Plural Formation Strategies in Ígálà

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Abstract

Plural formation in Ígálà is interesting in that it is not exclusive to nominals but restrictedly extends to the predicate of the language. This, superficially considered, have resulted in claims in certain quarters that plural formation in Ígálà is unique and structurally different when compared to what obtains in other languages within the Yoruboid group, namely Yoruba and Itsẹkiri. Some studies (e.g., Akinkugbe 1976, 1978) have even claimed that Ígálà plural marking features are relics of the Proto-Yoruba-Igala (PYIG) preserved by the language but already lost by other members of the genetic subgroup. Given this background, this paper examines the various structural manipulations employed in Ígálà to signal and/or mark plurality on lexical items at word and phrase/clause levels. Using a combination of the lexicalist and syntactic approaches to word formation, as in Selkirk’s (1982) word syntax and Wunderlich & Fabri’s (1995) minimalist morphology, the paper shows that Ígálà plural formation system is not so distant from what obtains in other Yoruboid languages. It also punctures the claim that the apophony/ablaut plural marking type in Itsẹkiri is a PYIG feature.
The study has fundamental implications for understanding the plural interpretation of words, both lexical and functional, and number agreements in the clause structure of Ígálà language.

Keywords: plural formation, lexicalist, word syntax, minimalist morphology, reduplication, compounding, agreement, vowel deletion, tone transfer, contraction

1. Introduction

The plural formation system of Ígálà\(^1\) appears structurally different from the system employed by other Yoruboid languages, i.e., Yoruba and Itsẹ kiri. This apparently informed the claims in some studies (e.g., Akinkugbe 1976, 1978) that some of its plural marking features are relics of the Proto-Yoruba-Igala (PYIG) features preserved only by the language to the exclusion of other members of the genetic subgroup, and that Ígálà plural formation system could be better understood in terms of animacy hierarchy (Omachonu 2003). Drawing on language internal/cross-linguistic evidence and theoretical insights from both lexical morphology and word syntax approaches to word formation on the one hand and minimalist syntax on the other, this study, contra such claims, shows that Ígálà plural formation system is not so distant from what obtains in those other languages.

The main goal of this paper therefore is to describe and analyse the

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\(^1\) Ígálà is a language of the Defoid /Yoruboid subgroup of West Benue -Congo languages spoken natively in Kogi State in central Nigeria. Other languages in the subgroup are Yorùbá (south-west Nigeria) and Itsẹkiri (south-south Nigeria). Igálà is a three-tone—high, low, and mid—discrete level tone language which employs SVO basic word order.
structural patterns permissible in the formation of plural expressions in Ígálà and, also, show that the ablaut plural derivation type found in Iṣẹkiri which some earlier studies have branded a PYIG feature is an isolated instance that emanated from influences of her neighbouring Edoid languages.

Before the description and analysis of the derivation of Igalà plural nouns and pronouns in sections 3 and 4, a brief explanation of the theoretical approaches adopted for the study is provided in section 2. Section 5 is dedicated to plural marking in the Igalà predicate while section 6 concludes the study.

2. Models of Description

This study adopts a combination of the lexicalists’ (e.g., Di Sciullo & Williams 1987) and word syntax (as in Selkirk 1982, Lieber 1992, and Borer 2001) approaches to morphological derivation on the one hand and Noam Chomsky’s minimalist syntax and its adaptation for morphological derivation as espoused in Wunderlich & Fabri’s 1995 minimalist morphology on the other. The study neither lean completely on the strong syntactic model as in Leiber (1992) nor on the pure lexicalists’ view as it believes following Borer (2001) and Corbett (2001), among others, that there are some morphological/semantic primitives in word formation that are not available to syntax just as there are morpho-syntactic issues that a purely lexicalist approach may not be able to handle. This informs the choice of a combinatorial structural approach hinged on the interaction of syntax and morphology for the study. The choice of the minimalist syntax is to complement the morphological approaches by
providing explanations for the sacrosanct clausal syntax operations in the plural marking process within the Igálà predicate.

2.1. Word Syntax and Lexicalists’ Morphology

The word syntax approach holds that structural formation of words is syntactically driven. It contrasts with the pure lexicalists’ position that internal composition and relation of word features have no relevance in syntax. In the word syntax approach, morphology is a word internal configuration but that configuration in itself is syntactic in nature (Toman 2001). Lieber (1992: 21) puts this more succinctly when he remarked that

The conceptually simplest possible theory would ... be one in which all morphology is done as part of a theory of syntax ... A truly simple theory of morphology would be one in which ... The theory of syntax ... account for the construction of words.

These two approaches are complementarily employed in the discussions on plurals of nouns and pronouns in this study.

2.2. Minimalist Syntax and Morphology

The Minimalist program (MP henceforth) of Chomsky (1995, 1998, 2002, etc.) is a model of generative grammar which uses smaller number of assumptions that are consistent with the operations that capture the nature of human/natural language syntax. MP assumes that UG operates a model that relies on two basic but simple operations which capture the two fundamental properties of
language namely, (a) infinite use of finite means and (b) connecting
sound with language/meaning. In (a), the *lexicon* and lexical entries
make up the finite means while the operations which the human
mind uses to ignite its capacity to build/compute syntactic structures
is *merge*. Each lexical item in the MP lexicon is assumed to posses
three sets of features namely the phonetic (Phon), syntactic (Syn),
and semantic (Sem) features which go with them into numeration
and merge operation. In (b), the connection between sound and
meaning refers to the two interfaces, Conceptual-Intentional
Interface (CI) and Sensory-Motor Interface (SM), which are more or
less similar to PF and LF of earlier generative grammar models.

Merge is a simple mathematical operation which combines
selected lexical items from the set in a numeration in binary fashion.
Numeration is a field where selected lexical items to be used for
syntactic derivation are put. It is from there that such word items are
merged in twos to derive syntactic objects. Therefore, merge which is
of two types—external and internal—presupposes operation *select.*
External merge involves fresh merger operations sourced directly
from the lexicon while internal merge is the internal re-arrangement
of already formed syntactic objects (SO). Spell-Out is the process of
getting from SO to SM interface. It is at this point that the principle
of spelling out copies and the linear ordering of merge products are
perfected. It is assumed that *merge* generates unordered
products/trees while the Linear Correspondence Axiom (LCA),
Specifier > Head > Complement (Kayne 1994), gets them ordered.

Movement/raising/internal-merge is obligatory for certain
constituents in derived SOs to allow for feature-checking operations
which must be adequately satisfied for a derivation to converge. Any
derivation where there are feature mismatches or constituents which
are not properly checked will fail to converge and resultanty crash.
Economy Principles are the constraints placed on movement of constituents into feature-checking domains. These principles state that movement operations are local and therefore must be as short as possible (i.e., shortest move). Movement itself is defined as attraction as items don’t just move but are attracted by some head element for feature checking purpose or lexicalization of light/weak head as in head-head movement.

VP-Internal-Subject Hypothesis assumes that subjects of convergent clauses are base generated inside the VP. It also assumes that the internal structure of the VP comprises two related verbal projections or shells; an inner core VP headed by a lexical verb and an outer vP shell headed by a performative light verb which is usually lexicalized by lexical verbs vide head-to-head V-movement. Agent role is assumed to be base generated in the specifier position of the outer vP shell while other theta roles such as theme, experiencer, patient, etc. are base generated within the inner core VP shell.

It is pertinent to mention at this juncture that since Chomsky (1995), various versions of the MP have attempted to unify syntactic and morphological structures using operation merge. In such approach as that of Wunderlich & Fabri’s minimalist morphology, an affix or morphemic head could be combined through merge with a root/stem to derive a new word of the type/kind of the head. For instance, a tense or plural affix could be merged with a V or N root to derive a tensed-V or Plural-N respectively. It is pertinent to mention that the output of such derivation is consistently an X⁰, i.e., a word, and not an XP, i.e., a phrase or clause. This appears to have partly influenced Wunderlich & Fabri’s (1995: 236) remarks that inflectional morphology is:
a combinatorial system of underspecified stems and affixes ... controlled by a hierarchy of categories, by general principles of affixation, and by principles that regulate paradigm structures.

All these and other related MP assumptions are deployed alongside relevant morphological processes to illustrate and formalise the analyses and proposals made in this article in relation to plural formation processes in ígálà.

3. Noun-Plural Formation

3.1. Plural of Animate Nouns: Prefixation or Compounding?

Plurals of animate nouns in Igálà grammar models are identified with two items, ìm- and ìb-, commonly analysed as plural affixes in the literature. These supposed affixal items are assumed to be prefixed to animate nouns only to derive the plural forms of such nouns, as illustrated in (1).

Here is a list of abbreviations used in this article:
Comp = Complementizer; CP = Complementizer Phrase; DP = Determiner Phrase; D = Determiner; EPP = Extended Projection Principle; Foc = Focusmarker; Infl = Inflection; IP = Inflection Phrase; pl = plural; plP0 = plural word; pref = prefix; Pred = predicate; PredP = Predicate Phrase; Qst = Question marker; 1sg = 1st person singular; 2sg = 2nd person singular; 3sg = 3rd person singular; 3pl = third person plural; Ø = null element; Nom = Nominative; PF = Phonetic Form; sg = singular; spec = specifier; Subj = subject; LF = Logical Form; vP = Functional light verb phrase; VP = lexical verb phrase.
(1) a. \( \dot{a}m- \) ónè \( \rightarrow \) àmónè
   \( \alpha \) pl person ‘persons, people’

b. èla \( \rightarrow \) àmèla
   animal ‘animals’

c. \( \dot{a}b- \) ògìjo \( \rightarrow \) àbògìjo
   \( \alpha \) pl old person ‘old folks’

d. ímọtọ \( \rightarrow \) àbìmọtọ
   child ‘children’

Almost all previous studies on Igálà grammar appear unanimous on the claim that \( \dot{a}m- \) and \( \dot{a}b- \) are inflectional plural morphemes simply because they do not change the word class of N roots to which they are affixed but only inflect on such roots to derive their plural forms. However this analysis is inadequate in that it does not address the issues concerning the form and structural behaviour of \( \dot{a}m- \) and \( \dot{a}b- \). In fact, many questions are left begging by the analysis. First of all, the structural distribution of \( \dot{a}m- \) and \( \dot{a}b- \) is not well defined in that analysis. Despite the fact that the two items are assumed to be mutually exclusive in distribution, there is no morphological or phonological constraint that determines which of them is to be used with a particular noun. The choice appears to be by convention. In an attempt to solve this problem, Omachonu (2003: 203-204) made the following submission:

Whereas \( \dot{a}m(\dot{a}) \) is used as plural morpheme for both human and higher animals, the use of \( \dot{a}b(\dot{o}) \) is exclusively reserved for human nouns.
This claim however raises two fundamental questions: one, why does \( \text{àm} \)- works with both human and animal nouns while \( \text{àb} \)- is exclusive to human nouns? In other words, what is it about \( \text{àm} \)- that makes its use possible with human and animal nouns? And what is there in \( \text{àb} \)- that restricts its use to human nouns only? Two, how are complex plural nominal words such as \( \text{àm̀bògì jo} \) ‘elders/old folks,’ \( \text{àm̀bímọtọ} \) ‘children,’ etc. derived within the context of the plural prefix and animacy hierarchy based theory? Does the language have another plural prefix, say \( \text{àmb} \)-, which is employed in such derivation? While none of the earlier studies made such claim, their unanimous plural prefix view suggests it.

Implied in Omachonu’s (ibid.) statement is the well observed fact that the supposed plural prefixes are truncated forms of \( \text{àm(a)} \) ‘3pl/they’ and \( \text{àb(ó)} \) ‘folk/people.’ This is clearly evident in their meaning as \( \text{àm} \)- consistently has the ‘3pl/they’ interpretation in its plural marking capacity and context while \( \text{àb} \)- shares the ‘folks/people’ interpretation with \( \text{àbó} \). It is equally clear that the independent contextual use of \( \text{àm} \) ‘3pl/they’ and \( \text{àbó} \) ‘folk/ people,’ illustrated in (2) and (3) below, indicates that they are discrete nominal words, and not prefixes, in the grammar of Êgálà.

(2) a. \( \text{àbó} \) Igálà
   folk/people Igalá
   ‘Igala people/folks’

b. \( \text{Àbó} \) we hà?
   folk/people 2sg Qst
   ‘What about your folks/people?’ or
   ‘How are your folks/people?’
(3) a. Àma ù lí.
   3pl 1sg see
   ‘It was them that I saw.’

b. àma kì dé únyí
   3pl Comp-3sg be house
   ‘those that are in the house’

If these observations are anything to go by, then the claim that àb and àm are prefixes in Igala is not sustainable, at least, in the light of relevant language internal evidence.

Another relevant observation on this issue is that almost all of the àb- noun-plural forms have àm- counterparts, but none of the àm-plural forms have ab- counterparts. This fact is evident in examples (4) and (5).

(4) a. àm- ónú ‘king’ → àmónú/*abónú ‘kings’

b. óma ‘child’ → àmọma/*abọma ‘children’

c. fye ‘mother’ → àmifié/*àbíye ‘mothers’

d. éwó ‘goat’ → àméwó/*àbéwó ‘goats’

e. ónè ‘person’ → àmònè/*àbònè ‘persons’

f. ètè ‘father’ → àmàtè/*àbátè ‘fathers’

g. èwè ‘bird’ → àmèwè/*àbéwè ‘birds’

3 Note that the starred expressions here can be adjudged well-formed if they are not interpreted as plural nouns e.g., àbónú could be interpreted as ‘folks/people of the king,’ àbẹwè as ‘folks of the bird’ (e.g., in moonlight stories), àbíye ‘folks/people of the mother,’ etc.
(5) a. àb- igbélẹ́ ‘girl’ → àbígélẹ́/àmígélẹ́ ‘girls’

b. ímọtọ ‘child’ → àbímọtọ/àmímọtọ/àmọtọ or ànño-àmọtọ ‘children’

c. ónèkèlé ‘male/man’ → àbokèlé/àmónèkèlé ‘men’

d. ènè ọjọ ‘God’s person’ → àbójọ/*àmójọ/àmènèjọ ‘God’s people’

In recourse to the first question, the reason why àm- is used with both human and animate nouns might not be unconnected with the fact that it is the truncated form of the 3pl personal pronoun àma which generally refers to all forms of nouns, humans and animals inclusive, in the language. Contrary to claims in earlier studies, restricted forms such as àmolí ‘sticks, trees’ and àmoòkwúta where àma occurs with non-animate nouns is a confirmation that the referential capability of àma is not even restricted to only human and animate nouns but that it extends to all kinds of nouns in the language. In a similar vein, the exclusive use of àb-, which is the truncated form of the inherently plural noun àbó ‘folks/people,’ with human nouns logically follows from the naturally expected pattern. As a result, unless a [-HUMAN] noun is personified, e.g., as in fables or moonlight tales, there is no way àbó can be used to refer to it. The analysis in this study therefore straightforwardly accounts for these facts.

The same analysis accounts for the derivation of complex forms like àmbógijo ‘elders/old folks’ and àmbímọtọ ‘children’ without having to posit some imaginary plural prefix, say àmb-. Going by the same token that àm- equals àma just as àb- equals àbó, it is only logical to assume that these two free morphemes are merged in the
complex noun-plural forms, as illustrated in (6).

(6) a. àma àbó (→ àmbó) + ògìjo → àmbógìjo
   3pl folks old ‘elderly/old folks/people’

   b. àma àbó (→ àmbó) + ímọtọ → àmbímọtọ
   3pl folks hild ‘children’

The first piece of evidence for the view canvassed in this study is in the discrete literal meaning of each of the input items which is visible in the derived complex outputs. For instance, the morphological inputs of (6a) consists of three items namely àma “they,” àbó “folks,” and ògìjo “old/elderly” all of which refer to the same set of individuals. The contracted inherent plural features of àma and àbó derives àmbó which is in turn compounded and contracted with ògìjo to derive àmbógìjo (cf. 6b).

The other piece of evidence that supports this analysis is the tonal transfer at the word juncture between àbó and the following N merged with it. The high tone on the final vowel of àbó is often retained in the contracted output after the vowel itself has been deleted. For instance, given the fact that the initial vowels of ògìjo is low-toned, the only principled way to explain the high toned /ó/ in àmbógìjo is to trace it to the high tone carried by the final vowel of àbó. If the assumed prefix àb- is truly the form used in this derivation, we would have to account for the source of that constant high tone on /ó/ in the output. Since àm- shares meaning and form with àma, the logical conclusion that should be drawn is that the two are one and the same morpheme; ditto àb- and àbó for similar reasons. If these observations are correct, then the core morphological process that derives Igálà plural nouns of the àm(a)
and àb(ó) type is not prefixation but appositional compounding which subsumes some other phonological processes namely vowel deletion, tone transfer, and contraction. In the process of the derivation, the final vowel of àma and àbó constantly gets deleted. This claim is evident in the following examples in (7).

(7) a. àma éla → àmẹ́la

3sg animal ‘animals’

b. àma ónẹ̀ → àmonẹ̀

3pl person ‘persons/people’

c. àma ìkélékwu → àmikélékwu

3pl rat ‘rats’

d. àma ëwẹ́ → àmẹ́wẹ́

3pl child/baby ‘children’

e. àma ëwẹ́ → àmẹ́wẹ́

3pl bird ‘birds’

f. àma éja → àmeja

3pl fish ‘fish’

g. àma ágbójí → àmágbojí

3pl leader ‘leaders’

Another hole in the plural prefix claim for Igálà is the inherent functional behaviour and distribution of the assumed plural prefixes, àm- and àb-, which appear to make Ígálà uniquely different from
other languages using singular-plural grammatical distinction, especially for nouns. In languages such as Itshęki ri (also a member of the Yoruboid group); Èdó e.g., Bini and Ùwwię; Ekiromi, an Edoid language of the Abèsabès group of Northern Akoko; and English; noun plural formation is often effected through apophony/ablaut, a phonological operation which sub-serves a morphological purpose in which a vowel changes to another either at the beginning, middle, or suffix position of a word to denote some kind of grammatical distinction, e.g., plural formation (Radford 2001: 188), as in (8)-(11).

(8) Itshęki ri
   a. o-birẹn ‘woman’
      e-birẹn ‘women’
   b. o-kenrẹn ‘man’
      ẹ-kenrẹn ‘men’

(9) Ùwwię
   a. o-róò ‘person’
      e-róò ‘persons/people’
   b. u-kpè ‘bed’
      i-kpè ‘beds’

(10) Bini
   a. ọ-món ‘child’
      è-món ‘children’
b. ọ-xùò  ‘woman’
i-xùò  ‘women’

(11) Èkìròmi (Àbèsàbès)
a. o-wosi  ‘husband’
a-wosi  ‘husbands’
b. o-tšói  ‘witch’
a-tšói  ‘witches’
c. ò-ni  ‘person’
à-ni  ‘persons/people’

In (8-11), plurals of nouns are formed by alternating the initial vowel of every singular noun with another vowel. Essentially, those alternating vowels are bound morphemes that have no clear meaning until they get attached to their various roots/stems. On the contrary, this kind of alternation does not occur in the process of Igálà noun-plural formation, as àm(a) and àb(ó) are free morphemes with inherent nominal features and unique interpretations of their own, even in isolation.

The implication of this is that the widely assumed plural prefixes (àm- and àb-) in Igálà are not affixes after all, but shortened forms of the free morphemes àma and àbó. The two of them are merged and phonologically contracted to derive àmbó used in the derivation of forms like àmbógíjo ‘elders/old folks’ and àmbímọtọ ‘children.’ Therefore, what appears as àm-ìlà- in Igálà noun-plural results from the contraction between àmalàbó and the N it pluralizes. The

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4 Data on Itshekiri, Uvwie, and Bini were adapted from Omamor (1976).
contraction evident in this process is triggered by the phonological constraint on Igálà nouns that they are obligatorily vowel initialled. Compounding àmalàbó with a noun triggers contraction which consequently induces the deletion of the final vowel of àmalàbó leaving the truncated superficial form identified as prefixes in the literature (see 7a-g).

Akinkugbe (1976: 16) claimed that the Itshẹkiri example (8a-b), which happens to be the only set of plural formation of that type in the language (Omanor 1976: 39), is a relic of the PYIG noun -plural feature preserved by Itshẹkiri and Igálà but which Yorùbá and its diversified dialects have lost. This view is not sustainable for the following reasons: first, the assumed Igálà plural prefixes are totally different in form and behaviour from the apophony type found in Itshẹkiri; second, the apophony example in Itsẹkiri is not only restricted to the two examples mentioned but consistent with those of Edoid languages where singular -plural vowel prefix alternation is highly productive (Elugbe 1973). Given the fact that Itshẹkiri homeland is geographically surrounded by Edo clans, it would be illogical to look elsewhere for the source of the Itshẹkiri’s highly restricted ablaut noun -plural feature. Although Akinkugbe maintained that the Edoid languages which are neighbours to Itshẹkiri only help it to preserve the feature, such claim also can not be sustained because no other member of the Yoruboid group attests that imaginary PYIG feature, not even Igálà. The restricted nature of the examples found in Itshẹkiri and the similarities between Igálà and Yorùbá noun-plural formation processes overwhelmingly point to the Edoid source of the isolated Itshẹkiri ablaut examples.

If these observations are anything to go by, then, the derivation of plural nouns in Igálà is not far away from what obtains in Yorùbá where àwọn ‘3pl, they’ (a cognate of Igálà àma) immediately
precedes a noun to pluralize it. The morphophonemic contrast between Igálà and Yorùbá in such context is illustrated in (12) and (13).

(12) Igálà

a. àmà òwè → àmèwè
   3pl bird ‘birds’

b. àmà ítíchà → àmítíchà
   3pl teacher ‘teachers’

c. àmà òjí → àmójí
   3pl thief ‘thieves’

(13) Yorùbá

a. àwòń òyè → àwenenye
   3pl bird ‘birds’

b. àwòń olùkó → àwònonlùkó
   3pl teacher ‘teachers’

c. àwòń adájó → àwanandájó
   3pl judge ‘judges’

In the Yorùbá example (13a-c), the final nasal vowel of àwòń is

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Note that this type of expression is possible only in fast speech (cf. pìn epo → pènpo ‘to divide palm-oil’). In slow/normal speech, both àwòń and the N immediately following it may be pronounced discretely. See Awobuluyi & Oyebade (1995) for deeper insights on nasalization and denasalization in Yorùbá.
not deleted, rather, it assimilates to the initial vowel of the noun it pluralizes while retaining its nasality which the initial vowel of the N also assimilates. On the other hand, apart from the fact that there is no significant vowel nasality in Ígálà (Akinkugbe 1978, Omachonu 2001), the final oral vowel of àma is simply deleted while it contracts with the lexical noun it pluralizes.

When àbó is used in Igálà to derive the plural of a noun, its final vowel, /ó/, often deletes without the high tone which is then transferred to the initial vowel of the pluralized noun, as exemplified in (14).

\[(14)\]
\[
a. \text{ àbó } \text{ ògíjo } \rightarrow \text{ àbógíjo } \\
\text{ folk } \text{ old } \quad \text{ ‘elders / old folks’ }
\]
\[
b. \text{ àbó } \text{ ímọtọ } \rightarrow \text{ àbímọtọ } \\
\text{ folk } \text{ child } \quad \text{ ‘children (folk)’ }
\]

We therefore conclude that if àm and ab are plural morphemes at all in Igálà, they are not bound or inflectional morphemes. Rather it would be more intuitively adequate to analyze them as free morphemes and/or nominal words that are in compounding relationship with any lexical noun they pluralize.

3.2. Plural of Non-Animate Nouns

3.2.1. Reduplication Strategy

Apart from pre-merging the inherently plural àma and/or àbó to animate nouns to derive their plural forms, another strategy used to
derive plural forms of nouns in Ígálà is reduplication. This strategy is mostly used for non-animate nouns such as trees, stones, hills, etc. and it involves full reduplication. Examples of such word expressions in this category are provided in (15a-d). However, it is equally applicable to animate especially when one wants to emphasize number of people or beings present at a scene as in (15e, f).

(15) a. òkwúta ‘stone’ → òkwúta-òkwúta ‘stones’
    b. ólí ‘tree/stick’ → ólí-ólní ‘trees/sticks’
    c. úwó ‘hill’ → úwó-úwó ‘hills’
    d. áji ‘river’ → áji-áji ‘rivers’
    e. ónè ‘person’ → ónè-ónè ‘many people’
    f. ónú ‘king’ → ónú-ónú ‘kings / many kings’

The full reduplication in this instance involves copying the totality of a word and pre-merging that copy to the original without deleting the original such that both the copy and the root are phonetically realised at spell-out to produce a plural noun interpretation. The logical implication of this is that at some point during the course of derivation, the plural feature is integrated.

To model this derivation, we propose that a null functional plural (pl) head is involved in the process and that the process which is actually syntactic feeds the morphology of the language. The projection is such that the null plural head selects a non-animate noun word, e.g., òkwúta as in (15a), as complement to project the plural form of such word in Igala. This plural head for syntactic reasons (cf. EPP feature saturation in TP) requires a copy of its complement in its specifier position to be a convergent syntactic object thus triggering the raising of the copy of its complement to
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spec-plP₀ without deleting the word in its extraction site. The result of these structural steps is what shows up superficially as reduplication of the N, i.e., the non-animate plural nouns in the language. It is pertinent to mention that the null plural head in this projection, though morphologically and semantically present, is not phonetically realised in the derivation. This derivation process is schematically represented in Figure 1.

Figure 1. Full Reduplication Projection

![Diagram of Full Reduplication Projection]

The claim here that the root N is not deleted after movement appears to be at variance with MP convention that syntactic movement is a process of copy and delete, i.e., any moved item is not just copied but is equally deleted at the extraction site such that it is no longer phonetically realised in that position. We however only need to remind ourselves of predicate fronting processes in syntactic focus, relativization, topicalization, and wh-questions particularly in Yoruboid and other West African languages, to see that this analysis is in order. Predicate fronting as a syntactic process lends itself to

\[ \text{Spec} \overset{\text{plP}_0}{\rightarrow} \quad \text{Phonetic Spell-out} \]

\[ \overset{\text{pl'}}{\text{Spec} \overset{\text{pl}}{\overset{\emptyset}{\overset{\text{N} \overset{\text{òkwúta}^5}{\rightarrow} \overset{\text{òkwúta-òkwúta}}{\text{òkwúta}}}}}{\rightarrow}} \]

\[ (\text{plP}_0 = \text{Plural word})^6 \]

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\[ ^6 \text{Italics is used here to indicate that the singular N òkwúta is copied but not deleted, i.e., it is retained in-situ VP internally. Note also that plP₀ in this model is an X₀ which is equivalent to a word, and not a syntactic phrase.} \]
copying of the verb and raising of such copy to spec-CP without deleting the lexical verb within the VP. Four separate but related patterns which such raised predicates have in this respect especially in West African languages are easily identifiable. The first pattern is found in Gbè languages such as Gúngbè and Fongbè where V is copied and raised to spec-CP without any change in form while both the copy in spec-CP and the original inside the VP are phonetically realised at spell-out! Witness the example in (16) adapted from Aboh (2007).

(16) a. Kofí  dù  léṣì  cè.  (Basic Clause)

Kofí  eat  rice  my

‘Kofí ate my rice.’

b. Dù  Kofí  dù  léṣì  cè.  (V-focus)

eat  kofi  eat  rice  my

‘Kofí ATE my rice.’

In (16), the verb dù ‘eat’ is copied and raised to spec-CP but its original remains phonetically realised in-situ inside the VP.

The second pattern is the type found in Ígálà in which V is copied and fronted but the copy is nominalised through vowel prefixation as exemplified in (17).

(17) a. Aládi  kpá  éja  étí  áji  (Basic Clause)

Aladi  kill  fish  side  river

‘Aladi caught fish by the riverside.’
b. é-*kpa  Aládi  *kpa  éja  étí  áji  (V-focus)
   Killing  Aladi  kill  fish  side  river
   ‘Aladi CAUGHT fish by the riverside.’

Again, the original V and its raised copy are phonetically realised at spell-out.

The third is the type in Yoruba where the copy of the raised/fronted V is partially reduplicated, as in (18).

(18) a. Olükó  na  Akin.  (Basic Clause)
   Teacher  beat  Akin
   ‘The teacher beats Akin.’

b. Nínà  ni  olükó  na  Akin.  (V-focus)
   Beating  foc  Teacher  beat  Akin
   ‘The Teacher BEATS Akin.’

The fourth pattern is found in languages like ëwè spoken in Togo and Ghana. It involves full reduplication of the raised/fronted copy of V as evident in (19) adapted from Ameka (2010).

(19) a. Wò-*fò  dèví-á.
   3sg-hit  child-Def
   ‘He beat the child.’

b. Fò-*fò  wò-*fò  dèví-á.
   red-hit  3sg-hit  child-Def
   ‘He BEAT the child.’ or
   ‘He gave the child a thorough beating.’
In a nutshell, all of the four patterns exemplified in (16) to (19) support the analysis in Figure 1 that it is actually possible for the copy of a word to move without deleting the original in-situ. Another likely reason for the somewhat weird nature of the projection proposed in Figure 1 may not be unconnected with the fact that the configuration is not purely syntactic but morpho-syntactic, i.e., a syntactic projection that feeds the morphology of the language. This proposed reduplicative derivation has far reaching implications for other languages that employ similar strategy, e.g., Yoruba in expressions like *ilé ńlá-ńlá* ‘big (big) houses.’

### 3.2.2. Use of Quantifiers

Plural forms of other non-animate nouns in Ígálà are derived through quantification, i.e., by the use of quantifiers or numerals to reference the N. This is achieved by modifying a singular noun with some inherently plural [+PL] quantifier or numeral. The result is a noun interpreted as plural by native speakers. A good example of this is (20).

(20) a. óyà

‘wife’

cf. b. óyà  wéwe/méjí

wife  many/two

‘many wives / two wives’

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7 See Omachonu (2011) for the Ígálà numeral system.
4. Plural of Pronouns

Six groups/types of pronouns, a substantial part of which are morphologically derived, exist in Ígálà. These are personal, demonstrative, anaphor, quantifier, interrogative, and genitive pronouns. We shall, however, limit our discussion in this paper to those pronouns that are evidently derived through morphological/orpho-syntactic processes in the language.

4.1. Personal Pronouns/Pronominals

Personal pronouns are so-called because they encode the grammatical properties of person and number. Ígálà short and long pronouns are morphologically related. It is evident, as illustrated in the Table 1 below, that Ígálà long pronouns are derived from their short counterparts through vowel prefixation.

Table 1. Ígálà Pronouns

<table>
<thead>
<tr>
<th>Short Pronouns</th>
<th>Prefixation</th>
<th>Emphatic/Long Pronouns</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Nominative</td>
<td>Accusative</td>
</tr>
<tr>
<td>mi</td>
<td>ò/ù- mi</td>
<td>òmì</td>
<td>ùmì</td>
</tr>
<tr>
<td>we</td>
<td>ù-wẹ</td>
<td>ùwẹ</td>
<td>ùwẹ</td>
</tr>
<tr>
<td>wun</td>
<td>ò/ù-wun</td>
<td>òwun</td>
<td>ùwun/ùu</td>
</tr>
<tr>
<td>wa</td>
<td>à/ù-wa</td>
<td>àwa</td>
<td>ùwa</td>
</tr>
<tr>
<td>mẹ</td>
<td>à/ù-mẹ</td>
<td>àmẹ</td>
<td>ùmẹ</td>
</tr>
<tr>
<td>ma</td>
<td>à/ù-ma</td>
<td>àma</td>
<td>ùma</td>
</tr>
</tbody>
</table>

Looking at the pronouns in Table 1, two facts are immediately obvious. First, Ígálà pronouns mark grammatical features of number, person, and case. Second, Ígálà short pronouns constitute the roots
from which all other case forms of the pronouns are derived: {ò-, ù-, à-} are the prefixes used to derive the nominative forms; {ù-} is the prefix in the accusative forms; while the bi-syllabic èé- is the affix in the marked genitive forms. The genitive morpheme èé-morphologically looks like the demonstrative èyí which has lost the consonant segment y, and because of the contiguity of the remaining two vowels, a progressive assimilation applies turning èí → èé (see section 4.2. below).

Evidence from Table 1 also shows that each of the six personal plural pronouns in Igálà inherently possesses a plural feature. No syntactic or morphological process is involved. In other words, there is no evidence to show that their plural feature is derived in any way.

4.2. Plurals of Demonstratives

Igálà short and long demonstratives (yi/èéyi ‘this’ and le/èélé ‘that,’ are structurally related. The prefix èé-, earlier noted to be a part of the morphology of marked genitive pronouns (section 4.1.), constitutes the only difference between the two forms. Given the fact that affixation is a highly productive morphological process in Igálà, it is assumed that the long emphatic forms, i.e., èé(y)i and èélé, are derived from the short (y)i and le through èé- affixation, as illustrated in (21).

(21) a. èé- (y)i → èé(y)i
    Pref this ‘this (emphatic)’

b. èé- le → èélé
    Pref that ‘that (emphatic)’
Two structural devices are used in Ígálà to derive the plural forms of these demonstratives. The first is by pre-merging àbó ‘folk/people’ to the emphatic èéyí or èéle, as in (22).

(22) a. àbó èéyí → àbéeyí
   folk this ‘these’

   b. àbó èéle → àbéele
   folk that ‘those’

The other possibility that the short forms of the demonstratives, i.e., (y)i and le, may have been employed for this derivation instead of their long emphatic counterparts is not plausible for the simple reason that the output/product of the derivation, i.e., àbéeyí and àbéele contains relics of the prefix èé- which is part of èéyí and èéle not found in the short (y)i and le. This implies that the morphological process involved in the derivation is compounding and not prefixation. The reason for this is not far fetched: àbó is a free morpheme often used independently as a word in the grammar of the language, e.g., example (2) rewritten here as (23) for ease of reference.

(23) a. àbó Igálà
   folk/people Igala
   ‘Igala people/folks’

   b. Àbó wè hà?
   folk/people 2sg Qst
   ‘What about your folks/people?’ or
   ‘How are your folk/people?’
The second strategy employed in Ígálà to derive the plural of demonstratives is morpho-syntactic in nature. This involves two other word items which are equally regarded as demonstratives in the language, i.e., ékidéi and ékijọí logically translated as ‘this’ and ‘these’ respectively. The uniformity and complexity of the derivation of these items involve complementizer phrase nominalization which uses the gerund nominalising prefix é-, as illustrated in (24).

(24) a. é- [CP kì ì dé -ì] → ékidéi
   Nom-Pref that 3sg be(sg) this ‘this’
   Literal: ‘the one who/which is this’

   b. é- [CP kì ì jọ̀ -í] → ékijọí
   Nom-Pref that 3sg be(pl) this ‘these’
   Literal: ‘the ones who/which are these’

Evidently, the number interpretation (i.e., singular ‘this’ or plural ‘these’ in these structure is determined by the contrast between the two contending verbs to be dé (sg) or jọ́ (pl). The prefix é- used in the derivation is a highly productive nominalising prefix in Ígálà which derives nouns from verbs or verb phrases and adjectives, as illustrated in (25).

(25) a. é- jẹ́ → éjẹ́
   Pref eat ‘eating’

   b. é- titọ́ → étitọ́
   new ‘new’
It logically follows therefore that the demonstratives ékidi and ékijo are some form of noun/nominal words just like every other noun derived through é- prefixation in Ígála. However, the fact that they are referential in the manner of demonstratives evidently qualifies them to be categorized as such.

5. Plural Marking in the Predicate

5.1. Identifying Ígála Plural Predicates

The verbs dé and jọ are the respective singular and plural forms of the verb ‘to be’ in Ígála. They impose some kind of number restrictions on the subject argument of their clauses. Usually, dé licenses singular subjects as exemplified in (26).

(26) a. Óně dé únyí mi.
   person be(sg) house my
   ‘Somebody is in my house.’

b. Ímọtọ dé ọdọda.
   child be(sg) outside
   ‘The child is outside.’
c. *Àma achukólọ dē ụbì únyí wẹ.
   3pl worker be(sg) back house 2sg-gen
   ‘*Workers is at the back of your house.’

(26c) is ill-formed because the subject of dē is plural unlike in the well-formed (26a, b) where the subjects are singular. On the other hand, jọ regularly selects plural subjects as inherent singular nouns are never allowed as its subject. For instance, (27c, d) are ill-formed because the subjects of jọ there are singular.

(27) a. Àmónẹ jọ únyí mi.
   people be(pl) house my
   ‘There are people in my house.’

   b. Ma jọ èmi.
   3pl be(pl) here
   ‘They are here.’

   c. *ÓNẹ jọ únyí mi.
   person be(pl) house my
   ‘*There are somebody in my house.’

   d. *Ì jọ ọmọ.
   3sg be(pl) there
   ‘*She/He/It are there.’

This implies that jọ imposes [+PL] feature on its subject as native speakers consistently interpret such subject as plural even when it
has no overt plural marker. For instance, ígà ‘net’ and únyí ‘house’ are assumed to be plural in (28) despite the lack of any visible plural markers in the clause.

(28) Ígà/únyí mi jọ í.
    net/house my be(pl) this
    ‘These are my nets/houses.’

The plural interpretation for the subjects, Ígà mi and únyí mi, in this instance follows from the intuitive knowledge of Igala native speakers that jọ is a plural V. Two other verbs that are traditional assumed to be sensitive in the way they agree in number with their nominal objects are du ‘to bring’ (singular) and kó ‘to pack’ (plural) as exemplified in (29) and (30).

(29) a. Du ólí lè wá.
    bring tree/stick the come
    ‘Bring that stick.’

    b. Ú mu du tínyò.
    1sg take-3sg bring to-away
    ‘I (took and) threw it away.’

(30) a. Ma kó olí lè.
    3pl take/pack tree that
    ‘They pack those sticks.’
b. Kö itèbù Wá.
take/pack table come
‘Bring some tables.’

c. Ajuma kö àkpàti lè jọ ḍìmọ.
Ajuma pack box that be(pl) there
‘Ajuma took/packed those boxes there.’

As evident in (29) and (30), du selects only singular objects while kö selects plural objects, irrespective of whether the nominal object is visibly marked for plural or not. For instance, it is only in (29c) that kö has a marked plural object, yet all of the nominal objects of kö in (29a-d) are interpreted as plural.

5.2. Syntactic Formalization

Having identified jọ, and kö as plural verbs in Ìgálà, the next task is to discuss how they structurally realize their plural features with which they select appropriate arguments in the syntax of the language. Jọ being a verb ‘to be’ is a one-place predicate. It obligatorily selects a subject argument and an optional locative adverb or preposition phrase adjunct complement. This is evident in examples (27a, b) and (28). For (27a, b), we assume an inner core VP projected by jọ where the subject position is theta marked as [+theme +plural]. In other words, any argument that would be merged to jọ as subject must possess these two features requirements which are clearly met in àmonè ‘people’ and the 3pl ma. The complement position is superficially occupied by locative adjunct phrases únyí mi ‘my house’ and ódódá ‘outside.’ The syntactic projection of the V
jọ can be formalized as in (31).

(31)  
\[
\begin{array}{c}
\text{VP}_{+\text{PL}} \\
\text{Subj}_{+\text{PL}} \\
\text{Theme} \\
\text{VP}_{+\text{PL}} \\
\text{V}_{+\text{PL}} \\
\text{Adjunct} \\
\text{Adverbial} \\
\text{PP} \\
\text{P} \\
\text{DP} \\
\text{Ø} \\
\{ \text{únyí mi} \} \\
\{ \text{ódódá} \}
\end{array}
\]

To derive the convergent clauses in (27), it is assumed that the core VP in (31) is merged directly to plural Infl head to project an I-bar. This is in order because the subject in this projection is not a volitional agent, so the outer vP shell is not required. Similarly, there is no need to provide for accusative feature checking since the V does not select for a direct object complement. After this, the theme subject is attracted to spec-IP by Infl₀ to satisfy its EPP features. This would result in a spec-head feature checking configuration between the plural Infl₀ and the raised subject. Infl₀ and the raised subject will engage in mutual feature checking and since their features (plural feature inclusive) match, the derivation survives spell-out as convergent. This clause projection is presented in (32).  

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8 We posit a null locative preposition head here because though Igáɫà has a locative P element tú as in tú ájá → tájá ‘to the market’ it doesn’t show up phonetically in this context, yet únyí mi or ódódá is a location in the context. This is evident in expressions like Ná a ló tú únyí (→ túnyí) mi ‘I will go to my house’ where tú shows up phonetically as a locative P. It is therefore opined in this study that, though
On the other hand, kó is a two-place predicate which assigns two participating thematic roles: volitional *agent* to subject and *theme* to direct object complement. It is pertinent to mention at this point that the scope of the plural feature of kó is actually restricted to its object complement. In other words, only a [+PL] argument can function as direct object complement of kó. The implication of this for the VP structure of this verb is that it requires an outer vP shell projection to base generate its volitional agent subject and an intervening predicate phrase projection between the outer and the inner verb phrase shells to create a spec-head configuration for itself and its object to check off their accusative features. We therefore propose (33) as the structural projection of its VP.

phonetically null, the locative P is morphologically and syntactically present in the Ìgálà clause type represented in (32).
To project the full clause in (30a) based on the VP configuration in (33), the projection in (34) would suffice.
6. Conclusions

This paper has taken a vivid look at the various strategies employed in Ìgálà grammar to derive the plural form of word expressions and the effect they bring to bear on the clause syntax of the language. It identified four devices namely, nominal compounding, full reduplication or copying of lexical root words, quantifier/numeral modification of inherent singular nouns, and syntactic verb subject and complement selection (i.e., c-selection and s-selection). It rejected the prefix analysis of earlier studies for plural
nouns of the àma and àbó type and show that such plural formation device and that of full reduplication are not exclusive to Ígálà as other Yoruboid languages, e.g., Yoruba, employ similar strategies to derive plural of noun. It is therefore safe relatively to conclude that Ígálà plural formation system is not so distantly different from what obtains in other Yoruboid languages.

References


Press.


