it enters the derivation with a valued PL feature. This plural feature is checked off at I^{o} before the movement to Spec-IP to satisfy EPP and the derivation converges. Movement is never blocked since the external argument can be in its bare form which is ambiguous between singular and plural.

4.9. Contextually determined singular and plural interpretation. One of the characteristics exhibited by languages that syntactically mark plural is that in cases where PL is not marked explicitly, it is context that determines the singular or plural interpretation of nouns. Igbo has inherent singular words/morphemes as demonstrated below:

(37)

a.	**nwa**	*nwokē*
	person$_{SG}$	male
	'a son'	
b.	**nwa**	*nwaānyị̀*
	person$_{SG}$	female
	'a daughter'	
c.	**onye**	*isī*
	person$_{SG}$	head
	'a leader'	
d.	**onye**	*sojà*
	person$_{SG}$	soldier
	'a soldier'	
e.	**ụmụ̀**	*nwokē*
	person$_{PL}$	male
	'sons'	
f.	**ụmụ̀**	*nwaānyị̀*
	person$_{PL}$	female
	'daughters'	
g.	**ndị**	*isī*
	person$_{PL}$	head
	'leaders'	
h.	**ndị**	*sojà*
	person$_{PL}$	soldier
	'soldiers'	

From the examples above, one can understand that whenever *nwa* 'child$_{SG}$' and *onye* 'person$_{SG}$' are merged with bare nouns, the expression can only be given a SG interpretation. The constructions above are

not contextually determined. In the sections that follow, the study would make effort to give instances of contextually determined plural marking in the language.

Context could be used to determine if a nominal expression is singular in Igbo. This could be determined by identifying the pronoun used to substitute the noun in another context since pronouns are intrinsically SG or PL. Examine the proverb cited below:

(38) a. *I wère ogbo nà nchà ghụ-chaā* **ezì** *àhụ, ọ gà-ème-rịrị ihe*
2SG take-PST sponge and soap bath-PERF pig body, 3SG(it) FUT-AGR-do-must thing
ahụ̄ e ji a-kpō **ya** *ezì*
DEM 3IMP be AGR-call it pig
'A pig will always be a pig' (Ubesie, 1979)

b. *Ọ̀ dị-ghị onye ga-ana-pù-nwu* **mmadù** *ihe* **o** *jì pụ̀ta ụ̀wà*
3SG be-NEG who FUT-AGR-take-away-able person thing 3SG with come world
'Nobody can take a person's destiny away.'

c. *Ihe* **nnā** *nyè-rè nwa* **ya** *wèe nwụ̄ọ̄ bụ̀ ọ̀fọ*
thing father give-PST child his and die-OVS be authority
'What a father gave to his child before his death is authority.' (Ubesie, 1979)

d. **Ọkpara** *ya bịà-rà ụlọ̀*
son his come-PST home
'His son came home.'

e. **Ada** *mī è-jeēla ahịa*
daughter 1SG AGR-go-OVS-PERF market
'My daughter has gone to market.'

f. **Mmụọ** *mī dà-rà jùù*
spirit 1SG be-STAT calm
'My spirit is down.'

g. **Nwunyē** *igwē mà-rà mmā*
wife king be-STAT beauty
'The king's wife is beautiful.'

In (38a-c) the nouns *ezi*, *mmadụ* and *nna* are interpreted as SG because they were substituted with a 3SG pronoun *ya* 'he/she/it' elsewhere in the sentence. While the SG interpretation of the bolded nouns in (38d-g) is determined by the discourse.

Furthermore, when a bare noun is merged with a demonstrative (*a/ahụ*),[31] it can be unambiguously interpreted as SG. For instance,

(39) a. *Ha zụ̀tà-rà* **nkịtā** **à** *puku naịrā ìri*
3PL buy-PST dog DEM thousand naira ten
'They bought this dog for ten thousand naira.'

b. **Gwongworò** **ahụ̀** *dàrà àdà*
lorry DEM fall-PST fall
'The lorry fell.'

c. *Ànyị hụ̀-rụ̀* **oche** **ahụ̀** *n'èzi*
1PL see-PST chair DEM P'compound
'We saw that chair in the compound.'

[31] *a* and *ahụ* are the two demonstratives in the Igbo language. They obligatorily post-modify nouns in the language. The former indicates that the noun in question is close while the latter indicates that the hearer has a prior knowledge of the noun being pointed out.

When *otù/òfu* 'one' is merged with a bare noun, it is unambiguously interpreted as SG. This postulation is illustrated below:

(40) a. *[Otu nwokē] bịà-rà ebe ā*
one man come-PST place DEM
'A man came here.'

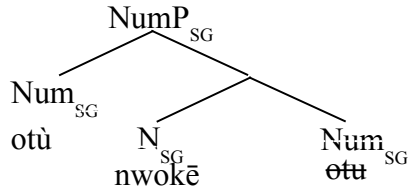
b. Ọ mụ̀tà-rà [otù nnwā]
3PL give birth-PST one child
'She gave birth to a baby girl.'

c. *[Otù motò] dà-rà n'ụzọ̀*
one car fall-PST on-road
'A car fell on the road.'

d. *[Òfu ugbòrò] kà ọ bịà-rà*
one time that 3SG come-PST
'H/She came once.'

Following the percolation mechanism, it is assumed here that the SG feature of the SG words percolates onto the higher NP to give the entire nominal expression a SG interpretation. This is exemplified below:

(41)



Conversely, this study reveals that contexts for plural interpretation of bare nouns in the language are difficult to come by even with discourse cues as observed for SG nouns. In the contexts where this may be possible number is usually unspecified, resulting in ambiguity. This can occur when a count noun occurs by itself (42a), or when it takes a modifier (42b), a relational noun (42c), or a possessive pronoun (42d). The noun can either be construed as singular or plural depending on the discourse context.

(42) a. **Ǹsogbū** *dị̀rị̀* **nwokē** *lụ̀-rụ̀ nwaānyị̀ àbụ̀ọ*
problem be man marry-PST woman two
There is(are) a problem(s) for a man that married two women.'

b. *Èberè zụ̀tà-rà akwụkwọ n'Enugwụ̄*
Ebere buy-PST book in-Enugu
'Ebere bought a/some book(s) in Enugu.'

c. *Èberè zụ̀tà-rà ùwe ọchā n'Enugwū*
Ebere buy-PST cloth white in-Lagos
'Ebere bought a/some white cloth(s) in Lagos.'

d. *Èberè zụ̀tà-rà akwụkwọ ụkà n'Enugwū*
Ebere buy-PST book church in-Lagos
'Ebere bought a/some church book(s) in Lagos.'

e. *Èberè zụ̀tà-rà akwụkwọ yā nà Legọ̄ọ̄s*
Ebere buy-PST book her in Lagos
'Ebere bought her book(s) in Lagos.'

The examples in (42) suggest that in Igbo, bare nouns are unspecified for number; as such, number marking can be said to be underdetermined in the language. It further shows that ambiguity of number interpretation of nouns as singular or plural is a feature of languages that lack overt plural marking.[32]

5. Summary and conclusion

In the preceding sections, this study was able to examine the strategies and devices for expressing plurality in the Igbo language. The findings show that Igbo marks plural using various strategies and morphemes/words. The strategies of marking plural could be classified into five types: (1) merging singular nouns with plural words or morphemes; (2) reduplication; (3) use of plural sensitive verbs; (4) use of conjunctions; and (5) contextually determined plurality. Plural devices include nouns with an inherent PL feature such as *ndị* 'person' and *ụmù* 'offspring', the third person plural pronoun *ha*, quantifiers such as *niile/dum* 'all', numerals *abụọ* 'two' and above, mass nouns *igwe/igwurube* 'many', clitics *ga* and *nụ*, the coordinate conjunction *na* 'and', reduplicated nouns, and plural verbs such as *chịta* 'bring' and *ju* 'be'. The paper accounts for the strategies of marking plural in the language using the feature percolation mechanism and feature checking/valuation.

This paper studied the strategies and the devices adopted to mark plurality in Igbo. These were accounted for using feature percolation for those that involve nouns and their modifiers, and feature checking for those that involve verbs and their arguments. The study shows that Igbo does not mark plural on nouns morphologically because it lacks agreement; rather, it belongs to the group of languages that syntactically mark plural by employing certain plural words or morphemes.

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[32] See also Ajíbóyè (2005, 2010).

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Plural strategies and devices in Igbo

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This study examines strategies and devices adopted in Igbo to mark plurality on lexical items at both word and phrasal levels. The study provides additional evidence, adequate description, and explanation, as well as a theoretical background to the phenomenon which hitherto was not provided by earlier studies. Data were collected through observation, oral interview, and from existing literature. Data were analysed based on the principles and operations of the Minimalist Program. The study finds that five basic strategies could be employed to mark plurality in Igbo. These include merging of singular nouns with plural words or morphemes, via reduplication, use of conjunctions, use plural sensitive verbs, and context of speech. Plural devices include nouns with an inherent PL feature such as *ndị* 'persons' and *ụmụ* 'offspring'; the third person plural pronoun, *ha*; quantifiers such as *niile/dum* 'all'; numerals *abụọ* 'two' and above; mass nouns, *igwe/igwurube* 'group'; clitics *ga* and *nụ*; reduplicated nouns; conjunctions *na* 'and'; and plural-sensitive verbs such as *chịta* 'bring', and *ju*, 'be'. The study concludes that Igbo belongs to the set of languages that syntactically mark plural by using independent morphemes/words; i.e. *plural words*.

Keywords: plural devices, percolation, feature valuation, Igbo

1. Introduction

The goal of this study is to examine the various ways by which plural is expressed in Igbo;[1] specifically, the strategies and plural marking devices. Plural expression is universal across languages. It is used to express number indicating more than one, e.g. dual (two), trial (three), paucal (few), etc. (Crystal, 2008). Existing works such as Dryer (1989), Collins (2001), Cope (1993), Ajíbóyè (2005, 2010), and Iḷọri (2013) among others show that plurality is not expressed similarly across languages due to certain particular language parameters. These authors show two broad ways of marking the plural cross-linguistically. These are *morphological* and *syntactic* plural marking. For the morphological plural marking strategy, plural marking is achieved via noun inflection by the process of prefixation as in Bantu languages (e.g. Igala, Swahili etc.) and Tagalog, or suffixation as in English and Lele (a Chadic language; Cope, 1993) as in (1).

(1) a. *wa-toto*
PL-child
'children' (Swahili)

b. *Mga-aso*
PL-dog
'dogs' (Tagalog; Ajíbóyè, 2010, p. 142)

c. *n* *hindi-wi* *Pierre*
1SG insult-PL Pierre
'I insult (repeatedly) Pierre.' (Lele; Cope, 1993, p. 73)

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[1]Igbo is a Benue-Congo language spoken by a culturally homogeneous group of people located at the Southeastern part of Nigeria. Presently, it is made up of five states. They are Anambra, Imo, Enugu, Abia and Ebonyi. The language is also spoken in parts of the Delta and Cross River, Rivers, Benue, and Akwa Ibom States. It is spoken as first or second language by at least 35 million people (cf. Anurudu, 1999; Nweya, 2010; Emenanjo, 2011).

d. *shoe-s*
shoe-PL
'shoes' (English)

In (1), Swahili and Tagalog (1a, 1b) employ prefixes to mark plural while Lele and English (1c, 1d) employ a suffix to achieve a similar purpose. Most times, languages that fall in the latter category have obligatory plural marking and obligatory agreement.

In contrast, languages that syntactically mark plural often employ independent morphemes or words which may perform other functions in the language. These syntactic objects are often called *plural words*. Plural words are morphemes whose meaning and function is similar to that of plural affixes in other languages (Dryer, 1989). According to Dryer, plural words vary from language to language and do not belong to a syntactic natural class[2] because they could be pronouns (2a), grammatical number words (2b, 2d), determiners/articles (2c), grammatical plural words (2e),[3] or demonstratives (2f).

(2) a. *Mo kí* **àwọn ọkùnrin** *tí ó wà níbẹ̀*
1SG greet PL man that RP be there
'I greeted the **men** that were there.' (Yoruba; Ajíbóyè, 2010, p. 143)

b. *ea*[4] *gal kaarrooo neey*
DL car this
'these two cars' (Yapese; Dryer, 1989, p. 868)

c. *les*[5] *pommes*
DET.PL apple
'the apples' (French; Dryer, 1989, p. 873)

d. *ha ongo puha*
INDEF DL box
'two boxes' (Tongan; Churchward, 1953, p. 28)

e. *he pi' miš ʔaʜkš*
DET little boy PL
'the little boys' (Mixe; Van Haitsma and Van Haitsma, 1976, p. 74)

f. *Mo ta ilé wọ̀n-**yẹn** ní pọ́ńtọ̀*
1SG sell house PL-DEM for cheap
'I sold **those houses** at a ridiculously low price.' (Yoruba; Ajíbóyè, 2005, p. 168)

Works exist on plural formation in Igbo such as Okonkwo (1974), Ikekeonwu et al. (1999), and Nwokeiwu and Ilechukwu (2013), among others.[6] This work notwithstanding, the present study is relevant for the following reasons. First, the earlier works did not exhaust the strategies of marking plural in Igbo.[7] Second, the works are descriptively inadequate as they do not fully account for the semantic and syntactic properties of the plural words employed in the language. Lastly, the above works do not have a theoretical background except in a few instances where issues related to plural expression are mentioned in passing.

The paper addresses these issues by examining the strategies involved in plural expression and the words that serve this purpose in the language. The following questions are designed to guide the study:

1. What are the strategies of marking plural in Igbo?

[2]Though they do not belong to a natural syntactic class, they perform similar semantic functions.

[3]In this case, the plural morpheme does not perform other functions in the language aside from marking plurality on the noun.

[4]According to Dryer, *ea* is a particle identified by Jensen (1977) as a 'noun phrase connector' used in NPs that lack articles in Yapese.

[5]Spoken French has lost plural suffixes on nouns. As a result, the article *les* solely indicates plurality but it is also an article since it codes definiteness as well.

[6]Some scholars discussed plural formation in passing: Anurudu (1999, 2010), for instance.

[7]For instance, the present study shows that Igbo can express plurality by the use of the 3rd person plural pronoun *ha* and this is not pointed out in any of these works.

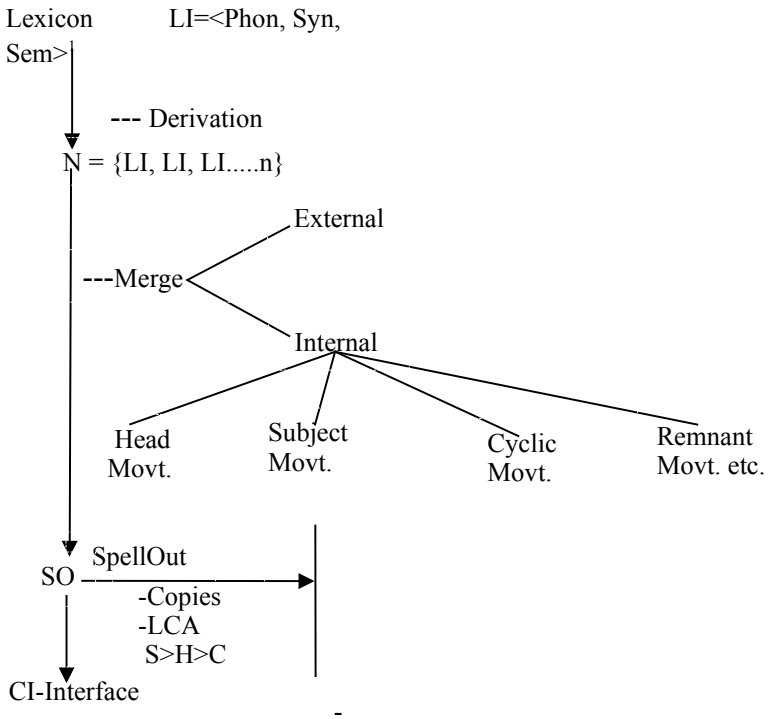
2. What are the syntactic devices that function as plural words in the language?
3. How do plural words behave syntactically and semantically in the language?
4. What generalizations could be made based on the behavior of plural words?

In the sections that follow, we shall look at the theoretical framework (§2), the feature percolation mechanism proposed in Ajíbóyè (2005, 2010) (§3), the strategies of expressing plurality as well as the plural words that exist in the language (§4), and the final summary and conclusions in §5.

2. Theoretical framework

This paper is developed within the principles and operations of the Minimalist Program (henceforth MP). MP is a more economical approach to the analysis of grammars of I-languages advanced by Chomsky (1993, 1995, 2000, 2008, 2013) and work by other linguists. Its major goal is to reduce the theoretical apparatus used to describe syntactic structure to a minimum (Radford, 2009; Cook and Newson, 2014). Chomsky (1993, p. 168) assumes that the performance system of languages fall into two types, PF and LF, which are the interface levels. The language determines the set of pairs drawn from the PF and LF levels. MP holds that language consists of two components: a lexicon and a computational system with their idiosyncratic properties. The computational system uses these elements to generate derivations and structural descriptions (SDs). The program is schematized as follows:

(3)



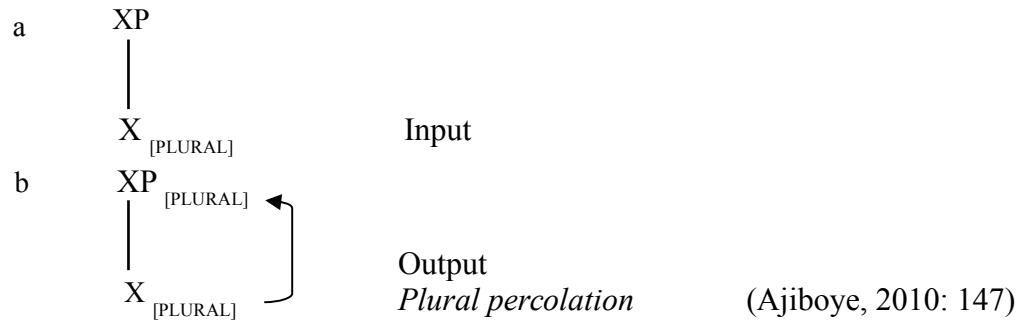
The schema above demonstrates the operations of MP. It shows that the human mind is a complex computational machine that processes language. The basic computational process takes pre-selected lexical items (LIs) and builds them into a structure by successive application of Merge. Merge is external when LIs are new in the derivation and internal when any of the items is already in the derivation and undergoes scrambling in the forms of head movement, subject movement, cyclic movement and/or remnant movement to form a syntactic object (SO). The derivation splits at the point of Spell Out where the phonetically

relevant materials are sent to PF and the grammatical and semantically relevant features sent to LF. The computational procedure continues to apply similar processes to build fully formed structure at the PF and LF which are the interface levels. At these points, the syntactic objects are presented for appropriate interpretation. If the PF is phonetically interpretable and the LF semantically interpretable, the derivation converges; otherwise, it crashes.

3. The percolation mechanism

This proposal is meant to capture the fact that languages that syntactically[8] mark plural employ certain lexical items which, by virtue of having the [PLURAL] feature, enforce plural interpretation of nouns in their environment. To account for this, Ajíbóyè (2005, 2010)[9] proposed a feature percolation[10] mechanism in the sense of copying which assumes that the feature mechanism copies the plural feature of a node onto the node that dominates it. This assumption is represented in the diagram below:

(4)



Percolation, as demonstrated above, can come from one or more nodes within an NP. The Plural feature theory proposal falls within the theory of features in syntax as manifest in PERSON (1st, 2nd, 3rd), TENSE (Past, Present, Future), and GENDER (Male, Female).

4. Syntactically determined plural marking in Igbo

In Igbo, nominal expressions may be marked as plural in the following ways: (1) use of specialized plural words such as *ndị* 'persons' and *ụmụ*[11] 'offspring'; (2) use of clitic (morphemes) such as *ga*; (3) use of *ha*, the third person plural pronoun (3PL); (4) use of quantifiers and numerals; (5) use of reduplicated nouns; and (6) use of conjunctions and contextually determined plural marking. These shall be accounted for in the sections that follow.

4.1. Marking plural with inherent plural words, *ndị* and *ụmụ*. The Igbo language has nominal expressions with inherent [PLURAL] features that interpret adjoining nouns as plural. In other words, they serve to mark plural whenever they are merged with other nouns in a construction. Observe the examples below:

(5) a. i. **Mmadụ** *nọ̀* *n'ụlọ́ụ́kà*
person be P-church
'Many people are in the church.'

[8]Two mechanisms of plural marking exist cross-linguistically as discussed in the literature. They are feature percolation and feature matching. Languages that mark plural syntactically adopt the feature percolation mechanism, while languages that mark plural morphologically adopt feature matching.

[9]See Ajíbóyè (2010, pp. 147, 228-229).

[10]Ajíbóyè (2010, p. 146) explains that percolation employed in this sense is different from its broad use. In its broad use Owolabi (1995) defines it as a device that enables a complex word to inherit the syntactic features of its head.

[11]The tonal marking convention adopted here is that the *low* and *downstep* tones are marked while the *high* tones are left unmarked.

ii. **Ndị mmadụ** *nọ n'ụlọ ụkà*
PL person be P-church
'Many people are in the church.'

b. i. **Onye agbòrò** *nà-a-lụ ọgụ*
person$_{SG}$ tout AUX-AGR-fight fight
'The tout is fighting.'

ii. **Ndị agbòrò** *nà-a-lụ ọgụ*
person$_{PL}$ tout AUX-AGR-fight fight
'The touts are fighting.'

c. i. **Onye obòdò** *jè-rè ikpē n'ụlọ igwē*
person$_{SG}$ village go-PST judgment P-house king
'The villager went to the king for settlement of dispute.'

ii. **Ndị obòdò** *jè-rè ikpē n'ụlọ igwē*
person$_{PL}$ village go-PST judgment P-house king
'The villagers went to the king for settlement of dispute.'

d. i. *Ha zụta-rà* **ụgbọalà ā**
3PL buy-PST car DEM
'The bought this car.'

ii. *Ha zụta-rà* **ụgbọalà ndị ā**
3PL buy-PST car PL DEM
'The bought these cars.'

e. i. **Akwà ahụ** *dị oke ọnụ*
cloth DEM be too costly
'That cloth is too costly.'

ii. **Akwà ndị ahụ** *dị oke ọnụ*
cloth PL DEM be too costly
'Those clothes are too costly.'

f. i. **Ewu ā** *à-nwụ-ọ-la*
goat DEM AGR-die-OVS-PERF
'This goat is dead.'

ii. **Ewu nd$_i$ ā** *à-nwụ-ọ-la*
goat PL DEM AGR-die-OVS-PERF
'These goats are dead.'

In (5) above, the bolded expressions in example (5ai–5fi) indicate singular while those in (5aii–5fii) indicate plural. In (5ai) the noun *mmadụ* 'person', needs no SG marking device to be interpreted as SG for the fact that it shares the feature [+HUMAN] with the SG marking device. Hence, it could be construed as either SG or PL depending on context. Examples (5bi) and (5ci) could be unambiguously interpreted as singular due to the presence of *onye* 'person'. Similarly, (5di) and (5fi) express singular because they involve bare nouns merged with the demonstratives, *a* (5di) and (5fi) or *ahụ* (5ei). It is important to note that *onye* cannot be used to mark singularity in (5di, 5fi) because it has the feature [+HUMAN]. Consequently, it cannot occur adjacent to nouns that bear the feature [−HUMAN]. On the other hand, (5aii–5fii) show that the sole function of *ndị* 'persons', is to give the preceding or following nouns plural interpretation. It occurs pre-nominally in (5aii–5cii) and post-nominally in (5dii–5fii), thus yielding a [±HUMAN] dichotomy. In (5aii–5cii) where it is used to pluralise a [+HUMAN] noun it occurs pre-nominally. Whereas, it occurs post-nominally in (5dii–5fii), having been used to pluralise a [−HUMAN] noun. Therefore, it could be deduced that if *ndị* 'persons' occurs before a [−HUMAN] noun, the derivation crashes or converges to give a different interpretation at LF. For instance,

(6) a. * *Ndị akwā āhụ̀*
PL cloth DEM
'Those clothes'

b. * *Ndị ewu ā*
PL goat DEM
'These goats'

c. **Ndị akwā** *āhụ̀*
Person$_{PL}$ cloth DEM
'Those cloth dealers/sellers'

d. **Ndị ewu** *ā*
Person$_{PL}$ goat DEM
'These goat dealers/sellers'

In (6a–b) *ndị* pre-modifies *ewu* 'goat' and the derivation crashes. But it converges in (6c–d) because it is pronominal with intrinsic plural interpretation. In contrast, *ụmụ̀* 'offspring', as a plural word, does not have a similar syntactic distribution as *ndị* because it only occurs pre-nominally. Nevertheless, they behave alike semantically because *ụmụ̀* has the features [+HUMAN, +PLURAL] and therefore could be used to pluralise [+ANIMATE] nouns; but unlike *ndị*, it has the feature [−ANIMATE]. Hence, it is not used with inanimate nouns since it literarily means children/offspring. Rather, it is often used with nouns that have a reproductive capacity either pre-nominally or pronominally. The semantic and syntactic features of *ndị* and *ụmụ̀* are summarised in the feature matrix below:

(7)

	Ndị	*ụmụ̀*
[PLURAL]	+	+
[HUMAN]	+	+
[INANIMATE]	+	−
[PRONOMINAL]	+	+
[PRE-NOMINAL]	+	+
[POST-NOMINAL]	+	−

In the following phrases where *ụmụ̀* 'offspring' is merged with [−ANIMATE] nouns, the expression crashes at PF.

(8) a. * *ụmụ oche*
PL chair
'chairs'

b. * *ụmụ akwa*
PL cloth
'clothes'

To demonstrate that nouns are interpreted as plural via plural percolation when they are merged with *ụmụ̀* 'offspring', observe the examples in (9) below:

(9) a. **Ụmụ̀ ákwúkwọ̄** *gà-a-nọ̀ nzùkọ taā*
child$_{PL}$ book FUT-AGR-hold meeting today
'The students will hold a meeting today.'

b. **Ụmụ̀ ntàkịrị̀** *nà-à-gba egwū*
child$_{PL}$ small PROG-AGR-dance dance
'The children are dancing.'

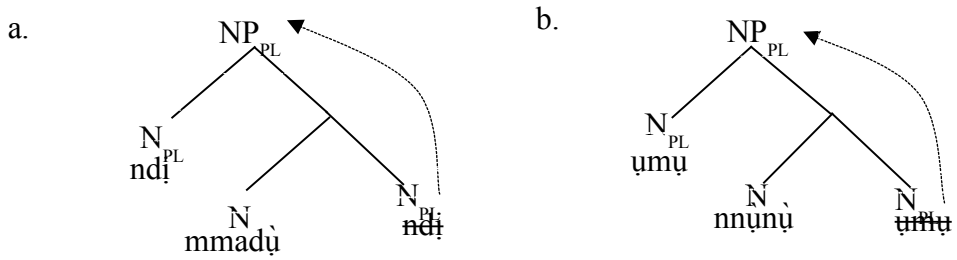
c. **Ụmụ̀ azụ̀** *jùrù na mmirī̀*
child$_{PL}$ fish be P water
'There are baby fish in the water.'

d. **Ụmụ̀ nnụ̀nụ̀** *nà-è-fe-gharị̄ n'elū*
child$_{PL}$ bird PROG-AGR-fly-around P-sky
'Birds are flying in the sky.'

e. **Ụmụ̀ mmadụ̀** *à-nwụ-chaā-lā*
child$_{PL}$ person AGR-die-finish-PERF
'People are dead.'

In the examples above, *ụmụ* serves to mark the following nouns as plural. The diagram below demonstrates how the feature percolation mechanism applies to the data presented.

(10)



In summary, the [PL] feature of the nominal expressions *ndị* and *ụmụ* respectively percolates onto the higher NP prior to movement, interpreting the entire nominal expression as plural.[12] This is shown by the arrows in (10).

4.2. Marking plural with *ha*, 3PL pronoun. Generally, personal pronouns are used to express the plural cross-linguistically.[13] Igbo is not an exception. Singular 1st, 2nd, and 3rd personal pronouns in the language have their plural counterparts as shown in Table 1.

(11)

	Subject		Object	
Person	**Singular**	**Plural**	**Singular**	**Plural**
1st	*m/mụ* 'I'	*ànyị* 'we'	*m/mụ* 'I'	*ànyị* 'us'
2nd	*Ị/gị* 'you'	*unù* 'you'	*gị* 'you'	*unù* 'you'
3rd	*o/ọ/ya* 'he/she/it'	*ha* 'they'	*ya* 'him/her/it'	*ha* 'them'
Impersonal	*a/e* 'some person(s)'	–	–	–

Table 1: Personal pronouns in Igbo.

Table 1 shows that the 2SG *Ị* 'you' and 3SG *o/ọ* 'he/she/it' is restricted to the subject position. The impersonal pronoun *a/e* is also restricted to the subject position and is unspecified for number. Hence, there is less overt manifestation of structural case in the language.

However, there is a special use of the 3PL pronoun *ha* 'they', where it is merged often with a proper name to indicate more than one. In this case, the noun precedes the pronoun as if they are appositives, but this is not the case since the singular function of the pronoun is to give the preceding nominal a plural reading. What could be understood from this kind of structure is that the R-expression marks specificity while the 3PL pronoun marks plurality. Observe the examples below:

[12] Anurudu (1999, pp. 47-50) asserts similarly that Igbo has no number-encoding morpheme similar to English plural morphemes, but employs number-bearing nouns to achieve the same purpose. He holds that *ụmụ* is inherently plural and has a plural feature which it introduces to the adjoining noun in which case it becomes the projecting head. This study provides further evidence on its syntactic and semantic distribution.

[13] This study is not unaware of the fact that the DP hypothesis which holds that all definite noun expressions are DPs including those not containing an overt determiner. However, the study prefers to ignore this fact for ease of analysis since Igbo is a determiner-final language. In this regard, Anurudu (1999) and Mbah (1999) posit that Igbo is a SPEC-last language though certain features of the specifier such as [GRADE] or [MEASURE] may force the specifier to prepose making the modifier become the modified. In that way, the modifier-last parameter of the language is retained. In addition, determiners (even those of the same class) co-occur in a construction. The analysis is beyond the scope of this study.

(12) a. **Uchē ha** *bịà-rà ebe ā*
Uche 3PL come-PST place this
'Uche and other(s) came here.'

b. **Ngọzị hà** *à-la-wa-la ụlọ̀*
Ngozi 3PL AGR-go-Incept.-Perf. house
'Ngozi with other(s) have gone home.'

c. *Mmadụ nwụ-rụ nà be* **Ugoo hà** *ụnyaahụ̄*
someone die-PST in house Ugoo 3PL yesterday
'Someone died in Ugoo and others' house yesterday.'

d. *Nnà ha zụ̀tà-à-rà* **Ebere ha** *akwà*
father 3PL(POSS) buy-for-PST Ebere 3PL cloth
'Their father bought clothes for Ebere and others.'

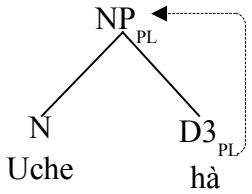
e. **Mama anyi ha** *je-re ahia*
mother 1PL(POSS) 3PL go-PST market
'Our mother went with others to the market.'

From the examples above, it may be observed that the 3PL pronoun serves to mark the preceding nominal as plural. In (12a), *ha* shows that the nominal *Uchè* came with other person(s) who share some kind of relationship with him/her. Similar interpretations could be given to (12b–12d). In (12d), *ha* (3PL) occurs twice in the sentence. In the first instance, it does not mark plural but functions as a 3PL possessive pronoun where *Nna* 'father' is the possessed; But in the second instance, it functions to mark the preceding nominal *Eberè* as plural. This example is common with proper names but it is possible with GEN constructions as shown in (12e). However, when the GEN construction involves the 3PL pronoun *ha* as in (12d), the derivation crashes at PF as in (13) below:

(13) * *Nnà ha ha zụ̀tà-à-rà [Ebere ha] akwà*
father 3PL(POSS) 3PL buy-for-PST Ebere 3PL cloth
'Their father bought clothes with others for Ebere and others.'

In summary, this study assumes that *ha* (3PL) is a post-nominal determiner that functions as a plural word and is obligatorily merged with a noun [+HUMAN], and that the PL feature of *ha* percolates onto the NP to give the entire nominal expression a plural interpretation. This is illustrated with diagram below:

(14)



4.3. Plural formation with quantifiers and numerals. When nouns are modified with quantifiers in Igbo, they are not independently marked plural; rather, the [PLURAL] feature of the quantifier percolates onto the noun. In languages that mark plural morphologically, where feature matching obtains, the nouns are independently marked plural, such that there is an agreement between the two as in the examples below:

(15) a. Many men
Most women
Two houses
Four boys

b. *Many man
*Most woman
*Two house
*Four boy

In (15) above, (15a) converges after merge has taken place while (15b) crashes because the quantifier and the noun do not agree in number. Such agreement is not required for Igbo and other languages such as Yoruba and Igala that syntactically mark plural.[14]

4.3.1 Quantifiers as plural words. It is observed that when Igbo nominals occur with group-denoting expressions (such as quantifiers and numerals) that are intrinsically plural in an NP configuration, they are unambiguously expressed as plural. Quantifiers and numerals have the semantic feature [PLURAL] denoting a group. Quantifiers that enter derivation to produce such expressions include: *ọtụtụ* 'many'; *olemaole* 'few'; *dum/niile/ncha* 'all'; *imirikiti* 'most'; *ụfọdụ* 'some', etc. In the examples below, quantifiers are merged with bare nouns and thus, the entire nominal expression is understood as plural.

(16) a. i. **Mmadụ̄** *dà-rà* *ùle* *ahụ̄*
person fail-PST examination DEM
'Some student(s) failed the examination.'

ii. **Ìmìrìkiti** **mmadụ̄** *dà-rà* *ùle* *ahụ̄*
A lot/most person fail-PST examination DEM
'A lot of students failed the examination.'

b. i. **Azụ̀** *nwụ̀-rụ̀* *na* *mmiri* *ahụ̄*
fish die-PST in water DEM
'A fish/some fish died in the water.'

ii. **Ọ̀tụtụ** **azụ̀** *nwụ̀-rụ̀* *na* *mmiri* *ahụ̄*
a lot/many fish die-PST P water DEM
'A lot of fish died in the water.'

c. i. *Gọvmentị̀* *kutù-rù* **ụlọ̀** *n''Ọnịchà*
government demolish-PST house P'Onitsha
'Government demolished a house/houses in Onitsha.'

ii. *Gọvmentị̀* *kutù-rù* **ụlọ̀** **òlemaolē** *n'Ọ̀nịchà*
government demolish-PST house few P'Onitsha
'Government demolished a few houses in Onitsha.'

d. i. **Ewu** *dị̀* *n'ahịa* *bụ̀* *ewu* *Awụsā*
goat be P'market be goat Hausa
'The goat(s) in the market are Hausa goats.'

ii. **Ewu** **niī̀le** *dị̀* *n'ahịa* *bụ̀* *ewu* *Awụsā*
goat all be P'market be goat Hausa
'All the goats in the market are Hausa goats.'

e. i. **Mmadụ̄** *à-gbaa-lā* *ọsọ̄*
person AGR-run-PERF run
'Someone has run away.'

ii. **Mmadụ̄** **dum** *à-gbaa-lā* *ọsọ̄*
person all AGR-run-PERF run
'Everybody has run away.'

f. i. **Akwụkwọ** *da-ra* *n'ala*
book fail-PST P'ground
'A book/books fell down.'

ii. **Ụ̀fọdụ̄** **akwụkwọ** *da-ra* *n'ala*
some book fail-PST P'ground
'Some books fell down.'

[14] Ilọri (2013) studies plural devices in Igala. He posits that Igala syntactically marks plural using plural words such as *àmo* and *àbo* which undergo some phonological processes to become *am-* and *ab-* after merge has taken place and consequently interprets the entire derivation as plural.

Data (16) above shows that in (16ai-16fi), the nouns occur without quantifiers and hence may be construed as either singular or plural. While those in (16aii-16fii) occur with quantifiers and unambiguously receive plural interpretation. Therefore, bare nouns cannot be unambiguously interpreted as plural until they are merged with quantifiers. However, it has to be pointed out that the syntactic position of these quantifiers varies (See also Emenanjo, 1978; Mbah, 1999; Anurudu, 1999, 2010). For instance, *niīle* or *dum* 'all' (16dii, 16eii) obligatorily follow the nouns they modify; *ìmìrìkiti* and *ọ̀tụtụ* (16aii, 16bii) obligatorily precede the nouns they modify while *olemaole* and *ụ̀fọdụ* 'few' (16cii, 16fii) optionally pre-modify a noun.[15] The syntactic positions of *olemaole* and *ụ̀fọdụ* (i.e. whether pre-nominal or post-nominal) do not have any effect on the quantificational interpretation of the noun. It was mentioned earlier that when a modifier shifts positions, it becomes the head while the noun becomes the modifier. Quantifiers also co-occur with other plural devices[16] in appropriate constructions. In such contexts, one can easily claim multiple plural marking. Consider the examples below:

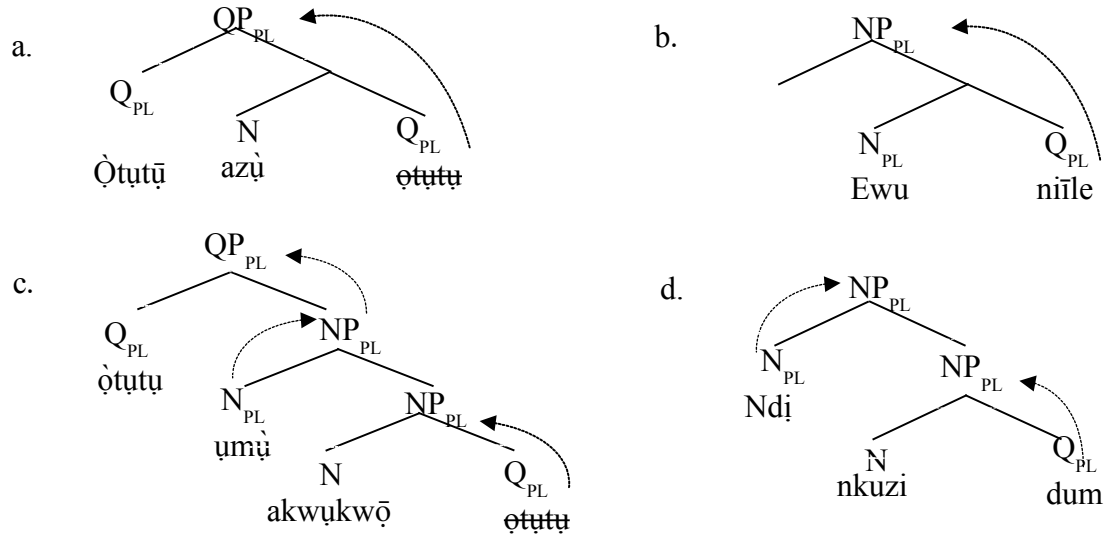
(17) a. *Ọ̀tụtụ ụmụ̄ akwụkwọ*
Q$_{PL}$ child$_{PL}$ school
'Many students'

b. *Imirikiti ụmụ̄ akwụkwọ*
Q$_{PL}$ child$_{PL}$ school
'Most school children'

c. *Ndị nkūzi dum/niīle ahụ̀*
person$_{PL}$ teaching (Q) PL DEM
'All the teachers'

d. *Ndị ụka olemaole*
person$_{PL}$ worshipper few
'Few worshippers'

(18)



The fact that these Q can occur with both singular and plural nouns justifies Ajiboye's assertion that languages that syntactically mark plural do not have obligatory agreement. This may further be attributed

[15] Anurudu (2010, p. 89) posits a Noun-Quantifier structure as follows: In Igbo, a head N is modified by a quantifier post-nominally, obligatorily pre-nominal and in some cases optionally pre-nominal. According to him, it is the inherent features of the modifier that determines the position.

[16] Such plural devices include *ndị* and *ụmụ*. This is possible because these words have a [+HUMAN] feature besides their Plural feature which also percolates to the adjoining noun.

to the ability of bare nouns to be interpreted as either singular or plural in such languages. The diagram in (18) shows the application of the feature percolation mechanism to the data presented in (16) and (17).

In (18a-b), the Q *ọ̀tụ̀tụ́* moves to the SPEC of the higher node to derive the modifier-NP linear order while in (18c-d) the Q, *dūm*, need not move since it occupies its appropriate position and bears a weak [MEASURE] feature. It is assumed here that the PL feature of the Q and N percolates onto the higher nodes QP and NP, respectively.

4.3.2 Numerals and numeral quantifiers as plural words. Similarly, numerals and numeral quantifiers perform the function of plural marking in Igbo. When nouns are merged with cardinal numerals or numeral quantifiers two and above, they are interpreted as plural. This assertion is demonstrated in the examples below:

(19) a. *Nnà ha nà-à-lụ nwaānyì* **àbụ̀ọ**
father 3PL(POSS) PROG-AGR-Marry woman two
'Their father is marrying two wives.'

b. *O nwè-rè* **ụlọ ātọ**
3SG has-STAT house three
'S/he have three houses.'

c. *Ndị nītọ tò-rọ* **narī̄ mmadū̀**
person$_{PL}$ kidnap kidnap-$_{PST}$ hundred person
'Some kidnappers kidnapped hundred persons.'

d. **Puku mmādù itoolū** *ka e wèrè n'ọrū́*
thousand person nine that 3IMP take-PST P'job
'Nineteen thousand persons were employed.'

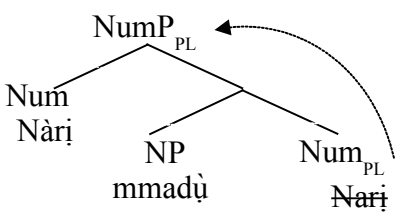
e. **Mmadù naàbò** *nwùrù n'ihe mbèrède ahù*
person two die-PST P'thing accident DEM
'Two persons died in the accident.'

f. **Ụzō niī̄se** *sì Ọ̀nìchà jewe Abūja*
road five from Onitsha go Abuja
'Five roads lead from Onitsha to Abuja.'

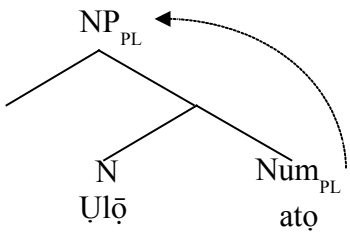
The foregoing is an indication that nominal expressions are interpreted as plural when they are merged with numerals just like quantifiers. Hence, it is proposed that numerals have an abstract [PLURAL] feature that could be realised on the nouns they are merged with. They need no other independent pluralising morpheme to realize plural in such constructions. However, they can co-occur with another plural morpheme and we assume such cases as double plural marking. The diagram below demonstrates how the feature percolation mechanism could be applied to NPs as shown in (19) above.

(20)

a.



b.



In (20a), *nari* moves to the pre-modifying position because of its strong measure feature. The diagram demonstrates that the plural feature of the numerals percolates onto the NP and in that way enhances their interpretation as plural expressions.

4.4. The clitics *gà* and *nụ̀* as plural morphemes. In Igbo, enclitics such as *gà*[17] are employed to express plurality. The enclitic, *gà* occurs post-nominally and is written separately from the noun[18] while *nụ̀*[19] occurs post-verbally and is written together with the verb as shown below:

(21) a. *Arụsị̄ ga*
deity PL
'deities'

b. *Ekwu ga*
tripod PL
'tripods'

c. *Mmadụ̀ gà*
person PL
'persons'

d. *Motò gà*
car PL
'cars'

e. *Bịa-nụ̀ ebe ā*
come-2PL place DEM
'(You$_{PL}$) come here.'

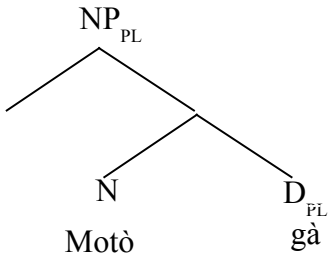
f. *Jẹ̀-ẹ-nụ ahịa ugbu ā*
go-IMP-2PL market now DEM
'(You$_{PL}$) go to the market now.'

g. *Ṅ̀ụ̀-ọ-nụ mmanya a*
drink-IMP-2PL wine DEM
'(You$_{PL}$) drink this wine.'

h. *Gbù-o-nu ewu ahụ*
kill-IMP-2PL goat DEM
'(You$_{PL}$) kill this goat.'

In (21a-d), the expressions are interpreted as plural after merge has taken place. It was also observed that if the nominal ends in a low tone, the enclitic also ends in low tone. The study posits that the [PLURAL] feature of the enclitic percolates onto the noun preceding it giving the whole expression a plural reading as schematised below:

(22)



Conversely, (21e-h) shows that the post-verbal clitic, *nụ̀* bears obligatory low tone and obeys the vowel harmony principle operational in the language (cf. 21e, 21h). It occurs in subjunctive and imperative constructions where the external argument is optionally covert. Below are some subjunctive expressions (such as greetings) in the language.

(23) a. *Dàalu*-**nụ̀**
thank-2PL
'Thank you all.'

b. *Ǹdeēwo*-**nụ̀**
greetings-2PL
'Good morning/afternoon/evening you all.'

[17] Apart from the enclitic *ga*, all other plural words or morphemes perform other functions in the language.

[18] Nwokeiwu and Ilechukwu (2013) give two reasons for writing the enclitic, *gà*, separate from the noun; first, is to show that it is not a suffix and secondly, to prove that nouns do not accept affixes whether inflectional or derivational in Igbo. In my view, the reasons are tenable because there are other clitics in the language such as *kwa* and *cha* used just for emphasis and same rule applies.

[19] Conversely, *nụ* is written together with the verb since it is only verbs that accept affixes in the language. Dr. B. M. Mbah (classroom communication) explained that *nụ̀* is the remnant of the second person plural subject pronoun *unu* which is deleted by transformation in imperative sentences. The enclitic *nụ* serve to interpret the null subject of the imperative sentence as plural. One evidence in support of this view is that the second syllable of *unù* 'you' PL bears an inherent low tone which is retained in the derivation. However, the clitic is realised as *nu/nụ* due to the influence of vowel harmony operational in the language.

c. *Ǹnọ̀ọ̄*-**nù**
welcome-2PL
'You are all welcome.'

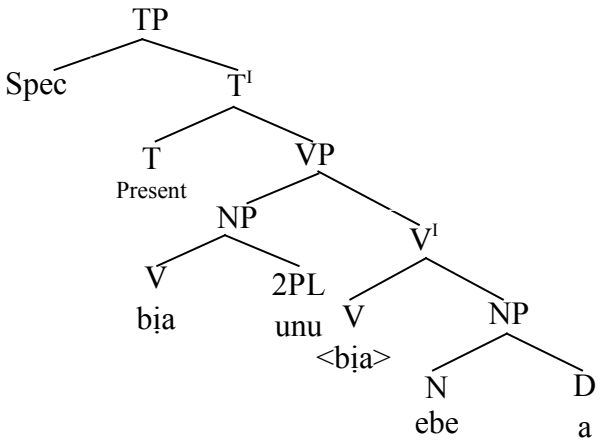
The examples in (23) show that the understood subject in each of the expressions is more than one. The clitic PL morpheme is attached to the nominal expressions. This study posits that *nù* is the remnant of the second person plural subject pronoun *unù* 'you' PL that cliticised to the verb.[20] The full form is presented in (24) below:

(24) a. *Bịa*-**nù** *(ebe ā)*
come-PL place DEM
'(You$_{PL}$) come here.'
b. *Jè-ẹ*-**nụ** *ahịa*
go-IMP-PL market
'Go to the market now.'

(25) a. **Unu** *bịa (ebe a)*
2PL come place DEM
'(You$_{PL}$) come here.'
b. **Unu** *jè-ẹ ahịa*
2PL go-IMP market
'You, go to the market.'

The set of data above show the plural clitic (24) and its full form (25). It seems to be the case that in these constructions, the 2PL pronoun grammaticalized to a number marker. Hence, they cannot be used to address one person in natural expressions. Nevertheless, the question that arises is how to account for this clitic using the MP and percolation theory. It is plausible to assume that the clitic enters derivation in its full form via merge having been numerated as the external argument of the VP. At some point in the derivation, the verb adjoins to it before moving to T. At PF, the phonological process of elision and assimilation takes place to realise the clitic in appropriate constructions. This assumption is schematized as (26) below.

(26)



4.5. Mass nouns as plural words. Mass nouns could also be used to express plurality in Igbo. Such nouns include *igwe/igwurube* 'group/crowd/herd' and *ukwu/ọyọkọ/ajụ* 'bunch'.[21] The former are used before animate nouns while the latter are used before inanimate nouns as demonstrated below:

(27) a. **Ìgwe** *atụrụ̄*
group$_{PL}$ sheep
'herd of sheep'

[20]B. M. Mbah (personal communication 10 August, 2011) explained that *nù* is the remnant of the second person plural subject pronoun *unù* 'you' PL which is deleted by transformation in imperative sentences.
[21]These examples were taken from Nwokeiwu and Ilechukwu (2013).

b. **Ìgwe** *mmadụ̄*
group$_{PL}$ person
'a crowd'

c. **Ìgwùrùbè** *ndị* *uweojii*
group$_{PL}$ person$_{PL}$ police
'a group of policemen'

d. **Ìgbwùrùbe** *aṅụ̄*
PL bees
'a group of bees'

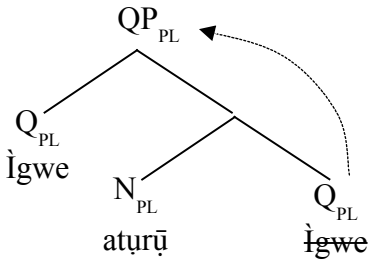
e. **Ukwù** *nkụ̄*
PL firewood
'a bunch of firewood'

f. **Ajụ** *unèrè*
bunch$_{PL}$ banana
'a bunch of bananas'

g. **Ọ̀yọ̀kọ** *ntughē/ìgòdò*
bunch$_{PL}$ key
'a bunch of keys'

Semantically, using the following mass nouns before singular nouns makes them plural. This implies that the nouns have literal plural reading. Syntactically, the mass nouns obligatorily pre-modify a NP. Hence, the study holds that the [PLURAL] feature of the mass nouns percolates onto the bare nouns and interprets them as plural expressions as illustrated below:

(28)



4.6. Reduplication as a strategy for expressing plural in Igbo. Another strategy employed to achieve plural in Igbo is reduplication.[22] Nouns or NPs could be reduplicated to express plural in Igbo. In some cases, the sentence is structured such that it obligatorily selects reduplicated nouns or NPs as object. For example,

(29) a. *Àla* *āhụ* *bụ* **osisi** **osisi**
land DEM be wood wood
'The land is filled with woods.'

b. *Ụlọ̄* *ekperē* *bụ* **mmadụ** **mmadụ**
house prayer be person person
'The prayer house is filled with people.'

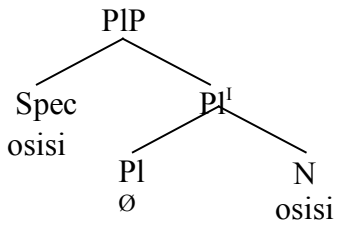
[22]Reduplication whether partial or complete could also be employed to achieve customary activity, partitiveness, increase in size, added intensity and continuance. In Igbo, aside from plural formation, it is used to achieve intensity and adverbial notion. Expressions that could be reduplicated in Igbo include nouns, agentives, gerunds, infinitivals, quantifiers, numerals and PPs (See Okonkwo, 1974; Anurudu, 2010). Reduplication as a plural strategy in Igbo, is reported by Anurudu (2010) and Nwokeiwu and Ilechukwu (2013) among others. However, the strategy is also employed in other languages such as Yoruba (Ajíbóyè, 2010) and Igala (Iloṛi, 2013).

c. *Àzụ ụlọ̄ ha bụ* **ọkpụkpụ ọkpụkpụ**
back house 3PL be bone bone
'Their backyard is filled with bones.'

d. **Ulọ elū ụlọ elū** *jù-rù n'Ọ̀nìchà*
house storey house storey be-PST in Onitsha
'Onitsha is full of storey buildings.'

Following the operations of MP, the study posits that the derivation of this structure begins with the numeration of the lexical items or syntactic objects (SOs) indicating the number of times they would be used in the derivation (e.g. Numeration: $osisi_2$); and that there is a null functional head, pl^0, which selects [±ANIMATE] nouns as complement to project plural words which is merged with the null Pl head to form Pl^1. The derived structure is externally merged with the second copy of the SO to form a PlP. It is believed that for some morphological reasons, Pl^0 requires similar SO to occupy its complement and SPEC positions for the derivation to converge at LF. These contentions are diagrammatically presented below.[23]

(30)



4.7. Use of conjunctions. In grammatical analysis, conjunctions generally serve to join two elements of a construction. Thus it could be used to join two singular nouns or NPs and the resulting expression could be interpreted as plural. Consider the following examples:

(31) a. **Chịmà nà Chụkwụkà** *à-nụ-la ihe me-renụ̄*
Chịma CONJ Chụkwụka AGR-hear-PERF what happen-PST
'Chima and Chukwuka have heard what happened' (Ofomata, 2001, p. 68)

b. *O nyè-rè yà* **otu iko nà otu efere**
3SG give-PST 3SG one cup CONJ one plate
'He/She gave him/her one cup and one spoon'

c. **Nne nà Nnā Chinèdu** *a-ma-ghị ihe ha gà-ème*
mother CONJ father Chinedu(POSS) AGR-know-NEG thing 3PL FUT-do
'Chinedu's parents do not know what to do.' (Odilora, 1996, p. 3)

d. *Ha bụ* **nwannē nà nwannē**
3PL be sibling and sibling
'They are siblings'

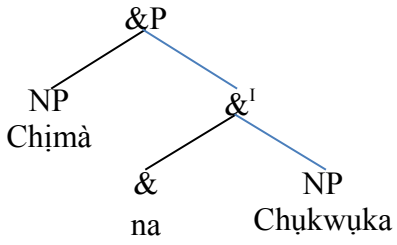
e. **Mụ nà Ngọzị** *nà-àgba egwū*
1SC and Ngozi PROG-Agr-dance dance
'Ngọzi and I are dancing.'

In (28) above, merging two NPs peripherally in a construction gives the resulting expressions plural interpretation. This kind of construction involves simple mathematics such that two singular entities joined together equals two. Therefore, the study posits that when two singular NPs are joined to be headed by

[23]This can also be accounted for using the percolation mechanism following the assumption of Ajíbóyè and Dechaine (2004) that copied entities occupy the left edge of the base; following this proposal, copied nouns that serve as plural marker is left adjoined to the noun.

a Conjunction Phrase, represented here as &P following Radford (2009, p. 53), the &P would have plural interpretation as in the tree below:

(32)



In the schema above, Chịma is the specifier of the &P while Chụkwụka is its complement. The &P has plural reading having been built of two nominal entities (persons). According to Radford (2009, p. 53), structures of this nature permit multiple specifiers to accommodate more items. This mechanism serves to increase the numeral quality of the &P.[24]

4.8. Plural sensitive verbs. Some verbs in Igbo are sensitive to plural arguments such that they select only plural arguments in a construction.[25] Such verbs are *chị*[26] and *kpo*[27] 'bring or take [+PL]'[28] depending on their extensional suffix or adjoining simple verb. They are transitive verbs that obligatorily select a plural internal argument and a volitional agent.[29] Their singular counterpart is *we* 'bring [+SG]'. This is evident in the examples below:

(33) a. *Uchè* **wè-tè-rè** **akwụkwọ̀**
Uche bring(+SG)-forward-PST book(SG)
'Uche brought a book.'

b. *Uchè* **chị̀-tà-rà** **akwụkwọ̀**
Uche bring(+PL)-forward-PST book(+PL)
'Uche brought books.'

c. *O* **we-pù-rù** **eferē**
3PL take(+SG)-away-PST plate(SG)
'He/She took away a plate.'

d. *O* **kpo-pù-rù** **eferē**
3PL took(±SG)-forth-PST plate(+PL)
'He/She took away some plates.'

In (33a, 33c), the verbs *wète* 'bring' and *wepù* 'take' are sensitive to [SG] internal arguments. Hence, they give the NP object a SG reading after merge has taken place. While the verbs, *chịta* 'bring' and *kpopù* 'take' in (28b, 28d) are sensitive to plural internal arguments. Thus, they give the object NP (*efere* 'plate') a plural reading. The study posits that *chịta* 'bring' and *kpopù* 'take' being two place predicate[30] verbs assign

[24]This simply means that structures like *Chima, Chukwuebuka, Uche na Chioma* could be represented following the proposal for multiple specifier.

[25]Similar observations have been made in Ilọri (2013) for Igala.

[26]It was also observed that aside from selecting a PL internal argument, the verbs also select items that have mass such as *akwa* 'cloth', *ntụ* 'ash', *aja* 'sand', etc.

[27]These verbs take extensional and inflectional suffixes which serve to extend their semantic index or modify their grammatical function like other verbs in the language, as shown in (33).

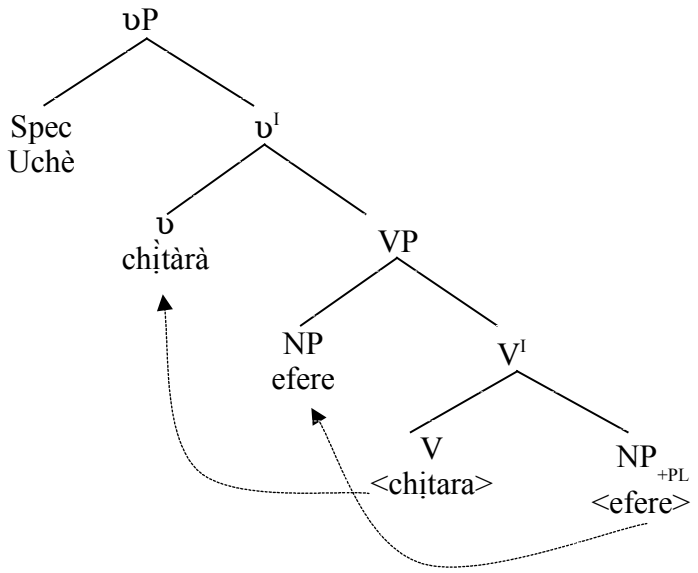
[28]It is the extensional suffix or the simple verb merged with it that captures this aspect of meaning.

[29]A volitional verb or construction is one where the action takes place as a consequence of the agents choice.

[30]It is possible for the verbs to subcategorize for direct and indirect object but it is only the direct object that inherits the plural feature of the verb. We shall not go into the details here since it is beyond the scope of this work. However, the reader is referred to Uwalaka (1995), Mbah (1999), and Uchechukwu and Mbah (2010) among many others.

theta roles of agent and theme to their subjects and objects respectively. Therefore, the derivation could be accounted for using the VP shell structure with an outer υP shell to generate its subject following the internal subject VP hypothesis and an inner core VP to value their accusative features. This is shown in the schema below:

(34)



In (34), *chịta* 'bring' and *efere* 'plate' enter the derivation with unvalued and valued PL features, respectively. *Chịta* 'bring' assigns a theta role theme to the object, *efere* 'plate', prior to movement. Since the motivation for movement is to value unvalued features, *efere* 'plate' moves to the Spec-VP to value its case and number features. In the Spec-VP, they take a probe-goal position to value the unvalued features while the uninterpretable features are deleted. The derivation converges because the number feature plays a role in the semantic interpretation. This structure is merged with a light υP taking into consideration the Internal VP Hypothesis and thus, the full structure in (34) was derived.

In contrast, *nu* 'surge' and *ju* 'be' are sensitive to PL subject NP. Therefore, it is assumed that the plural feature of the DP external argument is checked before it occupies Spec-TP. Both verbs are two-place predicate verbs but while *nu* 'surge' denotes an action, *ju* 'be' denotes a state. Observe the following examples:

(35) a. *Motò ga-fè-rè ebe ā*
car pass(±SG)-across-PST place DEM
'A car passed across this place.'

b. *Motò nu-fè-rè ebe ā*
car pass(+PL)-across-PST place DEM
'Cars passed across this place.'

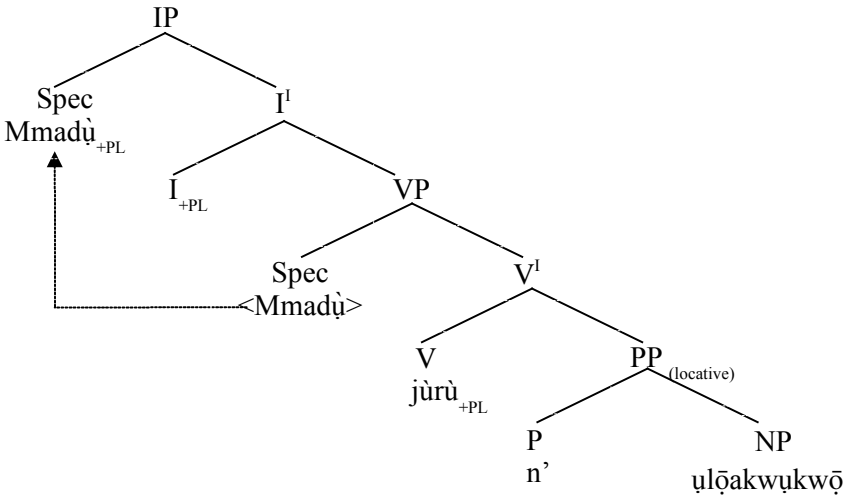
c. *Mmadụ̀ nọ̀ n'ụlọ̄akwụkwọ̄*
person be(±SG) P'school
'Somebody is in the school.'

d. *(Ndi) Mmadụ̀ jù-rù n'ụlọ̄akwụkwọ̄*
PL person be(+PL)-STAT P'school
'Many persons are in the school.'

In (35a-d) *ga* 'pass' and *nọ* 'be' have [±SG] features and therefore can select a [±SG] subject in a sentence, while the verbs *nu* 'surge' and *ju* 'be' unambiguously select a plural subject. How can one account for the

plural feature of these verbs that permit the selection of an appropriate external argument? One plausible way is to suggest that T values the PL feature of the external argument before it moves to occupy Spec T. If it has the PL feature, it moves to occupy Spec T, otherwise, the derivation crashes after the first phase. The implication is that any subject that would be merged as the external argument of *nu* or *ju* should be unambiguously interpreted as plural. The subjects in (35b, 35d) meet this requirement. Though *motò* and *mmadụ̀* are without overt PL markers, they are unambiguously interpreted as plural NPs. The complement position of the verbs could be filled by locative adjuncts or an NP complement. This proposal is schematised below:

(36)



In (36) above, the subject of the sentence is generated at the Spec of VP and it enters the derivation with a valued PL feature. This plural feature is checked off at I^{o} before the movement to Spec-IP to satisfy EPP and the derivation converges. Movement is never blocked since the external argument can be in its bare form which is ambiguous between singular and plural.

4.9. Contextually determined singular and plural interpretation. One of the characteristics exhibited by languages that syntactically mark plural is that in cases where PL is not marked explicitly, it is context that determines the singular or plural interpretation of nouns. Igbo has inherent singular words/morphemes as demonstrated below:

(37)

a.	**nwa**	*nwokē*
	person$_{SG}$	male
	'a son'	
b.	**nwa**	*nwaānyị̀*
	person$_{SG}$	female
	'a daughter'	
c.	**onye**	*isī*
	person$_{SG}$	head
	'a leader'	
d.	**onye**	*sojà*
	person$_{SG}$	soldier
	'a soldier'	
e.	**ụmụ̀**	*nwokē*
	person$_{PL}$	male
	'sons'	
f.	**ụmụ̀**	*nwaānyị̀*
	person$_{PL}$	female
	'daughters'	
g.	**ndị**	*isī*
	person$_{PL}$	head
	'leaders'	
h.	**ndị**	*sojà*
	person$_{PL}$	soldier
	'soldiers'	

From the examples above, one can understand that whenever *nwa* 'child$_{SG}$' and *onye* 'person$_{SG}$' are merged with bare nouns, the expression can only be given a SG interpretation. The constructions above are

not contextually determined. In the sections that follow, the study would make effort to give instances of contextually determined plural marking in the language.

Context could be used to determine if a nominal expression is singular in Igbo. This could be determined by identifying the pronoun used to substitute the noun in another context since pronouns are intrinsically SG or PL. Examine the proverb cited below:

(38) a. *I wère ogbo nà nchà ghụ-chaā* **ezì** *àhụ, ọ gà-ème-rịrị ihe*
2SG take-PST sponge and soap bath-PERF pig body, 3SG(it) FUT-AGR-do-must thing
ahụ̄ e ji a-kpō **ya** *ezì*
DEM 3IMP be AGR-call it pig
'A pig will always be a pig' (Ubesie, 1979)

b. *Ọ̀ dị-ghị onye ga-ana-pù-nwu* **mmadù** *ihe* **o** *jì pụ̀ta ụ̀wà*
3SG be-NEG who FUT-AGR-take-away-able person thing 3SG with come world
'Nobody can take a person's destiny away.'

c. *Ihe* **nnā** *nyè-rè nwa* **ya** *wèe nwụ̄ọ̄ bụ̀ ọ̀fọ*
thing father give-PST child his and die-OVS be authority
'What a father gave to his child before his death is authority.' (Ubesie, 1979)

d. **Ọkpara** *ya bịà-rà ụlọ̀*
son his come-PST home
'His son came home.'

e. **Ada** *mī è-jeēla ahịa*
daughter 1SG AGR-go-OVS-PERF market
'My daughter has gone to market.'

f. **Mmụọ** *mī dà-rà jùù*
spirit 1SG be-STAT calm
'My spirit is down.'

g. **Nwunyē** *igwē mà-rà mmā*
wife king be-STAT beauty
'The king's wife is beautiful.'

In (38a-c) the nouns *ezi*, *mmadụ* and *nna* are interpreted as SG because they were substituted with a 3SG pronoun *ya* 'he/she/it' elsewhere in the sentence. While the SG interpretation of the bolded nouns in (38d-g) is determined by the discourse.

Furthermore, when a bare noun is merged with a demonstrative (*a/ahụ*),[31] it can be unambiguously interpreted as SG. For instance,

(39) a. *Ha zụ̀tà-rà* **nkịtā** **à** *puku naịrā ìri*
3PL buy-PST dog DEM thousand naira ten
'They bought this dog for ten thousand naira.'

b. **Gwongworò** **ahụ̀** *dàrà àdà*
lorry DEM fall-PST fall
'The lorry fell.'

c. *Ànyị hụ̀-rụ̀* **oche** **ahụ̀** *n'èzi*
1PL see-PST chair DEM P'compound
'We saw that chair in the compound.'

[31] *a* and *ahụ* are the two demonstratives in the Igbo language. They obligatorily post-modify nouns in the language. The former indicates that the noun in question is close while the latter indicates that the hearer has a prior knowledge of the noun being pointed out.

When *otù/òfu* 'one' is merged with a bare noun, it is unambiguously interpreted as SG. This postulation is illustrated below:

(40) a. *[Otu nwokē] bịà-rà ebe ā*
one man come-PST place DEM
'A man came here.'

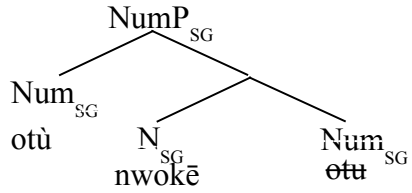
b. Ọ mụ̀tà-rà [otù nnwā]
3PL give birth-PST one child
'She gave birth to a baby girl.'

c. *[Otù motò] dà-rà n'ụzọ̀*
one car fall-PST on-road
'A car fell on the road.'

d. *[Òfu ugbòrò] kà ọ bịà-rà*
one time that 3SG come-PST
'H/She came once.'

Following the percolation mechanism, it is assumed here that the SG feature of the SG words percolates onto the higher NP to give the entire nominal expression a SG interpretation. This is exemplified below:

(41)



Conversely, this study reveals that contexts for plural interpretation of bare nouns in the language are difficult to come by even with discourse cues as observed for SG nouns. In the contexts where this may be possible number is usually unspecified, resulting in ambiguity. This can occur when a count noun occurs by itself (42a), or when it takes a modifier (42b), a relational noun (42c), or a possessive pronoun (42d). The noun can either be construed as singular or plural depending on the discourse context.

(42) a. **Ǹsogbū** *dị̀rị̀* **nwokē** *lụ̀-rụ̀ nwaānyị̀ àbụ̀ọ*
problem be man marry-PST woman two
There is(are) a problem(s) for a man that married two women.'

b. *Èberè zụ̀tà-rà akwụkwọ n'Enugwụ̄*
Ebere buy-PST book in-Enugu
'Ebere bought a/some book(s) in Enugu.'

c. *Èberè zụ̀tà-rà ùwe ọchā n'Enugwū*
Ebere buy-PST cloth white in-Lagos
'Ebere bought a/some white cloth(s) in Lagos.'

d. *Èberè zụ̀tà-rà akwụkwọ ụkà n'Enugwū*
Ebere buy-PST book church in-Lagos
'Ebere bought a/some church book(s) in Lagos.'

e. *Èberè zụ̀tà-rà akwụkwọ yā nà Legọ̄ọ̄s*
Ebere buy-PST book her in Lagos
'Ebere bought her book(s) in Lagos.'

The examples in (42) suggest that in Igbo, bare nouns are unspecified for number; as such, number marking can be said to be underdetermined in the language. It further shows that ambiguity of number interpretation of nouns as singular or plural is a feature of languages that lack overt plural marking.[32]

5. Summary and conclusion

In the preceding sections, this study was able to examine the strategies and devices for expressing plurality in the Igbo language. The findings show that Igbo marks plural using various strategies and morphemes/words. The strategies of marking plural could be classified into five types: (1) merging singular nouns with plural words or morphemes; (2) reduplication; (3) use of plural sensitive verbs; (4) use of conjunctions; and (5) contextually determined plurality. Plural devices include nouns with an inherent PL feature such as *ndị* 'person' and *ụmù* 'offspring', the third person plural pronoun *ha*, quantifiers such as *niile/dum* 'all', numerals *abụọ* 'two' and above, mass nouns *igwe/igwurube* 'many', clitics *ga* and *nụ*, the coordinate conjunction *na* 'and', reduplicated nouns, and plural verbs such as *chịta* 'bring' and *ju* 'be'. The paper accounts for the strategies of marking plural in the language using the feature percolation mechanism and feature checking/valuation.

This paper studied the strategies and the devices adopted to mark plurality in Igbo. These were accounted for using feature percolation for those that involve nouns and their modifiers, and feature checking for those that involve verbs and their arguments. The study shows that Igbo does not mark plural on nouns morphologically because it lacks agreement; rather, it belongs to the group of languages that syntactically mark plural by employing certain plural words or morphemes.

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[32] See also Ajíbóyè (2005, 2010).

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