Focus Marking in Aghem:
Syntax or Semantics?

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Following up on previous work by Anderson (1979), Watters (1979) and myself (Hyman 1979a,b, 1985), this paper presents an overview and analysis of focus marking in Aghem, a Grassfields Bantu language spoken in Cameroon. It is shown that focus marking pervades virtually every aspect of the grammar. While Aghem has a basic S AUX V O X word order, an XP may be focused by positioning it immediately after the verb, or defocused by placing it between the auxiliary and the verb. As part of a system of “auxiliary focus” (Hyman & Watters 1984), certain tenses condition different allomorphs depending on whether the truth value of a proposition is included within the focus or not. The most unusual property of Aghem, however, concerns the contrast between so-called A- vs. B-forms within the noun phrase, which also bears an important relation to the focus system. I show that A forms are those which allow a null determiner, while B forms are those which do not. Although (semantic) focus is implicated in determining which form of the noun phrase is found in what context, it is really a syntactic generalization having to do with heads and their governees that accounts for the full range of facts.

1. Introduction

Even on African standards, Aghem, a Western Grassfields Bantu language of the Ring Subgroup (Hyman 1980, Watters 1979), is particularly rich in focus marking. When Stephen C. Anderson, John Watters and I jointly undertook the study of Aghem in 1978, we were impressed to see how pervasive considerations of focus are throughout the grammar. This can be clearly seen in the publications which resulted: Watters (1979) investigated the relation between different syntactic constructions and focus. He found that the focus position is immediately after the verb (IAV) in Aghem, an SVO language. While there is also a defocused position immediately before the verb
(IBV), Watters indicated that the semantic interpretation of sentences with both pre- and postposed arguments or adjuncts is quite intricate. Anderson (1979) demonstrated that verb tense, aspect, mood and polarity may also encode focus, in two senses: First, some verb forms, e.g. main clause affirmative past tenses, are expressed with different morphology, depending on what is in focus. Second, some parts of the verbal paradigm appear to be inherently focused, independent of information structure, e.g. imperative and negative forms. However, quite unusual was part of the story that fell to me (Hyman 1979a). Besides verb marking, noun phrases have two different markings which very often correlate with whether an NP is in focus or not. What this meant was that NPs in all positions of all constructions would have to be investigated to see whether they fell into “A form” or “B form”. While my earlier study presented a functional description of the facts, based on work with one speaker, I enlarged the scope of my inquiry in the early 1980s to three speakers, ultimately publishing a short formal account within the government-binding framework (Hyman 1985).

The goals of the present paper are the following. First, I present an outline of the grammatical properties of focus in Aghem. Second, I extend the descriptive coverage of focus marking beyond the above studies. Finally, I again take up the formal/functional dichotomy and examine the extent to which focus marking within the noun phrase is determined by syntactic vs. semantic properties. The paper is organized as follows: §2 and §3 recapitulate the syntactic marking of focus and the morphological marking of focus on the verb auxiliary system, drawing respectively from Watters (1979) and Anderson (1979). §4 then addresses the marking of focus within the noun phrase. §5 presents a brief conclusion.

2. Syntactic marking of focus (Watters 1979)

As seen in (1), the unmarked clause structure of Aghem is S AUX V O X, where X stands for additional arguments or adjuncts which may be prepositionally marked:

(1) Unmarked clause structure = S AUX V O X

a. tí-bvấ ù̀-bîghâ mà̀ zî kî-bề ̀nề
   dogs two P₁ eat fufu today
   ‘the two dogs ate fufu today’

b. fî̀l à mà̀ fuô kî-bề à ñô ̀tô à ̀ndûghô
   friends SM P₁ give fufu to dogs D LOC house
   ‘the friends gave fufu to the dogs in the house’

The sentences in (1) have what Watters (1979: 146) refers to as “unmarked focus”: focus may be on the entire sentence (e.g. in answer to the question ‘what happened?’), on the part of the sentence from the verb to the end (e.g. in answer to the question
‘what did the dogs/the friends do?’) or on some subpart of this sequence (e.g. in answer to the questions ‘what did the two dogs do today?’, ‘what did the friends do in the house?’).

There are at least three arguments that establish the immediate-after verb (IAV) position as a focus position. The first is that contrastively focused constituents move to IAV. The sentences in (2) illustrate this process, which Watters terms Adposing:

(2) ADPOSING: Focus-movement to IAV (= [marked focus])

a. X → IAV
   ti-bvù ti-bghà m₃ zì nè 'bè 'kà
   dogs two P₁ eat today fufu D
   ‘the two dogs ate fufu TODAY’

b. S → IAV
   à m₃ zì ti-bvù ti-bghà bè 'kà nè
   ES P₁ eat dogs two fufu D today
   ‘the TWO DOGS ate fufu today’

Comparing (2a) to the sentence in (1a) we see that the temporal adverbial nè ‘today’ has moved to IAV. In (2b) it is the subject that moves to IAV, leaving behind the expletive subject (ES) à.

The second argument that IAV is the focus position is that a WH element also obligatorily undergoes Adposing:

(3) WH elements must be in IAV position

a. WH-X → IAV
   ti-bvù ti-bghà m₃ zì zìn bè 'kà
   dogs two P₁ eat when fufu D
   ‘when did the two dogs eat fufu?’

b. WH-S → IAV
   à m₃ zì ndùgh₃ 'bè 'kà nè à
   ES P₁ eat who fufu D today QM
   ‘who ate fufu today?’

c. Multiple-WH: S > O > X
   à m₃ zì ndùgh₃ kwèkh₃ zìn
   ES P₁ eat who what when
   ‘who ate what when?’

(3a) shows the temporal WH element zìn ‘when’ in IAV position. Similarly, (3b) shows the subject WH element ndùgh₃ ‘who’ undergoing Adposing, again leaving behind the ES à. The two sentences would be ungrammatical if the WH element remained in situ.
The sentence in (3c) shows the order in which multiple WH elements co-occur in IAV position.

The third argument that IAV is the focus position is that in the absence of an overt focus within the auxiliary (cf. §3), main clause affirmative (MCA) clauses require the IAV position to be filled. Thus, the intransitive sentence in (4a) and the transitive sentence (with third person inanimate Ø pronominal object) in (4b) are both ungrammatical:

(4) Main clause affirmatives requiring IAV to be filled
   a. *ò mə bvù  cf. ò mə bvù nò
      SM P₁ fall     SM P₁ fall FM
      ‘he fell’
   b. *ò mə zi’  cf. ò mə nè nò
      SM P₁ eat      SM P₁ eat FM
      ‘he ate (it)’
   c. wizn wllà ò mə bvù
      woman who SM P₁ fall
      ‘the woman who fell’

As seen in the sentences to the right, the sentences are rendered grammatical when the general focus marker (FM) nò appears in IAV. The reason (4a,b) are ungrammatical is that a main clause affirmative requires that something be marked as focused, in these cases requiring that something appear in IAV. As they are not subject to this focus requirement, (4c) shows that relative and other non-main clauses do not require that the IAV position be filled.

Besides IAV, there is also an immediate-before-verb (IBV) position which Watters (1979) identifies as the “marked presupposition”. As seen in (5), one or more postverbal constituents can be moved to IBV by a process which Watters terms Preposing:

(5) PREPOSING to immediate-before-verb (IBV) position
   a. O → IBV
tí-bvù tít-bghà m₃ bé’kí zi nè
      dogs two P₁ fufu D eat today
      ‘the two dogs ate fufu TODAY’ (= (2a))
   b. X → IBV
tí-bvù tít-bghà m₃ nè zi kᵇ-bé
      dogs two P₁ today eat fufu
      ‘the two dogs ate FUFU today’
c. \text{WH} \rightarrow *\text{IBV} \\
*\text{tí-bvú} \quad \text{tí-bghà} \quad \text{mò} \quad \text{zín} \quad \text{zì} \quad \text{kí-bé} \\
\text{dogs} \quad \text{two} \quad \text{P}_1 \quad \text{when} \quad \text{eat} \quad \text{fufu} \\
\text{‘when did the two dogs eat fufu?’}

d. \text{S} \rightarrow *\text{IBV} \\
*\text{à} \quad \text{mò} \quad \text{bvú} \quad \text{tò} \quad \text{tí-bghà} \quad \text{zì} \quad \text{kí-bé} \quad \text{‘nè} \\
\text{ES} \quad \text{P}_1 \quad \text{dogs} \quad \text{D} \quad \text{two} \quad \text{eat} \quad \text{fufu} \quad \text{today} \\
\text{‘the two dogs ate fufu today’}

As seen, by preposing other elements, the one constituent which remains in the IAV is now contrastively focused. While there are other word order changes that potentially interact with focus, I shall limit the discussion to the IAV and IBV positions and now consider focus marking within the verbal auxiliary.

3. Morphological marking of focus on the verbal auxiliary
\text{(Anderson 1979)}

In Aghem focus marking may occur on the tense, aspect, mood and polarity, or these features may influence focus marking elsewhere in the clause. Hyman & Watters (1984) use the cover term “auxiliary focus” for such phenomena which are widespread in African languages (cf. Güldeman’s 2003 “predication focus”). Hyman & Watters recognized two types of auxiliary focus, EXTRINSIC and INTRINSIC, both of which occur in Aghem.

Auxiliary focus is extrinsic when contrastive [+focus] is morphologically marked. As summarized in (6), Aghem distinguishes extrinsic focus on a main clause completive aspect non-future auxiliary:

\begin{align*}
\text{(6) Main clause completive aspect, non-future tense markers} \\
\text{Present perfect} & \quad \text{(P}_0\text{)} & \text{[−focus]} & \text{[+focus]} \\
\text{Today past} & \quad \text{(P}_1\text{)} & \text{Ø} & \text{ń’} \\
\text{General past} & \quad \text{(P}_2\text{)} & \text{mò} & \text{mà’à} \\
\end{align*}

As seen in (7), the choice of extrinsic [±focus] has an effect on the semantics.

\begin{align*}
\text{(7) AUX [+focus] indicates that truth value is included within the focus} \\
\text{a. \text{tí-bvú} \quad \text{tí-bghà} \quad \text{mò} \quad \text{zì} \quad \text{kí-bé} \\
\text{dogs} \quad \text{two} \quad \text{P}_1 \quad \text{eat} \quad \text{fufu} \\
\text{‘the two dogs ate fufu’}
\end{align*}
b. tí-bvú tí-bighà mâa zì bê ‘kó
dogs two P₁-FOC eat fufû D
‘the two dogs ate/did eat fufû’

c. tí-bvú tí-bighà mó zì nó ‘bê ‘kó
dogs two P₁ eat FM fufû D
‘he ate fufû today’

In (7a), where the P₁ [-focus] marker mó occurs, the semantic focus may be on the
IAV (ki-bê ‘fufû’), the verb phrase, or the entire proposition (= “even focus”). It could
be an answer to a question such as ‘what did the two dogs eat?’, ‘what did the two
dogs do?’ or ‘what happened?’ When a [+focus] auxiliary is present, e.g. màa in (7b),
the truth value of the proposition is necessarily included within the focus, as in (7b).
This sentence may occur as a report out of the blue (‘Hey, guess what? The two dogs
ate fufû!’), where no truth value is presupposed, or it could mean ‘the two dogs
did eat fufû’ where contrastive, possibly counterassertive, focus is placed on the truth
value (e.g. contradicting someone’s assertion that the two dogs had not eaten fufû).
The sentence (7c) shows that focus on the lexical meaning of the verb is obtained by
placing the focus marker nó in IAV position.

Additional evidence that màa does indeed mark focus is seen from the fact that the
IAV is not required to be filled in an utterance containing a [+focus] auxiliary. This is
seen in the sentences in (8) which should be compared with those in (4).

(8) Additional evidence that AUX = [+focus]: IAV may be empty in MCA
  a. ò máà bvù ‘he did fall’ cf. *ò móó bvù = (4a)
     SM P₁-FOC fall
  b. ò máà zì* ‘he did eat (it)’ cf. *ò mó zì* = (4b)
     SM P₁-FOC eat

Since màa marks main predicative focus, it may not co-occur with a WH element or
appear in “backgrounded” clauses such as relative, temporal and if-clauses. As also
expected, [+focus] auxiliaries not only occur with unmarked S AUX V O X word
order, as in (9a), but also with preposing of elements into IBV position, as in (9b):

(9) AUX [+focus] naturally occurs with preposing of O and X
  a. tí-bvú tí-bighà mâa zì bê ‘kó né
dogs two P₁-FOC eat fufû D today
‘the two dogs ate/did eat fufû today’
  b. tí-bvú tí-bighà mâa bê ‘kó né zì
dogs two P₁-FOC fufû D today eat
‘the two dogs did (too) eat fufû today’
In the second type of auxiliary focus, intrinsic, an inflectional feature which is not necessarily semantically focused nevertheless has an effect on focus marking within the clause. As seen in the sentences in (10), negatives and imperatives do not require the IAV to be filled:

(10) Negatives and imperatives have intrinsic focus [+F] independent of semantic focus

a. ò kà  mò  b̀vù "he did not fall"
   SM  NEG  P₁  fall

b. ò kà  mò  zì "he did not eat (it)"
   SM  NEG  P₁  eat

c. zìa  "eat (it)"

As Hyman & Watters (1984) document, negatives and imperatives often act as if they were “inherently focused” (cf. Marchese 1983). Like their extrinsic counterparts, they satisfy focus marking in the utterance thereby denecessitating an IAV element. As we shall see in §4, they also condition “out of focus marking” within the noun phrase.

4. Marking of focus in the noun phrase

While other languages have both syntactic marking and auxiliary marking of focus, perhaps the originality of Aghem and closely related languages such as Weh and Isu (Kießling, this volume) lies in how focus affects marking within the noun phrase. As can already be seen in the sentences cited above, noun phrases potentially have different realizations which interact with the focus system. The object noun ‘fufu’ has thus appeared as either kɪ₃-bé “A form” or bé ‘kó “B form”’. As seen in (11a), the A form is used when an object noun appears in IAV position in the MCA:

(11) Correlating with focus in above examples is the form of an object noun phrase

a. ò mò  zì  kɪ₃-bé  'né  (*bé  'kó)
   SM  P₁  eat  fufu  today
   'he ate fufu today'

b. ò mò  zì  nè  'bé  'kó  (*kí₃-bé)
   SM  P₁  eat  today  fufu  D
   'he ate fufu TODAY’

c. ò mò  bé  'kí  zì  nè  (IBV position)
   SM  P₁  fufu  D  eat  today
   'he ate fufu TODAY’
d. ò mà a zìbè ʻkɔ̞ nè (after AUX [+focus])
   SM P₁-FOC eat fufu D today
   ‘he did eat fufu today’

e. wizìn wilà ò mò zìbè ʻkɔ̞ nè (in non-main clause)
   woman who SM P₁ eat fufu D today
   ‘the woman who ate fufu today’

f. ò kà mò zìbè ʻkɔ̞ (after negative verb)
   SM NEG P₁ eat fufu D
   ‘he did not eat fufu’

g. zìbè ʻkɔ̞ (nô) (after imperative verb)
   eat fufu D FM
   ‘eat fufu/FUFU!’

By contrast, in (11b), we see that when ‘fufu’ appears after the IAV it takes the B form. It also takes the B form in IBV position in (11c), where a preverbal allomorphy rule requires the form kɔ̞ instead of kɔ̞. (11d) shows that ‘fufu’ also appears in B form after a [+focus] auxiliary, even though it superficially appears to be in IAV position. The B form is similarly required in (11e) where ‘fufu’ occurs in a relative clause. The sentences in (11b-e) suggest that the B form will be used when an object NP is “out of focus”, i.e. not in the IAV in a MCA. Sentences (11f,g) show that the B form is also required after an intrinsic [+F] auxiliary. In discussing the sentences in (10) I pointed out that negatives and imperatives act as if they are inherently focused in that the IAV need not be filled. That the B form must be used reinforces this notion. Thus, (11g) would not only be used in response to the question “what should I do with the fufu?”, where ‘fufu’ would be presupposed, but also in response to questions like ‘what should I eat?’; ‘what should I do?’; or even ‘should I eat rice?’ where counterassertive focus on ‘fufu’ can be reinforced by the FM /̃ò/, as indicated. In none of the sentences in (11) can an A form be substituted for a B form, or vice-versa.

In order to understand the morphological basis of the distinction, (12) shows the A and B forms for all of the noun classes in Aghem:

(12) Aghem noun classes and noun forms found in A vs. B contexts (gh = [ɣ])

<table>
<thead>
<tr>
<th>class</th>
<th>prefix-stem</th>
<th>A-form</th>
<th>B-form</th>
<th>B-form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(') wé</td>
<td>wé</td>
<td>wé</td>
<td>'child'</td>
</tr>
<tr>
<td>2</td>
<td>á- wé</td>
<td>wé</td>
<td>á=</td>
<td>'children'</td>
</tr>
<tr>
<td>3</td>
<td>ó- kɔ̞ kɔ̞</td>
<td>=wɔ̞ kɔ̞</td>
<td>ó=</td>
<td>'ladder'</td>
</tr>
<tr>
<td>4</td>
<td>é- kɔ̞ kɔ̞</td>
<td>=zɔ̞ kɔ̞</td>
<td>é=</td>
<td>'ladders'</td>
</tr>
<tr>
<td>5</td>
<td>é- ghóm</td>
<td>=zɔ̞ ghóm</td>
<td>é=</td>
<td>'egg'</td>
</tr>
</tbody>
</table>
As seen, nouns in the A form are marked by a noun class prefix + stem structure, except for classes 1 and 9, which do not have a prefix and which do not show an A vs. B distinction. Nouns in the B form do not have a prefix, but rather are followed by a clitic, which has been glossed as D (for determiner; cf. below). If this D is realized as an enclitic it will end in the vowel [ɔ] (from historical *[ʌ]). If, however, the D procliticizes to the following word, e.g. to a verb in IBV, the forms are segmentally identical to the noun class prefixes (as well as subject and genitive markers).

The fact that B forms lack a noun class prefix follows from the general process of prefix deletion in Aghem. As seen in (13), prefix deletion will occur whenever a noun is followed by any agreeing element except for a numeral or quantifier:

(13) Prefix-deletion before an agreeing element (other than a numeral/quantifier)

a. / _ POSS bvú ’tāŋá ‘my dogs’ nwín ’fāŋá ‘my bird’
   / _ DEM bvú ’tín ‘these dogs’ nwín ’fín ‘this bird’
   / _ ADJ bvú ti-dúŋú tó ‘big dogs’ nwín fi-dúŋú fó ‘big bird’
   / _ GEN bvú ’tí ’wé ‘child’s dogs’ nwín ’fí ’wé ‘child’s bird’
   / _ SM bvú ’tí mà̀a bvú ‘the dogs fell’ nwín ’fí mà̀a bvú ‘the bird fell’

b. / _ NUM ti-bvú ti-bihà ‘two dogs’ finwín fi-mɔ̀ ‘one bird’
   / _ Q ti-bvú ti-dízm ‘all the dogs’ finwín fi-dizm ‘the whole bird’

c. / _ D bvú ’tò ‘Dogs!’ nwín ’fò ‘Bird!’
   /tí-bvú ’tò/ /fì-nwín ’fò/

The examples in (13a) show the deletion of the class 13 prefix ti- of ti-bvú ‘dogs’ and the class 19 prefix fi- of fi-nwín ‘bird’ before a possessive pronoun, a demonstrative, an adjective, a genitive noun, and a subject marker. There is no prefix deletion before a numeral or quantifier in (13b). The examples in (13c) show that B forms can be used as vocatives in isolation. Thus, in B-forms, prefix-deletion occurs before D exactly as it does before the agreeing elements in (13a).

In Hyman (1979a) I argued that D is a determiner, since it appears in the same “slot” as demonstratives (which may also pre-empt it):
My approach at that time was to account for D in semantic/functionalist terms: “[D] is a demonstrative whose meaning is ‘out of focus.’ And the noun phrase within which it occurs is considered out of focus by Aghem speakers in the environments outlined in preceding sections ...” (Hyman 1979a: 68). I presented comparative evidence to show that D derives historically from a ‘near hearer’ demonstrative. After completing the 1979 study I continued to explore the grammatical properties of D, ultimately attempting an account of D in syntactic/formal terms: “I propose that the D node is obligatory in Aghem, either being filled lexically by one of the three demonstratives or remaining as an empty element gD. If the gD is ‘syntactically well-formed’ it can surface as null; if it is not well-formed, it must be spelled out post-lexically via the -ɔ́” (Hyman 1985: 151). In this account the distinction between A vs. B forms reduces to whether a noun phrase can (=A) vs. cannot (=B) occur without an overt determiner.

Despite its relationship to focus, I maintain the view that the distribution properties of D are best accounted for in syntactic rather than semantic terms. An A form is one where an empty determiner (gD) is well-formed, or licensed by well-formedness conditions. These conditions are of three types: (i) internal conditions on the NP; (ii) external conditions on the NP vis-à-vis its governing head; (iii) external conditions on the NP or its governing head with respect to modality and clause-type. I now take up these three types of conditions in turn.

In order to appreciate the NP-internal conditions it is necessary to understand the structure of the NP. The two possible linear orders of noun + modifiers are shown in (15).

(15) Linear order within the noun phrase, e.g. ‘these two big dogs of the child’

a. N + POSS + ADJ + DET + NUM
   bvú ʼtí ʼwé t̂i-dù́ũ t̂i t̂i-bígàhá
dogs of child big these two

b. N + ADJ + POSS + DET + NUM
   bvú t̂i-dù́ũ ʼtí ʼwé t̂i t̂i-bígàhá
dogs big of child these two
As illustrated, a genitive noun (or possessive pronoun) and adjective can occur in either order, followed by the fixed order determiner + numeral. Although only the demonstrative ‘this/these’ is illustrated in (16a), there can be only one demonstrative or numeral in a noun phrase with multiple genitive embeddings:

(16) Single DET and NUM in a noun phrase with multiple genitives/adjectives

   a.  fū kī ’bvú tū ’wē  wn ‘the rat of the dog of this child’
       fū kī ’bvú tū ’wē  ūn ‘the rat of these dogs of the child’
       fū kī ’bvú tū ’wē  kn ‘this rat of the dogs of the child’
       rat of dogs of child this/these

   b.  fū kī- bá’pā kā-dū’ū kn kā-māy ‘this one big red rat’
       rat red big this one

As seen in (16a), the demonstrative (also a numeral) can agree with any of the noun heads in the genitive sequence. (16b) shows that multiple adjectives are also possible.

In order to account for the above properties, I originally proposed the phrase structure rules in (17a).

(17) Noun phrase structure rules

   a.  Hyman (1985)

       (i) N” → N’ SPEC
       (ii) SPEC → {DET (NUM)} N”
       (iii) N’ → N (A*)

   b.  Alternative

       (i) NUMP → DP (NUM)
       (ii) DP → NP DET
       (iii) NP → N’ (NUMP)
       (iv) N’ → N (A*)

Since N” is responsible for genitive recursion, the phrase structures correctly produce one D and one NUM, but fail to get the range of agreements on DET and NUM, e.g. as seen on the demonstratives in (16a). If NUMP is responsible for genitive recursion, the alternative phrase structure rules in (17b) can encode these different agreements. Since each DP and NUMP produces its own NUM and DET, a constraint will be needed to prohibit more than one surface DET or NUM. In addition, given the head-initial structure of Aghem, one might balk at the idea of NUMP and DP being right-headed.

What the two sets of phrase structure rules have in common is that DET is obligatory. The question then is when it need not be spelled out, i.e. when gD is well-
formed with respect to the NP-internal phrase structure. As seen in (18), a noun in isolation and a noun phrase consisting only of a noun + genitives does not require an overt determiner:

(18) N (of N)* does not require an overt determiner; i.e. *D(.) is well-formed
   a. kî-fû  
      rat  D
   b. fû  ká’çá  
      rat  my  D

On the other hand, whenever an adjective is present, D is not well-formed:

(19) Whenever N (of N)* is interrupted by an adjective, D is not well-formed
   a. fû  kî-bá’çá  kâ (*Ø)  c. fû  kî-bvû  tî-dâ’tù  tò
      rat  red  D  rat  of  dogs  D  tò
   b. fû  kî-bá’çá  kî-dâ’tù  kâ  d. fû  kî-dâ’tù  kî  tî-bvû  tò (*kâ)
      rat  red  big  D  rat  of  dogs  D  tò

(19a,b) show a single noun with one vs. two adjectives and obligatory spell-out of D. (19c,d) show an adjective appearing after the first vs. second noun of a genitive construction. As seen, D must be spelled out in both cases. Since *kâ is ungrammatical in (19d), D must be spelled out in agreement with the closest noun. The one exception to this occurs when the closest noun belongs to class 1 or 9, which do not have an overt D spell-out. In this case D may either be empty or may agree with the higher noun: fû  kî-dâ’tù  kî  ‘wê (.) or fû  kî-dâ’tù  kî  ‘wê  kâ  ‘big rat of child’.

A second condition on D is that there must not be an empty head within the noun phrase:

(20) When the head noun is empty, D is not well-formed
   a. bâ’i-táqá  (.)  ‘my dogs’  vs. (tí)  tâ’çá  tò  ‘mine’
      dog  my  D  of  my  D
   b. bâ’í-ti’wê  (.)  ‘the child’s dogs’  vs. tî  t’wê  tò  ‘the child’s’
      dog  of  child  D  of  child  D

As seen, a determiner is required in the forms on the right even though there is no adjective.

The two NP-internal conditions on D are restated in (21).
Internal conditions on eD within the NP

a. eD must not be separated from a N or sequence of N by ADJ
b. the head N must not be empty

In other words, eD is internally well-formed if it is preceded only by a lexical noun/pronoun or a string of lexical nouns (the genitive agreement marker ‘of’ being irrelevant). In government-binding terms, eD must be properly governed — here, by every N up to the highest node of the NP (assuming for expository purposes the phrase structure rules in (17a)). The phrase structures of the forms in the right in (20) are reproduced from Hyman (1985) in (22).

(22) Adjacency or c-command?

a. N'' SPEC
   N A SPEC
   N N''
   rat big (of) dogs *(.)

b. N'' SPEC
   N SPEC
   e N''
   cl. 7 (of) dogs *(.)

The eD is not well-formed in (22a) because the chain of lexical nouns (‘rat’, ‘dogs’) is interrupted by the adjective ‘big’. It could be argued either that proper government depends on adjacency (‘dogs’ is not adjacent to ‘rat’) or on c-command: the first branching node dominating the governor must dominate eD (the N’ above ‘rat’ does not dominate ‘dogs’). In (22b) it is the non-lexical governor itself which is responsible for the ill-formedness of eD.

That the notion “lexical governor” may be at play is seen when we consider the prepositional phrases in (23).

(23) Non-lexical governers à ‘to/for’ and à ‘with, and’ require B form (*eD)

a. o mò fùo kí-bè à bùvù ‘tò ‘he gave fufu to the dogs’
   SM P_1 give fufu to dogs D

b. o mò kàý ti-dzi à bùvù ‘tò ‘he saw goats with/and dogs’
   SM P_1 see goats with dogs D

Whenever a well-formed NP occurs within a PP headed by à ‘to/for’ or à ‘with, and’, a determiner is required. This means that these (non-lexical) prepositions are not proper
governors. On the other hand, as seen in (24), the instrumental/locative preposition á (~ án) acts as if it is a lexical head:

(24) Instrumental/locative á (~ án) acts as if = lexical head
   a. á ñí-ë¾ (. ) ‘with a knife’ *á ñí fó
   b. á ñí-ghà m (. ) ‘on the mat’ *á ghà m fó

What is attractive about the above structural account is that the same notion of proper government naturally extends to what was said about the IAV and focus marking: For eD to be well-formed, an object NP must also be properly governed. This is only possible if the object NP appears in IAV, indicated as x in (25).

(25) Structure of S (x = IAV)

If another constituent appears in IAV, thus intervening between the governing verb and the object NP, the latter will require an overt determiner.

Recall from (18) that eD will be well-formed (properly governed) if preceded either by a single noun or pronoun or by a genitive sequence. (26a) shows that eD is similarly well-formed in an IAV object NP that follows an uninterrupted verb sequence:

(26) If uninterrupted, verbs in series properly govern the IAV
   a. ó mò ñí ñí buò zì kí-bé (*Ø ‘it’) SM P run come eat fufú ‘he ran in this direction and ate fufú’
   b. à mò ñí ñí buò zì ndúghó bé ‘kó’ ES P run come eat who fufú D ‘who ran in this direction and ate fufú?’
   c. *à mò ñí ndúghó buò zì bé ‘kó’
   d. *à mò ñí buò ndúghó zì bé ‘kó’
As indicated, the IAV cannot be empty in (26a). If no object NP were expressed, it would be necessary to add the FM nò, and the sentence would mean ‘he ran in this direction and ate it’. The WH element ndúghọ ‘who’ in (26b) confirms that the IAV position follows the three-verb sequence (cf. the ungrammatical placements of ndúghọ in (26c,d)). Finally, it can be noted in (26e) that negation again requires an overt determiner on the object NP.

While an uninterrupted verb sequence appears to function as one complex governor, a different situation obtains in (27).

(27) If interrupted, each V+NP functions separately

a. ò m̀ ni kì-tà zì kì-bè
   SM P₁ take spoon eat fufu
   ‘he took a spoon and ate fufu’

b. à m̀ ni ndúghọ tà kò zì kì-bè
   ES P₁ take who spoon D eat fufu
   ‘who took a spoon and ate fufu?’

c. *à m̀ ni kì-tà zì ndúghọ bè ‘kọ
   ES P₁ take spoon eat who fufu D

d. à kà m̀ ni tà kò zì kì-bè
   ES NEG P₁ take spoon D eat fufu
   ‘he didn’t take a spoon and eat fufu’

e. à m̀ ni zì ndúghọ bè ‘kọ
   ES P₁ take eat who fufu D
   ‘who took (it) and ate fufu?’

f. *à m̀ ni ndúghọ zì kì-bè
   ES P₁ take who eat fufu

(27a) consists of two V+NP sequences representing a same-subject serial construction. As seen in (27b), the WH element goes after the first verb, and not after the second (cf. (27c)). The second verb of the V + NP sequence thus appears to independently license gD on the object. This is seen in (27d) where the negative marker kà affects only tà kò ‘spoon + D’, the object of the first verb ni ‘take’, not kì-bè ‘fufu’, the object of the second verb zì ‘eat’. The placement of ndúghọ ‘who’ in (27e) shows that when the object of ‘take’ is null (= third person singular inanimate object), ni + zì ‘take + eat’ function as a single complex verb by virtue of being uninterrupted. It is not possible to place ndúghọ between the two verbs, as in (27f).
We are now left with the question of how to incorporate “auxiliary focus” into the analysis. Recall that gD is not well-formed when the auxiliary is [+focus], e.g. mâa ‘P₁-FOC’ or [+F], e.g. negative or imperative. There are at least two analytic possibilities. First, [+focus] and/or [+F] auxiliaries may require that the IAV position remain empty, i.e. \([- V_\varepsilon_1 V' NP ... ]_v\). In this case the verb would fail to properly govern the object NP. Second, [+focus] and/or [+F] auxiliaries may trigger the attraction of the verb to INF\(_L\), leaving the V node empty, i.e. \([- V_\varepsilon N P ]_v\). In this case the non-lexical empty head \([- V_\varepsilon ]_v\) is not a proper governor.

It is possible that the first solution is correct for [+focus] and the second correct for [+F] auxiliaries. Watters (1979) notes the following difference between the two in examples such as (28).

(28) Different behavior of [+focus] and [+F] AUX with respect to IAV
(Watters 1979)

<table>
<thead>
<tr>
<th>Case</th>
<th>Example</th>
<th>Notation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>*à mâa bvù ndúghọ̀</td>
<td>ES P₁-FOC fall who</td>
<td>‘who did fall?’</td>
</tr>
<tr>
<td>b.</td>
<td>*à mâa bvù tó</td>
<td>ES P₁-FOC fall dogs D</td>
<td>‘THE DOGS did fall’</td>
</tr>
<tr>
<td>c.</td>
<td>à kà mò bvù ndúghọ̀</td>
<td>ES NEG P₁ fall who</td>
<td>‘who didn’t fall?’</td>
</tr>
<tr>
<td>d.</td>
<td>à kà mò bvù tó</td>
<td>ES NEG P₁ fall dogs D</td>
<td>‘THE DOGS didn’t fall’</td>
</tr>
</tbody>
</table>

(28a) shows that a [+focus] auxiliary cannot co-occur with a WH element, nor is it possible for the subject to move to the IAV, as shown in (28b). As seen in (28c,d), however, both a WH and the subject can occur in IAV after a negative verb. The facts in (28a,b) suggest that a [+focus] auxiliary requires that the IAV be empty. The properties of [+F] are, however, quite different, perhaps suggesting an analysis along the lines of the second solution above (cf. Hyman 1985).

The above facts highlight the fact that there is an imperfect relation of focus marking to semantic focus. This is something I have pointed out in previous work: “There are unmistakeable [sic] correlations such that focus may be associated with a syntactic position (or construction), a morphological spell-out, or a phonological process. In all cases that I know, however, the construction, morphological exponent or phonological process may also characterize elements not semantically in focus; or they may fail to characterize constituents which clearly are focused. Perhaps this is true in all languages that mark focus formally. To account for this imperfect alignment of semantic focus and linguistic form, it is thus necessary to evoke the Grammar as a mediator” (Hyman 1999: 152). The same kind of imperfect overlap of [+focus] and [+F] has been demonstrated in other African languages as well (Hyman & Watters 1984). As summarized in (29), the relation of A- and B-forms, and the special status
of the IAV are reminiscent of comparable oppositions in Narrow Bantu:

(29) Relation of A- and B-forms to comparable oppositions in Narrow Bantu, elsewhere

<table>
<thead>
<tr>
<th>Aghem verb + A form (kí-bě)</th>
<th>Aghem verb + B form (bé ‘kí)</th>
</tr>
</thead>
<tbody>
<tr>
<td>“close context”</td>
<td>“open context”</td>
</tr>
<tr>
<td>“strong link”</td>
<td>“weak link”</td>
</tr>
<tr>
<td>“conjoint”</td>
<td>“disjoint”</td>
</tr>
<tr>
<td>“post-verb focus”</td>
<td>“verb focused”</td>
</tr>
</tbody>
</table>

In Narrow Bantu languages such as Bemba, Rundi, Tonga, Haya, Luganda, Tswana etc. the difference between “conjoint” and “disjoint” verb + XP combinations can be expressed either through allomorphy (as in Aghem) or through tone (cf. Sharman 1955, Meeussen 1959, 1963, Carter 1962, Givón 1971, Hyman & Watters 1984, Creissels 1996, Hyman 1999, Güldemann 2003, etc.).

Although quite subtle, tone is potentially implicated in A- vs. B-marking in Aghem as well. In (30a) we see that the object nouns /’wù/ ‘person’ (class 1) and /’bvú/ ‘dog’ (class 9) directly follow the L tone verb kíʔ ‘see’ in the non-focus today past (P₁). (Class 1 and 9 nouns are marked by a floating L prefix.)

(30) A floating H tone precedes O nouns in B contexts (seen when the noun begins with L)

a. ó m̀ kóʔ wù ‘he saw a person’ ó m̀ kóʔ nò
   ó m̀ kóʔ bvú ‘he saw a dog’ SM P₁ see FM
   SM P₁ see person/dog /-bvú ‘’*ó m̀ kóʔ)

b. ó m̀a kóʔ wù ‘he did see a person’ ó m̀a kóʔ
   ó m̀a kóʔ bvú ‘he did see a dog’ SM P₁-FOC see
   SM P₁-FOC see person/dog ‘he did see (it)’

c. ó kà m̀ kóʔ wù ‘he didn’t see a person’ ó kà m̀ kóʔ
   ó kà m̀ kóʔ bvú ‘he didn’t see a dog’ SM NEG P₁ see
   SM NEG P₁ see person/dog ‘he didn’t see (it)’

In (30b) we see that the same verb has a LH rising tone in the corresponding [+focus] P₁ marked by m̀a. Similarly, the verb has a rising tone in (30c) in the corresponding [+F] negative. It thus appears that a floating H tone occurs before class 1 and 9 nouns in IAV position. (The floating H may also exist with other noun classes, but is absorbed into their underlying /H/ tone prefix.) The sentences in (31a,b) show that the floating H is also present before a noun in post-IAV position:
(31) The floating H also occurs before a post-IAV (but not IBV) noun
   a. à mò kɔ̀ wù ńn̩m  ‘a PERSON saw the animal’
      ES P₁ see person animal
   b. à kà mò kɔ̀ wù ńn̩m  ‘a PERSON didn’t see the animal’
      ES NEG P₁ see person animal
   c. ò kà mè wù kɔ̀  ‘he didn’t see a person’
      SM NEG P₁ person see

It might appear that this floating H is a preposition or case marker and that B forms are really prepositional phrases or obliques (cf. à ‘to/for’ and à ‘with, and’, which also require the B form.) However, as seen in (31c), this H is not found in IBV position (which also requires B form). What this means is that we not only have to track NPs throughout the grammar for A vs. B form (i.e. determine whether a non-null DET is required), but also for the H- vs. Ø case (prepositional?) marking of B forms.

To conclude this section, I now expand the coverage to consider dependent clauses and subject NPs. The above examples have generally involved main clauses. In (32a-c) we see that even if an object NP immediately follows the verb, gD is ill-formed in backgrounded clauses:

(32) gD is ill-formed on post-verbal NP in backgrounded clauses
   a. bvú ̀tìl á̃ tì mò zí bè ̀kò  ‘the dogs that ate the fufu’
      dogs DEM REL SM P₁ eat fufu D
   b. búghò bvú ̀tì mò zí bè ̀kò  ‘if the dogs ate the fufu’
      if dogs SM/D P₁ eat fufu D
   c. ghäftá bvú ̀tì mò zí bè ̀kò  ‘as the dogs ate the fufu’
      as dogs SM/D P₁ eat fufu D
   d. bè ̀kò ̀l á mò zí bvú ̀tò  ‘the fufu that THE DOGS ate’
      fufu DEM REL ES P₁ eat dogs D

This is true of relative clauses, if-clauses, and temporal clauses. In addition, if the subject is adposed in a backgrounded clause, it too will require an overt determiner, as in (32d). Thus, in addition to the NP-internal conditions and the governor+NP conditions, there are clause-dependent conditions as well: gD is potentially licensed on an IAV NP only in a MCA.

Up to now I have not said anything about the form of subject NPs which remain in situ. In a sentence such as (33a), one cannot unambiguously determine whether the subject is in A or B form.
Subject Det must be spelled out when adjacent

a. bvú 'tí m₃ zì kí-bé  ‘the dogs ate the fufu’
dogs SM/D P₁ eat fufu

b. *tí-bvú (.) m₃ zì kí-bé  ‘the dogs ate the fufu’
dogs D P₁ eat fufu

c. bvú ‘tí-n (‘tí) m₃ zì kí-bé  ‘these dogs ate the fufu’
dogs DEM SM/D P₁ eat fufu

This is because subject-verb agreement is identical to the proclitic variant of the default determiner D, as was seen in (12). As I argued in Hyman (1979a), the SM and D are underlying the same entity occurring under DET: In class 13, tí differs from tò only in that it is procliticized to the following verb rather than being encliticized to the preceding word. What I have called the subject marker (SM) in Aghem originates in the DET position of the subject noun phrase. When DET immediately precedes the auxiliary or main verb, it cannot be null, as in (33b). The D/SM may also not cooccur with a demonstrative, as seen in (33c).

Despite the identity of D and the SM, it is possible to test whether eD is well-formed in subject position. In the sentence in (34a), a numeral occurs after eD, as we expect from either set of phrase structure rules in (17):

Subject eD is well-formed in main clauses

a. tí-bvú (.) tí-bīghà m₃ zì kí-bé  ‘the two dogs ate the fufu’
dogs D two P₁ eat fufu

b. *bvú ‘tí tí-bīghà m₃ zì kí-bé  ‘the two dogs ate the fufu’
dogs D two P₁ eat fufu

c. tí-bvú (.) tí-bīghà kà m₃ zì bé ‘kò  ‘the two dogs didn’t eat the
dogs D two NEG P₁ eat fufu D fufu’

Since DET does not occur before the auxiliary, if eD were not well-formed, DET would have had to be spelled out as tò, as in (34b). As seen, this sentence is ungrammatical. (34c) show that eD is also well-formed when the main clause is negative.

In all of the above sentences the judgments are robust: an A form cannot substitute for a B form, and vice-versa. There are two cases where there is variation. The first concerns the subject of a backgrounded clause, which has been recorded in both forms, as in (35a,b).
(35) The subject of background clauses is the first of two A-/B-variable positions

a. bè ’kīl á tī-bvū (.) tī-bīghā mà zī
   fufu DEM REL dogs D two P₁ eat
   ‘the fufu that the two dogs ate’

b. bè ’kīl á bvū ’tō tī-bīghā mà zī
   fufu DEM REL dogs D two P₁ eat
   ‘the fufu that the two dogs ate’

The same variation is found in condition clauses headed by būghɔ́ ‘if’ and in temporal clauses, e.g. ghɔ́ ’as, when’. While my impression is that speakers more often preferred bvū ‘tō, for the same sentence a speaker might on one occasion state that tī-bvū is unacceptable, but on another occasion (sometimes a page later in my notes) insist that bvū ‘tō is unacceptable.

Perhaps related to the above is the variation that occurs on the subject NP of a change-of-subject consecutive.

(36) Some variation also detected with respect to change-of-subject consecutives

a. Èná? mà ghinɔ́ Kɔ́m vī mà nām bè ’kɔ́,
   Inah P₁ make Kum CNS P₁ cook fufu D
   bvū ’tō tī-bīghā tī mà zī bè ’kɔ́
   dogs D two & SM P₁ eat fufu D
   ‘Inah made Kum cook fufu, and then the two dogs ate the fufu’

b. ò mà zɔm ë-zɔm, tī-bvū (.) tī-bīghā tī mà zī bè ’kɔ́
   SM P₁ sing song dogs D two & SM P₁ eat fufu D
   ‘he sang a song and then the two dogs ate fufu’

It must be emphasized that in order to study the form of the subject NP a numeral must be present. Since the limited texts published in Hyman (1979b) are of little help, we must rely on judgments obtained via elicitation.

The second variation concerns object noun phrases in an S AUX X V NP construction where some other element has been fronted into the IBV position. Elicited forms include the following:

(37) Variation of the object in S AUX X V NP constructions

a. būghɔ́ ò mà nē zī ’kř-bɛ̀
   if SM P₁ today eat FUFU ‘if he ate FUFU today’
   (*bɛ̀ ‘kɔ́: consistently rejected)

b. ò kà mà nē zī bè ’kɔ́
   SM NEG P₁ today eat FUFU ‘he didn’t eat FUFU today’
   (*’kř-bɛ̀: usually rejected)
(37a,b) involve the realization of the object NP when the the adjunct né ‘today’ is preposed. Since I elicited such clauses on numerous occasions and with different speakers, I include under each gloss a summary of my findings. As seen in (37a), where an if-clause should condition the B form, the B form is consistently rejected. On the other hand, in (37b), where negation continues to condition the B form, the A form is usually rejected. The sentences in (38a,b) involve the realization of the adposed subject NP when the object NP ‘fufu’ is preposed.

(38) Variation of the subject in à AUX NP V NP constructions

a. à kà mò bë ‘kí zí tî-bvû ‘THE DOGS didn’t eat fufu’
   SM NEG P₁ fufu D eat dogs (bvû ‘tî accepted AND rejected)

b. à kà mò bë ‘kí zí bvû tî ‘THE DOGS didn’t eat fufu’
   SM NEG P₁ fufu D eat dogs D (tî-bvû accepted AND rejected)

While negation should condition the B form, as indicated, both A and B forms have been accepted and rejected on different occasions - and by the same speaker. Why these inconsistent effects should be the way they are is not clear at this point.

5. Conclusion

In the above sections I have presented an overview of focus marking in Aghem. As seen, focus marking is impressively pervasive in the language affecting not only the syntactic structure, but also the tense-aspect morphology and the properties of DET within the noun phrase. In Hyman (1979a) I was impressed by tendency for the B form to appear more frequently when the NP was “out of focus”, e.g. an object knocked out of the IAV or occurring in a “backgrounded clause”. There was however considerable “leakage”. First there was the question of how to account for the B forms that appear after negatives or imperatives? In a sentence like zi bë ‘kí nô ‘eat fufu!’, repeated from (11g), the focus marker /nô/ clearly indicates that the object ‘fufu’ is in focus, but ‘fufu’ is still in B form. Even more damaging to the semantic approach is its inability to account for the NP-internal conditions: Why should the B form be required when an adjective is present or when the head of the noun phrase is null? A syntactic approach not only accounts for this, but captures the obvious relation to what happens within the verb phrase. Thus, although semantic focus at first appeared to be centrally involved in determining whether we get -ɔ́ or eD, the syntactic generalization concerning heads and their governees accounts for a fuller range of facts.

While I have of course not given a full formal account, the above can be taken to represent a general strategy for developing a more fully articulated theory to handle the Aghem facts (cf. Hyman and Polinsky 2007). In the meantime we might take two morals from the Aghem experience. The first is that it is profitable to follow the morphology. The second is that all focus systems leak.
Abbreviations

D determiner  
gD empty determiner = (.)  
ES expletive subject marker  
FM focus marker  
FOC focus  
IAV immediate after verb position  
IBV immediate after verb position  
P₁ today past tense  
P₂ before today past tense  
SM subject marker  

Tone marks are as follows:

á  high tone  
à  low tone  
à° prepausal level low tone  
↓ downstep

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