

HEADEDNESS AND DEMARCATION IN NOMINAL COMPOUNDS: EVIDENCE FROM ÍGÁLÀ, ÌGBÒ, KÒRÍNG AND YORÙBÀ

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The paper investigates headedness and demarcation between nominal compounds and noun phrases in **Ígálà**, **Ìgbò**, **Kòríng** and **Yorùbá**, four Benue-Congo languages spoken in Nigeria. The cross-linguistic examination yields the following results: First, demarcating nominal compounds from noun phrases in the affected languages favours semantic above phonological and syntactic criteria. Second, the analysis on headedness shows that the N1 which is the first member of the compound occupies the head position hence the languages obey the left-hand Head rule (LHR) as against the right-hand Head rule (RHR) which Williams (1981) claims is universal. Third, the position of the heads (head first) in nominal compounds coincides with that of the noun phrases in the languages, hence it is argued that syntactic analysis cannot be a reliable guide for distinguishing nominal compounds from noun phrases in the languages because most nominal compounds resemble syntactic structures of similar constituents. Besides, the lexical integrity or syntactic atomicity of compounds (as words) in the languages defines their cohesiveness and renders them inaccessible to syntactic operations. In conclusion, we hypothesize that a linguistically significant generalization is achieved because on the basis of these pieces of evidence, it could imply that the head –first position or left-hand Head rule (LHR) for compounds and noun phrases is applicable to other morphologically complex words and headed constructions in the Benue-Congo family of languages.

Cet article fait une analyse comparée du thème des mots-têtes de série et démarqueurs dans les mot-composés et phrases nominales composées en **Ígálà**, **Ìgbò**, **Kòríng** et **Yorùbá**, quatre langues de la famille Bénue-Congo parlées au Nigéria. Notre analyse linguistique donne les résultats suivants: Premièrement, les démarqueurs nominaux composés issus de phrases nominales dans les langues étudiées favorisent les critères sémantiques au-dessus des critères phonologiques. Deuxièmement, l'analyse à propos des mots-têtes de série montre que le N1 qui constitue la première partie du mot composé occupe la position du mot-tête de série, c'est pourquoi de telles langues suivent la règle de gauche-à-droite pour le mot-tête de série dans l'ordre des mots composés (LHR) ce qui va à l'encontre de la règle droite-à-gauche proposée par Williams (1981) comme étant la règle universelle. Troisièmement, la position du mot-tête de série (premier mot) dans les mots nominaux composés est en accord avec celle des phrases nominales dans les langues étudiées parce que la plupart des phrases-nominales composées ressemblent à des structures syntaxiques des constituants semblables. D'ailleurs, l'intégrité lexicale ou l'atomicité syntaxique des phrases-composées (en tant que mots) dans les langues étudiées forme la base de leur cohésion en les rendant inaccessible aux opérations syntaxiques. En conclusion, notre hypothèse est qu'il est possible de faire une généralisation linguistiquement significative à partir de ces preuves pour affirmer entre autres que la règle du mot-clé en première position ou le mot-clé à la tête dans la position gauche-à-droite (LHR) pour les phrases nominales ou les mots composés peut être appliquée également à d'autres formations morphologiques composées dans l'ensemble des langues de la famille Bénue-Congo.

0. INTRODUCTIONⁱ

Guevara and Scalise (2009) expressed the view that research in typology and linguistic universals has dedicated little attention to compounding in spite of the fact that compounding is really pervasive in the world's languages. This view is contradicted by the volume of extant literature on compounding in Nigerian languages such as Bamgbose (1967), Owolabi (1995), Awobuluyi (2005), Oyebade (2007) and Taiwo (2008, 2009) in **Yorùbá**, Anagbogu (1990, 1995, 2000), Nwaozuzu (1991), Oluikpe and Nwaozuzu (1995) and Iloene (2007) in **Ìgbò**, Anagbogu (2003, 2006, 2011) in **Kòríng**, Omachonu (2001) and Atadoga (2011) in **Ígálà**, to cite just a few. However, a critical review of the state of the art as it affects the subject matter of compounding in African linguistics reveals that issues such as headedness and demarcation between compounds and phrasal expressions still require cross-linguistic investigation and evidence for dependable linguistic generalizations.

The issues of the position of head in endocentric nominal compounds and the demarcation of same from similar phrasal expressions have triggered off very interesting debates in the literature. Whereas Williams (1981) believes that the Right-Hand Head Rule in Germanic languages is universal, others such as Dimmendaal (2000) and Fabb (2001) argue that there are languages where the position of the head is to the left instead. It is even argued further that there are languages with the possibility of having both left and right hand head positions (Booij 2007). While it is believed that the demarcation between compounds and phrasal expressions is important in the analysis of compounds, the difference with respect to the position of the head in compounds, Booij (2007:78) posits, “might suggest that the position of the head is a parametric difference between languages” (See also Payne 1997, Dimmendaal 2000 and Fabb 2001). Against this background, this paper investigates headedness and demarcation between nominal compounds and noun phrases in four Benue-Congo languages spoken in Nigeria (**Yorùbá**, **Ìgbò**, **Ígálà** and **Kòríng**; two major languages and two minor languages) with the aim to address the following questions using nominal compounds as the unit of analysis:

- (i) What features characterize nominal compounds in **Yorùbá**, **Ìgbò**, **Ígálà** and **Kòríng**?
- (ii) In what ways and to what extent do these features help to distinguish nominal compounds from noun phrases in the languages?
- (iii) Where is the position of head in endocentric nominal compounds in these languages and to what extent does it coincide with that of noun phrases in the languages?

1. CHARACTERISING NOMINAL COMPOUNDS

Compounding or composition which is the most frequently used means of producing new lexemes has its overall defining property as “consisting of the combination of lexemes into larger words” (Booij 2007:75). Even though this may not be a universally applicable definition, the use of the term ‘lexeme’, Lieber and Štekauer (2009) argue, is ‘specific enough to exclude affixes but broad enough to encompass the roots, stems and

free words that make up compounds in typologically diverse languages' (p.2). Essentially, a nominal compound (NC) consists of mainly noun-noun collocation.

As simple as the word compound or compounding may appear at first glance, it may not be as straightforward to determine what constitute compoundhood. In spite of the fact that compounding is really pervasive in the world's languages and despite the overwhelmingly huge volumes of literatures available on compounds and compounding processes in languages, there are hardly any universally accepted criteria for determining what a compound is in terms of definition, headedness and demarcation between compounds and similar grammatical structures. In the literature, phonological, syntactic as well as semantic criteria have been proposed and used for identifying and distinguishing especially nominal compounds from grammatical or syntactic structures in languages. Fabb (2001) asserts that compounds are subject to phonological as well as morphological processes which may be language specific or specific to compounds. Thus, assimilation, vowel elision and suprasegmental features like stress, tone and intonation may play very significant roles in identifying and distinguishing compounds from noun phrases in some languages. For instance, primary stress assignment as it affects nominal compounds in English has proved to be somewhat a useful guide in determining compounding in the language (see Jones 1995, Olsen 2000, Giegerich 2006, Lieber and Štekauer 2009). Besides, Finney (2002) has argued for a productive process of compounding in Krio that sometimes involves the application of tonal processes of High deletion and Low spreading.

However plausible the proposal for phonological criteria may be in other languages, assimilation, vowel deletion and tonal behavior may not sufficiently define and distinguish nominal compounds in **Yorùbá**, **Ìgbò**, **Ígálà** and **Kòríng** for a dependable generalization. This is because most of the nominal compounds in the languages bear the same or similar tonal patterns as their grammatical counterparts of similar constituents. Observe examples 1(a-d) below.

- (1) a. Igala: **ọma # ẹrẹ** → **ọmerẹ** 'toe' (compound)
 child leg
 ọma # ẹrẹ → **ọma ẹrẹ** 'child of leg' (syntactic structure)
 child leg
- b. Igbo: **ụlọ # àkù** → **ụlọ àkù** 'bank' (compound)
 house wealth
 ụlọ # àkù → **ụlọ àkù** 'Aku's house' (syntactic structure)
 house wealth
- c. Yoruba: **ẹyẹ # ilé** → **ẹyẹlé** 'pigeon' (compound)
 bird house
 ẹyẹ # ilé → **ẹyẹ ilé** 'bird of house' (syntactic structure)
 bird house
- d. Kòríng: **kètòphò òlùn** 'crown' (compound)
 hat king
 kètòphò òlùn 'hat of king' (syntactic structure)
 hat king

In the examples above, it is the context of usage that determines, in the final analysis, whether a construction is meant to be a compound or a phrase. Even the instances of vowel elision occasioned by contraction found in the **Ígálà** and **Yorùbá** examples cannot be taken for dependable compound forming processes because such phonological processes or spelling conventions are not consistently systematic enough in these languages to lead to viable linguistic generalizations on compound formation in the languages. Besides, spelling conventions or orthographic representations as displayed in examples 1(a-d) above can hardly qualify as serious criteria for defining and distinguishing compoundhood, considering the fact that the written form of compounds could be notoriously inconsistent in languages (see Szymanek 1988, Lieber and Štekauer 2009). As it is with even English, there is neither uniformity nor consensus among respective scholars on the writing of compound words in these languages. Bamgbose (1965:27-28), even though not as elaborate on the writing of nominal compounds in **Yorùbá**, proposed the use of hyphens for N+N constructions meant to be one word, e.g. **olóri'-burúkú** 'a luckless person'. Similarly, in **Ígbò** whereas Ogbalu (1975:55-6) proposed the use of hyphens for writing nominal compounds, Nwachukwu (1983:33), even though, according to him, 'It is doubtful whether the nominal constructions cited by Ogbalu are to be treated as compound words', strongly recommended writing such N+N constructions as separate lexical items. Therefore, the writing of (nominal) compounds in these and many other languages is only a matter of individual preferences among the respective scholars.

The exception in Czech and Slovak where all compounds are spelled as one word whereas syntactic phrases are spelled as separate words in contrast (c.f. Szymanek 1988: 41) notwithstanding, at best, spelling convention or phonological processes as seen in 1(a and b) above can only play very minimal role in N+N compounds written together as single words in **Yorùbá**, **Ígbò**, **Ígálà** and **Kòríng**. It is to be noted, however, that besides the **Ígbò** and **Kòríng** examples above (c.f. 1b and d uncontracted), there are very many nominal compounds in these languages which are, in most cases, not written as single words, e.g.:

- (2) a. Igala: **òlà # ójó** → **òlà ójó** 'Christianity' (compound)
word God
- b. Igbo: **ụlọ # ógwù** → **ụlọ ógwù** 'hospital' (compound)
house medicine
- c. Yoruba: **ilé # iwé** → **ilé iwé** 'school' (compound)
house book
- d. Kòríng: **edir # kuyim** → **edir kuyim** 'oath'(compound)
idol law (Culled from Anagbogu 2006:136)

Still in the search for reliable defining criteria or features for compoundhood, Donalies (2004:76) gave ten criteria based on his analyses of Germanic, Romance, Slavic, Finno-Ugric and Modern Greek constructions. Of the ten criteria given by Donalies, only three could be considered most important for distinguishing compounds across languages. These are (i) stress and other phonological means; (ii) syntactic impenetrability, inseparability, and unalterability; and (iii) the behavior of the complex item with respect to inflection (see also Lieber and Štekauer 2009). As it has been argued earlier, tone and

other phonological means have already been dismissed as having very limited relevance in defining and distinguishing compoundhood in the languages under investigation. That leaves us with only the syntactic and semantic criteria.

By syntactic impenetrability or inseparability, it is meant that a complex form is a compound (as opposed to a phrase) if no other element can be inserted between the two constituents (c.f. Lieber and Štekauer 2009). Another syntactic criterion of compoundhood proposed in the literature is unalterability which may relate to the modification of the non-head in a nominal compound. In English, for instance, the first stem of a compound does not admit modification whereas in a syntactic construction, e.g. NP, modification is possible. For example, whereas it is possible in English to have a **very black bird** for a noun phrase, it is definitely not so with **blackbird** as a nominal compound. In all, the relevant question to ask about these syntactic criteria is the extent to which they can define and distinguish nominal compounds from noun phrases in **Yorùbá**, **Ìgbò**, **Ígálà** and **Kòríng**. If we apply the syntactic criteria to the examples 1(a-d) above, we would realize they produce little or no effect in distinguishing the nominal compounds from their grammatical counterparts of similar constituents. For instance, in Igala, both **ómerè** ‘toe’ (compound) and **óma érè** ‘child of leg’ (syntactic structure) behave alike in that they do not allow an insertion of any other element between the two constituents, and modification can only apply to the entire construction in each case, e.g. **ómerè lile** ‘big toe’ and **óma érè lile** ‘big child of leg/leg’s big child’. The same applies to the examples from **Yorùbá**, **Ìgbò** and **Kòríng**. The conclusion to be drawn from the illustrations and arguments above is that even the use of syntactic criteria cannot help in the demarcation since most nominal compounds resemble syntactic structures of similar constituents in the languages and the two behave alike with respect to certain syntactic operations.

Let’s therefore consider the morpho-syntactic criterion that deals with the behaviour of the complex item (compound) with respect to inflection. Here, even though the lack of inflectional morphemes in these languages (**Yorùbá**, **Ìgbò**, **Ígálà** and **Kòríng**) renders the surface forms of nominal compounds in the languages somewhat identical to the free syntactic structures in terms of their morphological forms, noun plural formation as it applies to endocentric nominal compounds in these languages could provide some useful insights in determining head position in nominal compounds. For example, if one applies the rule of noun plural formation to nominal compounds in these languages, it is the head noun (N1) that undergoes the appropriate plural formation rule. However, this may not give a useful guide for demarcating nominal compounds from noun phrases as both categories maintain identical head position. We shall return to this later (in section 3) as we present a more detailed discussion on headedness in nominal compounds.

All said, the picture that emerges here is that none of the possible criteria discussed so far gives a reliable distinction between nominal compounds and syntactic structures of similar constituents in the languages. We may therefore appeal to semantic criteria. Jespersen (1954), Sheard (1966), Levi (1978), Nwaozuzu (1991), Jones (1995) and Olsen (2000) have proposed semantic criteria for defining compoundhood. Of the semantic criteria proposed in the literature, the summary as captured in Nwaozuzu’s (1991) semantic criteria for nominal compounds in Igbo may appear more relevant for the present study. For Nwaozuzu, while holding the first two criteria constant, any complement-head structure (N+N) combination that satisfies any three of these four criteria qualifies as

nominal compound in Igbo: (i) unity of concept, (ii) semantic specialization, (iii) permanent aspect and (iv) unitary representation of concept. Unity or oneness of concept, implies a compound denotes a single new idea rather than a combination of ideas suggested by the original words (the constituents) thereby naming a new semantic whole. And by semantic specialization, it implies that the compound refers to a combination of words which has acquired a special meaning in a language to the extent of being adjudged as, at least, having become partly lexicalized and semantically specialized that its specific referent is no longer readily predictable from the surface constituents (see Jespersen 1954, Sheard 1966 and Levi 1978). Similarly, by permanent aspect, it means the bond between elements that form a compound must be intimate, irreversible and permanent and not just a casual association. As Levi (1978) has argued, the compound ‘water bug’ could only name insects that have some permanent association with water such as living in it or around it and not just a mere casual association or accidental connection of falling into the water. In the same vein, **òmerè** ‘toe’ in **Ígálà** is a permanent part of the leg and **ụlò àkụ** ‘bank’ in **Ìgbò** is a house where wealth is permanently lodged, likewise **eyelé** ‘pigeon’ in **Yorùbá** and **kètòphò òlùń** ‘crown’ in **Kòríng** given rise to by such permanent associations between elements that form the compounds in the languages (c.f. 1a-d). Lastly, the term ‘unitary representation of concept’ means, unlike in the noun phrase where the head-word alone can take the place of the entire phrase, none of the elements constituting a nominal compound can semantically and wholly stand in for the compound single handedly in the grammar of these languages, e.g. **eyé** alone even as the head of the NC cannot mean ‘pigeon’ in **Yorùbá**. The same goes for **ụlò** as the head of the NC ‘**ụlò àkụ**’ in **Ìgbò**.

Therefore, judged by the foregoing semantic criteria, the examples in 3(a-d) below qualify as nominal compounds in **Yorùbá**, **Ìgbò**, **Ígálà** and **Kòríng**:

	Noun1	Noun2	Compound	Noun1	Noun2	Compound
(3) a. Igala: i.	óma	# ònekèlẹ	→ ómònekèlẹ	ii. àbó	# égwú	→ àbégwú
	child	male	‘son’	people	masquerade	‘ancestors’
b. Igbo: i.	àla	# ezè	→ àla ezè	ii. nwa	# ụzụ	→ nwa ụzụ
	land	king	‘kingdom’	child	smith	‘apprentice’
c. Koring: i.	kètòphò	# òlùń	→ kètòphò òlùń			
	hat	king	‘crown’			
	ii. baṅe ẹ	# lòkòṅ ẹ	→ baṅe ẹ¹ lòkòṅ			
	oil	ART fire	ART ‘kerosene’			
d. Yoruba: i.	omọ	# obìrin	→ omọbìrin	ii. ògá	# ogu	→ ògágu
	child	female	‘girl’	boss	war	‘warlord’

(Yoruba examples (3)d. i and ii. are culled from Oyebade 2007: 251-252)

¹ Most **Kòríng** nouns have definite article enclitic **ẹ**. It is most likely that the **ẹ** between N1 and N2 in (3)c.ii above is that associated with N1 while that of the N2 is often deleted when a noun occurs in utterances with a modifier (See also Anagbogu 2006:136 as well as our comments on this in this section (example 4) on the difference between N1 + N2, and N1 ẹ + N2 nominal compounds in **Kòríng**).

As it were, **ómonekèlẹ** ‘son’ and **àbégwú** ‘ancestor(s)’ in **Ígálà**, also **àla ezè** ‘kingdom’ and **nwa uzū** ‘apprentice’ in **Ìgbò** as well as **kètòphò òlùn** ‘crown’ and **banẹ ẹ lòkọn** ‘kerosene’ in **Kòríng**, represent in the respective languages, single new ideas rather than a combination of ideas suggested by the original words that form the compounds. The same applies to **omòbìrin** ‘girl’ and **ògágu** ‘warlord’ in **Yorùbá**. In the same vein, they (examples 3a-d) exhibit some semantic specializations in that each has acquired a special meaning in the language to the extent of being adjudged as having become lexicalized and semantically specialized. In addition, the two nouns that form each of the compounds, as it could be observed, display some permanent association in the languages, and therefore are intimate and irreversible in the constructions. Lastly, unlike nominal phrases, none of the two elements that constitutes each of the nominal compounds can single handedly stand in for the concept expressed in each of the new structures as compounds (see §2, para. 5 for detailed illustrations).

In **Kòríng**, as could be rightly observed in 3(c. i and ii), two types of nominal compounds are attested namely; $N_1 N_2$ and $N_1 ẹ N_2$. Whereas in the $N_1 ẹ N_2$ compound, an enclitic ‘ẹ’ stands in-between the two nouns that form a compound, it is not so with the second type. Anagbogu (2006, 2011) argues that even though the most common form of nominal compound prevalent in the literature is $N_1 N_2$, the $N_1 ẹ N_2$ form also occurs in **Kòríng** which appears to be even more productive. As he explains, every **Kòríng** noun has a definite article enclitic **ẹ**. “It is likely that the **ẹ** between N_1 and N_2 is that associated with N_1 while that of the N_2 is often replaced or deleted when a noun occurs in utterances with modifiers” (Anagbogu 2006:136). He concludes that as a result of frequent use, the form $N_1 ẹ N_2$ becomes more established and performs interesting grammatical functions.

Thus far, the pertinent question to ask at this juncture is, apart from defining compoundhood, to what extent and in what ways do the semantic criteria help to demarcate nominal compounds from noun phrases in **Yorùbá**, **Ìgbò**, **Ígálà** and **Kòríng**. This forms the worry of the succeeding section as we proceed to relate.

2. DISTINGUISHING BETWEEN NOMINAL COMPOUND AND NOUN PHRASE

Altmann (1988:100) offers one of the most convincing arguments in the literature on the need for compound formation in languages. In his words, “The basic motivation for forming compounds is naturally the need to express a concept not having as yet a sound form”, which a speaker can use to express himself. Given that most natural languages employ productive compounding processes in making new lexemes, it is obvious that so many concepts in so many languages “may only find expression in compounds as there are needs to express these new concepts with new words” (Oluikpe and Nwaozuzu 1995:230). Therefore, it becomes imperative to distinguish nominal compounds (NCs) from similar structures especially noun phrases (NPs) so as to prevent compounds from getting lost in the crowd of these other similar structures especially NPs and genitive constructions. It is to be noted that most genitive constructions in the languages we have chosen to investigate have N+N structure similar to that of nominal compounds, just like the NPs too.

Stageberg (1971) posits that compounds could, no doubt, resemble grammatical structures in that they imply but they do not state grammatical relationship. Therefore, an

important issue in the analysis of compounds, according to Booij (2007:81) is that of distinguishing them from phrasal expressions. Two reasons, in the opinion of Booij, are responsible for the attendant difficulty in making such a distinction (pp.81-82):

First, phrases can have the same function as words, that of labels for name-worthy categories. Second, phrases and compounds look quite similar because compound patterns often derive historically from phrasal word combinations.

Even though there are no known clearly defined recorded attempts in the literature by any earlier study whose focus was to make a distinction between nominal compounds and phrasal expressions either in **Ígálà** or **Kòríng**, such attempts have been made by some researchers in **Ìgbò** and **Yorùbá** (See Nwaozuzu 1991, Oluikpe and Nwaozuzu 1995 in **Ìgbò**, Oyebade 2007 and Taiwo 2009 in **Yorùbá**). In fact, the case of **Ìgbò** was peculiar. Before Nwaozuzu (1991), virtually all noun + noun structures in **Ìgbò** such as **ùlò àkù** 'bank', **ùlò ógwù** 'hospital' and so on, were labeled as genitival constructions. It took her the use of polysemy test employing semantic criteria to make a clear and acceptable distinction between nominal compounds and/or genitival constructions in **Ìgbò**. At present, the controversy is as good as settled.

In **Yorùbá** also, some attempts have been made at distinguishing between nominal compounds and noun phrases. Oyebade (2007:250) demonstrates that a distinction between nominal compounds and noun phrases could be achieved via assimilation and vowel elision thus:

- (4) i. **òmọ # obìrin** → **òmoobirin** 'child of woman' (Noun Phrase)
 child woman
- ii. **òmọ # obìrin** → **òmọbirin** 'girl' (Nominal Compound).
 child woman 'girl'

While (4) i. shows evidence of regressive vowel assimilation, (4) ii. displays a case of vowel elision. This way, as he argues, a distinction could be made between noun phrases and nominal compounds (with similar structures). Similarly, Taiwo (2009) gave **orí adé** as an example of nominal compound in Yoruba which can also be used to illustrate such a distinction as presented in (5) i. and ii.).

- (5) i. **orí # adé** → **orí adé** 'head of Ade/Ade's head' (Noun Phrase)
 head crown
- ii. **orí # adé** → **oríadé** 'personal name' (Nominal Compound).
 head crown

However illuminating the Yoruba examples above may appear, it is hardly appropriate and motivating to use phonological criteria or spelling convention to arrive at morpho-syntactic generalisation in **Yorùbá** and these other languages. Besides, as it has been argued already (c.f. §1), such criteria are not consistently systematic in the languages.

In the present study, we proceed with (6) a.-d. in trying to distinguish between nominal compounds and noun phrases in **Ígálà**, **Ìgbò**, **Kòríng** and **Yorùbá** using the semantic criteria.

- (6) a. Igala: i. Noun Phrase: **óma # óko** → **óma óko**
 child farm/name ‘child of farm/ óko’s child’
 ii. Compound: **óma # óko** → **ómoko**
 child farm ‘debased fellow’
- b. Igbo: i. Noun Phrase: **ụlọ # àkù** → **ụlọ àkù**
 house property/wealth ‘Aku’s house/house of wealth’
 ii. Compound: **ụlọ # àkù** → **ụlọ àkù**
 house property/wealth ‘bank/storehouse’
- c. Koring: i. Noun Phrase: **èkìàrà ẹ̀ bẹ̀keè ẹ̀** → **èkìàrà ẹ̀ bẹ̀keè**
 cane ART whiteman ART ‘whiteman’s cane’
 ii. Compound: **èkìàrà ẹ̀ bẹ̀keè ẹ̀** → **èkìàrà ẹ̀ bẹ̀keè**
 cane ART whiteman ART ‘sugar cane’
- d. Yoruba: i. Noun Phrase: **ẹ̀yẹ # ilé** → **ẹ̀yẹ ilé**
 bird house ‘bird of house/house’s bird’
 ii. Compound: **ẹ̀yẹ # ilé** → **ẹ̀yẹ́lé**
 bird house ‘pigeon’

From the data above, we observe that the semantic criteria discussed earlier could play very significant roles in distinguishing nominal compounds from noun phrases in these languages. In **Ígálà**, while **óma óko** ‘child of farm/óko’s child’ (NP) cannot be said to express an entirely single new idea, **ómoko** ‘debased fellow’ (NC) does; likewise **ụlọ àkù** ‘bank’ in **Ìgbò**, as well as **èkìàrà ẹ̀ bẹ̀keè** ‘sugar cane’ and **ẹ̀yẹ́lé** ‘pigeon’ in **Kòríng** and **Yorùbá** respectively. But their counterpart noun phrases, even from their glosses, do not express such entirely single new ideas as the nominal compounds. Equally, if we apply the other semantic criteria such as semantic specialization, permanent aspect and unitary representation of concept, it would be crystal clear that the criteria can sufficiently demarcate the nominal compounds from their noun phrase counterparts of similar constituents as presented in 6(a-d) above. For instance, besides naming a new semantic whole, each of the nominal compounds has acquired a semantic specialization and has become somewhat lexicalized to the extent that the specific referent is no longer readily predictable from the surface constituents. Imagine **óma** ‘child’ and **óko** ‘farm’ producing ‘debased fellow’ **ómoko** in **Ígálà**; **ẹ̀yẹ** ‘bird’ and **ilé** ‘house’ producing ‘pigeon’ **ẹ̀yẹ́lé** in **Yorùbá**. The same goes for **èkìàrà ẹ̀** ‘cane’ and **bẹ̀keè ẹ̀** ‘Whiteman’ expressing the concept ‘sugar cane’ **èkìàrà ẹ̀ bẹ̀keè** in **Kòríng**.

In addition, unlike the noun phrases, the N+N elements that form the nominal compounds in most of the examples above exhibit some intimate, irreversible and permanent bond or association, not just some accidental connections. It is not every bird that comes to the house that qualifies for a house bird, **ẹ̀yẹ́lé** ‘pigeon’ as in Yoruba, and as we have argued earlier, **ụlọ àkù** ‘bank’ in **Ìgbò** can only designate a house where wealth is permanently lodged. Lastly, while the head-words of the noun phrases can each stand single handedly for the concept expressed by the nominal group in the grammar of the languages, none of the heads of the nominal compounds can semantically and wholly

stand in for the compound as such. In **Ígálà**, **óma** ‘child’ can stand in for the noun phrase ‘**óma óko**’ as its head-word which bears the phrase’s most general meaning, likewise **ulò** ‘house’ for **ulò àkù** (noun phrase) in **Ìgbò**, **èkiàrà ẹ** ‘cane’ for **èkiàrà ẹ bèkèè** (noun phrase) in **Kòríng** as well as **eye** ‘bird’ for **eye ilé** (noun phrase) in **Yorùbá**. But this is not possible with the compounds as each of the elements that constitute a compound cannot represent the full meaning of the compound. **óma** ‘child’ in **Ígálà** even as the head of the nominal compound cannot single handedly translate into ‘debased fellow’ and **ulò** ‘house’ in **Ìgbò** can never mean ‘bank’ on its own in the language even as the head of the nominal compound ‘**ulò àkù**’. The same goes for **èkiàrà ẹ** ‘cane’ as *‘sugar cane’ as well as **eye** ‘bird’ as *‘pigeon’ in **Kòríng** and **Yorùbá** respectively.

In all, even though it has been argued that the interpretation of a compound is the prerogative of the intuition of the native speaker or language user (c.f. Payne 1997, Dimmendaal 2000 and Fabb 2001), such intuition or conceived interpretation must be properly guided as dictated to by three criteria namely: meaning of the constituents, the worldview or the native speaker’s knowledge of the world and the context in which such a composition is used (see also Booij 2007:75-76). In addition, it is to be noted that pragmatic limits play some leading roles in the composition and interpretation of what could be accepted as noun+noun compounds in these languages because even though compounds are generally very easy to form and understand in the languages, they must refer to culturally relevant entities (c.f. Muñoz 2007). This way, in spite of the variety of possible semantic interpretations or relationships between the two nouns in a nominal compound, the ones that reflect the way speakers refer to entities take precedence in deciding what constitutes a nominal compound.

3. HEADEDNESS IN NOMINAL COMPOUNDS

Endocentric nominal compounds are headed constructions like noun phrases and other similar phrasal expressions. Booij (2007) argues that the headedness or head position of a compound is not only relevant as part of its formal property but very necessary for its semantic interpretation. Besides, the notion ‘head’, Booij posits, is equally very relevant in the application of inflectional rules given that it is the head that determines the appropriate realization of the inflectional properties of the entire compound.

Just like the issue of demarcating nominal compounds from phrasal expressions, the position of head in nominal compounds has equally generated a lot of controversy in the literature on compounding. As it were, morphologically complex words such as endocentric nominal compounds are assumed to have heads. Williams (1981) proposes the Right-hand Head Rule (RHR) which he assumes to be universal. In it, he assigns the head of a morphologically complex word to be the right-hand member of the compound or phrase. Selkirk (1982:20) argues that RHR cannot be universal noting that Lieber (1980) had earlier reported the predominance of the left-hand Head rule (LHR) type in Vietnamese. Similar opinions have been expressed in Payne (1997), Dimmendaal (2000), Fabb (2001) and Booij (2007). Whereas Fabb (2001) argues that the position of head varies according to the language (left-branching for Germanic languages, right-branching for Romance), Booij (2007:78) in agreement holds that, compounds are not universally right-headed since there are also languages with left-headed compounds. He substantiates his claim by arguing that whereas for Germanic languages (e.g. English), the value of head

parameter is to the ‘right’, it is to the ‘left’ for Maori (spoken in New Zealand). He further gave the example of Italian which is said to have both left-headed and right-headed compounds such as **capo-stazione** ‘station master’ and **croce-rossa** ‘red cross’ respectively.

It is important to note that studies similar to the present one, though very few, have been carried out especially in **Yorùbá** (Owolabi 1995, Taiwo 2008, 2009). The works have been unanimous that most of the **Yorùbá** morphologically complex words have their left-hand members as heads. But to the best of our knowledge, there are hardly any known full blown studies with clearly defined sub-head for headedness as object of investigation in **Ígálà**, **Kòríng** and **Ìgbò** compounds. However, there were some reference to it in **Ìgbò** and **Kòríng** in Anagbogu (2006, 2011).

Judged by semantic criteria, compounds generally and nominal compounds in particular could be divided into four sub-categories namely; endocentric, exocentric, copulative and appositional compounds. In line with Plag (2003) and Kortmann (2005), the distinguishing semantic features of these compound types especially in English could be summarised thus:

Type	Description	English Example
Endocentric:	N1+N2 denotes a special kind of N2:	<i>blackboard</i>
Exocentric:	N1+N2 denotes a special kind of an unexpressed semantic head:	<i>arrow head</i>
Copulative:	N + N2 denotes 'the sum' of what N1 and 2 denote:	<i>bittersweet</i>
Appositional:	N1 + N2 provide different descriptions for the same referent:	<i>actor-director</i>

As we proceed, the relationship between N1 and N2 in an N1+ N2 sequence for endocentric nominal compounds in English has to be reversed or modified if the schema must make the desired meaning in **Ígálà**, **Ìgbò**, **Kòríng** and **Yorùbá**, hence the schema is rephrased thus: *Endocentric: N1+N2 denotes a special kind of N1*. Considering headedness or head parameter, morphologically complex words including compounds are divided into two groups: those with a head and those without a head. Compounds which have a head are called endocentric compounds while those without a head are christened exocentric compounds (Selkirk 1982, Fabb 2001, Taiwo 2009). Taiwo (2009) posits that morphologically complex words including compounds may or may not have heads and that in **Yorùbá** noun+noun compounds derived from reduplication such as **omọ omọ** ‘grand child’ (coordinate compound) have no heads. One could, however, argue against Taiwo’s position to say that the first **omọ** which gets reduplicated remains the head thereby agreeing with the Left-hand Head Rule (LHR) for compounds in **Yorùbá** (c.f.6d.ii, 9d and 10d).

Given the focus of the present study, we maintain that there are endocentric as well as exocentric nominal compounds in the languages under investigation. Whereas 6(a.ii, b.ii, c.ii and d.ii) above exemplify endocentric nominal compounds in the four languages respectively, the examples for exocentric nominal compounds are presented in (7) a.-d. below.

	Noun1	Noun2	Compound	Noun1	Noun2	Compound
(7) a. Igala:	i. éfù	# óko	→ éfòko	ii. éne	# álè	→ énalè
	stomach	farm	‘bush’	person	sky	‘moon’
b. Igbo:	i. ume	# àna`	→ umaàna`	ii. aka	# àzu	→ akaàzu
	breath	earth	‘humility’	hand	back	‘bribe’
c. Koring:	i. kobùè	# kama	→ kobùè kama			
	breath	mouth	‘curse’			
	ii. ketālā	ẹ	# lōkpātā ẹ	→ ketālā ẹ	lōkpātā	→ ketālā ẹ lōkpātā
	grasshopper	ART	sky	ART		‘aeroplane’
d. Yoruba:	i. orí	# ìta	→ orífa	ii. ojú	# ògbà	→ ojúgbà
	head	open	‘crossroads’	eye	peers	‘agemates’

In (7) a.-d., the meanings of the words in N1+N2 compounds interrelate in such a way that new meanings are produced which are different from the meanings of the words in isolation while the endocentric compounds in (6) a.ii, b.ii, c.ii and d.ii denote a (special) kind of their N1 respectively. It is generally believed that as an endocentric nominal compound consists of a ‘head’, which is the categorical part that contains the basic meaning of the whole compound, this basic meaning is restricted by the modifier (another noun). Therefore, as it could be rightly observed (c.f. (6) a.ii, b.ii, c.ii and d.ii), nouns in endocentric nominal compounds, though they retain a meaning similar to their meanings as isolated words, may have certain restrictions in that they perform a generic rather than a referential function (Anagbogu 2011).

Having presented in some detail, the arguments surrounding headedness in compounds, we present examples (8a-d) below for identification of heads in nominal compounds in **Ígálà**, **Ìgbò**, **Kòrìng** and **Yorùbá**.

	Noun1	Noun2	Compound	Noun1	Noun2	Compound
(8) a. Igala:	i. ọma	# íye	→ ọmaye	ii. ómu	# óyìbó	→ ómu óyìbó
	child	mother	‘sibling’	salt	English/European	‘sugar’
b. Igbo:	i. àla	# ezè	→ àla ezè	ii. ụlò	# ọgwù	→ ụlò ọgwù
	land	king	‘kingdom’	house	medicine	‘hospital’
c. Koring:	i. kètòphò	# òlùn	→ kètòphò òlùn			
	hat	king	‘crown’			
	ii. ishin ẹ	# shìle ẹ	→ ishin ẹ shìle			
	fly	ART house	ART ‘house fly’			
d. Yoruba:	i. ẹyẹ	# ilé	→ ẹyẹlé	ii. ilé	# iwé	→ ilé iwé
	bird	house	‘pigeon’	house	book	‘school’

The data in (8) a.-d. above are all examples of endocentric nominal compounds in the four languages and as it has been argued earlier, they would, of necessity, identify with the heads which in the light of the data in (8) a.-d. are the left-hand members of N1+N2

endocentric nominal compounds. This means that in line with our earlier modified schema which holds that a N1+N2 compound denotes a kind of N1 which is the head noun, the **òmaye** ‘sibling’ in (8) a. i. denotes a kind of ‘child’, the **àla ezè** ‘kingdom’ in (8) b. i. denotes a kind of ‘land’, the **kètòphò òlùń** ‘crown’ in (8) c. i. denotes a special kind of ‘hat’ while the **eyelé** ‘pigeon’ in (8) d. i. also denotes a kind of ‘bird’. Similarly, **ómu óyìbó** ‘sugar’ in (8)a.ii. denotes a salt-like substance and **ulò ógwù** ‘hospital’ in (8) b. ii. designates a building meant for health care delivery services (a kind of house). The **Yorùbá** nominal compound **ilé iwé** ‘school’ in (8) d. ii., is a building/premises where teaching and learning activities are undertaken while **ishin ẹ shìle** ‘house fly’ in **Kòríng** (8) c. ii. denotes a kind of fly.

In addition, the claim that nominal compounds maintain left-hand head position in these languages can be further consolidated using two tests. First, if one applies the rule of noun plural formation to the nominal compounds, it is the head noun (N1) that undergoes the appropriate plural formation rule (c.f. Booij 2007). Second, if we reverse the order of the noun+noun collocation in such a way that N2 takes the position of N1, different semantic interpretations that would agree with the semantics of the new heads will emerge. We illustrate these with (8) a.i., b.i., c.i. and d.i. represented as (9). a.-d. and (10) a.-d. respectively.

	Noun1	#	Noun2	→	Compound	
(9) a. Igala:	àmọma		íye	→	àmọmaye	‘siblings’
	PL.child		mother		PL.sibling	
	(òma instead of íye, takes the plural)					
b. Igbo:	òtùtù àla	#	ezè	→	òtùtù àla ezè	‘kingdoms’
	PL.land		king		PL. kingdom	
	(the plural applies to àla instead of ezè ²)					
c. Koring:	kètòphò	#	gbódóró³	→	kètòphò gbódóró òlùń	‘crowns’
	hat	PL	king		hat PL king	
	(kètòphò ‘hat’ takes PL)					
d. Yoruba:	awọn ẹye	#	ilé	→	awọn ẹyẹlé	‘pigeons’
	PL. bird		house		PL. pigeon	
	(ẹyẹ ‘bird’ instead of ilé, takes the PL)					
	Noun1		Noun2		Compound	
(10) a. Igala:	íye	#	ọma	→	íye ọma	‘mother’
	mother		child		‘mother’	
	(‘mother’ as against sibling’)					

² In Igbo, animate noun such as **eze** will take **ndi** as plural marker instead of **òtùtù**.

³ The plural marker in Koring **gbódóró** comes after the noun (c.f. 9c) unlike the other three languages where plural markers precede the nouns.

- b. Igbo: **éze # àlà** → **éze àlà**
king land 'king'
('king' as against 'kingdom')
- c. Koring: **òlùń # kètòphò** → **òlùń kètòphò**
king hat 'king'
('king' as against 'crown')
- d. Yoruba: **ilé # eyẹ** → **ilé eyẹ**
house bird 'nest'
('nest' as against 'pigeon')

These tests consolidate the position that in these languages, the N1 which is the first member of the compound is the head; hence the languages are right-branching, head initial/first and left-headed. In other words, they obey the left-hand Head rule (LHR) like Vietnamese reported earlier.

The argument on the position of head for endocentric nominal compounds in these languages settled, there is yet one question this study needs to address. That is, to what extent does the position of head in nominal compounds coincide with that of the noun phrases in the languages? Both NCs and NPs are head initial (c.f. (1) a.-d. and (6) a.-d., see also Taiwo 2009, Omachonu 2011:33). The NPs just like the nominal compounds are right-branching and therefore, are post-modified. As it has been argued earlier (c.f. § 1), the implication is that syntactic analysis cannot be a reliable guide for distinguishing between nominal compounds and noun phrases in these languages since most nominal compounds resemble grammatical structures of similar constituents. Besides, despite the fact that compounds are at the centre of the interface between syntax and morphology; they belong more to the lexicon than the syntactic domain of analysis. Consequently, even though compound patterns may derive historically from phrasal word combinations, syntactic rules may fail to monitor, process and reconcile appropriately the transition from phrasal to the lexical level due to lexical integrity principle which renders words as syntactic atoms. To this effect, syntax can only have access to the properties of complete words, but not to those of their individual parts (internal structures) (see Anderson 1992, Ackema and Neeleman 2003, 2004 and Booij 2007 for full accounts on the lexical integrity principle). Therefore, in spite of certain counter arguments or claims against the lexical integrity hypothesis, it appears the principle is somewhat a universal one because there is hardly any language that does not distinguish between words and phrases, and the substance of this distinction, according to Booij (2007), is the 'no manipulation constraint' on words as it relates to syntactic operations or rules.

4. CONCLUSION

The paper undertakes a cross-linguistic examination of headedness and demarcation of nominal compounds from noun phrases in four Benue-Congo languages (**Ígálà**, **Ìgbò**, **Kòríng** and **Yorùbá**) spoken in Nigeria. Demarcating nominal compounds from noun phrases in the languages as reported above favours semantic criteria over phonological and syntactic parameters. Equally, the analysis on headedness shows that in these languages, the N1 which is the first member of the compound is the head, hence the

languages obey the left-hand Head rule (LHR) as against the right-hand Head rule (RHR) which Williams (1981) claims is universal. It is also clear that the position of the heads of nominal compounds coincides with that of the noun phrases in the languages. Hence, we posit that syntactic analysis cannot be a reliable measure for distinguishing nominal compounds from noun phrases in these languages because apart from the syntactic atomicity of the compounds as words which blocks the application of syntactic rules, most nominal compounds resemble grammatical structures of similar constituents. They equally behave alike in relation to certain syntactic or morpho-syntactic rules (c.f. §1, para.6). Finally, we conclude that linguistically significant generalizations could be said to have been achieved for the Benue-Congo family to which these languages belong for the following reasons: first, the possibility of demarcating between nominal compounds and noun phrases using semantic criteria as attested in the languages, one may argue, applies to the Benue-Congo languages in general. Second, on the basis of the evidence from this study, it could imply that the left-hand Head rule (LHR) for compounds and noun phrases is applicable to other morphologically complex words and headed constructions in the Benue-Congo family of languages.

NOTES

ⁱ **Yorùbá** and **Ìgbò** may not require any introduction, **Kòríng** and **Ígálà** however do. **Kòríng** is the language of Oring people who live in four communities (Okpoto, Ntezi, Amaḍa, and Effium) located in the North-Eastern part of Ebonyi State in South-East Nigeria. It is also spoken in some communities in Benue and Cross River states. Kòríng is an Upper-Cross language of the Benue-Congo family (cf. Williamson and Blench 2000:33). It is one of the eighteen (18) clusters of languages located along the Cross River in the Cross River State of Nigeria (See Anagbogu 2011). **Ígálà** on the other hand belongs to the West Benue-Congo and is one of the 'Yoruboid' languages in North-Central Nigeria. It is a dominant language in Kogi State; spoken by over two million natives in nine Local Government Areas of the state. The language is equally spoken in some communities outside Kogi state: Èbú in Delta state, Ólólhí and Ifèkwù in Edo State, Ógwúrúgwú, Qjò, Ígá and Àsàbá in Enugu State, Òdòkpè, Njàm, Ìnómà, Àlá, Ìgbèdò, Ónùgwá, Odè, Ìgbòkényi and Ílá in Anambra State (c.f. Omachonu 2011).

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