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*n*P Rising in Bantu Languages: Evidence from Augmented Nominals

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Abstract

The paper maintains that Bantu languages with augmented nouns and non-augmented nouns manifest *n*P rising. Asymmetry in the distribution of augmented and non-augmented nouns in these languages provides strong support for rising where non-augmented nouns (*n*Ps) rise to the Specifier (Spec) position of the Determiner Phrase (DP) when the determiner position is null. On the contrary, the non-augmented nouns do not rise when the augment occupies the determiner position. Another asymmetry involves the distribution of the augments and demonstratives whereby the two are in either complementary distribution or the demonstrative cliticises on the augment pre-nominally via rising. The findings depart from assumptions that the *n*Ps in many Bantu languages rise to head D position and that the augments are not differentiated in the structural configuration in DP structure (Carstens, 1991, 1993). This study was purely qualitative in the sense that data were collected from native speakers based on their intuitions and grammaticality judgment. The study was led by the DP hypothesis (Abney, 1987) which assumes that DP is the projection of NP headed by D^o. In turn the D^o takes the NP as its complement. The derivations of *n*P category assumes with Marantz's (1997) Distributive Morphology regarding the noun classes (N-classes) and respective Roots in which the Roots are assigned meaning when attached to N-classes. This paper aimed to establish the phenomenal rising of *n*P in DP structure. The study examined Gogo, Giha and Shinyiha – Bantu languages spoken in Tanzania, to determine the rising phenomenon of the *n*P in syntactic configuration.

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Ikisiri

Makala hii inathibitisha kwamba lugha za Kibantu zenye nomino zilizo na kiambishi tangulizi na zile zisizo nacho hudhihirisha upandaji wa tungo nomino. Kutofautiana kwa mtawanyo wa nomino zenye kiambishi tangulizi na nomino zisizonacho katika lugha hizi kunatoa hoja thabiti kuthibitisha kupanda ambapo tungo nomino zisizo na kiambishi tangulizi hupanda hadi kwenye nafasi ya kibayanishi[2] cha kirai kibainishi pindi nafasi ya kibainishi inapokuwa tupu. Kinyume chake, nomino zenye kiambishi tangulizi hazipandi pindi kiambishi tangulizi kinapokuwa kwenye nafasi ya kibainishi. Msigano mwingine unahusisha mtawanyo wa kiambishi tangulizi na vioneshi ambapo viwili hivi huwa ama katika mtawanyo mkamilishano au kioneshi kuukiliwa na kiambishi tangulizi pale kinapoitangulia nomino. Matokeo haya yanaachana na mawazo kuwa tungo nomino katika lugha nyingi za Kibantu hupanda hadi kwenye kibainishi na kwamba viambishi tangulizi havitofautishwi kimuundo katika muundo wa kirai kibainishi (Carstens, 1991, 1993). Utafiti huu ni wa kitaamuli na data zake zimekusanywa kutoka kwa wazawa wa lugha zilizotumika kwa kuzingatia umilisi wao katika matumizi ya sarufi ya lugha husika. Uchanganuzi wa data uliongozwa na Nadhariatete ya Kirai Kibainishi (KB) (Abney, 1987). Nadhariatete hii inachukulia kuwa KB ni mchomozo wa KN kinachotanguliwa na kibainishi kapa (B^0) ambacho hugeuka kuwa neno kuu la kirai na KN kuwa kijalizo chake. Minyambuliko ya kategoria ya viambishi tangulizi katika kirai inazingatia Mofolojia Mtawanyo ya Marantz (1997) ikichukulia kuwa mizizi ya nomino hupata maana pindi inapopachikwa ngeli za nomino husika. Utafiti huu ulikusudia kuonesha hali ya kupanda kwa kiambishi tangulizi cha kirai katika muundo wa kirai kibainishi. Katika kuonesha hali hiyo kwenye miundo ya kisintaksia, utafiti huu ulichunguza lugha za Kibantu za Kigogo, Kiha, na Kinyiha zinazozungumzwa Tanzania.

1.0 Introduction

Some Bantu languages have nouns that comprise an element appearing before the gender-bearing noun class prefixes. This element has been given different names – an initial vowel (IV), augment (AUG), and pre-prefix (PPX) (Hyman and Katamba, 1993; Katamba, 2003; Petzell, 2003, 2008). According to Katamba (2003:107), this formative which precedes the regular gender bearing noun class prefix is called the initial vowel 'because often, though not always, it is just a vowel'. In (1) and (2) examples, Katamba (2003) illustrates this fact using Ganda, a Bantu language spoken in Uganda.

[2] Kibayanishi ni tafsiri yetu ya istilahi ya Kiingereza *specifier* kama inavyotumika katika Nadharia ya Eksibaa.

1.	*Ò - mú - limi*	*ó - mú - néné*	*ó - mù - kadde*	*ó - mù*	*à - ø - gênda.*
	Aug-1-farmer	Aug - 1 - fat	Aug - 1 - old	Aug-one	he - pres - go
	'One fat, old farmer is going.'				
2.	*È - nkóbé*	*é - n - néné*	*é - n - kàddè*	*è - mù*	*è - ø - gênda!*
	Aug-9-baboon	Aug - 9 - fat	Aug - 9 - old	Aug - one	it - pres - go
	'One fat, old baboon is going.'				
	Source: Katamba (2003:108)				

In (1) and (2), the nouns *ò-mú-limi* 'farmer' and *è-nkóbé* 'baboon' carry initial vowels *ò-* and *è-*. These vowels attach to the regular gender prefixes Class 1 *mu* in *ò-mú-limi* 'farmer' and Class 9 N in *è-nkóbé* 'baboon'. Other elements of the nouns – adjectives and numerals, and the verbs also take augments of the respective head nouns. Thus in Ganda, the *ò-* in *ò-mú-limi* agrees with the adjectives *ó-mú-néné* 'fat' and *ó-mù –kadde* 'old' in gender and number where *mu* belongs to human gender (singular) and N to animate gender (singular). The *è-* in *è-nkóbé* 'baboon' agrees with the adjectives *é-n-néné* 'fat' and *é-n-kàddè* 'old' via N class marker.

The other Bantu languages which have augments are Ruhaya, Nyiha, Runyambo, and Nyakyusa. The Bantu languages which lack augments include Tuki, Lingala, and Kiswahili (Katamba, 2003). The non-augmented nouns in these languages comprise only noun stems and class prefixes unlike those with augmented nouns which have initial vowels in addition to the regular gender prefixes. The difference between augmented nouns and non-augmented nouns is observed in (3).

3. Augmented and non-augmented nouns in selected languages

	Language	**Singular 'person'**	**Plural 'people'**
Augmented	Ruhaya	*o–mu–ntu*	*a–ba–ntu*
	Nyiha	*u–mu–ntu*	*a– βa–ntu*
	Runyambo	*o–mu–ntu*	*a–ba–ntu*
	Nyakyusa	*u–mu–ndu*	*a–ba–ndu*
Non-augmented	Swahili	*m–tu*	*wa–tu*
	Samatengo	*mu–ndu*	*ba–ndu*
	Sisumbwa	*mu–untu*	*βa–antu*
	Hehe	*mu–nu*	*va–nu*

Sources: Ruhaya (Rugemalira, 2008:31), Shinyiha (Personal Communication – PC, Gadi Malele), Runyambo (Rugemalira, 2005:45-46), Nyakyusa (PC Furahisha

Ambokile), Swahili (Kihore, Massamba, & Msanjila, 2012:96), Samatengo (Ndomba, 2006:28), Sisumbwa (Kahigi, 2005:119), Kihehe (PC Immanuel Kihongo)

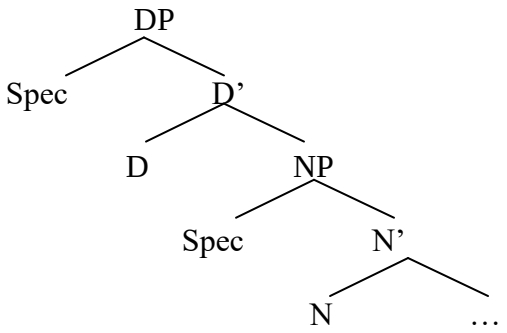
This paper studies the distribution of augments in languages which have them and contrasts them with non-augmented nouns in same languages. The aim is to establish the phenomenal rising of *n*P in DP structure. Although augments have been studied as definite articles, there have been less efforts to place the distribution of the augments in DP structure and relate the formatives with definiteness and *n*P rising.

This paper is divided into seven sections. Section one presents the introduction, section two explains the theoretical framework, section three talks about the methodology, section four presents the review of augments in augment languages, section five presents the distribution of augmented and non-augmented nouns in augment languages, section six presents *n*P rising in (non)-augment nouns, and section seven presents the conclusion. The next section presents the theoretical framework.

2.0 Theoretical Framework

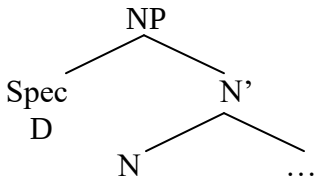
The study assumes with Abney's (1987) DP hypothesis which argues that a nominal expression is headed by a functional category – a (D)eterminer. In this view, a nominal phrase (NP) found within the DP is said to be a complement of the D as illustrated in (4).

4. DP Hypothesis



The DP analysis in (4) assumes that the D(eterminer) is the head of the entire phrase and takes NP as its complement. This analysis differs significantly from the traditional NP hypothesis which assumes that a nominal expression (N) is the head of its own phrase and only takes a Determiner as a specifier. NP analysis is illustrated in (5).

NP Hypothesis

5. 

The analysis of the nominal phrase in (5) assumes that the N(oun) heads its own phrase and that the D(eterminer) occupies the Spec of NP position. The analysis that is assumed in this paper on DP draws heavily from Abneys' DP analysis and NP from Marantz's (1997) Distributive Morphology (DM). Marantz (1997) analyzes NP as *n*P with a small 'N' (see for example Ndomba, 2017b). The analysis under DM assumes that noun stems or Roots are not categorized for lexical information (denotation) or phonological form. This view argues that Roots acquire category-hood and phonological form by being inserted in a particular syntactic configuration, thus making them morphemes. According to this view, morphemes are associated with phonological features in the vocabulary component of morphology, and thus, they may be called 'exponents'.

Supporters of Marantz's (1997) view, Fathi and Lowenstamm (2016), Baker (2008), and Kihm (2005), concede that the prefixes determine class and membership of a noun in a particular group or Gender, and that the affix's grammatical function is a nominalizer, *n* category, which selects the Root as its complement. Fathi and Lowenstamm (2016) observe that Roots can only be categorized for denotation when attached to categories such as *nouns*, *adverbs*, or *verbs*. They argue that the categorization is only possible when the Roots are involved through a systematic selection by the *n* categories via morphological Merger. This study adopts Marantz's (1997) *n*P notation and combines it with DP analysis because the two suit the analysis of noun classes; augmented and non-augmented nouns under the study.

In terms of the syntactic distribution of the *n*P the study is guided by Cinque (2005) who points out that the different ordering of the elements in a DP stems from XP movement; translated as *n*P in this study. Cinque (2005) draws from Greenberg (1963, 1966) and suggests at least three states of the ordering of the elements in relation to the noun head – the one in which the order is canonical, the one which follows the movement of the head noun to the initial position resulting into the exact opposite of the canonical order, and the one which follows the movement of the head noun with pied piping of the elements. The ordering of the elements is formalized in (6) using Greenberg's (1966) Universal 20.

6. Universal 20.
When any or all of the items (demonstrative, numeral, and descriptive adjective) precede the noun, they are always found in that order. If they follow, the order is

either the same or its exact opposite (Greenberg, 1966:87).

Cinque (2005:317) illustrates that 'all orders are derived by moving (or not moving) the NP around the modifiers, base-generated prenominally in the fixed order Dem Num A'.[3] It is observed that if nothing in the order demonstrative, number, adjective, and noun moves, the unique order found prenominally (Dem Num A N order) surfaces. According to Cinque, cross-linguistically; there are two orders postnominally; the exact opposite and the mirror image which arise via two ways.

First, the NP can rise alone, from specifier to specifier (Spec to Spec) of Agr(eement) projections found above each of the functional projections hosting adjectives, numerals, and demonstratives, to give the order N Dem Num A (the order opposite to the canonical order [Dem Num A N]). This order is illustrated in (7)

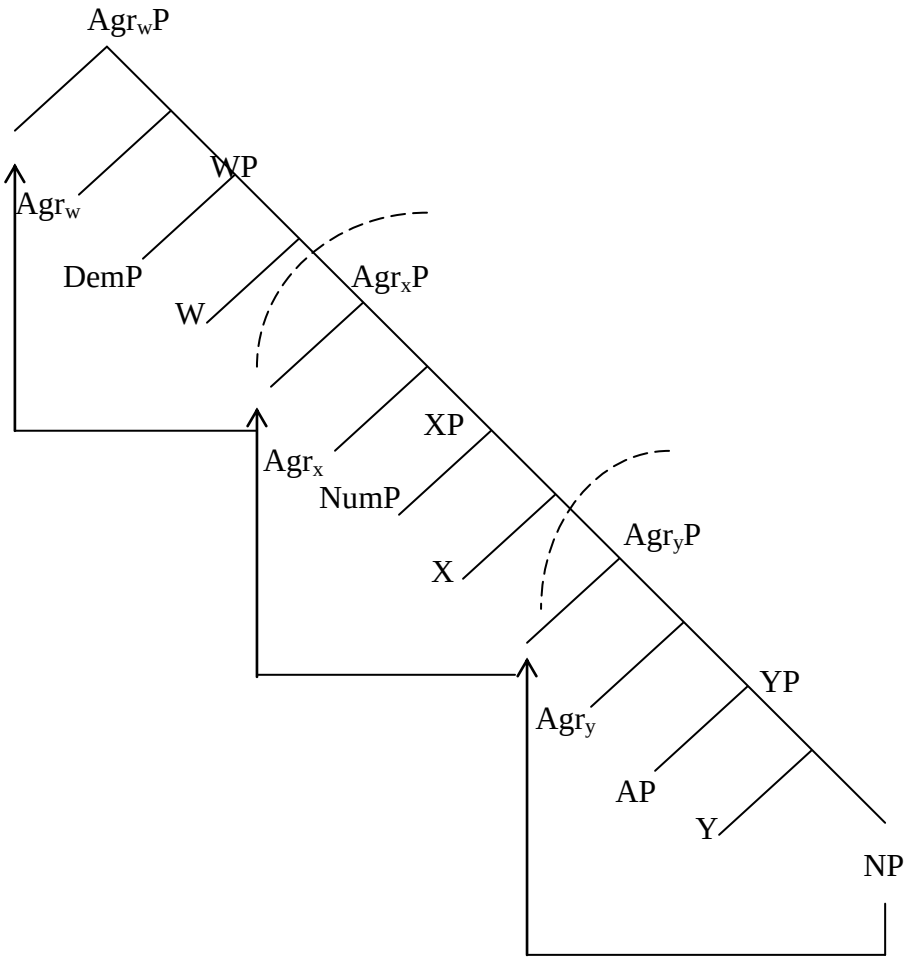
7.

The illustration above shows that the NP can cyclically rise alone leading the order which is the 'exact' opposite of the unmarked order [Dem Num A N]. In this process, the NP rises cyclically Spec-to-Spec without reversing the order of the modifiers resulting in the order [N_i Dem Num A t_i].

Second, the NP can rise successively moving to each such Spec and pied-piping the category that dominates it in a 'roll up' fashion that reverses the order of the modifiers. This derivation results in the order which has come to be called the 'mirror image' – [N_i A Num Dem t_i]. The derivation of the mirror image order is provided in (8).

[3] NPs are analyzed as *n*P following Marantz's (1997) Distributional Morphology which is assumed in this paper.

8.



Source: Cinque (2005:318)

In (8), the resulting order after the successive Spec to spec rising of the *n*P while pied piping the categories that dominate it is the mirror image. In this second order the NP does not rise alone as in (7) but drags the other elements along in a 'roll up' fashion as explained earlier. The consequence of this movement is the observed reverse order of the modifiers [N_i A Num Dem t_i]. Based on the typological sources available in the literature on the order of Noun, Demonstrative, Numeral, and Adjective that were able to be found, Cinque (2005) came up with three main findings according to Nchare (2008:143). First, the syntactic structure in which DemP, NumP, and AP are generated is a universally fixed order to the left of the head noun. Second, only 14 orders out of the possible 24 orders were derivable in UG. Third, unattested orders were derived via remnant movement – moving a constituent from which the head noun had been already extracted, which is not allowed in UG, according to Cinque.

According to Ndomba (2017), Swahili DPs undergo XP movement in which *n*P rises from its base generated position to Spec DP position without pied piping thereby leaving D^0 empty. The movement implies that Swahili DPs have the 'exact' opposite order of the canonical order whereby *n*P precedes its elements (modifiers) via the leftward movement of *n*P.

This movement suggests that the empty D is reserved for the definite reference bearing functional head. Since in certain Bantu languages the augment functions as the definite article, it is assumed that the augment is base generated under D^0. The paper will reveal that with the augment in D^0, *n*P rising is blocked. This phenomenon can also be attested when the demonstrative appears prenominally. In such cases, the demonstrative is said to have risen from its base generated position to D – head to head movement.

This analysis departs from the claim that in Swahili and many Bantu languages the head noun rises to D. According to Carstens (1991, 1993, 2008), head nouns in Swahili and many Bantu languages rise to fill the null D. The next section presents the methodology of this study.

3.0 The Study Methodology

This study aimed to use tacit knowledge and grammaticality judgment of the native speakers of three Bantu languages which have augments to make generalizations concerning *n*P rising phenomenon. The languages involved were three – Giha, Gogo, and Shinyiha. The languages were selected based on the availability of native speakers who were willing to take part in the study. As a qualitative study number of languages (quantity) does not affect the findings since similar languages share linguistic structures. The languages selected attest similar augment structures found in well studied augment languages in Bantu language family such as Kinande (Progovac, 1993) and Luganda (Hyman & Katamba, 1993). Thus, these languages are representative since the languages reveal similar augment structures found in other languages with augments (See the distinction between augmented and non-augmented nouns in 3 where other four languages are presented – Ruhaya, Nyiha, Runyambo, and Nyakyusa). There were three respondents for each language under the study. These were selected based on their availability to take part in the study. The three respondents in each language were identified via Personal Communication – PC, with native speakers at the College[4]. They were selected to take part in the study after a thorough investigation of their linguistic competencies in the languages they spoke. Native speaker's competence was tested using a test of language speaker nativity in which speakers were asked to mention basic vocabulary in their native languages. The basic vocabulary included words for body parts and items like phlegm, sweat, tears, well,

[4] Respondents of the study were mainly students at the Dar es Salaam University College of Education introduced to the researchers by members of staff who knew them. Personal Communication with people who knew the language had been helpful to confirm data presented and the conclusions reached.

river and water. Added to the list were kinship terms such as father, mother, uncle, and aunt. The total number of items to be mentioned was ten and respondents were considered native speakers if they mentioned at least seven.

One crucial aspect of native speakers is their intuitions and grammaticality judgment about the structures of the languages they speak well. The native speakers are renowned for their intuitions and grammaticality judgment and; as such data from native speakers is considered valid and unbiased.

While only three respondents in each language provided data, two more speakers in each language were used in the final analysis to ascertain the grammaticality of the data submitted.

The researchers used knowledge of augment constructions from studied languages like Nande (Progovac, 1993) and Luganda (Hyman and Katamba, 1993) to compose short phrases which predicted the appearance of augments in the said languages. The phrases were written in English and Swahili since one native speaker of Shinyiha came from Malawi (Tanzania-Malawi border) and did not speak Swahili. It should be remembered that Shinyiha is spoken in both Tanzania and Malawi, as such having speakers from Tanzania and Malawi forms an added advantage. Other native speakers from Tanzania had their phrases written in Swahili.

The researchers met the respondents individually face-to-face and asked them to say given phrases in their native languages. The researchers wrote down what the respondents said and described the data. The researchers used the descriptions to make generalizations about the structure of the nominal expressions with or without augments. At this stage, both DP hypothesis and Distributive Morphology aided the derivations of the augmented nouns. The researchers modified the phrases to make the respondents elicit target structures. The next section provides a review of augments in nominals in selected Bantu languages.

4.0 A Review of Augments in Bantu Languages

4.1 Identifying Augments on Nouns

In many languages studied augments are realized as either high or low vowels. Progovac (1993) and Hyman and Katamba (1993) show that augments in Nande and Luganda are realized as one of the three non-high vowels /a/, /e/, /o/ which harmonize with the vowel of the following noun class prefix. For instance, according to this view, the augment in Luganda is realized as [o] when the noun class prefix has the shape C*u*– , but [a] when the noun class prefix has the shape C*a*–. It is further observed that the augment is [e] if the noun class prefix has any other shape – C*i*–, C–, N–, or ø. These augment formatives are presented in (9).

9. **The Distribution of IV Formatives in Luganda**

C*u*–>[o]		**C*a*–>[a]**		**Cn/ø–>[e]**		**gloss**
mu–limi	*o–mu–limi*					farmer
bu–saale	*o–bu–saale*					arrows
		ba–limi	*a–ba–limi*			farmers
		ka–saale	*a–ka–saale*			arrow
				'g–gi	*e–g–gi*	egg
				ki–tabo	*e–ki–tabo*	book

Source: Hyman and Katamba (1993:211)

In (9) augment formatives in Luganda are *o–*, *a–*, and *e–*. The first two augments precede noun class prefixes *–mu–*, *–bu–*, *–ba–*, and *–ka–* respectively. Since the augments are not accounted for number, the regular class prefixes are added as number morphology in the usual way. Although it is widely attested that augment formatives are vowels to a greater extent, Katamba (2003) shows that in some languages like Masaaba the formatives are not vowels but combinations of consonants and vowels. Nevertheless, the term 'initial vowels' is widely assumed in the literature. The classification of augment formatives in selected languages is presented in (10).

10. **Augment Formatives in Selected Bantu Languages**

Cl.	**Masaaba (JE31)**		**Ganda (JE15)**		**Zulu (S42)**	
	Aug	**Cl.Pfx**	**Aug**	**Cl.Pfx**	**Aug**	**Cl.Pfx**
1	*u-*	*mu-*	*o-*	*mu-*	*u-*	*mu-*
2	*ba-*	*ba-*	*a-*	*ba-*	*a-*	*ba-*
3	*gu-*	*mu-*	*o-*	*mu-*	*u-*	*mu-*
4	*gi-*	*mi-*	*e-*	*mi-*	*i-*	*mi-*
5	*li-*	*si-*	*e-*	*li-*	*i-*	*(li-)*
6	*ga-*	*ma-*	*a-*	*ma-*	*a-*	*ma-*
7	*ki-*	*ki-*	*e-*	*ki-*	*i-*	*si-*
8	*bi-*	*bi-*	*e-*	*bi-*	*i-*	*zi-*
9	*i-*	*N-*	*e-*	*N-*	*i-*	*N-*
10	*zi-*	*N-*	*e-*	*N-*	*i-*	*zi-N-*
11	*lu-*	*lu-*	*o-*	*lu-*	*u-*	*lu-*
12	*ka-*	*ka-*	*a-*	*ka-*	-	-
13	-	-	*o-*	*tu-*	-	-
14	*ba-*	*bu-*	*o-*	*bu-*	*u-*	*bu-*
15	*ku-*	*ku-*	*o-*	*ku-*	*u-*	*ku-*

Source: Katamba (2003:107)

In the above, Masaaba has Consonant-Vowel (CV) template augments while Ganda and Zulu have Vowel (V) template augments. Hyman and Katamba (1993) point out that this type of affix – the augment, has received considerable attention due to its intricate nature which involves the interplay of phonological, morphological, syntactic, and semantic/pragmatic factors. The next section presents some of the findings on the functions of the augments.

4.2 Functions of Augments in Nominal Expressions

There have always been contentions regarding the function of the augment formative (Goodness, 2012; Hyman and Katamba, 1993; Progovac, 1993). Dewees (1971), Progovac (1993), and Hyman and Katamba (1993) argue that augments are conditioned by syntax. Their studies have shown that the presence or absence of the IV is dependent on the co-varying property of syntactic constructions such as truth-conditional operators, such as negation, for their licensing.

Researchers found that the non-augmented nominals are grammatical only if they are licensed by one of the two operators – NEG (negation) and FOC (focus), while augmented forms are grammatical only if they are not so licensed. Using the Negative Polarity Items (NPIs) which are attested as separate lexical items in many languages like the English *any*, Progovac (1993) shows that bare forms in Nande occur in the same contexts where *any* in English does; negative, interrogative, and conditional sentences. Convincingly, he argues that the basic fact is that non-augmented forms, have to be somehow licensed by, for example, negation, whereas augmented forms are independent and require no licensing as illustrated in (11) – (14) from (Progovac, 1993:275-258).

11. *Yohani* *anzire* *o–mukali.*
    John like Aug. woman
    'John likes the woman.'

12. *Yohani* *si* *anzire* *o – mukali.*
    John not like Aug. woman
    'John does not like the woman.'

13. *Yohani* *si* *anzire* *ø-mukali.*
    John not like woman
    'John does not like any woman.'

14. **Yohani* *anzire* *mukali.*
    John like woman
    'John likes woman.'

The above shows that augmented forms need not be licensed – can appear with or without negation as in (11) and (12). The two also show that subjects are very reluctant to lose their augment even when appearing in negative, interrogative, or conditional contexts. However, when comparing (13) and (14) it can be noted that the bare form is licit only in the example with negation – it is thus proof that non-augmented forms in Nande are motivated by more syntactic factors than pragmatic factors.

It has also been assumed in the literature that the augmented variant of a noun is more determined than its non-augmented counterpart (noun without a pre-prefix) (Bastin, 2003; Hyman and Katamba, 1993; Katamba, 2003; Progovac, 1993). Katamba (2003:107) quotes writers like Bleek (1869, in Katamba, 2003) and Brown (1972, in Katamba, 2003) who claim that augments in Xhosa and Masaaba are markers of definiteness, hence determiners. Hyman and Katamba (1993:210) point out that "the temptation to view the augment as an article of some sort has been irresistible for students of Luganda and other Bantu languages exhibiting the augment phenomenon." Taking the same semantic and pragmatic grounds, Mould (1974) claims that the augment is a marker of definiteness because it can be predicted. Hyman and Katamba (1993:214) illustrate the connection between augments and definite articles in the following examples from Dzamba.

15. *Mo-ibi anyɔlɔki ondaku.*
'A thief entered in the house.'

16. *O-mo-ibi anyɔlɔki ondaku*
'The thief entered in the house.'
Source: Hyman and Katamba (1993:214)

The above shows that the non-augmented subject noun *moibi* 'a thief' in (15) is not specified for reference, hence indefinite. On the contrary, the augmented noun *omoibi* 'the thief' is specified for definite reference, hence definite. The same is captured in Nande in (17) and (18) for object nouns.

17. *Johani si anzire o-mu-kali.*
'John does not like the woman.'

18. *Johani si anzire mu-kali*
'John does not like any woman.'
Source: Progovac (1993:262)

Like the augmented subject noun *o-mo-ibi* 'the thief' in (16), the augmented object noun *o-mu-kali* 'the woman' in (17) is more determined and specified for definiteness than its counterpart; the non-augmented object noun *mu-kali* 'any woman' in (18).

Hyman and Katamba (1993) and Progovac (1993) reveal that the augment has crucial definiteness features just like *the* in English. This paper focuses on this second function of the augments – as definite articles since these are not licensed by pragmatic factors but get interpretation within the scope of the respective noun phrases. The next section presents some findings on the distribution of the augmented and non-augmented nouns in the languages under the study.

5.0 The Distribution of Augmented and Non-augmented Nouns (*n*Ps)

This study investigated *n*P rising in augmented nouns in languages which have them. The aim was to show that the order of elements in augmented nouns stems from the movement of *n*P. The analysis of the structure of these elements begins with analyzing the basic form of the *n*P under the study.

As noted earlier, it is assumed that category D is specified for definiteness comparable to the augment and that prenominal demonstratives in Bantu languages like Luganda serve as definite articles (details see Ndomba, 2017). Data collected required the respondents to provide some data which involved deciding on the distribution of demonstratives appearing with head nouns prenominally and postnominally in order to determine the distribution of augments. Respondents said that the basic forms of nominals comprise either an augmented *n*P or a non-augmented *n*P as illustrated in (20) – (22) using Giha.

19a.	*I – giti*	*ki*.		19b.	*I – ki*	*giti*.
	Aug 7 tree	7 this			Aug 7	7 tree
					this	
	‘This tree.’				‘The tree’ (aforementioned)	
20a.	*I - βiti*	*βihi.*		20b.	*I – βihi*	*bhiti.*
	Aug. 7 tree	7 these			Aug 7	7 tree
					these	
	‘These trees.’				‘The trees.’	
21a.	*U-wu-ndu*	*wu.*		21b.	*U-wu*	*muntu.*
	Aug 1 person	1 this			Aug 1 this	1 person
	‘This person.’				‘The person.’	

In (19) – (21), the basic forms of nominals in Giha are augmented *i-giti* ‘tree’, *i- βiti* ‘trees’, and *u-wundu* ‘person’, and non-augmented forms are *giti* ‘tree’, *βiti* ‘trees’, and *mu-ntu* ‘person’. The augmented and non-augmented forms appear to have different distributions whereby the augmented nouns precede the demonstratives as in (a) sets and the non-augmented forms follow the demonstratives as in (b) sets.

The literal translations in each case show that the demonstratives play two syntactic functions. First, they serve a deictic function as illustrated in (a) sets. Second, the demonstratives serve a definiteness function as illustrated in (b) sets.

Similarly, in Gogo, the nouns can be categorized into two basic forms – augmented and non-augmented nouns as illustrated in (22) – (25).

22a.	*U-mu - nhu*	*ayu.*	22b.	*Ayu ø/(*u)*	*mu - nhu.*
	Aug 1 person	1 this		1 this	1 person
	'This person.'			'The[5] person.'	
23a.	*I - wa - nhu*	*awa.*	23b.	*Awa ø/(*i)*	*wa - nhu.*
	Aug 2 person	2 these		2 these	2 person
	'These people.'			'The people.'	
24a.	*U - mu - ti*	*ulya.*	24b.	*Ulya ø/(*u)*	*mu - ti.*
	Aug 3 tree	3 that		3 that	3 tree
	'That tree.'			'The tree.'	
25a.	*I - mi - ti*	*ilya.*	25b.	*Ilya ø/(*i)*	*mu - ti.*
	Aug 4 tree	4 those		4 those	4 tree
	'Those trees.'			'The trees.'	

In (22) – (25), basic forms of the nominals in Gogo are the augmented nouns *u-mu-nhu* 'person', *i-wa-nhu* 'persons', *u-mu-ti* 'tree' and *i-mi-ti* 'trees' and the non-augmented nouns *mu-nhu* 'person', *wa-nhu* 'person', *mu-ti* 'tree' and *mi-ti* 'trees'. Similar to the Giha data, the two forms have different syntactic distributions whereby the augmented nouns precede the demonstratives while the non-augmented nouns follow the demonstratives. One notable feature observed in the data is that augments and prenominal demonstratives are in complementary distribution suggesting that the two have the same grammatical function – referentiality or definiteness. As noted earlier, augments and prenominal demonstratives function as definite articles like *the* in English (details shall be presented in the next section).

The study also reveals the appearance of non-augmented nouns in Shinyiha spoken at the border of Tanzania and Malawi. According to the respondents, certain contexts license the non-augmented nouns as illustrated in (26) – (27).

26.	*Mu – leshe*	*ø (*u)– mw(a) – ana*	*w(a) –ákwe.*
	1OM let go	1 child	1 her/his
	'Let go, that's her/his child.'		

[5] The translation of the pre-nominal demonstratives is 'the' and not 'this' since the pre-nominal demonstratives in the specified contexts serve as definite articles. This function differs from the post-nominal counterparts which are deictic functional categories as illustrated in (12a) – (15a).

27. *Ba – leshe* *ø (*a) – β(a) –ana* *β(a)–ákwe.*
2OM let go 2 child 2 her/his
'Let go [them], they are their children.'

In (26) – (27), the nouns *mw(a)–ana* 'child' and *β(a)–ana* 'children' are non-augmented. The respondent explained that these forms are restricted in their use and would be unacceptable if the nouns were augmented. It can be observed that the distribution of the nouns in (26) – (27) is different from the previous examples. However, it suffices to note that the nouns appear as verb complements.

Studies in Bantu augments reveal that the augmented nouns are more determined than the non-augmented ones in the sense that they are used to refer to entities specified in context. This would imply that the augments serve the grammatical function of specifying referentiality, identifiability, or definiteness in languages which have them. The two syntactic distributions provide a clue on the ordering of the elements in relation to the head nouns in DP structure.

6.0 *n*P Rising in Augmented and Non-augmented DPs

Data collected reveal *n*P rising in two broad categories of DPs in the languages studied – simple augmented/non-augmented DPs and complex augmented/non-augmented DPs. The difference between the simple and complex DPs lies in their size. Simple augmented and non-augmented DPs do not have modifiers unlike their complex counterparts which have the modifiers. The rising of *n*P in the two categories of DPs is presented in two different sub-sections; Section 6.1 presents *n*P rising in simple DPs and section 6.2 presents *n*P rising in complex DPs.

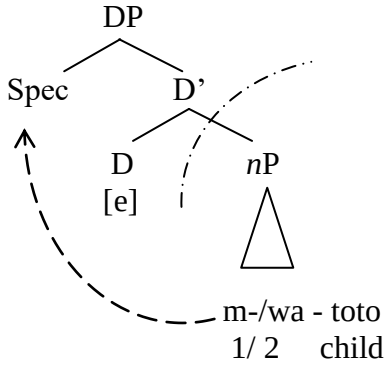
6.1 *n*P Rising in Simple Augmented and Non-augmented DPs

Simple augmented and non-augmented DPs comprise bare forms which do not have modifiers. These DPs have the form [Aug>Prefix>*n*P]. Nouns like *i-gi-ti* 'tree', *i-βi-ti* 'trees' in Giha, *mw(a)–ana* 'child' and *β(a)–ana* 'children' in Shinyiha, and *u-mu-nhu* 'person', *i-wa-nhu* 'people' in Gogo are considered simple DPs this study.

The study found two forms of simple DPs attested in the languages studied – augmented and non-augmented. The data collected reveal that both the augmented and non-augmented *n*Ps precede their modifiers like the demonstratives or possessives.

The derivation of these DPs begins with analyzing the non-augmented nouns *mw(a)–ana* 'child' and *β(a)–ana* 'children' in Shinyiha. The study adopts Ndomba's (2017b, 2017a, 2018) approach in deriving Swahili nominals. According to Ndomba (2017a, 2017b), Swahili nouns like *m-toto* 'child' and *wa-toto* 'children' are derived via *n*P rising to Spec DP as illustrated in (28).

28.

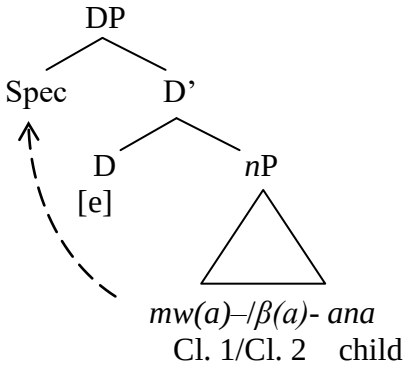


In (28), Swahili nouns *m-toto* 'child'and *wa-toto* 'children' are derived via *n*P movement to Spec DP. Since Swahili bare nouns are not augmented, they are said not to be overtly specified for reference as definite articles. This derivation is in sharp contrast with Carstens' (1991, 1993) derivation which suggests that *n* rises to D to fill the vacant position.

Ndomba (2017) argued that head-to-head movement failed to specify D for definite reference. It was also argued that head-to-head movement hardly provided for the analysis of augmented nouns found in many Bantu languages. Another argument was that the head-to-head movement violated Spec head relations holding between heads and respective specifiers. Finally, it was observed that the head-to-head movement analyzed noun elements like demonstratives as adjuncts not complements.

Since non-augmented nouns in languages like Shinyiha are similar to nouns in Swahili, they are invariably amenable to rising whereby *n*P rises to Spec DP. The derivation of non-augmented nouns *mw–ana* 'child' and *β–ana* 'children' in Shinyiha is illustrated in (29).

29.



In (29) the non-augmented nouns *mw(a)-ana* 'child' and *β(a)-ana* 'children' are derived through the rising of *n*P to Spec DP. As noted earlier, this derivation process is

on a par with Ndomba (2017) who revealed that non-augmented nouns in Swahili DPs are derived via *n*P rising leaving the null D.

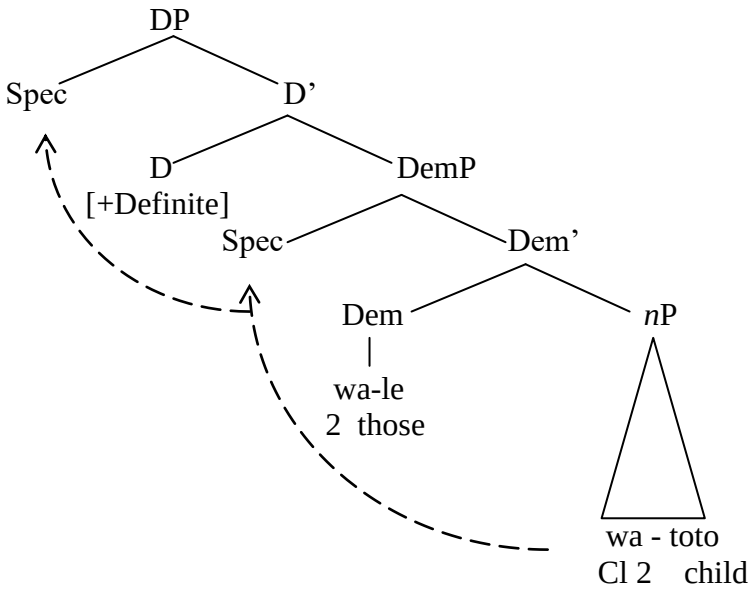
This study found that the augments serve to specify the respective nouns. Thus viewed, the augments are said to function as definite articles like *the* in English. Commenting on the function of the augment in Luganda, a Bantu language spoken in Uganda, Hyman and Katamba (1993) observe the following.

> The temptation to view the augment as an article of some sort has been irresistible for students of Luganda and other Bantu languages exhibiting the augment phenomenon (Hyman and Katamba, 1993:210).

Although the role of augments as definite articles has been challenged in some studies (Progovac, 1993), it suffices to argue that in some languages like Gogo and Giha the augment serves as the definite article, and in those languages, the augment is said to be base generated under D.

Similar to the derivation of non-augmented nouns in (29), the derivation of augmented nouns adopts Ndomba's (2017a, 2017b, 2018) approach. According to Ndomba (2017a, 2017b, 2018), in Kiswahili the *n*P rises to Spec DP, and that the movement is possible when D is null as illustrated in (30) using the head *watoto* 'child' and demonstrative[6] *wale* 'those'.

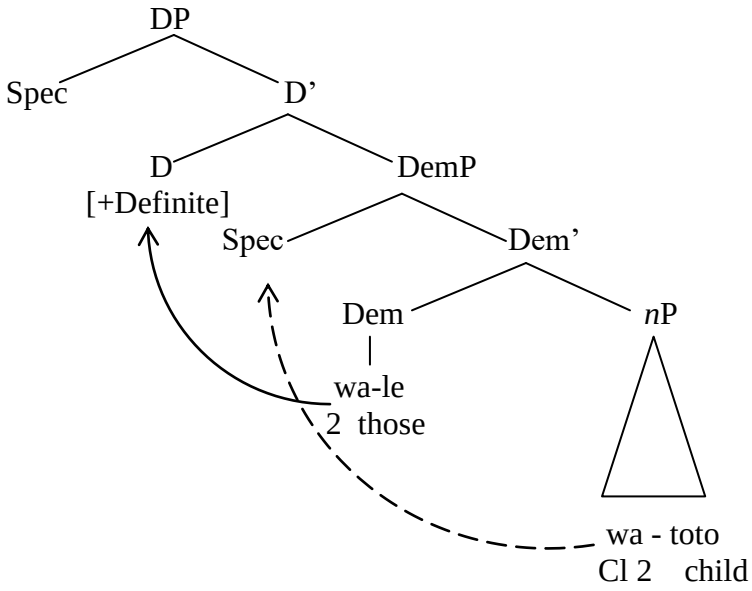
30.



[6] The asymmetry in the distribution of postnominal and pronominal demonstrative in Kiswahili provided support for assuming that the postnominal demonstrative is deictic while the prenominal counterpart anaphoric (see Ndomba, 2017a, 2017b for details).

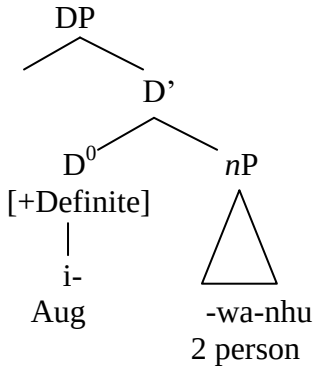
In (30), the demonstrative base generated below D serves a deictic function. In this case, *n*P rises obligatorily to Spec DP via Spec DemP. The asymmetry in the distribution of prenominal and postnominal demonstratives provides for the appearance of the prenominal demonstrative under D via movement. It is assumed that the rising of *n*P to Spec DP is blocked at Spec DemP when D is occupied by the demonstrative in Swahili. This fact is illustrated in (31).

31.



This study adopts the approach in (31) in deriving augmented nouns in augment languages suggesting that the augments play the same grammatical function as the prenominal demonstrative. Assuming that the augment functions as the definite article in augmented nouns, the noun *i-wa-nhu* 'people' in Gogo is derivable as in (32).

32.



In (32), the augment is assumed to be base generated under D. The *n*P *wa-nhu* 'people' does not undergo any rising to Spec DP as in (30) where the null D triggers rising of nouns *aw(a)–/β(a)- ana* 'child/children' to Spec DP. In (32), the rising of *n*P to Spec DP as in (30) is blocked by the augment *i-* in D. The augment in D is assumed to encode definiteness since, according to Giusti (1995) and Progovac (1998), D position is specified for that function. In this respect the augment apart from the noun class prefix and the noun stem forms a syntactic category on its own right – a definiteness category, just like determiners in English.

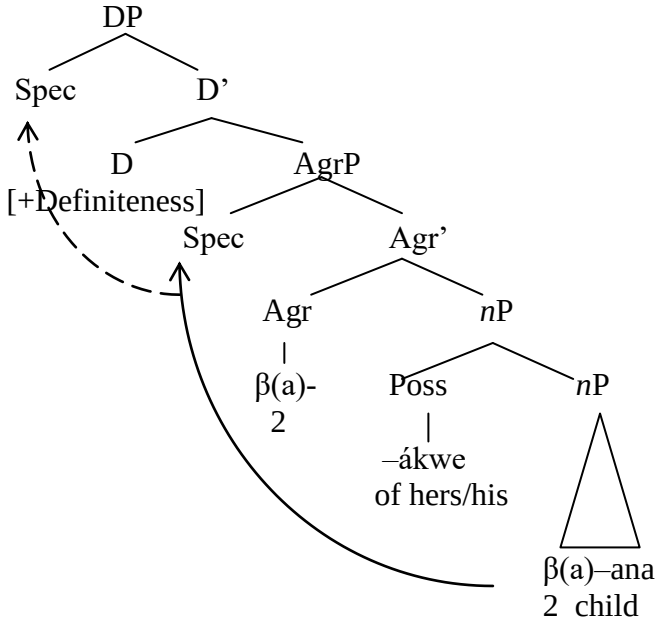
6.2 *n*P Rising in Complex Augmented and Non-augmented DPs

As mentioned earlier, complex augmented and non-augmented DPs have modifiers. Examples of these DPs from the study include *mw–ana w–ákwe* 'her/his child'*, β–ana β–ákwe* 'her/his (the) children' in Shinyiha and *u-wu-ndu wu* 'this person', *u-wu muntu* 'the person', *i- βi-ti βi-hi* 'these trees', and *i–βihi βiti* 'the trees' in Giha.

Based on the facts shared in the preceding sub-section, the derivation of the complex augmented nouns would not involve *n*P rising to Spec DP but the non-augmented nouns would. This is because the augmented nouns have augments under D which blocks the rising of *n*P to Spec DP while their non-augmented counterparts would rise. The phenomenon rising of *n*P to Spec DP is illustrated in Shinyiha using complex noun *βana βákwe* (in brackets) is illustrated in (33) – (34).

33. *βa – leshe [ø (*a) – β –ana β–ákwe].*
2OM let go 2 child 2 her/his
'Let go [them], they are their children.'

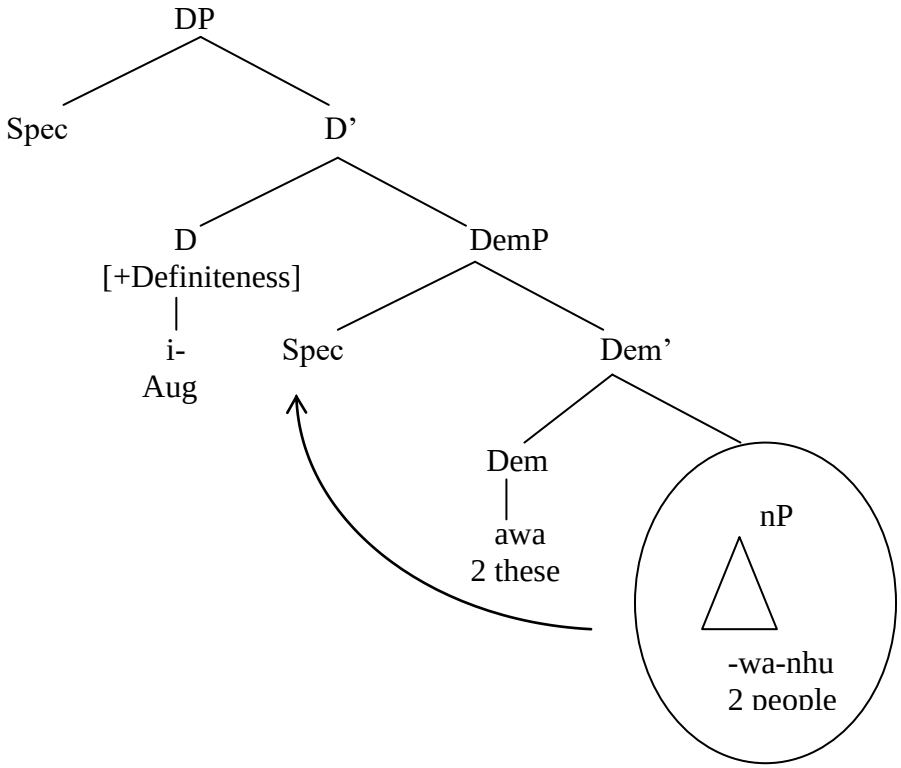
34.



In (34), the Class 2 agreement marker β(a)- of the Poss(essive) Pronoun –ákwe 'of hers/his' occupies the Agr(eement) position, while the Poss(essor) occupies the adjunct to *n*P *β(a)–ana* 'children' position. At the same time, the Agr β(a)- for Class 2 nouns, agrees with Class 2 *n*P *β(a)–ana* 'children' in number and Gender. Invariably, the *n*P rises cyclically to Spec DP via Spec AgrP resulting in the possessum-initial order [*n*-Agr-Poss] and the observed posssessum-Agr agreement. As noted earlier, the movement to Spec DP is not explicated when D is occupied as illustrated in (35) - (36).

35. *I - wa - nhu awa.*
Aug 2 person 2 these
'These two people,'

36.



In (36), the postnominal demonstrative *awa* 'these' is base generated under Dem where is serves a deictic function. The augment *i-* is base generated under D where it serves the definiteness function. The *n*P rises obligatorily to Spec DemP. The rising to Spec DP is blocked at Spec DemP since D is occupied.

In Gogo, the augment and the pre-nominal demonstrative are in complementary distribution in the sense that the two syntactic categories would not appear in the initial position at the same time as illustrated in (37) – (38).

37. *I - wa - nhu awa.*
Aug 2 person 2 these
'These people.'

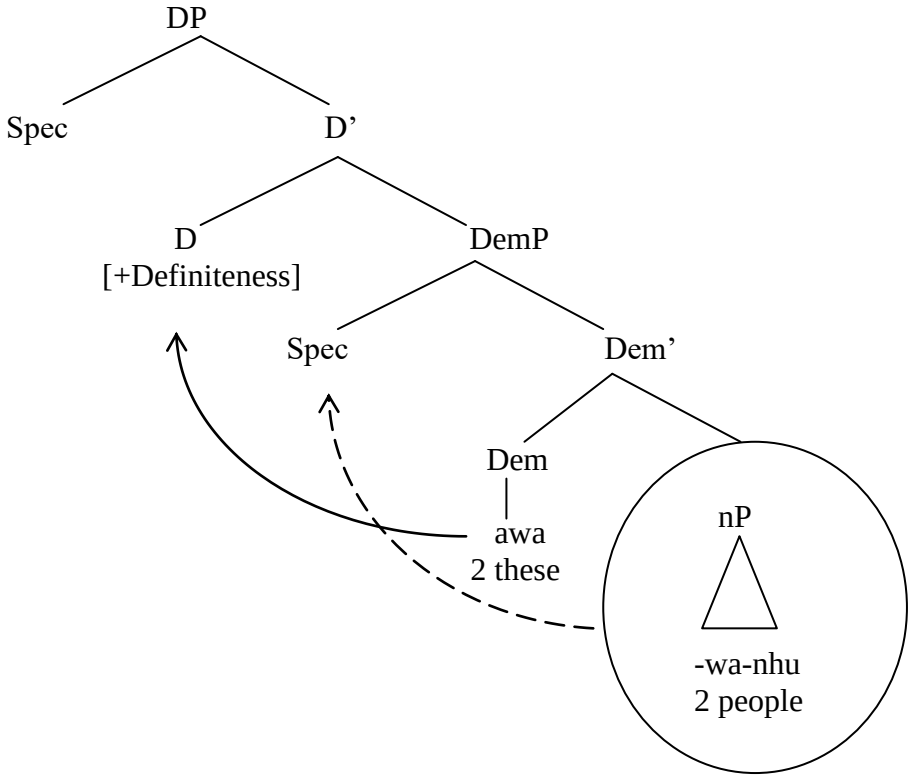
38. *Awa wa-nhu.*
2 these 2 person
'These (the) people.'

39. **I - awa$_i$ wa - nhu t_i.*
Aug 2 these 2 person
'These (the) people.'

40. **Awa*$_i$ *i - wa - nhu* t_i.
2 these Aug 2 person
'These (the) people.'

In (37) – (40), it can be observed that the augment and prenominal demonstrative are in complementary distribution – either the augment or the demonstrative can appear prenominally and the co-occurrence of both is prohibited as in (39) - (40). Since the derivation involving the augmented noun has been presented in (31) what remains now is to account for the appearance of the prenominal demonstrative in D. This is illustrated in (41) using (38).

41.



In (41), the complex noun *awa wa-nhu* 'these (the) people' is derived via two movements involving Dem and *n*P. First, the Dem rises obligatorily to D where it serves as the definite article – the same function performed by the augment in the same position. In Gogo, the rising of Dem deletes the augment which is base generated under D since demonstrative and the augment are in complementary distribution. The *n*P then rises obligatorily to Spec DemP because the rising to Spec DP is blocked by the prenominal demonstrative occupying D. With the demonstrative in the prenominal

position, the noun obtains the definite reference reading unlike when the demonstrative is in the postnominal position below D where it receives the deictic reading.

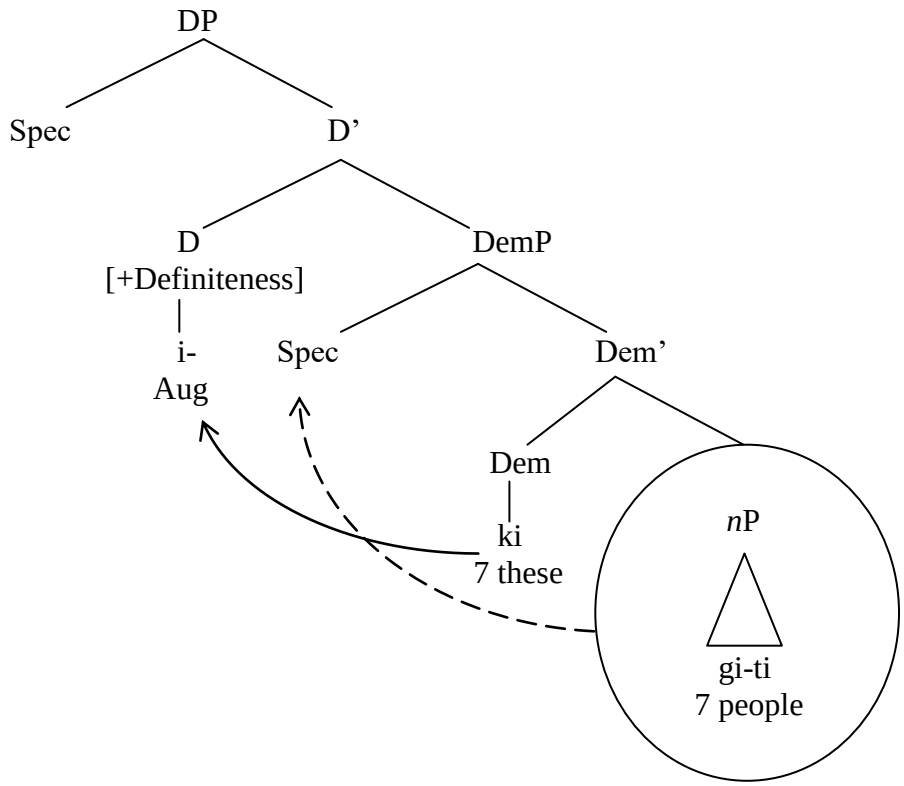
Unlike in Gogo where the prenominal demonstrative and the augment are in complementary distribution, in Giha the two categories are not in complementary distribution as the following examples (42) – (43).

42. *I – giti ki*.
Aug7 tree 7 this
'This tree.'

43. *I - ki giti*.
Aug 7 7 tree
this
'The tree.'

In (42), the noun *giti* 'tree' is augmented while in (43) the noun is not augmented but the prenominal demonstrative *ki*. It is assumed in (43) that the demonstrative cliticized on the augment unlike in Gogo where the demonstrative rising to D deletes the augment as illustrated in (41). The derivation of (43) is illustrated in (44).

44.



In (44), the complex augmented DP exhibit yet *n*P rising to Spec DemP. The rising is accompanied by the head-to-head rising of the postnominal demonstrative to D. The rising demonstrative cliticizes on the augment under D unlike in Giha and Shinyiha where similar movement deletes the augment on the landing site.

7.0 Conclusion

The paper has argued for *n*P rising in Bantu DPs using the distribution of augments in languages which have them. The analysis adopted for this paper is in line with Abney's (1987) DP hypothesis which was adapted in Ndomba's (2017) study on Swahili. The analysis argues that DPs in Swahili and many Bantu languages are headed by a functional category which takes *n*P as its complement. The analysis of the augmented nouns and non-augmented nouns reveals that the augments are base generated under D where they serve the definite article function like *the* in English. The analysis of simple augmented nouns has revealed that *n*P rises to Spec DP when D is null and that the rising to Spec DP is not expected when augments occupy D.

Asymmetries in the distribution of augments and prenominal demonstratives reveal that in Gogo the augments and the demonstratives are in complementary distribution. In this, the rising demonstrative deletes the augment under D. Unlike in Gogo, in Giha the rising demonstrative cliticises on the augment. In all cases, the *n*P rises to Spec DP when D is null. The distribution of prenominal demonstrative and postnominal demonstratives corresponds to the distribution of the same categories in Swahili and other studied Bantu languages where the prenominal demonstratives serve a definite article function while the postnominal demonstratives a deictic function.

The analysis pursued in this paper departs from earlier findings which suggest *n*P rising to D^0. The rising of *n*P to D provides no account for the appearance of augments under D, nor does it support the complementary nature between the augments and prenominal demonstratives in some languages.

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