

# Chapter 2

## The Morphosyntax of the Noun Phrase

Enoch, O. Aboh

### 2.1 Introduction

This chapter presents the reader with general morphosyntactic properties of the noun phrase in the Kwa languages.<sup>1</sup> Given that the languages vary in many respects, I deliberately focus on those points which are common to them and help give a very broad impression as to what are the key syntactic properties of the DP in these languages. The discussion shows that Kwa languages display bare nouns in a variety of contexts where other languages (e.g., Romance and Germanic) require a determined noun. This is so even though most Kwa languages have determiner-like elements that appear to mark discourse-specificity. These markers occur postnominally, similarly to other modifiers (e.g., adjective, numerals, demonstratives). In most Kwa languages, the sequence of noun and modifiers exhibits the order Noun–Adjective–Numeral–(relative clause)–Demonstrative–discourse specificity marker–plural marker. Furthermore, it appears that while most Kwa languages lack a noun class system (and therefore make no opposition between singular forms and plural forms), some Kwa (e.g., Twi) do show a residual class system while others like GTM languages have fully developed systems. I start with bare nouns in Gungbe.

### 2.2 Bare Nouns and Discourse Specificity Marking

A notable property of these languages is that they can use bare noun phrases in all contexts. This is illustrated by the bare noun *ajá* ‘dog’ in the Yoruba sentence in (1a), and *àsé* ‘cat’ in the Gungbe sentence in (1b). Here, these noun phrases function as subjects and the sentences are felicitous replies to the question ‘What happened?’

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- (1) a. **Ajá** je eja na [Yoruba]  
 Dog eat fish DET<sub>[deixis]</sub>  
 'A/the dog ate the fish'
- b. **Àsé** jè cázù mè! [Gungbe]  
 cat fall pot in  
 'A cat fell in a pot!'

In the examples in (1), the bare nouns *ajá* 'dog' and *asé* 'cat' are interpreted as (in) definite. However, bare nouns in Kwa languages can also be interpreted as definite in a context where they refer to unique entities like the sun in (2).

- (2) ḡdò vu sesie egbea akpa [Ewegbe]  
 sun open hard today too\_much  
 'The sun was too hot today'

There appears to be an interesting contrast among Kwa languages as to the contexts that license bare nouns. In Gungbe (but not in Ewegbe, Essegbey p.c.) bare nouns can be interpreted as definite if they are contextually prominent and/or known to the discourse participants. As a way of illustration, consider the following context. Imagine a household with a cat called *Mus*. Speaker A has just noticed that *Mus* is in the garden trying to catch a fowl. In this situation, it is felicitous in Gungbe to utter either (3a) or (3b), though with a difference in information structure.

- (3) a. Kpón! Mús jró ná wlé kòkló. [Gungbe]  
 look, Mus want PREP catch fowl  
 'Look! Mus is trying to catch a fowl!'
- b. Kpón àsé! É jró ná wlé kòkló.  
 look cat 3SG want PREP catch fowl  
 'Look at the cat. It wants to catch a fowl'

Given the provided contexts, speaker A is not referring to an unknown cat, but precisely the cat living with them in their house, and which is known to them as *Mus*. Yet in this example, the bare noun phrase *àsé* 'cat' that substitutes for *Mus* occurs without a definite determiner. A second scenario involves a sick person going to a hospital where there is only one practising physician. In such places, most sick people get attended to by other health attendants such as nurses and health superintendants. The sick person who goes to such a hospital could therefore be asked the following question on his/her return:

- (4) Bé à món dótó tò dôn? [Gungbe]  
 Q 2SG see doctor at there  
 Did you see the doctor there?

Sentences (3) and (4) are evidence that, for Gungbe at least, it is not enough for speaker and addressee to know an entity for it to require a determiner. The specific facts about Gungbe together with the general facts in Kwa, as illustrated by the Ewegbe example in (2) are evidence that the Kwa languages generally allow determinerless noun phrases in contexts where Germanic and Romance languages will require a DP that includes a determiner.

These Kwa bare nouns may occur in various syntactic positions and can therefore be focused (5a), questioned (5b) or relativized (5c).

- (5) a. *àsé* wè Kòjò zé hwèví blébù ná [Gungbe]  
 cat FOC Kojo take fish whole PREP  
 ‘Kojo gave a whole fish to A/THE CAT!’
- b. *àsé* té wè Kòjò zé hwèví blébù ná?  
 cat Q FOC Kojo take fish whole PREP  
 ‘Which cat did Kojo give a whole fish to?’
- c. *àsé* ðě Kòjò zé hwèví blébù ná  
 cat REL Kojo take fish whole PREP  
 ‘The cat which/that Kojo gave a whole fish to?’

It is worth noting in these examples too that both *àsé* ‘cat’ and the modified noun phrase *hwèví blébù* ‘fish whole’ occur as bare, in the sense that they do not embed a determiner. The same holds true of the relative head noun *àsé* in (5c) which is also determinerless. Following the literature on the syntax of such determinerless sequences (Longobardi 1994; Aboh 2004a), we can hypothesize that the Kwa bare noun phrases can occur in any syntactic positions and can include modifiers. As such, they behave as full DPs with non-overt determiners. The examples in (6) illustrate such bare nouns in possessives (6a), as object of prepositions (6b) or as independent answer (6c–d).

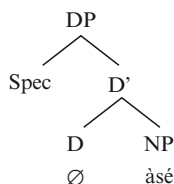
- (6) a. Kèké Súrù tòn [Gungbe]  
 Bicycle Suru Poss  
 ‘Suru’s bicycle’
- b. Yé nyàn Súrù sòn xwégbè  
 3pl chase Suru from house  
 ‘They chased Suru from the house’
- c. Été wè à xò?  
 what Foc 2sg buy  
 ‘What did you buy?’
- d. Kèké “bike”

As is clear from these examples, such null noun phrases have no specifications as to definiteness, specificity or number (i.e., plurality). Accordingly, a Gungbe bare noun, for instance, can be interpreted as generic (singular or plural), definite, or indefinite depending on the context. This is illustrated by the sentences under (7).

- (7) a. ùn nyín wán ná *àsé* [Gungbe]  
 1SG COP sentiment PREP cat  
 ‘I love cat(s) in general’
- b. ùn jéyì àxìmè bò ná yì xó *àsé*  
 1SG going market COORD FUT go buy cat  
 ‘I’m going to the market to buy a cat (or cats)’
- c. kpón àsé àjòtò! Káká n-ná zé làn ðó távò jí  
 look cat thief as.soon.as 1SG-FUT take meat table on  
 é lón bò zé làn ló ðù!  
 3SG jump COORD take meat DET eat  
 ‘Look at this thief of a cat. As soon as I put the meat on the table, it jumped and ate it’

It therefore appears from this discussion that bare nouns in Gungbe can freely occur in all argument positions. With regard to the structural make-up of such bare nouns, most recent work on noun phrases in the Kwa literature have adopted the DP-hypothesis as discussed in Abney (1987), Szabolcsi's (1987, 1994), Longobardi (1994), and much related work. Under the assumption that Gbe languages are SVO (Clements 1972; Manfredi 1991, 1997; Aboh 2004a, b, among others), we can conclude from this discussion that a bare noun phrase in these languages (e.g., *àsé* in (3) and (4)) has the structure in (8).

(8)



## 2.3 Modified Nouns

The distribution of modifiers in these languages suggests that the position in (8) must be revised. As the reader may have noticed from previous examples (e.g., (5a), (7c)) a modified noun phrase exhibits the order N > modifying expression. I start with adjectives and demonstratives.

### 2.3.1 Noun–Adjective–Demonstrative

The category of adjectives has not been fully studied in these languages, but there is a consensus among linguists that adjectival elements come in two types: attributive versus predicative. While this distinction *per se* is very common across languages, the interesting fact about Kwa is that attributive adjectives are very few and often denote color, size, and shape, as indicated by the Gungbe examples in (8). As mentioned previously, the noun precedes the adjective, which in turn precedes the demonstrative.

- |     |    |                   |         |     |          |
|-----|----|-------------------|---------|-----|----------|
| (9) | a. | Àsé               | yù      | éhè | [Gungbe] |
|     |    | cat               | black   | DEM |          |
|     |    | ‘This black cat’  |         |     |          |
|     | b. | Àsé               | kpèví   | éhè |          |
|     |    | cat               | small   | DEM |          |
|     |    | ‘This small cat’  |         |     |          |
|     | c. | Xó                | lónbótó | éhè |          |
|     |    | room              | round   | DEM |          |
|     |    | ‘This round room’ |         |     |          |

On the other hand, constructions that would be equivalent to predicative adjectival constructions in typologically different languages (e.g., Romance and Germanic) generally correspond to verbal phrases. I will refer to these as adjectival verb

constructions (cf. Wetzer 1996). Using Gungbe as illustration, contrast the example in (10a), which is comparable to those with an attributive adjective in (9), to (10b) which involves an adjectival verb.

- (10) a. Àvún                    dǎxó      éhè            [Gungbe]  
           dog                    big        DEM  
           ‘This big dog’
- b. Àvún                    éhè        kló  
           dog                    DET        big  
           ‘This dog is big’

The two ‘adjectival’ elements differ in distribution. While the attributive adjective occurs between the head noun and the demonstrative (10a), the predicative adjective follows the noun phrase including the head noun and the demonstrative (10b). As discussed in Aboh (2007), the two types of ‘adjectival’ expressions differ in a number of respects.

For instance, adjectival verbs combine with tense, aspect, and modal markers, just as any lexical verb.

- (11) a. Àvún                    éhè        ná        kló        [Gungbe]  
           dog                    DEM        FUT        big  
           ‘This dog will turn big’
- b. Àvún      éhè      nò        kló  
           dog        DEM    HAB        big  
           ‘This (type of) dog often turns big’
- c. Àvún                    éhè        sǐgán      kló  
           dog                    DEM        can        big  
           ‘This dog may turn big’

Both the adjectival verbs and lexical verbs allow predicate fronting with doubling for the purpose of focusing or relativization (see Aboh 2004a, 2006; Aboh and Dyakonova 2009; Ameke, this volume). (12a) represents a focused verb and (12b) a lexical verb.

- (12) a. **Kló**    àvún    éhè    **kló**    tàùn    b. **Gbó**    àvún    éhè    **gbó**    tàùn  
           big    dog    DEM    big    very    bark    dog    DEM    bark    very  
           ‘This dog has grown very BIG’                    ‘This dog really BARKED’

The examples in (13) illustrate predicate relativization also referred to as ‘factive constructions’ within the Kwa literature, see Collins (1994) and Aboh (2005a) for some discussion.

- (13) a. **Kló**    dǎ    àvún    éhè    **kló**    kpácá    mì            [Gungbe]  
           big    REL    dog    DEM    big    surprise    1SG.ACC  
           ‘That this dog has grown (so) big surprised me’
- b. **Gbó**    dǎ    àvún    éhè    **gbó**    kpácá    mì  
           bark    REL    DOG    DEM    bark    surprise    1SG.ACC  
           ‘That this dog really barked surprised me.’

There is a clear difference between the *kló*-type elements which I refer to as adjectival verbs” and *dàxó*-type elements which I refer to as attributive adjectives. In order for the attributive adjectives to be used predicatively, they require a copula. We can see this in (14) where it is shown clearly that such adjectives cannot combine with a tense or aspect markers without a verbal linker

- (14) a. Àvún      éhè      \*(d̩)      yù      [Gungbe]  
          dog      DEM      resemble      black  
          ‘This dog is black’
- b. Àvún      éhè      ná      \*(d̩)      yù  
          dog      DEM      FUT      resemble      black  
          ‘This dog will turn black’

Observe further that attributive adjectives do not allow predicate fronting with doubling. This is indicated by the ungrammatical example in (15a). Instead, predicate fronting in such contexts involves the verbal linker which fronts and leaves a copy inside the predicate as in (15b).

- (15) a. \*Yù      àvún      éhè      d̩      yù      [Gungbe]  
          Black      dog      DEM      resemble      black  
          ‘This dog is BLACK’
- b. d̩      àvún      éhè      \*(d̩)      yù  
          resemble      dog      DEM      resemble      black  
          ‘This dog is BLACK’

Another fact that distinguishes between attributive adjectives and adjectival verbs is that the latter reduplicate when used attributively. In such contexts, the reduplicated expression occurs in the same space as the attributive adjective, that is, between the modified noun and the determiner. This is indicated in (15).

- (16) Àvún    *kí-kló*    éhè    [Gungbe]  
          dog    big-big    DEM  
          ‘This big dog’

That these reduplicated expressions and attributive adjectives encoding size, shape, color, etc. occur in the same space is further indicated by the fact that the examples under (17), where the adjective occurs to the right of the noun and demonstrative are ungrammatical.

- (17) a. \*Àvún      éhè      *kí-kló*      [Gungbe]  
          dog      DEM      big-big
- b. \*Àvún      éhè      yù  
          dog      DEM      black

On the assumption that combinations with INFL elements (e.g., tense, aspect) or predicate fronting are diagnostics for predicate (or verbal) properties in Gbe (and Kwa languages in general), Aboh (2007) concluded that the element described in (10b) is an adjectival verb from which the *reduplicated attributive adjective* (RAA)

in (16) is derived. It is proposed there that the RAA is a predicate whose subject is the modified NP to its left. More precisely, RAA's are reduced relative clauses headed by the modified noun as represented in (18a). The determiner D selects a small clause FP, including an inflectional layer headed by I°. This I° takes as complement a one-place adjectival predicate (i.e., AP) headed by the adjectival verb whose unique argument is a bare NP introduced in [spec AP] by hypothesis. Comparing reduplication in these contexts to OV and OVV contexts (see Aboh 2004a, 2005b, 2009, chapter 3 this volume) it is further argued that reduplication is an inflectional device to license a null expletive that merges in the subject position of the predicate (i.e. [spec IP]) as a requirement of the EPP. The derivation is sketched in (18b) and (18c).

- (18) a.  $[_{DP} [_D [_{FP} [_I [_{AP} ]]]]]]$   
 b.  $[_{DP} [_D [_{FP} NP [_I Expl [_I V_A V_A [_{AP} t_{NP} t_{VA}]]]]]]]$   
 c.  $[_{DP} [_D [_{FP} kpòtún [_I Expl [_I xú-xú [_{AP} t_{kpòtún} t_{xú}]]]]]]]$

Without going into the details of this demonstration, what is relevant for this discussion is that N-AA sequences derive from a reduced relative clause. Consequently, reduplicated adjectival verbs have a different derivation than attributive adjectives that encode size, color, shape (e.g., 10a). With regard to these adjectives, it could be assumed, following Cinque (1994) and much related work that they first merge in the specifier of some relevant projection within the DP layer. Under this view, the relevant question now is why the Kwa noun-modifier sequence displays the mirror image of that of English. I postpone this question until Section 2.3.4, where I present a possible analysis for these sequences (see Aboh 2004a; Ajiboye 2005 for discussion).

### 2.3.2 Noun–Adjective–Numeral

As already suggested by previous paragraphs the noun head always precedes its modifiers in the Kwa languages. Though the languages may differ as to the sequencing of these modifiers (see below) the common order appears to be noun–adjective–numeral–demonstrative as indicated in (19) from Gungbe and from Yoruba (as discussed in Ajiboye 2005, the main source of this section).

- (19) a. Àvó wéwé àwè [Gungbe]  
 b. Àṣọ funfun méjì [Yoruba]  
 cloth white two  
 ‘Two white cloths’

In both languages, adjectives may cluster following a rigid hierarchy. In his discussion of Yoruba, Ajiboye (2005:16) observes that adjectives may cluster forming the hierarchical sequencing in (20), which appears to be the mirror image of English.

- (20) Color > Size > Quality > Numeral

Some of the examples discussed by the author are given in (20).

- (21) a.  $\text{Ọwọ́ tẹ olùkọ́ dúdú kékeré burúkú yẹn}$  [Yoruba]  
 Hand reach teacher black small bad DEM  
 ‘That nasty small dark-in-complexion teacher is in trouble’
- b.  $\text{Ọba á fún Gómìnà ní ẹṣin funfun ílá dádará méjọ}$   
 king PART give governor PART horse white big nice eight  
 ‘The king gave the governor eight nice big white horses’

According to the author, some Yoruba speakers accept adjective sequencing that depart from the rigid order illustrated here. In addition, it is not clear what the variation is across Kwa, since items of color and size are usually interchangeable in most of the languages. The following pairs of examples from Gungbe, Ewegbe, and Akan illustrate this.

- (22) a.  $\text{Àxólú ná ògán òsó ɖàxó yù ɖàgbè-ɖàgbè àtòn}$  [Gungbe]  
 king give chief horse big black nice-nice three  
 ‘The king gave the chief three big nice black horses’
- a'.  $\text{Àxólú ná ògán òsó yù ɖàxó ɖàgbè-ɖàgbè àtòn}$   
 king give chief horse black big nice-nice three  
 ‘The king gave the chief three big nice black horses’
- b. Awu yibo sue ma [Ewegbe]  
 Ataadeɛ tuntum ketewa no [Akan]  
 garment black small DEM  
 ‘That small black garment’
- b'. Awu sue yibo ma [Ewegbe]  
 Ataadeɛ ketewa tuntum no [Akan]  
 garment black small DEM  
 ‘That small black garment’

Setting aside issues of variation within and across Kwa, the main generalization here is that the ordering of modifiers within the noun phrase follows the pattern in (23a), where the sequence of adjectives may further display the ordering in (23b) or (23c).<sup>2</sup>

- (23) a. noun > adjective > numeral  
 b. color > size > quality (e.g., Yoruba, Gungbe, Ewegbe, Akan)  
 c. size > color > quality (e.g., Gungbe, Ewegbe, Akan)

More study is needed to understand the sequencing in (23b–c) and their scope properties.

<sup>2</sup>The reduplicated adjectives in these examples should not be confused with those discussed in Section 2.3.1, which have a predicative adjective as source. The ones presented here have no predicative adjective equivalent.



### 2.3.3 Noun–Adjective–Numeral–Demonstrative

Adding the demonstrative as well as number specification (i.e., plurality) to the sequence in (23a) creates an interesting variation between what I now refer to as the Yoruba-type languages and the Gbe-type languages. I begin with the former.

#### 2.3.3.1 Noun–[Modifier]–Demonstrative Sequences in Yoruba

Yoruba has a proximate demonstrative *yíí* ‘this’ (24a) and a distal demonstrative *yẹn* ‘that’ (24b). As indicated in (24a’) and (24b’), these demonstratives can be marked for plurality just like English demonstratives. Note however that, unlike English, the number marking precedes the demonstrative morpheme (see also Bamgboṣe 1966).

- |      |    |              |     |     |                  |         |
|------|----|--------------|-----|-----|------------------|---------|
| (24) | a. | Ọmọ          | yíí | a’. | Ọmọ              | wòń-yíí |
|      |    | child        | DEM |     | child            | PL-DEM  |
|      |    | ‘This child’ |     |     | ‘These children’ |         |
|      | b. | Ọmọ          | yẹn | b’. | Ọmọ              | wòń-yẹn |
|      |    | child        | DEM |     | child            | PL-DEM  |
|      |    | ‘That child’ |     |     | ‘Those children’ |         |

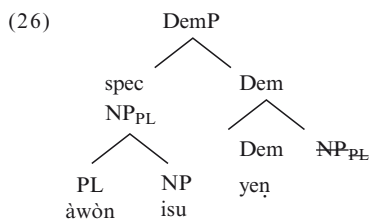
Number marking in Yoruba displays two patterns each of which is a variant of the number morpheme  $(a)wòń$ .  $(A)wòń$  derives from the third person plural pronoun  $(a)wòń$ .<sup>3</sup> In this discussion I will follow Ajiboye (2005, chapter 6) in assuming that though the number marker and the third person plural pronoun are homophonous, they have different syntax and should be distinguished. The two number marking patterns relevant for our discussion here are presented in (25) where we observe that the full morpheme  $awòń$  precedes the noun that it marks (25a), while the shorter form  $wòń$  – attaches to the demonstrative and, therefore, follows the noun (25b). Example (25c) further shows that the two number markers can co-occur within a single DP (Ajiboye 2005: 229).<sup>4</sup>

- |      |    |              |         |         |
|------|----|--------------|---------|---------|
| (25) | a. | Àwòń         | ìṣu     | yẹn     |
|      |    | PL           | yam     | DEM     |
|      |    | ‘Those yams’ |         |         |
|      | b. | Ìṣu          | wòń-yẹn |         |
|      |    | yam          | PL-DEM  |         |
|      |    | ‘Those yams’ |         |         |
|      | c. | Àwòń         | ìṣu     | wòń-yẹn |
|      |    | PL           | yam     | PL-DEM  |
|      |    | ‘Those yams’ |         |         |

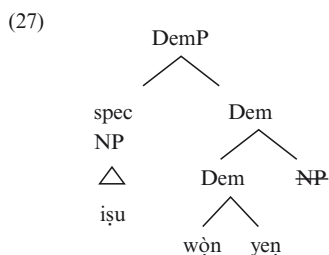
<sup>3</sup> See Agbedor (1996) and Aboh (2004a) on the discussion of pronouns in Gbe.

<sup>4</sup> Yoruba apparently patterns like Igbo in this respect. We thank Victor Manfredi for bringing this to our attention.

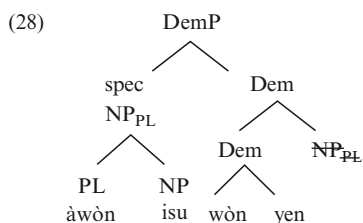
In his discussion of these facts, Ajiboye (2005: 229 ff) indicates that the variation in (25a–b) as well as the number concord in (25c) indicates that there are two loci for indicating number in Yoruba. Under the assumption that the demonstrative is a head that takes the noun phrase as complement, the author proposes that sequences such as (25a) derive as in (26) where the number marker is adjoined to NP creating NP<sub>PL</sub> which pied-pipes to [spec DemP].



Following the same rationale, it is proposed that the sequence in (25b) derives as in (27). The only difference here is that the number marker is an affix on the demonstrative.

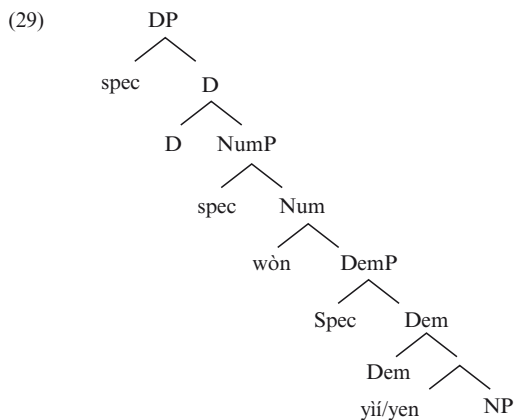


Under (26) and (27), one can suggest that number specification is achieved in Yoruba either by modifying the NP, a strategy that results in adjoining the number marker to NP or by adjoining the number affix to the demonstrative. Combining these two strategies produces the sequence in (25c) which is argued to derive as in (28).

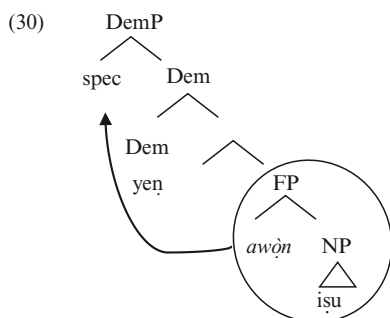


While the structures in (26) to (28) generate the right linear order straightforwardly, the question arises whether there is any semantic distinction between these

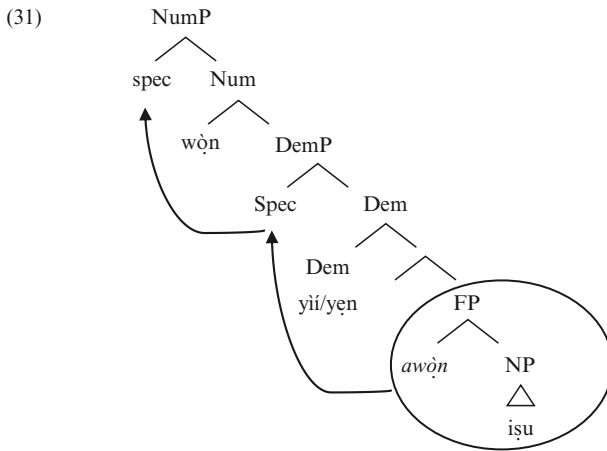
competing sequences. Further study is needed in this respect. In addition, the representations in (26) to (28) raise the question of variation across Kwa, that is, Yoruba-type languages compared with other Kwa languages, such as Gbe. In this regard, a logical possibility that comes to mind is that the affix *wòn* is not attached to the demonstrative head as suggested by Ajiboye (2005), but rather heads its own number phrase as proposed in Aboh (2004a) for Gbe, in the light of Ritter (1991, 1992, 1995) and much related work. This number phrase then dominates the demonstrative phrase headed by the demonstrative. This would mean that the Yoruba DP is of the format in (29).



Let us slightly modify Ajiboye's (2005) assertion that the number marker *awòn* adjoins to NP, by proposing that it merges as the specifier of some extended projection of NP, labeled here as FP. Under this proposal, we can derive the sequence Num > N > Dem as in (25a) by pied-piping FP (i.e., the projection containing the number marker and the NP) into [spec DemP], as illustrated in (30).



When NumP projects and is filled by the number marker, we derive the sequence Num > N > Num > Dem in (25c), as illustrated in (31). In this case, FP cyclically moves to [spec NumP].



Both derivations derive the right word order and there is at this stage of our knowledge of Kwa no empirical ground from distinguishing them from Ajoboye’s (2005) derivations. A comparison with the Gungbe-type languages, to which I now turn may underscore the analysis in (30) and (31).

**2.3.3.2 Noun–[Modifier]–Demonstrative Sequences in Gungbe**

In the Gungbe-type languages, the demonstrative always follows the sequence of adjectives and numerals, but necessarily precedes the number marker, as in (32).

- (32) Àvún wéwé àwè éhè lé [Gungbe]  
 dog white two DEM PL  
 ‘These two white dogs’

In Gengbe as well as other western Gbe languages (e.g., Ewegbe), the number marker is homophonous with the third person plural pronoun (just as in Yoruba).

- (33) Kwésí kpó àvún wó, wó sí jó [Gengbe]  
 Kwesi see dog PL 3PL run go  
 ‘Kwesi saw the dogs, they run away’

Yet, in these languages, unlike in Yoruba, the number marker can never occur in DP-initial position. Contrast the Yoruba example (33a) to the Gengbe and Gungbe examples (34b–c).<sup>5</sup>

- (34) a. Àwòṅn    iṣu      yìí      [Yoruba]  
          PL      yam      DEM  
          ‘These yams’  
       b. \*Wo      ete      eya      [Gengbe]  
          PL      yam      DEM  
       c. \*Lé      tẹ̀ví    éhè      [Gungbe]  
          PL      yam      DEM

Accordingly, sequences that include number-marked demonstratives are also excluded in these languages.

- (35) a. \*Wo      ete      eya      wo      [Gengbe]  
          PL      yam      DEM    PL  
       b. \*Lé      tẹ̀ví    éhè      lé      [Gungbe]  
          PL      yam      DEM    PL

At this stage of the discussion, one could still think that these languages only differ from Yoruba with regard to DP-internal number marking relative to the demonstrative. The common factor would then be that the demonstrative and the number marker are linearly adjacent (e.g., recall the Yoruba number-marked demonstrative *àwòṅn-yìí/yẹ̀n*). This, however, is not the right characterization. Indeed, in some Gbe languages, the demonstrative and the number marker can be separated by a specificity/definite marker. This is the case with the element *ló* in Gungbe, which Aboh (2004a, b, and subsequent) treats as a specificity marker.<sup>6</sup>

- (36) Àvún      wéwé      àwè      éhè      ló      lé      [Gungbe]  
          dog      white      two      DEM      DET      PL  
          ‘These two white dogs’

<sup>5</sup>The Gbe languages do have expressions in which a plural pro-form precedes the numeral marker as in the following examples (see Essegbey 1993, for the discussion on Ewegbe).

- (i) a. V́í      lè,      yé-mè      ènè      [Gungbe]  
          child    Num      Num.Pro-person    four  
          ‘The children, two of them’  
       b. Awu      wo-ame      eve  
          Garment Num.Pro-person    two  
          ‘Two of the clothes’

<sup>6</sup>It is not clear at the moment whether Yoruba has a determiner of the Gungbe-type *ló*. However it has a postnominal particle *náà*, which Ajiboye (2005: 201) analyses as saliency marker though its semantics and syntax are very similar to those of the Gungbe element *ló*. More work is needed in order to identify clearly the semantic contributions of these particles to the DP they occur with.

On the basis of these facts, I reach the generalization that number is never marked on the noun in Yoruba-type or Gungbe-type languages. Instead, number is the property of a functional category Num that projects within the DP. In addition, Yoruba-type languages suggest that number can also be encoded as a modifier of the NP. In the languages where this happens, the modifier may co-occur with the category Num, yielding number concord as in (25c).<sup>7</sup>

Given the facts in (36) we are left with two questions to answer. First, how can we derive the modifier order that accounts for the fact that Kwa languages in general display the mirror image of English? Second, how can a theory of DP reconcile the facts observed in both Yoruba-type and Gungbe-type languages?

### 2.3.4 *Noun–Adjective–Numeral–Demonstrative; Number and Definiteness/Specificity*

With regard to the issue of the ordering of nominal modifiers Hawkins (1983: 2), building on Greenberg’s (1966) seminal work, noted that languages tend to use modifying expressions “either consistently before or consistently after modified elements or heads”. According to him, (37) illustrates the four major patterns found in languages, ignoring unattested orders (Hawkins 1983: 119):

- (37) A: 3 modifiers on the left and 0 on the right.  
Dem–Nral–Adj–N (e.g., Mandarin, English, Finnish, Hungarian).  
B: 2 modifiers on the left/1 on the right.  
(i) Dem–Nral–N–Adj (e.g., French, Italian).  
C: 1 modifier on the left/2 on the right.  
(i) Dem–N–Adj–Nral (e.g., Kabardian, Warao).  
(ii) Nral–N–Adj–Dem (e.g., Basque, Maori, Welsh, Vietnamese, etc.).  
D: 0 modifier on the left/3 on the right.  
N–Adj–Nral–Dem (e.g., Selepet, Yoruba).

(N = noun; Dem = demonstrative; Nral = numeral; Adj = adjective)

The above observations led Hawkins to reformulate Greenberg’s (1966: 87) universal hypothesis with respect to word sequencing in Noun Phrases as follows:

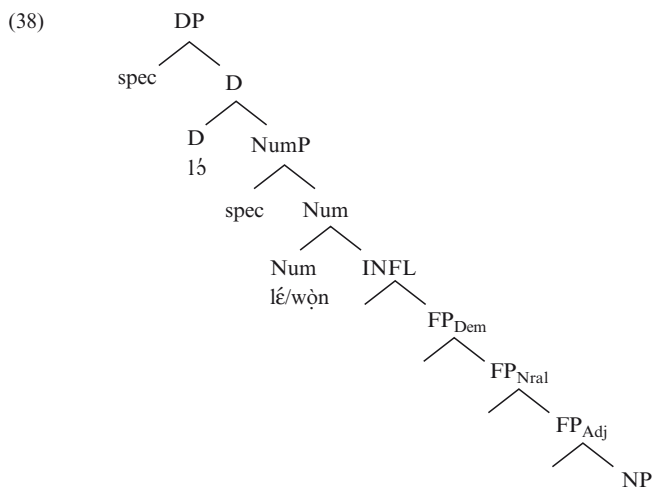
When any or all of the modifiers (demonstrative, numeral, and descriptive adjective) precede the noun, they (i.e., those that do precede) are always found in that order. For those that follow, no predictions are made, though the most frequent order is the mirror-image of the order for preceding modifiers. In no case does the adjective precede the head when the demonstrative or numeral follows. (Hawkins 1983: 120–121)

<sup>7</sup>In the Kwa languages which kept a residual noun class system number is marked on the noun (i.e., N). Therefore, Twi (Akan), for instance, expresses number both by means of a prefix (ia) or a suffix (ib), depending on the ‘class’ of the noun (Christaller 1964).

- (i) a. ohéne ‘a king’ → ahéne ‘kings’  
b. onùá ‘a brother’ → anua-nom ‘brothers’

This boils down to saying that there are two major patterns across languages: (A), where modifiers precede the noun (i.e., demonstrative–numeral–adjective–noun) and (D), where the modifiers follow. In the latter case, the preferred order is the mirror image of (A) that is, noun–adjective–numeral–demonstrative. As noticed by Hawkins himself, Yoruba (and the Kwa languages in general) fall in this category.

With regard to these two orderings, an interesting possibility that has already been explored in the literature (e.g., Hawkins 1983; Cinque 1994, 1996; Kayne 1994) is that D derives from A. Put differently, let us assume that (A) represents the universal underlying order from which B, C, and D derive. Following previous work on the DP and taking into account the empirical facts of the Gbe languages, we can propose that the structure in (38) is our basic DP structure (see Ritter 1991, 1992, 1995; Koopman 1993, 2000; Kinyalolo 1995; Agbedor 1994; Aboh 2002, 2004a; Ajiboye 2005).



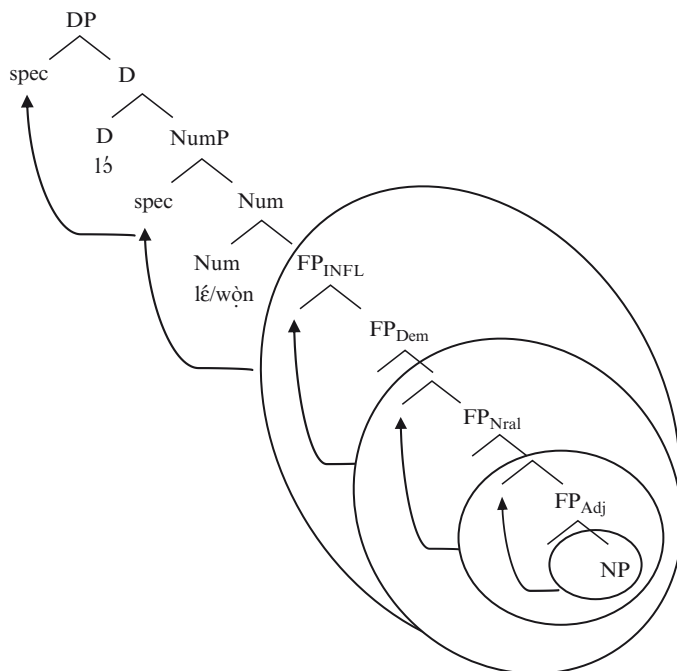
In the description in (38) I remain agnostic as to whether nominal modifiers are maximal projections that merge in specifier positions of distinct functional projections (e.g., Cinque 1994, 1996 and much related work), or whether there is a variation such that some modifiers are XPs while others are X<sup>o</sup>s heading their own projection within the DP (e.g., Panagiotidis 2000). The important point for our discussion here is that the phrase containing the demonstrative dominates the one containing the numeral which itself dominates the phrase(s) containing the adjective(s). The latter can iterate as suggested by the facts presented in the preceding sections.

Starting with the underlying structure (38), I propose in Aboh (2004a, c) that the Gungbe surface word order (noun–numeral–demonstrative–determiner–number) derives from two types of movements: snowballing movement within the nominal inflectional domain, and cyclic movement to [spec NumP] and [spec DP].<sup>8</sup> In a first step, snowballing movement targets the NP-complement and moves it to the left of adjective. The resulting noun–adjective sequence moves to the left of the numeral. Then the phrase noun–adjective–numeral moves to the left of the demonstrative to

<sup>8</sup>See also Cinque (2005) and references cited there.

form the phrase noun–adjective–numeral–demonstrative. In a second step, the whole cluster noun–adjective–numeral–demonstrative moves cyclically to [spec NumP] and [spec DP], giving rise to the word order noun–numeral–demonstrative–determiner–number manifested in (36) and represented as in (39).<sup>9</sup>

(39)



Setting aside the intricacies of this analysis, my main observation here has to do with the structure of the D-layer. As suggested in Aboh (2004a, b) the Kwa languages display empirical facts that support the so-called ‘split-D’ hypothesis. In such an approach, the D-system is comparable to the C-system within the clause and represents the nominal left periphery. On the other hand, modifiers pertain to the nominal inflectional domain, represented in structure (38) by  $FP_{INFL}$  (Szabolcsi 1987, 1994). With regard to the parallels between the clausal C and I and the nominal D and  $FP_{INFL}$  it has been observed in the literature that such snowballing movements (or roll-up structures) are typical of languages which are traditionally treated as SOV (cf. Kayne 1994; Cinque 1996 and references cited there). But assuming that Kayne’s (1994) specifier-head-complement order is universal, the generalisation seems to be that the licensing conditions which trigger certain head (e.g., N-to-D)

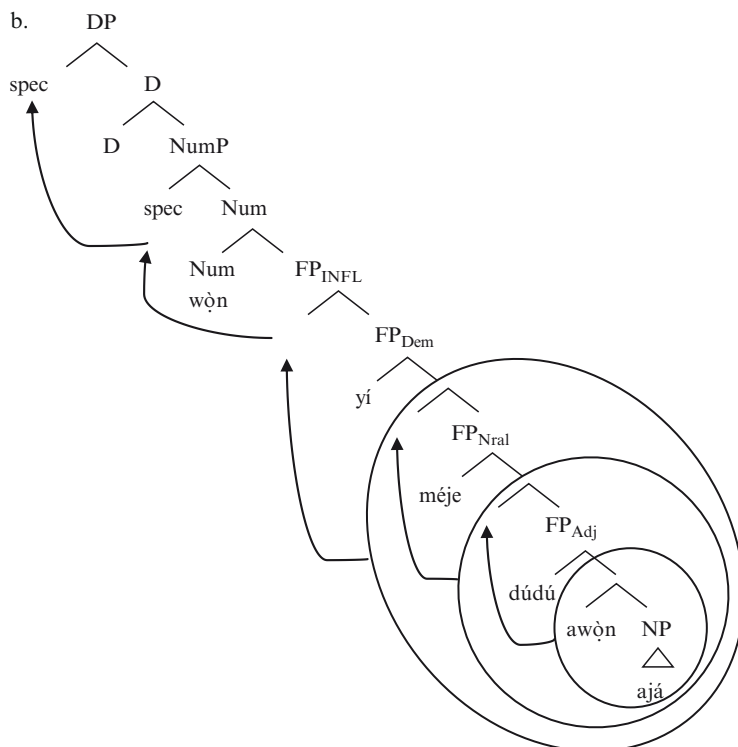
<sup>9</sup>Alternatively, one could suggest that the Gungbe adjectives head their own projections within  $FP_{INFL}$ . The word order in (34) would therefore derive from NP movement to [spec  $FP_{Adj}$ ], the specifier position of the functional projection headed by the adjective. Then,  $FP_{Adj}$  moves leftward to [spec  $FP_{Nral}$ ], which in turn moves to [spec  $FP_{Dem}$ ]. Finally  $FP_{Dem}$  as a whole moves cyclically to [spec NumP] and [spec DP]. While this analysis may look straightforward at first sight, it is undermined by the fact that most modifying expressions (e.g., adjectives and numerals) can be internally modified in Gungbe, suggesting that they are not heads but maximal projections (i.e., XPs).



movements in some languages are responsible for snowballing movement of the maximal projection including the head in other languages. Put another way, while heads may extract in some languages, their movement leads to generalized pied-piping in other languages (Aboh 2004b). If true, the difference between a language like Kikuyu, which manifests the order N–Dem–Nral–Adj (cf. Hawkins (1983)) and Gungbe which exhibits N–Adj–Nral–Dem would be that Kikuyu involves cyclical N-to-F<sub>INFL</sub>-to-D, while Gungbe involves snowballing movement as suggested above. This amounts to saying that while snowballing movement in Kwa appears to be triggered by the licensing properties of F<sub>INFL</sub>, pied-piping of FP<sub>INFL</sub> to [spec NumP] and [spec DP] is comparable to IP-fronting and can therefore be equated to A'-movement within D. The latter movement, Aboh (2004a, c) claims is triggered by the need to check the features [ $\pm$ plural] and [ $\pm$ specific] under Num and D, respectively.

Assuming that this description is the right one, we can now reconcile the Yoruba data with the Gungbe ones by assuming (as in Ajiboye 2005) that the demonstrative in this language is a head that merges under F<sub>Dem</sub>. If we put this hypothesis together with the idea that number in Yoruba can start out as a modifier within the extended projection of NP, and enter concord with Num in the left periphery, we then reach the characterization that sequences such as (40a) can be derived as in (40b).

- (40) a. Àwọ̀n ajá dúdú méjé wọ̀n-yí [adapted from Ajiboye 2005: 263]  
 NUM dog black seven NUM-DEM  
 'These seven black dogs'



What this description suggests is that the so-called snowballing movement is limited to below the demonstrative head in Yoruba. Ideally, we could reduce the variation between the Yoruba-type languages and the Gungbe-type languages to the category of the demonstrative, which appears to be a head in the former but a maximal projection in the latter. More study is needed before we reach any definite conclusion on this issue. But what matters for the following discussion is that number marking seems to never be affixal (in the technical sense) in both Gungbe-type and Yoruba-type languages. This would mean that within Kwa, only languages like Twi, which retained a residual noun class system and GTM languages which have an active system, have number inflection on the noun (see note 7). Several other issues arise that merit investigation: The conditions that regulate the distribution of bare nouns in Kwa, the internal syntax of such noun phrases and how they differ (or not) from bare noun languages (e.g., English) and other languages which exclude bare nouns (e.g., French), and finally the semantics and licensing conditions of the Kwa determiners.

In the context of this debate, one issue that has been discussed to some extent in the Kwa literature is that of relative clauses which I now describe.

## 2.4 Relative Clauses

A remarkable fact about the Kwa languages is that just as they possess bare nouns, they also allow relative clauses whose noun heads are not associated with a determiner. Consider the Yoruba and Gungbe examples in (41).

- (41) a. Ère tí Kúnlé ní [Yoruba]  
 statue REL Kunle own  
 ‘The statue that Kunle owns’  
 b. Òxwé ǫǫ́ Súrù xò [Gungbe]  
 house REL Suru buy  
 ‘The house that Suru bought’

As often reported in the literature (see Saah, this volume) Kwa relative clauses are mainly restrictive. With regard to the relative order of modifying expressions, it appears that the relative clause follows the demonstrative in the default case. Therefore, adding a relative clause to the sequence of modifiers in the Gungbe sentence (42a) yields the sentence in (42b), where the relative clause follows the nominal modifier leading to the sequence noun–[modifiers]–[relative clause]–deixis–number.

- (42) a. Kòfí wẹ́ yí àsé [yù àwẹ́ éhè] ló lé [Gungbe]  
 Kofi FOC take cat big NRAL DET DET<sub>[deixis]</sub> NUM  
 ‘KOFI received these two black cats’  
 b. Kòfí wẹ́ yí [àsé yù àwẹ́ éhè] [ǫǫ́ mí xò] ló lé  
 Kofi FOC receive cat black two DEM that<sub>[Rel]</sub> 1PL buy DET NUM

'KOFI received these two black cats that we bought'

Though this is the order often reported in the literature, the relative clause can also precede the demonstrative as illustrated by the pairs in (43) for Yoruba.

- (43) a. Iṣu tí mọ rà yí [Yoruba, Victor Manfredi p.c.]  
       yam REL 1SG buy DEM  
       'This yam which I bought'
- b. Iṣu yí tí mọ rà  
       yam DEM REL 1SG buy  
       'This yam which I bought'

The same variation is found in Gungbe. Contrast example (42b) to that in (44).

- (44) Àsé yù [dǔ mí xò] éhè ló lẹ́  
       cat black REL 1PL buy DEM DET NUM  
       'This black cats that we bought'

At this stage of the discussion, it is not clear what this variation relates to, given the apparent identical meaning of the two sequences. I therefore leave this issue for further research.

As the reader may have also noticed, another interesting aspect of the Kwa relative clauses is that they are sandwiched between the head noun and the determiners, leading to sequences, which in English for instance, would correspond to something like '*cat that we bought the*'. Various proposals have been put forth to account for relative clauses in Kwa in terms of adjunction or in the light of Kayne's (1994) complementation view (e.g., Déchaine and Filipovich 1985; Lewis 1985; Ameka 1991; Saah, this volume; Aboh 2002, 2005a). We will not go into the details of these proposals here and the reader is referred to the cited references.

Instead, I draw attention to one aspect of relative clauses, which has not received much attention, namely the similarity between this clause and what has been described as factive clauses.

In certain Kwa languages (e.g., Gungbe, Fongbe), where the head noun in what appears to be a relative clause occurs with a determiner, there is a semantic change thereby giving rise to a factive meaning that is translated as *the fact that* (Collins 1994; Aboh 2002, 2005a). This is shown by the difference in translation of (45) and (44):

- (45) Àsé yù ló lẹ́ [dǔ mí nyàn] vé ná Kòfí [Gungbe]  
       cat black DET NUM that 1PL chase hurt for Kofi  
       'The fact that we chased those black cats hurt Kofi'  
       \* 'The black cats that we chased hurt Kofi'

Example (46) further shows that factive clauses differ in meaning from relative constructions. This is because under a relative clause reading, the first part of the clause would mean that the soup that Kofi cooked was good, and the second part

would imply that the very same soup was not good, a clear contradiction (Collins 1994).

- (46) Núsónú ló [dǔ Kòfí dǎ] nyón, àmón núsónú [Gungbe]  
 soup DET that Kofi cook good but soup  
 ló kpàkpà má nyón  
 DET itself NEG good  
 ‘The fact that Kofi cooked this soup was a good thing but the soup (itself) wasn’t good [it didn’t taste nice]’

The existence of factive constructions in Kwa suggests that these languages have a kind of event relativization where the event head (or maybe a cognate object denoting event) is being extracted. This conforms with constructions in which the event head is fronted to a position immediately to the left of the relative element (here *dǔ*) leaving a copy inside the proposition. As example (47a) shows, the resulting sentence is also interpreted factively with some focus flavor attached to it.<sup>10</sup> In addition, the ungrammatical sentence (47b) indicates that such constructions do not involve VP-fronting since the relativized verb excludes its internal argument.

- (47) a. Nyàn [dǔ mí nyàn àsé ló lé] vé ná Kòfí [Gungbe]  
 chase that 1PL chase cat DET NUM hurt for Kofi  
 ‘The fact that we chased the cats hurt Kofi’  
 b. \*[Nyàn àsé ló lé] [dǔ mí nyàn ] vé ná Kòfí  
 chase cat DET NUM that 1PL catch hurt for Kofi  
 ‘The fact that we chased the cats hurt Kofi’

If the relation between factive clauses and relative clauses is as straightforward as it appears from the surface, then there seems to be no obvious way to account for these facts in a theory of relative clauses as modifiers. Another question that obviously arises with regard to event factives is that of the categorial status of the fronted verbal element. A possibility explored in Collins (1994) is that it is a nominal. This is clearer in languages like Yoruba and Igbo where the fronted verb is reduplicated as it would be when nominalized. The example below is from Yoruba:

- (48) Rié-rié ajá tí o sonu dun baba re ninu [Yoruba]  
 RED-see dog that RP be.lost be.delicious father his inside  
 ‘The fact that he found the dog pleased his father’

Things are not so clear within the Gbe languages and I leave the matter for further research. I will now turn to another type of nominal construction: namely genitive or possessive constructions.

<sup>10</sup>Such structures are superficially similar to predicate cleft which also involve doubling of the verb, see Ameka, this volume.

## 2.5 Possessive Constructions and Adpositions

Two types of possessive constructions are often found in Kwa: Possessor–Possessum and Possessum–Possessor, with languages varying as to the expression of the possessive marker. In Gungbe, for instance, the two patterns allow two different possessive markers (see Ameka 1991; Essegbey 1994; Agbedor 1996 on Ewegbe, Ajiboye 2005 on Yoruba).

- (49) a. Àsé ló sín tó yù ló [Gungbe]  
 cat Det<sub>[deixis]</sub> Poss ear black Det<sub>[deixis]</sub>  
 ‘The black ear of the cat’
- b. Tó yù àsé ló tón ló  
 ear black cat Det<sub>[deixis]</sub> Poss Det<sub>[deixis]</sub>  
 ‘The black ear of the cat’

A descriptive and theoretical question that arises here is the relation between these two patterns. Various possibilities come to mind but one that seems promising is that the pattern in (49b) is derived from (49a) through inversion. In this regard, pattern (49a) would correspond to Anglo-Saxon genitive as in *John’s book*, while that in (49b) would be the Kwa equivalent of examples such as ‘*that book of John’s*’ (see Kayne 1994; den Dikken 1998, 2006; Aboh 2002 for discussion). Assuming that the genitive markers are functional heads, an interesting pattern that arises here is that such heads precede their complement in some cases (e.g., 49a) but follow in others (49b).

This variation clearly manifests itself when it comes to adpositions, which I now briefly discuss. Kwa languages display two types of adpositions referred to here as  $P_1$  and  $P_2$ . The former includes elements that generally develop from verbs or predicative elements (e.g., *relator*, *copula*) and express source, direction or goal, while the latter mainly derive from nouns, and encode location. The distribution of these two adpositions varies in Kwa. In the Gbe languages, for instance, they circumvent the noun as illustrated in (50a). Examples (50b–c) show that the adpositions need not co-occur. The sequence of co-occurring adpositions in Gbe is represented in (50d).

- (50) a. Kòjò zé àsé ló dó távò ló jí [Gungbe]  
 Kojo take cat Det<sub>[deixis]</sub>  $P_1$  table DET<sub>[deixis]</sub>  $P_2$   
 ‘Kojo put the cat on top of the table [lit. on top/surface of the table]’
- b. Àsé ló bífò xà ló mè  
 cat DET<sub>[deixis]</sub> enter basket DET<sub>[deixis]</sub>  $P_2$   
 ‘The cat entered the basket’
- c. Kòjò zé àsé ló xlán mì  
 Kojo take cat DET<sub>[deixis]</sub>  $P_1$  1SG.ACC  
 ‘Kojo sent me the cat [i.e. as a gift]’
- d.  $P_1 > DP > P_2$

Unlike the pattern in Gbe, some other Kwa languages allow the two adpositions to precede the noun. A case in point is Degema, spoken in Nigeria. As the following examples show, co-occurring adpositions in Degema display the sequence in (51c) (Kari 2004: 82).

- (51) a. *Qsamá yọ á-bó mú ékún útany* [Degema]  
 shirt Det<sub>[deixis]</sub> AGR.be P<sub>1</sub> P<sub>2[<sup>top</sup>]</sub> tree  
 ‘The shirt is on (top of) a tree’
- b. *Miḃúkán úbí yọ mú ívóm úvay*  
 ISG.keep.ASP book DET<sub>[deixis]</sub> P<sub>1</sub> P<sub>2[<sup>inside</sup>]</sub> house  
 ‘I kept the book in the house’
- c. P<sub>1</sub> > P<sub>2</sub> > DP

Table 2.1 Further indicates the differences between P<sub>1</sub> and P<sub>2</sub>.

**Table 2.1** Some distinguishing properties between P1 and P2

	General meaning	Case assignment	Pied-piped P	Stranded P	Verbal origin	Nominal origin
P <sub>1</sub>	Direction/path/goal	+	–	+	+	–
P <sub>2</sub>	Location	–	+	–	–	+

As this table shows, P<sub>1</sub> and P<sub>2</sub> contrast in every respect. In the Kwa literature, it is commonly assumed that P<sub>1</sub>’s develop from verbs which grammaticalize into prepositions or case assigners (Ansre 1966; Fabb 1992; Lord 1993; Ameka 2003; Aboh et al to appear, Aboh 2005c, forthcoming). A supporting argument for this view is that P<sub>1</sub> surfaces in a similar position as the second verb in a serial verb construction. This is schematized in (52).

- (52) a. Instrument serial verb construction  
 V<sub>1</sub> > DP > V<sub>2</sub> > DP (e.g., take knife cut bread)
- b. Beneficiary prepositional expression  
 V > DP > P<sub>1</sub> > DP (e.g., give money to John)

P<sub>1</sub> represents a small class of approximately eight elements across Gbe. In contrast, the status of P<sub>2</sub> has not yet been clarified. Most authors, however, agree that such elements derive from relational nouns, body-part nouns or landmark terms, and form a wider class than P<sub>1</sub> (Ameka 2003). The variation in (50d) and (51c) obviously represents an interesting syntactic puzzle that raises issues such as the category status of P<sub>1</sub> and P<sub>2</sub>. One analysis that has been explored in the literature with regard to the set of P<sub>1</sub> and P<sub>2</sub> has been to assume that the category P in the Kwa languages includes two adpositional elements of which only P<sub>1</sub> (i.e., the prenominal adposition) is an argument introducer and participates in case assignment. P<sub>2</sub>, on the other hand is mainly locational and does not play such a role. This conclusion suggests that case assignment per se is not a defining condition on the category P, or more precisely on adpositions (e.g., Ameka 2003).

Aboh (2005c, forthcoming) argued for a different view and proposes that complex spatial expressions as illustrated in (50d) and (51c) are two facets of the same underlying structure which itself relates to possessive constructions. Under this

view, I suggest that  $P_1$ , encoding direction/path/goal, selects a locative phrase (i.e., Ground), which appears a truncated (possessive) predicate phrase labeled here as IP.<sup>11</sup> The latter involves a DP that functions as *reference object* and represents the subject (i.e., the possessor), while the portion expressing location (i.e., the possessum) is a part-phrase (Talmy 2000: 196 ff).<sup>12</sup> This part-phrase is shown to be a bare noun phrase, functioning as complement of the possessive or predicate phrase (IP). The Gungbe data further show that the head of this noun phrase subsequently incorporates in the head of the predicate phrase  $I^\circ$ , and surfaces as  $P_2$  in spatial expressions. This would mean that  $P_2$  represents the head of a bare NP functioning as part-phrase, which subsequently incorporates into the possessive inflectional head  $I^\circ$ . In the sequence *távò ló jí* ‘‘On top of the table’’ in (50a), for instance,  $P_2$  derives from the noun (*ò*)*jí*, which means ‘‘above or sky’’. The proposed derivation results in to the sequence  $P_1$ -DP- $P_2$  found in many Kwa, and illustrated in (53) for the Gungbe.

(53)  $[_{PIP} [_{P1} \text{d}^{\circ} [_{IP} [_{DP} \text{távò ló}] [_r \text{jí} [_{NP} t_{ji} ]]]]]]$

This analysis is further corroborated by the fact that, in such contexts,  $P_2$  lacks the noun class initial vowel — here the vowel *o* — encodes possessive semantics, and fails to assign case. The absence of this initial vowel is regarded as indication that the following noun phrase is a bare NP. This provides motivation for the incorporation of the head N into the inflectional  $I^\circ$ . This, in turn, would explain the impossibility of  $P_2$  to assign (accusative) case even though it may express genitive or location in some languages.

The proposed analysis extends to the Kwa languages with the sequence in (51c). In the Chadic languages where this sequence is also found, it appears that the complex  $P_1$ - $P_2$  may precede a genitive marker, which in turn precedes the Ground or DP[reference object], as illustrated by the Zina Kotoko example in (54) (see Holmberg (2002) for Zina Kotoko, and Newman (2000), Jaggar (2001) for Hausa).

(54) Ná fín Ádàm má fká cə mafù dé [Zina Kotoko, Chadic]  
 I saw Adam  $P_1$   $P_2$  POSS tree DEF  
 ‘I saw Adam in front of the tree’

<sup>11</sup>For ease of discussion I refer to this structure as IP, but see Bowers (1993, 2001), Kayne (1994), den Dikken (1995, 1998, 2006) and much related work for discussion.

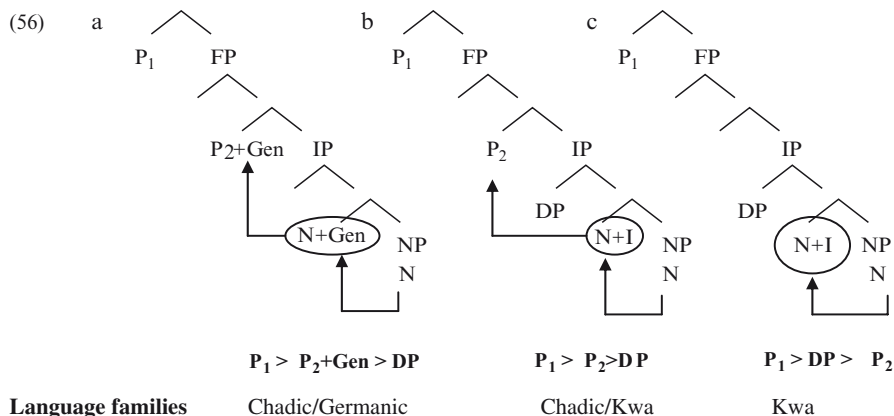
<sup>12</sup>Talmy (2000: 196 ff) argues that ‘‘a major group of space-characterizing linguistic forms makes appeal to a Ground object’s having some form of asymmetry, or biasing in its structure. Either it has structurally distinct parts – parts that in themselves are distinguishable from one another and can form a basis for spatial discriminations – or it has some kind of unidirectionality’’. Under this characterization therefore, the Ground may be complex in the sense described in this paper, in that it involves a *Reference Object* whose part is used to localize the Figure.

Taking these facts into consideration, Aboh (*forthcoming*) proposes that the sequences  $P_1$ – $P_2$ –(Poss)–DP are derived by predicate head inversion:  $P_2$  (i.e., the N that incorporates into  $I^0$ ) moves past the DP [reference object] dragging along a possessive inflection under  $I^0$ , hence the  $P_1$ – $P_2$ –Poss–DP sequences. The Kwa and Chadic scenarios are represented in (55a) for Degema, and (55b) for Zina Kotoko.

- (55) a.  $[_{P_{1P}} \quad [_{P_1} \text{ mú} \quad [_{FP} \quad [_F \text{ ékún} \quad [_{IP} \quad [_{DP} \text{ útany} \quad [_I^0 \quad t_{ékún} \quad [_{NP} \quad t_{ékún} \quad ]]]]]]]]$   
 b.  $[_{P_{1P}} \quad [_{P_1} \text{ má} \quad [_{FP} \quad [_F \text{ fká-cə} \quad [_{IP} \quad [_{DP} \text{ mafù dé} \quad [_I^0 \quad t_{fká-cə} \quad [_{NP} \quad t_{fká} \quad ]]]]]]]]$

This analysis actually extends to Germanic and Romance languages, for which reason Aboh (*forthcoming*) suggests that these languages behave like certain Kwa (e.g., Degema) and Chadic languages in involving movement of  $P_2$  past the DP[reference object]. In some locative expressions, for instance, the so-called preposition (e.g., inside, beside, in front of, in English, or *à côté de* in French) is a complex element including  $P_1$  and  $P_2$ . The latter merges as lexical head of the partphrase that incorporates into  $I^0$  inside the possessive phrase and further moves past the DP[reference object]. Given that the possessive phrase embedding  $P_2$  is selected by  $P_1$ , the resulting  $P_1$ – $P_2$ –(Poss)–DP sequence (e.g., beside/in front of the house) gives the wrong impression that some languages involve complex prepositions that are expressions of PP-shell structures (Holmberg 2002).

Under Aboh's typology of adpositions then both the predicative type  $P_1$  and the nominal type  $P_2$  are found in all languages, with the different scenarios being represented in (56).



From the perspective of grammaticalization, these cross-linguistic variations indicate that the fate of  $P_1$  and  $P_2$  can be understood by looking at their origin. Put differently, the fact that  $P_1$  derives from verbs (via serial verb constructions) and  $P_2$  derives from nouns (via possessive constructions) makes a number of predictions about their syntactic behavior, such as, their distribution and their capacity to assign case. Under the assumption that clausal structure and nominal structure are similar, an interesting parallel that arises is that the grammaticalization route for verbs to  $P_1$



appears similar to that of nouns into  $P_2$ . In both cases, a lexical head moves out of the lexical domain into the functional domain where it grammaticalizes as a functional item.

## 2.6 Conclusion

This chapter familiarizes the reader with certain aspects of the noun phrase in the Kwa languages. A major observation that I have made in this chapter is that even though the noun head precedes the modifiers and the determiners on the surface, it is reasonable to assume that these languages are underlyingly head initial. The consequence of this view is that the sequence of modifiers and the relative position of the noun with respect to the determiners derive from various movement operations that pied-pipe the noun phrase to the left of its modifiers and determiners. In the course of this discussion, I have also shown that the variation between the Gungbe-type languages, where the demonstrative is never marked for plurality and always occurs postnominally, and the Yoruba type languages, where the demonstrative shows plural morphology and may occur prenominaly, or postnominally, or both, could be reduced to number concord where the noun phrase modified for number agrees with a number phrase headed by a number marker. While the number marker is found across Kwa, where it follows the demonstrative, the Yoruba data suggest that the contrast between the sequence demonstrative > number versus number > demonstrative boils down to demonstratives being a maximal projection in the former but a head that is stranded by its complement in the latter. Finally, it is shown that the two variants of possessive constructions found in these languages are comparable to those found in Germanic (e.g. English) where the possessor may precede or follow the possessive (due to predicate inversion). An aspect of Kwa noun phrase that I did not touch upon in this descriptive chapter is that of quantifiers, a rather poorly understood domain of these languages. The reader is referred to Essegbey (1993, 1994) for discussion.

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