Structural patterns of postmodifier in Nigerian English noun phrase

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The present paper discusses the occurrence, structure, and complexity of the postmodifier in the Nigerian English noun phrase (NP) showing tendencies for structural simplification. It also compares its findings with patterns in British, Ghanaian, Singaporean, Honk Kong varieties. The paper shows how variables representing syntactic function, register, and weight shed light on specific contexts where we might or might not find (1) NP with or without a postmodifier (2) a clausal or phrasal postmodifier, and (3) a simple or a complex postmodifier. In addition, the paper shows that the extent of variation among different varieties of English is dependent on variables crucial to the construction choices being investigated. For instance, in (1), a postmodifier is realised while no postmodifier is realised in (2). (1) My car which I just bought last week has been stolen, and (2) My car has been stolen.The NP in (1) is structurally complex because it realises the clausal type of post modifier, 'which I just bought last week'. Meanwhile in (2), the NP (the car) lacks a postmodifier. In other words, the occurrence viz-a-viz non-occurrence of a postmodifier contributes to the overall structural and semantic complexity of the entire noun phrases, irrespective of the syntactic positions of the NP. Quantitative analyses of 8897 NPs indicate that in Nigerian NPs, a postmodifier is more unlikely to occur (61%) than not (39%). Further analyses show that prepositional phrase (57%), rather than clause (32%) or adjective (9%) or adverbials (2%), is the most preferred structural postmodifier type. It is also shown that realised postmodifiers are more likely to be structured in two-to-four words (51%) than four-words above. As for the predictive strength of variables studied, syntactic function is found to edge register in asserting influence and explaining different scenarios and contexts where we might or might not find a postmodifier, together with its structural type and weight. In other words, register, which is reputed as a significant indicator of structural variation (Biber, 2007; De Haan, 1993; Schilk and Schaub, 2016) is outweighed by syntactic function. The study further attests that significant structural simplification is largely present in the postmodifier structure of the Nigerian English noun phrase.

Keywords: *postmodifier, Nigerian English noun phrase, New Englishes, register, syntactic function and weight, structural simplification*

1. Introduction

Several new varieties of English have empirically attested to the tendency of structural simplification hypothesis. However only little empirical evidence supporting the hypothesis has been provided, and more, especially from the postmodifier structural constituent in Nigerian English noun phrase is required (Gorlach 1998). The present study therefore contributes empirical evidence from the postmodification constituent in the noun phrase structure in Nigerian English, showing how the structure and complexity of postmodifier, together with relevant predictors, reflect the tendency of structural simplification hypothesis. Given that the postmodification slot is a slot within the noun phrase structure which potentially could be complex as possible, then this syntactic element becomes a good syntactic unit with which the tendency for structural simplification in new varieties of English can be measured.

Together with variables representing syntactic function, register, and weight, three issues; (1) occurrence/non-occurrence (2) structural type and (3) structural weight, all of which insightfully relate to the structure of postmodifier are comprehensively examined, in the light of structural complexity/simplicity characterising outer and expanding Englishes. As can be seen in (1) and (2), the occurrence/non-occurrence of a postmodifier within a NP structure might highlight the presence of structural complexity or simplicity. In (1), a postmodifier is realised but it is not realised in (2), which makes (2) simpler and shorter to (1).

(1)   *My car which I just bought last week has been stolen*

(2)   *My car has been stolen*

Furthermore, the structural type of postmodifier (that is, choices among clause, prepositional phrase, adjective, and adverbial as postmodifiers) also shows the extent to which complexity/simplicity is present, and how the structural simplification hypothesis is indirectly shown. In (1) the postmodifier is a relative clause, rather than a prepositional, adjectival, or adverbial phrase. Thirdly, the structural weight of a postmodifier (i.e. the measurement of the words length) is also investigated, expatiating on the findings in the structural type. Furthermore, in (1) the length is nine (9) words' length, which could be longer or shorter. These three phenomena are discussed in relation to three relevant variables representing register, syntactic function, and weight. In other words, these variables, which have been shown to be influential in structural choices (Akinlotan 2018, Schilk & Schaub 2016, Brunner 2014, Biber et al. 1998, and see also Chapter 4) will provide us with specific contexts on (1) where we might or might not find a postmodifier, (2) where we might or might not find a simple or a complex postmodifier, and (3) where we might or might not find a short or a long (i.e. one, two, three, four, or longer) postmodifier. In addition to explicating the extent to which tendency of structural simplification is manifested by the structure of postmodifier in Nigerian variety, specific scenarios explicating the nature of structure of postmodifier in specific contexts in the variety will also emerge, allowing specific comparisons and hypotheses for similar inner circle Englishes.

Applying quantitative method on 8897 NPs extracted from the corpus material in the written section of the Nigerian component of the International Corpus of English (ICE), the present study will show that a postmodifier is more likely to be omitted from the Nigerian noun phrase structure (61%) than it is to be realised (39%). Also, it will be shown that realised postmodifiers are more likely to be constructed as prepositional phrase, rather than as a clause, an adjective, or an adverb. Furthermore, it will also be shown that these realized postmodifiers are usually two-to-four words length, such that complex postmodifier is rare. Indirectly, the structural patterns found will thus shed light on the structure of the postmodifier (slot) in Nigerian variety, as well as showing the extent to which the structural simplification hypothesis is present in the variety, together with specific contexts provided by the independent behavior of the selected variables. In addition to showing tendency of structural simplification, Barlage's (2014) assertion that structural node correlates with words' length in measuring complexity will also be tested out.

2. Postmodifier and variables

The structure and constituents of NP have been shown to be dependent on many variables such as (1) the kind of register that realises the discourse/text being investigated, and (2) the syntactic functions that NPs perform, and (3) the weight of the different constituents that make up the entire actual NP. Given that the postmodifier slot is such a syntactic position that allows for a complex or simple structure, then different variables such as those itemised above will be influential on what structural choices are made. In addition, influences of these variables have been established in previous literature, and a review of their effects is provided in the following section. In the subsequent section, the predictive strengths of these factors as found in the literature are discussed. Also, on the basis of their accounts in these previous studies, I thus propose expectations of how these variables will influence choices in the present study.

2.1 *Syntactic function*

Several works, for examples Meunier 2000, Schilk & Schaub 2016, Chapter 4, have shown that the syntactic function a noun phrase performs within a clause structure influences its internal structure. Gisborne (2003) and Hudson-Ettle & Nilsson (2002) provided evidence about the relationship between syntactic positions and structure of the constituents of noun phrase within a clause structure. More specifically, Hudson-Ettle et al. showed that premodifier complexity is influenced by the syntactic position occupied by the noun phrase that realises the premodifier. Furthermore, Schilk and Schaub (2016) and Chapter 4 showed that noun phrase at the subject position in a clause structure is structured simpler to noun phrase at other syntactic positions such as subject complement, preposition complement, direct object, etc. Following Gisborne (2003), Hudson-Ettle and Nilsson (2002), Schilk & Schaub (2016) and Chapter 4, it implies that a simplified noun phrase is one with fewer structural constituents.

In other words, one or two structural elements (e.g. postmodifier) will not be realized in such simplified NP. Given that postmodifier is potentially the heaviest structural constituent within the NP structure, then subject noun phrase (which, according to Chapter 4, is likely to be structured simpler), is likely to be structured without a postmodifier. Therefore, on the basis of previous findings in Chapter 4, and Schilk & Schaub (2016), it can be expected that occurrence of postmodifier will be influenced by the syntactic position of the NP realising the postmodifier. Following findings in Chapter 4, one can expect postmodifier to occur infrequently within NPs that are found at the subject position in a clause structure, while it is expected that there will be a high frequency of postmodifier in NPs found at other syntactic positions. Similarly, one can expect simple postmodifier to associate with subject NPs, while complex postmodifier associates with NPs at other syntactic positions. Following this expectation, we can then expect that clausal postmodifier will associate with non-subject NPs, while phrasal postmodifiers of any type (e.g. adjective, prepositional phrase) will associate with subject NPs. This expectation is informed by and derived from findings in Chapter 4-7.

2.2 *Register*

Register, including its characteristics text type, and genre, has been established as an important variable in syntactic variation analyses such as in genitive alternation (Akinlotan 2016b,

Rosenbach 2002), in dative alternation (Bresnan et al 2007), in particle placement (Gries 2003), in noun phrase structures in new Englishes (Schilk & Schaub 2016), in definite article usages (Wahid 2013), and in noun phrase complexity (Akinlotan & Housen 2017). Furthermore, Biber et al. (1999), Halliday (1988), and Varantola (1984) have also shown the significant influence of register on the presence and absence of internal elements such as postmodifier within a NP structure. More specifically, Biber et al. showed that academic text type, rather than non-academic text types such as literary works, is more likely to realise complex premodifiers. This means that non-academic texts are more likely to construct NPs without a premodifier. Meanwhile, when such non-academic texts do construct NP with a premodifier, such premodifier is likely to be a simple-structured type.

The aforementioned characteristics of register and structural choices can be extended to the postmodifier. Schilk & Schaub (2016) and Chapter 4 have shown that there is a relationship between register and likelihood of of occurrence of different syntactic constituents (e.g. determiner, premodifier, and/or postmodifier) in different varieties of English. This implies that the internal structure of NPs can be predicted on the basis of the texts that realise them. In Chapter 4, it is found that postmodifier rarely occurs in certain texts such as interactional, literary, and student essays. Relatedly, Jucker (1992), who studied the internal structure of NPs in relation to text types (upmarket versus down market newspapers), found a significant relationship between the structure of NPs and the type of text that realises them. Jucker showed that up-market newspapers realise NP structural patterns that differ from those that are realised in down market newspaper. Specifically, down market newspapers realised more noun and names in prehead position than found in upmarket newspapers.

In the light of Jucker's sub-categorisation of media language into a social stratum of up-market and low-market newspaper, one can further understand the extent to which register's influence can go, in terms of explaining variation underlying structural patterns. Following previous studies, one can then expect a significant relationship between register (or text type, or genre) and occurrence, structural type, and complexity of postmodifier in our variety. On the basis of previous findings, one can expect a higher occurrence of post modifier in academic texts than in other text types. In the same vein, it can be expected that complex postmodifier (i.e. of clausal type and of long length) will associate with media, academic, and popular texts. Furthermore, interactional, student, business, and literary texts are expected to associate with non-occurrence of postmodifier, and when occurred, should associate with simple-structured postmodifier. More specifically, Biber (1999)'s assertion that the occurrence of postmodifier (and premodifier) is about the same frequency in media texts will be tested out in our variety.

2.3 *Syntactic weight*

Syntactic weight has been found to be influential in different constructional choices and realizations. The overall structure of a noun phrase, which can be generally described as a simple or a complex NP, has been found to be influenced by the syntactic weight/length of structural constituents or elements that make up the entire NP structure (Hawkins 1994, Bresnan et al. 2007, Wasow 1992, 2002). For instance, Chapter 4 shows that the structural complexity of NPs in Nigerian English is influenced by the fact that certain structural constituents such as premodifier and/or postmodifier are likely to be omitted. However, when occurred, the structural complexity is simple-structured. Therefore, the omission of a

premodifier or a postmodifier constituent within a noun phrase structure will resultantly influence the weight of the actual NP that is realised. This means that an NP that consists of both a premodifier and a postmodifier at the same time is expected to be heavier than NPs that do not make use of both constituents or any of the either constituents. Therefore, the hypothesis of structural simplification in New Englishes can be explained in terms of syntactic weight of the overall NP, and also in terms of structural constituent's present.

This suggests that the structural weight of (other) constituents making up a noun phrase can explain the phenomenon surrounding the presence and/or absence of a postmodifier within an NP structure. Hypothetically, and following Schilk & Schuab (2016) and Chapter 4, the weight of a postmodifier, if there is any, is likely to be influenced by the weight of a premodifier, or a complement, or even a head noun. This expectation will be tested out in our corpus data. Following findings in Barlage (2014), Schilk & Schuab (2016), and Chapter 4, it can be expected that the weight in the prehead slot will influence the presence/absence of a postmodifier. Where a postmodifier is present, the weight in the premodifier slot is expected to associate with the weight of the postmodifier. Since each constituent within the NP structure, especially the premodifier and post modifier slots, has capacity for varying degree of syntactic weight, then it can be expected that some kind of relationship between the length/weight of premodifier and postmodifier in our corpus data will suffice. For instance, Barlage found that the weight of a postmodifier contributes much more to the complexity of the overall NP than the weight of a premodifier does.

2.4 *Occurrence/non-occurrence of postmodifier in varieties of English*

Data on the distribution of postmodifier in varieties of English is scanty. Until Schilk and Schaub (2016) put forward their detailed data and analyses, there was no work available showing the specific and predictive distributions and nature of the internal structures of noun phrase in new and established varieties of English simultaneously. The following distributions on the occurrence of the postmodifier in five different varieties of English are extracted from Schilk & Schaub's distributions which showed the presence/absence of internal elements in NP in four different text types representing academic humanities, conversation, social letters, unscripted speeches. The syntactic functions of the NP, subject versus non-subject, are also accounted for. Schilk and Schuab accounted for four levels of occurrence, relying on whether the actual NP consists of a premodifier and/or a posmodifier; (1) simple-NP, an NP which constructs neither a premodifier nor a postmodifier, (2) premodified-NP, an NP which constructs only a premodifier, but no other internal syntactic unit present (3) postmodified-NP, an NP which constructs only a postmodified, and (4) pre- and postmodified-NP, an NP in which both a premodifier and a postmodifier are present. In other words, (3) and (4) show presence/occurrence of a postmodifier, while (1) and (2) show absence/non-occurrence of a postmodifier. Following this interpretation, the following distributions on the occurrence and non-occurrence of postmodifier in five different varieties of English emerge. The five varieties of English represent Canadian (CAN), Hong Kong (HK), Indian (IND), Jamaican (JAM), and Singaporean (SIN).

Non-subject academic humanities

Occurrence	CAN	HK	IND	JAM	SIN
Postmodified	137	123	98	126	112
Unpostmodified	114	95	147	109	130

Subject academic humanities

Occurrence	CAN	HK	IND	JAM	SIN
Postmodified	35	46	47	58	52
Unpostmodified	114	136	108	107	106

Non-subject social letters

Occurrence	CAN	HK	IND	JAM	SIN
Postmodified	56	51	75	50	53
Unpostmodified	176	165	179	160	170

Subject social letters

Occurrence	CAN	HK	IND	JAM	SIN
Postmodified	14	9	13	13	15
Unpostmodified	154	175	133	177	162

3. Data selection and preliminary analyses

Noun phrases were extracted from the sixteen (16) different text categories in the written component in the Nigerian section of the International Corpus of English (ICE). In order to compare results to other varieties, NPs from media and academic texts are also extracted from Ghanaian and British varieties, using contemporary texts from BYU Corpus. Unlike ICE, BYU has an array of contemporary texts from a large number of varieties of English. A total of 1226 NPs from Ghanaian variety, 1072 NPs from British variety, and 3432 NPs from Nigerian variety is used in the final analyses. This leads to a grand total of 5730 NPs. Only academic and media texts in Ghanaian and British varieties are used. Table 1 shows the proportions of NPs that were extracted from each category, and how these various 16 texts categories in the ICE-Nigeria are reconceptualised into seven (7) registers. For example, the table shows that editorial and reportage text types make up the media register, while exams and student essays make up the student register.

The scores in the table show the size of NPs that each category realises. For examples, examination category realises 710 NPs while humanities in popular register realises 280 NPs.Each textual category consists of different text materials from which I selected the first set of texts. These first sets of texts are identified accordingly. The selected texts are stated as; AHum (1), ANsc (1), ASsc (1), ATec (1), Admin (1, 2, & 3), Business letter (1, 2, 3, & 4), Exams (1, 2, & 3), Novel (1 & 2), PopHum (1 & 2), Pop Natural Science (1), Pop Social Science (1 & 2), PTec (1 & 2), Reportage (1, 2, 3, 4, 5 & 6), Skills Hobbies (1, 2, 3, & 4), and Student essay (1, 2, &3). As can be seen it shows that only the first texts in Academic humanities, natural science, social science, and technical are used in the extraction process. Meanwhile, the first six (6) texts are used in reportage category.

Table 1: A description of text categories in the Corpus and the NPs extracted

GENRES IN THIS STUDY	TEXT TYPE IN NIGERIAN ICE		NPs
Student	Exams (686)	Student Essay (656)	1396
Media	Editorial (664)	Reportage (633)	1297
Academic	Humanities (308)	Natural Science (323)	1215
	Technical (279)	Social Science (305)	
Administrative	Business letter (694)	Administrative (609)	1303
Popular	Humanities (288)	Natural Science (267)	1206
	Technical (254)	Social science (397)	
Literary	Novel (1258)	---------	1258
Interactional	Social letter (609)	Skills hobbies (667)	1276

The extraction procedure followed revised procedure in Chapter 4 in which extracted NPs are those NPs that are syntactically interchangeable. That is, they can be substituted in their respective syntactic positions by a noun or a pronoun. NPs that are combined (Biber et al., 1999), such as *ministers and ambassadors* in *the recently appointed ministers and ambassadors of the Federal Republic of Nigeria* are identified as two constructions; (1) 'the recently appointed ministers of the Federal Republic of Nigeria' and (2) 'the recently appointed ambassadors of the Federal Republic of Nigeria'. Also, nominalised adjectives (Biber et al., 1999; Faragher et al. 2012), for examples, *the Nigerian, the sick, the rich, the masses, etc* are extracted. As Table 1 shows, a total of 9352 NPs emerged. These 9352 NPs are subsequently annotated for their structures and different variables. First, different NP realisations are identified. A revised version of Huddleston & Pullum (2002)'s NP theoretical framework is employed in order to identify and define a postmodifier. According to this framework, a postmodifier is a word or a group of word ranging from a phrase to a clause with a purpose of providing additional information about the head noun, such that the semantic identification of the head noun in the real world is obvious. In theoretical terms, this NP framework   conceptually models NP as a functional category consisting of six (6) internal elements such as determiner (D) + premodifier (M) + head noun (H) + complement (C) + postmodifier (M) + peripheral dependent (PD).This framework contrasts with traditional descriptions of NP in that this framework does not only identify two structural nodes (i.e. Complement and Peripheral Dependent) but also theoretically distinguish between a complement and a head noun in one hand, and between a postmodifier and a peripheral dependent on the other hand.

In the present study, peripheral dependent (PD) is not identified as an independent syntactic element, but as a semantic realisation of a post modifier. In other words, our overarching NP framework (see chapter 2 for more argument on this reconceptualization) will suffice as: (D) (M) H C (M). In the present study, whether an NP is realized as D+H (the student), H+C+M (student of linguistics in year three), or as M+H+M (new President in old system) is noted and identified. This classification allows a clear picture of the use (occurrence and non-occurrence) of the postmodifier, such that a distribution of postmodified and unpostmodified NPs emerge. The syntactic function that an NP performs in the clause structure is also noted and identified. Eight syntactic functions, which follow from Chapter 4, are identified. Table 2 shows syntactic functions accounted for, together with illustrating

examples (see Akinlotan 2017, and Akinlotan & Housen for more on syntactic functions of the NPs).

Table 2: Syntactic positions and corresponding NPs within the clause structure

Syntactic Position	NPs within the clause structure
1. Subject	*The National Assembly* shall have power to make laws.
2. Subject complement	Drying of food crops is *an energy intensive operation.*
3. Apposition	The big three languages, *Hausa, Igbo and Yoruba,* dominate other minority languages in Nigeria
4. Direct object	Government parastatals lavish *huge sums of money* yearly
5. Indirect object	Experts are invited to *them* the many ways of doing business
6. Object complement	The Minister of Information called Boko Haram *a disease*
7. Preposition complement	Women with *mature skin* are as beautiful as the dewy youth
8. Adverbial	The room *downstairs* is being fumigated

The weight of the premodifier (preweight or prelength) and postmodifier (postweight or postlength) is also measured by counting the word(s) that make them up. Once counted, they are categorised as P (postmodifier) or M (premodifier), which can be P1 (one-word postmodifier; e.g *downstairs* in *the room downstairs*), P2 (two-worded; e.g. *running away* in *the man running away*), P3 (three words; e.g. *beautiful African attire* n *the lady in beautiful African attire*), P4 (four words; *who spoke fifteen Nigerian languages* in *the teacher who spoke fifteen languages*), and so on. The same counting method is applied to the premodifier, as in M1 (e.g. the *large* room downstairs), and M2 (The *beautiful African* dress).

In the counting method, prepositions, conjunctions, and determiners (except those that function as premodifiers (see Chapter 4, as well as Akinlotan & Housen 2017) were excluded. Structural type of post modifier (i.e. post type) are also identified as clause type (e.g. The man *who built the country* has died), adjective type (The money *available* is not enough), adverb type (The room *upstairs* is small), and prepositional phrase type (The problem *with Nigeria political system*). Finally, NPs are also categorised on the basis of the registers that realise them. The NPs are then categorised into the seven registers aforementioned. Having completed the annotation, the independent effects of each variable and the emergent patterns of structural distributions are analysed, using statistical methods of cross tabulation and chi square test, showing the relationship between constructional choices and variables representing syntactic function, register, and weight. In other words, only the results of the independent behavior of the variables are presented in the present study.

4. Results

The independent effects of the variables representing register, syntactic function, and preweight are presented here. How, and the extent to which the variables influence the use, structural types, and weight of postmodifier are shown. The distributions are followed by a chi square test of independence, showing what kind of relationship exists between the predictors and the issues at hand. The results are presented in this order: a general description of the structural distribution, which is followed by the independent effects of the variables.

4.1 *Overview of structural distributions*

Table 3: A table showing the overview distribution of NPs with and without postmodifier

NP with post modifier		NP without post modifier		Total (NPs)	
N	%	n	%	n	%
3432	39	5465	61	8897	100

As can be seen, NPs are more likely to be realised without a post modifier (61%) than with a postmodifier (39%). Given that post modifier can co-occur with different structural constituents within the NP, then it is important to know how the postmodifiers are distributed across different combinations. Hence, the table below shows the configuration of the post modifiers with different elements within the NP.

Table 4: A distribution of the co-occurrence of the postmodified NPs

NP structural types and examples	n	%
DHCM *The head of State in the last administration*	42	1
HCM *head of state in the last administration*	56	2
MHCM *Corrupt men of God in our society*	3	0
DHM *The head of the family*	1392	41
DMHCM *The sacked Secretary of State of the impeached government*	3	0
HM *Women in power*	809	24
DMHM *The graduate students of linguistics in year five*	701	20
MHM *Beautiful ladies in African attire*	426	10
TOTAL	**3432**	**100**

On the basis of our revised NP framework, only eight structural realisations are possible when a post modifier is present. All these eight possible realisations are realised/found in our corpus,

as can be seen in Table 4. However, there is a significant difference in the distribution of these structural realisations. As can be seen, a post modifier is likely to co-occur with determiner (40%), whereas the presence of a premodifier and a complement seem to impact on the realisation of the postmodifier. As can be seen, a postmodifier is unlikely to occur as a part of a very complex construction such as D +M+H+C+M. Given the above scenarios, it is then important to understand where we might or might not find a post modifier on the basis of the syntactic functions, preweight, and registers that characterise them. These are important variables that make our analysis more precise.

Table 5: Postmodifier occurrence and variables under study

	Postmodified NP		Unpostmodified NP		Total	
	n	%	n	%	n	%
REGISTER						
Academic	602	50	613	50	1215	100
Media	468	36	829	64	1297	100
Student	529	39	813	61	1342	100
Administrative	758	58	545	42	1303	100
Interactional	274	21	1002	79	1276	100
Literary	329	26	929	74	1258	100
Popular	472	39	734	61	1206	100
TOTAL	3432	39	5465	61	8897	100
SYNTACTIC FUNCTIONS						
Direct object	1074	91	109	9	1183	100
Indirect object	83	7	1138	93	1221	100
Object complement	13	4	357	96	370	100
Prepositional complement	851	97	28	3	879	100
Subject complement	479	33	962	67	1441	100
Apposition	54	2	2611	98	2665	100
Subject	795	78	222	22	1017	100
Adverbial	83	69	38	31	121	100
TOTAL	3432	39	5465	61	8897	100
PREWEIGT						
M0	2110	37	3574	63	5684	100
M1	1143	41	1652	59	2795	100
M2	153	43	203	57	356	100
M3+	26	41	36	58	62	100
TOTAL	3432	39	5465	61	8897	100

4.2 *Occurrence/non-occurrence of post modifier and its predictors*

In this unit more precision about the occurrence and non-occurrence of the post modifier is sought on the basis of the syntactic functions the NP perform, the weight of the premodifier (pre-weight), and the register (i.e. type of text) that realises these NPs. Rather than a general statement, the following distributions will reveal the underlying pattern characterising the use of postmodifier in Nigerian variety of English.

4.2.1 *Register and occurrence of post modifier*

Previous studies have shown register as a powerful variable explaining structural variation (Biber et al 1999, Schilk & Schaub 2016, see also Chapter 4). As can be seen in Table 5, the relationship between register and occurrence of postmodifier is weak $\{\chi^2 (6) = 516\ p < 0.000\}$. However, the extent to which register explains the occurrence and/or non-occurrence of a post modifier within a noun phrase structure is still insightful. Media, student, interactional, literary, and popular registers are more likely to realise noun phrases without postmodifier (64%, 61%, 79%, 74%, and 61% respectively) than noun phrases with postmodifier (39%, 21%, 26%, and 39% respectively). On the other hand, administrative register is more likely to realise NPs with postmodifier (58%) than NPs without postmodifier (42%). Meanwhile the preference for a particular structural pattern does not emerge in academic register where the chance of producing NPs with postmodifier (50%) is just the same chance with producing NPs without postmodifier (50%).

In the distributions below, comparison between Nigerian variety and five other varieties is undertaken. As can be seen, there is a uniformity in pattern of occurrence/non-occurrence of postmodifier, such that occurrence/non-occurrence of postmodifier cannot be fully explained in terms of text type.

Social letter

	Postmodified		unpostmodified		Total	
	n	%	n	%	n	%
CAN	60	18	330	82	390	100
HK	60	15	339	85	399	100
IND	88	22	312	78	400	100
JAM	63	16	337	84	400	100
SIN	68	17	332	83	400	100
NIG[1]	**274**	**21**	**1002**	**79**	**1276**	**100**

Academic Humanities

	Postmodified		unpostmodified		Total	
	n	%	n	%	n	%
CAN	172	43	228	57	400	100
HK	169	42	231	58	400	100
IND	145	36	255	64	400	100
JAM	184	46	216	54	400	100

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[1] Since social letter category is included in the Interactional register in Nigeria data, so we extract and compare distributions from this register. Also, this is the closet category in Nigeria data to social letter in Schilk et al.

SIN	164	41	236	59	400	100
NIG	**602**	**50**	**613**	**50**	**1215**	**100**

NPs without postmodifier are likely to occur in social letter, just as with academic text, though a varying degree of variation can be observed. In other words, social letters are more likely than academic text to realise NPs without postmodifier. While preferential pattern for absence of postmodifier in social letter is spread (e.g. 83% versus 17%), there is a small difference in academic text between the likelihood to realise NPs with or without postmodifier.

4.2.2 *Syntactic functions and occurrence of post modifier*
Chapter 4 and Schilk & Schaub (2016) have shown the important role syntactic functions play in explaining structural variation viz-a-viz occurrence and non-occurrence of a constituent within a noun phrase structure. As Table 5 shows, the relationship between syntactic functions and the occurrence of postmodifier is significant {χ^2 (7) =5570 p<0.000}; NPs at the indirect object, object complement, subject complement, and apposition positions are more likely to realise NPs without postmodifier (93%, 96%, 67%, and 98% respectively) than NPs with postmodifier (7%, 4%, 33%, and 2% respectively). Meanwhile, NPs at direct object, preposition complement, subject, and adverbial positions are more likely to realise NPs with postmodifier (91%, 97%, 78%, and 69% respectively) than NPs without postmodifier (9%, 3%, 22%, and 31% respectively).

Unlike register, syntactic function appears to be stronger in explaining different scenarios where we might or might not find postmodifier within a noun phrase structure. Schilk et al. (2016) shows how binary syntactic function can aptly present the influence of syntactic function on structural choices. Following this approach, a clearer picture of the strength of syntactic function emerges when a two-way dimension of subject versus non-subject syntactic positions is presented. Figure 1 shows a collapse of the eight syntactic functions into two syntactic functions; subject and non-subject NPs.
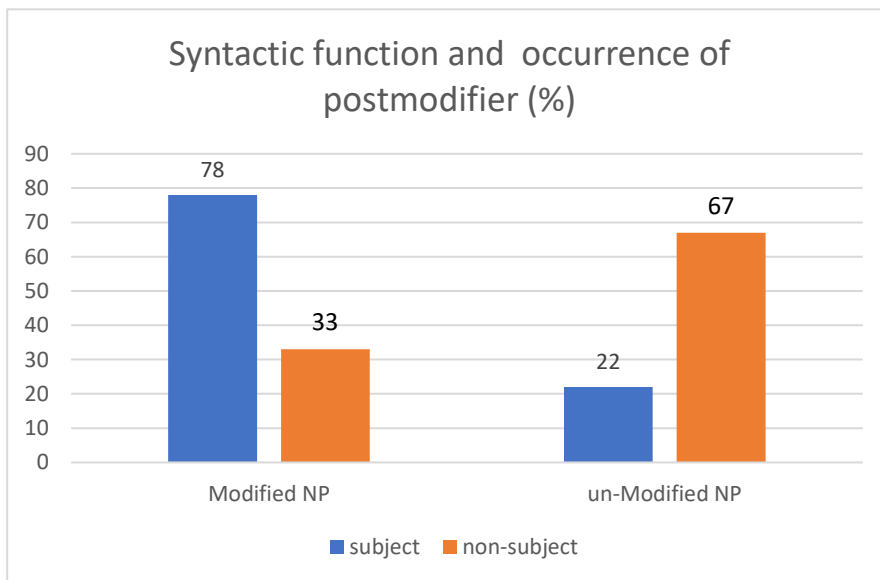

Figure 1: Relationship between binary syntactic function and postmodifier occurrence

In order to make a comparison between the influences of syntactic function on the occurrence of postmodifier in Nigerian variety and in other varieties studied in Schilk et al. (Canadian/CAN, Hong Kong/HK, Indian/IND, Jamaican/JAM, and Singaporean/ SIN), I restructure data in Schilk et al. and presented them below, alongside the distributions from Nigerian variety.

Subject NPs and occurrence of postmodifier in the varieties

	Postmodified		unpostmodified		Total	
	n	%	n	%	n	%
CAN	49	15	268	85	317	100
HK	55	15	311	85	366	100
IND	60	20	241	80	301	100
JAM	71	20	284	80	355	100
SIN	268	80	67	20	335	100
NIG	**795**	**78**	**222**	**22**	**1017**	**100**

Non-subject   NPs and occurrence of postmodifier in the varieties

	Postmodified		unpostmodified		Total	
	n	%	n	%	n	%
CAN	137	32	290	68	427	100
HK	174	40	260	60	434	100
IND	173	35	326	65	499	100
JAM	176	40	269	60	445	100
SIN	165	35	300	65	465	100
NIG	**2637**	**33**	**5243**	**67**	**1017**	**100**

As can be seen, syntactic function does not deeply explain the occurrence/non-occurrence of postmodifier in all of the varieties reported. Although there is some relationship, it is clear that non-occurrence of postmodifier is less sensitive to syntactic positions of the NP. Also, there are sharp similarities and dissimilarities among the varieties. Except for Canadian variety which is an inner circle variety, other varieties are outer circle varieties (Kachru 1985) and share some historical and developmental features (Schneider 2007), which expectedly should manifest similarities. However, Nigerian and Singaporean varieties are very much similar in that subject NPs are more likely to realise postmodifier, while the opposite is the case in Canadian, Indian, Hong Kong, and Jamaican varieties. In other words, subject NPs in Canadian, Indian, Hong Kong, and Jamaican varieties are more likely to realise NPs without postmodifier, while Nigerian and Singaporean varieties are less likely to omit postmodifier in their subject NPs. Furthermore, it can be observed that non-subject NPs and occurrence/non-occurrence of postmodifier appear to follow a uniform pattern in all of the varieties. Such is a scenario that further attests to a recurrent negative relationship between syntactic functions and occurrence/non-occurrence of postmodifier.

4.2.3 *Preweight and occurrence of post modifier*
Studies have shown that there is a relationship between syntactic weight and structural variation (Hawkins 1994, Wasow 2002, Akinlotan 2016b). Chapter 4 shows that the weight in the premodifier slot of a noun phrase contributes to the overall NP complexity. As Table 5

shows, the relationship between the weight of the premodifier (preweight) and the occurrence of the post modifier is weak {χ^2 (3) =14.62 p<0.002}; irrespective of the type of the preweight (M0, M1, M2, and M3+), noun phrases are more likely to be realised without postmodifier (63%, 59%, 57%, 58% and 58% respectively). When the noun phrase consists of one word of a premodifier (M1), the NP is very much likely to realise an NP without a postmodifier (59%). The M1 preweight preferential pattern is repeated for M0, M2, and M3 preweight which, respectively, return 63%, 57%, and 54% preferences for NPs without postmodifiers. The expected pattern is a strong relationship between M3+ preweight and NPs without postmodifiers. Also, expectation was for M0 preweight to have a strong relationship with unpostmodified NPs.

4.3. *Postmodifier structural type and its predictors*

Having shown where we might find or not find a postmodifier within the NP structure, then it is important to move closer to showing the structural types of the postmodifiers that are used. Postmodifiers can be realised as a clause, as a preposition phrase, an adverb, and an infinitive. On the basis of syntactic function, register, and preweight, insight into the structural type of postmodifier occurring with the NPs is provided. Given that clausal postmodifier is, potentially, the most complex postmodifier structural type, then a high frequency of this structural type will therefore attest to the nature of postmodifier complexity in our corpus. Since the data from the Nigerian variety will be compared with distributions from Ghanaian and British varieties, then results from Ghanaian and British varieties will be presented first.

4.3.1 *Postmodifier structural types in Ghanaian and British Englishes*

Table 6: showing distribution in Ghanaian variety by syntactic function and register

	Clause		Phrase		Adjective		Adverb		Total	
	n	%	n	%	n	%	n	%	n	%
Subject	141	27	324	62	51	10	3	0	519	100
Non-subject	144	20	541	77	19	3	3	0	707	100
Total	285	23	865	71	70	6	6	0	1226	100

	Clause		Phrase		Adjective		Adverb		Total	
	n	%	n	%	n	%	n	%	n	%
Academic	121	18	507	76	34	5	3	0	665	100
Media	164	29	358	64	36	6	3	1	561	100
Total	285	23	865	71	70	6	6	0	1226	100

As can be seen, postmodifier is more likely to be realised as a prepositional phrase (71%) than as a clause (23%), or as an adjective (6%). Postmodifier as an adverb (or adverbial phrase) is very much unlikely to occur, as the data shows. Furthermore, clausal postmodifier is more likely to occur in media text than in academic text. This is a pattern similar to distribution of phrasal postmodifier. Meanwhile, while clausal postmodifier is more likely to occur in subject NPs, phrasal postmodifier is more likely to occur in non-subject NPs.

Table 7: showing distribution in British variety by syntactic function and register

	Clause		Phrase		Adjective		Adverb		Total	
	n	%	n	%	n	%	n	%	n	%
Subject	121	33	221	60	21	6	5	1	368	100
Non-subject	275	39	391	56	19	3	19	3	704	100
Total	396	37	612	57	40	4	24	2	1072	100

	Clause		Phrase		Adjective		Adverb		Total	
	n	%	n	%	n	%	n	%	n	%
Academic	144	23	456	74	4	1	12	2	616	100
Media	252	55	156	34	36	8	12	3	456	100
Total	396	37	612	57	40	4	24	2	1072	100

Although at varying degree, British variety behaves somewhat similar to Ghanaian in that phrasal postmodifier is more likely to be used (57%) instead of a clausal postmodifier (37%). However, clausal postmodifier is more likely to occur in British variety (37%) than in Ghanaian variety (23%), while phrasal postmodifier is more likely to occur in Ghanaian (71%) than in British variety (57%). Moreover, while phrasal postmodifier (64%) is more likely than clausal postmodifier (29%) to occur in Ghanaian media text, the opposite is the case in British variety where clausal postmodifier (55%) is more likely than phrasal postmodifier (57%) to occur in media texts.In the following sections, results from Nigerian variety is presented, and compare to both Ghanaian and British varieties where obtainable. Table 8 shows distributions across variables representing register, weight, and syntactic function.

4.3.1 *Register and structural type of postmodifier*
The strong influence of register explaining variation in different languages and varieties have been established in the literature. As can be seen in Table 8, the relationship between register and structural type of postmodifier is significant {χ^2 (18) =257 p<0.000}. Interactional register, unlike academic (65%) and student 65%), is more likely to use a clausal postmodifier than any other structural type. It is noteworthy that academic (22%) is very much unlikely to realise clausal postmodifier. Given that clause is more complex than any other structural type possible as a postmodifier, then one would have expected such complex writing like academic to show more (or even the most) preference for clausal postmodifier.

On the other hand, academic and student texts (we had expected a significant variation between these two registers, given the different levels of proficiency exhibited in their writings, see Akinlotan 2016a) appear to be the registers most likely to use prepositional phrase postmodifier. Administrative text (62%) also follows academic and student texts in the choice for prepositional postmodifier. Furthermore, media (17%) and interactional (15%) texts emerged as the registers with the most likelihood to realise adjectival postmodifier, while student text is very much unlikely to realise the adjectival postmodifier type.

Table 8: Post-type and variables of register, syntactic function, and preweight

	Clause		Prephrase		Adjective		Adverbial		Total	
	n	%	n	%	n	%	n	%	n	%
REGISTER										
Academic	133	22	389	65	46	8	34	6	602	100
Media	169	36	220	47	79	17	0	0	468	100
Student	167	32	346	65	16	3	0	0	529	100
Administrative	214	28	471	62	48	6	25	2	758	100
Interactional	142	52	90	33	42	15	0	0	274	100
Literary	126	38	171	52	21	6	11	3	329	100
Popular	157	33	261	55	45	10	9	2	472	100
TOTAL	1108	32	1948	57	29	79	79	2	3432	100
SYNTACTIC FUNCTIONS										
Direct object	324	30	658	61	64	6	28	3	1074	100
Indirect object	59	71	24	29	0	0	0	0	83	100
Object complement	8	61	5	38	0	0	0	0	13	100
Prepositional complement	283	33	474	56	68	8	26	3	851	100
Subject complement	198	41	239	50	29	6	13	3	479	100
Apposition	13	17	26	33	15	19	0	0	78	100
Subject	205	26	456	58	111	14	23	2	795	100
Adverbial	23	28	41	49	14	17	5	6	83	100
TOTAL	1113	32	1923	56	30	19	95	3	3432	100
PREWEIGT										
M0	661	31	1261	60	147	7	41	2	2110	100
M1	345	30	561	49	136	12	10	19	1143	100
M2	57	37	25	16	55	36	16	10	153	100
M3+	12	46	10	38	3	12	1	4	26	100
TOTAL	1075	31	1857	54	341	10	159	5	3432	100

More insight is provided by the use of adverbial postmodifier among the registers. As can be seen, media (0%), student (0%), and interactional (0%) texts show a knockout, which represents a complete negative relationship between adverbial postmodifier and these text types. Meanwhile, academic text (6%), unlike media (0%), student (0%), and interactional texts (0%), shows a positive relationship with the use of an adverbial postmodifier within a noun phrase structure. A number of similarities and dissimilarities emerge when distributions in Nigerian variety are compared with the distributions in Ghanaian and British varieties.

If we extract and sum up distributions from academic and media texts in Nigerian variety, the following scenarios emerge: clausal type (28%), phrasal type (57%), adjectival type (12%), and adverbial type (3%). This distribution thus implies that a relationship between register and postmodifier structural type in Nigerian variety is comparable to Ghanaian and British varieties, though in different respects. In terms of preferential pattern, Nigerian variety is more similar to Ghanaian variety (clausal 23%, phrasal 71%, adjectival 6%, and adverb 0%) than it is to British variety (37%, 57%, 4%, and 2% respectively). Such closer relationship between Nigerian and Ghanaian varieties is unexpected, as they belong to what Kachru (1985) described as outer circle. Also, Schneider's Dynamic Model (2007) aggregate them to belonging to the same phase. Although phrasal postmodifier is more likely than clausal postmodifier to be used in both Ghanaian and Nigerian varieties, some evidence of regional variation is still present, which is manifested in the preferential difference between 71% and 57% respectively.

On the other hand, while adverb postmodifier is very unlikely to occur in Ghanaian variety (0%), it is very likely to occur in Nigerian variety (3%), just as it is in British variety (3%). More specifically, academic texts across the three varieties behave similar. That is, phrasal postmodifier is more likely than clausal postmodifier to be used in academic text in Nigerian variety (65% versus 22%), in Ghanaian variety (76% versus 18%), and in British variety (74% versus 23%). As can be seen, there is very sparse variation in this respect. On the other hand, media texts across the varieties show a larger difference; for instance, clausal postmodifier is more likely than phrasal postmodifier to occur in media text in British variety (55% versus 34%), while the opposite is the case in both Ghanaian and Nigerian varieties. In Ghanaian and Nigerian varieties (i.e. outer circle varieties), media texts are more likely to use a phrasal postmodifier than a clausal postmodifier.

4.3.2 *Syntactic functions and structural type of postmodifier*
The syntactic position that a noun phrase occupies within a clause structure influences its structure and that of its constituents such as the premodifier and postmodifier (Schilk et al 2016). Also, stiff competition between syntactic function and register influencing constructional choices has been reported in Chapters 4-7. As Table 6 shows, there is a significant relationship between syntactic function and structural type of postmodifier {χ^2 (21) =173 p<0.000}; NPs at indirect object (71%) and object complement (61%) positions are very much likely to realise NPs with clausal postmodifier. Expectedly, subject NPs (26%), which are usually simple-structured, are very much unlikely to realise NP with clausal postmodifier.

Rather than clausal postmodifier, subject NPs seem to prefer a prepositional phrase postmodifier (58%) to any other structural type. The same pattern is exhibited in appositive NPs where a prepositional phrase postmodifier is the most preferred choice of structural type. Rather than a clausal postmodifier, NPs at direct object (61%), prepositional complement (56%), subject (58%), and adverb (49%) positions would also prefer a prepositional phrase postmodifier to any other structural type. While appositive NPs are very much unlikely to use clausal postmodifier, these NPs are the most likely NPs in all of the registers being studied to realise adjective type of postmodifier (19%). Next to appositive NPs is the adverbial NPs which stands at (17%) in the preference for adjective type of postmodifier. Next to adverbial NPs is subject NPs, which also show some level of choices in this direction. It is important to note that NPs at indirect object and object complement syntactic positions exhibit a negative relationship (0% versus 0%) with adjectival postmodifier.

In order to compare patterns in Nigerian variety to those of Ghanaian and British, distributions for syntactic functions other than subject function are collapsed and distributed as non-subject functions. In this way, equivalent scenarios emerge from Nigerian variety, allowing for a smooth comparison. The percentages of non-subject distributions in Nigerian variety which stand as clausal (34%), phrasal (56%), adjective (19%), and adverb (3%), shows that preferential pattern in Nigerian variety is more similar to British variety (39% clausal, 56% phrasal, 3% adjective, and 3% adverb) than to Ghanaian variety (clausal 20%, 77% phrasal, 3% adjective, and 0% adverb). On the other hand, postmodifier choices in subject NPs are very much the same across the three varieties (with clausal type of postmodifier standing at 33%, 27%, and 26% respectively for British, Ghanaian, and Nigerian varieties).

Furthermore, Nigerian and British varieties show some similarities in context where Ghanaian variety behaves differently. For instance, there is a clear-cut distribution in the use of adverb as postmodifier in Ghanaian variety, while British and Nigerian varieties show similar preferential patterns. In other words, while adverb is very unlikely to be used as a postmodifier in either subject or non-subject NPs in Ghanaian variety, it is likely to be used about the same chance in both Nigerian and British varieties.

4.3.3 *Preweight and structural type of post modifier*
Previous findings have shown that there is a relationship between syntactic weight and constructional choices (Hawkins 1994, Wasow 2002). As can be seen in Table 8, the relationship between preweight and structural type of postmodifier is significant $\{\chi^2 (9) =278.5 \text{ p}< 0.000\}$; when there is no premodifier (M0), the postmodifier is very much likely to be realised as a prepositional phrase (60%). Meanwhile, prepositional phrase is very much unlikely to occur when there is premodifier of two-word length (M2). Where there is premodifier of two-word length (M2), postmodifier is more likely to be a clause (37%) or an adjective (36%) than it is to be a prepositional phrase. Some possibilities for complexity within the NP structure in our variety are shown by the fact that three or longer premodifier (M3+) is associated with the clausal postmodifier. In other words, M3+ is more likely to associate with clausal postmodifier (46%) than with prepositional phrase (38%) or with adjective (12%). Meanwhile, adjectival postmodifier is most likely to occur with an NP that has a two-word premodifier (M2). The same scenario is found with adverbial postmodifier, which is most likely to occur with two-word length premodifier (M2).

4.4 *Postweight and its predictors*

In this section, the relationship between post weight (i.e. the weight of the postmodifier) and the variables understudy (syntactic function, register and preweight) is presented. The distributions are presented in Table 9. Results from British and Ghanaian varieties are presented first, so that findings in Nigerian variety can be easily compared with them.

Table 9: Distribution of postweight by syntactic function and register in British variety

	P1		P2-P4		P5-P8		P9+		Total	
	n	%	n	%	n	%	n	%	n	%
Subject	98	26	199	54	73	20	1	0	371	100
Non-subject	198	28	399	57	102	15	2	0	701	100
Total	296	28	598	56	175	16	3	0	1072	100

	P1		P2-P4		P5-P8		P9+		Total	
	n	%	n	%	n	%	n	%	n	%
Academic	193	31	388	63	32	5	1	0	614	100
Media	103	22	210	46	143	31	2	0	458	100
Total	296	28	598	56	175	16	3	0	1072	100

As can be seen, complex postmodifier (0%) is very less likely to be used, while simple postmodifier (28%) is more likely to be used. If we further reclassify the distribution into a binary dimension, such that P1-P4 become simple and P5-P9 become complex, the pattern that emerged still shows that simple postmodifier (84%) is preferred to complex postmodifier (16%). If distributions between syntactic functions and register are compared to each other, then it can be observed that register explains the variation better than syntactic functions. For instance, it is clearly shown that P5-P8 postmodifier is more likely to occur in media than academic text. Whereas this is not the case with syntactic function where preferential difference is small. On the other hand, it is shown that longer postmodifier, P9+, is not related to register nor syntactic function. In the next table, the distributions from Ghanaian variety are presented and discussed accordingly, comparing scenarios where comparable.

Table 10: showing distribution of postweight by syntactic function and register in Ghanaian variety

	P1		P2-P4		P5-P8		P9+		Total	
	n	%	n	%	n	%	n	%	n	%
Subject	117	33	132	37	107	30	4	0	360	100
Non-subject	203	23	567	65	87	10	9	1	866	100
Total	320	26	669	55	194	16	13	1	1226	100

	P1		P2-P4		P5-P8		P9+		Total	
	n	%	n	%	n	%	n	%	n	%
Academic	191	26	445	61	92	13	5	1	733	100
Media	130	28	224	48	102	22	8	2	464	100
Total	320	26	669	55	194	16	13	1	1226	100

There is a similar pattern to British variety in that simple postmodifier is more likely to be used than complex postmodifier (P5-P9+). On the other hand, syntactic function in Ghanaian variety asserts more predictive influence on choices than syntactic function in British variety does. As can be seen, there is a relationship between syntactic functions and postmodifier

complexity; simple postmodifier of P2-P4 length is more likely to occur in non-subject NPs (65%) than in subject NPs (37%). Meanwhile subject NPs are more likely than non-subject NPs to realise simple-structured postmodifier of P9+ length. Furthermore, it is shown that media text is related to postmodifier of P2-P4 length (whereas P5-P8 postmodifier length is more likely to occur in media text than in academic text). Also, it can be seen that simple postmodifier is more likely to appear in academic text (61%) than in media (48%) text. In order to compare Nigerian variety to Ghanaian and British varieties, I present below the distributions from Nigerian variety.

Table 11: A distribution of postweight by syntactic function, register, and weight in Nigerian variety

	P1		P2-P4		P5-P8		P9 +		Total	
	n	%	n	%	n	%	n	%	n	%
REGISTER										
Academic	119	20	331	55	108	18	44	7	602	100
Media	128	27	301	64	29	6	10	2	468	100
Student	224	42	285	54	8	2	12	3	529	100
Administrative	285	38	286	38	93	12	94	12	758	100
Interactional	68	25	133	49	59	24	14	5	274	100
Literary	68	21	193	59	41	12	27	8	329	100
Popular	185	39	212	45	75	16	0	0	472	100
TOTAL	1077	31	1741	51	413	12	201	6	3432	100
SYNTACTIC FUNCTIONS										
Direct object	292	27	653	61	98	9	31	2	1074	100
Indirect object	39	47	35	42	0	0	9	11	83	100
Object complement	7	54	6	46	0	0	0	0	13	100
Prepositional complement	298	35	471	55	61	2	21	2	851	100
Subject complement	131	27	261	54	73	15	14	3	479	100
Apposition	14	26	31	57	6	11	3	6	54	100
Subject	271	34	461	58	45	6	18	2	798	100
Adverbial	36	43	47	56	0	0	0	0	83	100
TOTAL	1088	32	1954	57	29	49	96	3	3432	100
PREWEIGT										
M0	708	34	1184	56	175	8	43	3	2110	100
M1	358	31	568	50	138	12	79	7	1143	100
M2	33	22	96	63	11	7	13	8	153	100
M3+	9	35	17	65	0	0	0	0	26	100
TOTAL	1108	32	1865	54	324	9	135	4	3432	100

4.4.1 *Register and postweight*

Positive relationship (correlation) between register and structural complexity has been repeatedly reported in the literature. As can be seen in Table 11, the relationship between register and postweight in our corpus is significant $\{\chi^2 (18) =353 \text{ p}<0.000\}$; literary, media and academia texts stand out in their preferences for two-to-four (P2-P4) postweight, which stand at 59%, 64%, and 55% respectively. Next to P2-P4 postweight in these three texts is the choice for a one-word (P1) postmodifier, which is the simplest structural type. Again, the variation in their distributions is minimal as preferences stand at 21%, 27%, and 20% respectively. Furthermore, the gap between literary (59%-21%), media (64%-27%), and academic text (55%-20%) is about the same. This shows that these texts exhibit similar pattern in their preferences for this sort of post weight.

 Also, very noteworthy here is that literary text, which has been shown correlating with simpler or shorter NP (see Akinlotan & Housen 2017), is at par with academic and media texts, which, on the other hand, have been shown correlating with more complex NPs. Therefore, the expectation in which literary text is expected to behave differently from academic and media texts is not borne out in this case. Similarly, the texts which are most likely to realise one-word postmodifier (P1) are student (42%), popular (39%), and administrative (3%). It was expected that interactional text will behave similarly as literary text, attracting simple-structured form such as having a strong relationship with shorter length postmodifier (M1). Surprisingly, interactional text did not behave as expected by attracting simple-structured postmodifier. Instead interactional text turns out to be the text type with the most likelihood of producing more complex postmodifier (P5-P8). One would have expected academic and/or media text(s) to exhibit such association with (P5-P8) complexity. In a similar vein, administrative text (12%), rather than academic and/or media texs which are noted for structural complexity, is the text with the most likelihood for the most complex postmodifier weight (P9+). On the other hand, popular text shows a negative relationship (0%) with the most complex postmodifier.

 The preferential pattern in Nigerian variety is similar to both Ghanaian and British varieties in the sense that simple postmodifier of P2-P4 is the most preferred structure, followed by P1 postmodifier, then P5-P8 length, with P9+ as the least used structure. Meanwhile, a closer look shows that Ghanaian and British varieties share a pattern in which Nigerian variety differs. While P2-P4 postmodifier structure is more likely to be used in the academic texts in both Ghanaian and British varieties, the reverse is the case in Nigerian variety, where simple postmodifier of P2-P4 structure is more likely to occur in media than in academic text. This sort of dissimilarity in pattern is also observed in P5-P8 complex postmodifier; while P5-P8 complex postmodifier is more likely to occur in the academic text in Nigerian variety, it rather is in the media texts in both Ghanaian and British varieties that we are likely to find such complex post modifier of P5-P8.

 We can also note that academic text in British variety behaves slightly different from academic texts in both Ghanaian and Nigerian varieties in that P1 simple postmodifier is more likely to occur in British academic text than in media text; a scenario that is opposite in Nigerian and Ghanaian varieties, where P1 simple postmodifier is more likely to occur in the media than in academic text. However, it must be noted that this variation is spare in Ghanaian variety (26% versus 28%). Furthermore, complex postmodifier of P9+ structure is more related to Nigerian variety than it is related to British and Ghanaian varieties. While academic text (7%), rather than media (2%), in Nigerian variety, is likely to realise P9+ complex

postmodifier, the occurrence of such complex postmodifier in both Ghanaian and British varieties is almost non-existent, as no scenario is found in British variety.

4.4.2 *Syntactic function and postweight*
Syntactic functions have been shown providing insights into constructional choices. As Table 11 shows, there is a small but positive relationship between the syntactic positions of the NP and the weight of postmodifier within the noun phrase structure {χ^2 (21) =107 p<0.000}. Of all the different structures of postmodifier, the relatively complex postmodifier (P2-P5) is the most likely structure to be realised by NPs at the direct object position (61%), prepositional complement (55%), subject complement (54%), apposition (57%), while P1 postmodifier is the most preferred choice with NPs at the object complement (54%). Postmodifiers in NPs at the object complement position (54%) are more likely than NPs at other syntactic positions to realise P1 postmodifier. Furthermore, two-to-four words postmodifier (P2-P4) is significantly more associated with NPs at direct object position than with any other syntactic function. As can be seen, NPs at subject complement (15%) and apposition (11%) are syntactic positions with the most likelihood to realise postmodifier of five-to-eight words (P5-P8). NPs at the indirect object, object complement, and adverbial are very much unlikely to realise NPs with postmodifier constituting five-to-eight words. NPs at the indirect object position, which have a negative knockout relationship with five-to-eight length postmodifier (0%), is the syntactic function with which the most complex postmodifier is likely to be realised. As with five-to-eight words, NPs functioning as object complement, and as adverbial exhibit negative relationship with longer postmodifier (P8+).

As can be seen across the three varieties, the syntactic function of the NPs does not clearly explain the variation in the use of postmodifier as register clearly does. As the table shows, spare variation and clarity is observed in the relationship between syntactic position of the NPs and the distribution of postmodifier, which is the case in the three varieties. The differences in P2-P4 type of postmodifier in British variety (54% versus 57%), and Nigerian variety (58% versus 57%) are small. Although P2-P4 is the most used postmodifier structure across the three varieties, the pattern of variation in Ghanaian variety is more related to syntactic function than it is the case in Nigerian and British varieties. In other words, syntactic function does not clearly explain the distribution of simple P2-P4 postmodifier in British and Nigerian varieties, where there are respectively 3% and 1% difference between subject and non-subject NPs producing this type of postmodifier. Nevertheless, it can be observed that P2-P4 simple postmodifier is related to non-subject NPs in Ghanaian variety and is not clearly so in both Nigerian and British varieties which are very similar in the use of this type of postmodifier.

On the other hand, while subject NPs are more likely than non-subject NPs to realise complex postmodifier of P5-P8 in both British and Ghanaian varieties, the reverse is the case in Nigerian variety. Non-subject NPs are likely to realise such type of postmodifier, though with a small degree of preference. Similarly, except for Ghanaian variety, in both British and Nigerian varieties, simple postmodifier P1 structure is not clearly related to syntactic functions. Although in Ghanaian and Nigerian varieties, subject NPs are more likely than non-subject NPs to realise simple P1 postmodifier; a scenario that is the opposite in British variety, as the relationship is stronger in Ghanaian than in Nigerian variety. As found in variable representing register/text type, complex postmodifier of P9+ is more likely to be found in

Nigerian variety than in British and Ghanaian varieties, though this difference comes at a small degree.

4.4.3 *Preweight and postweight*

Although the influence of constituent weight has been shown on constructional choice, specific arguments about the relationship between weight in the premodification slot and weight in the postmodification slot have not been clearly put forward. As Table 7 clearly shows, there is a small but significant relationship between the preweight and postweight $\{\chi^2$ (9) = 84 p<0.000\}; two-to-four-word postmodifier is the overall preferred choice, while M3+ premodifier is the most preferred choice. One-word (P1) postmodifier also associates with different types of postmodifier at varying length. For instance, one-word postmodifier (P1) is more likely to be realised with three or longer length premodifier (M3+) than with two-word premodifier (22%).

The same pattern is found also with two-to-four postmodifier (P2-P4) which associates more with three-and-longer length (M3+) at 65% than with any other preweight (for instance, M0 stands at 56%, M1 at 50%, and M2 at 63%).However, and expectedly, there is a knockout (0%) in the relationship between M3+and P5-P8, and P9+, which shows that the more complex postmodifiers (P5-P8, and P9+) do not relate with three-and-longer preweight (M3+). Also, one-word preweight associates with the more complex P5-P8 postmodifier (12%) more than with any other premodifier structures (12% versus 8%, and 7%). Similar pattern emerges with the most complex postmodfier structure in which the most complex premodifier (M3+) has a negative relationship with the most complex postmodifier (0%). One would have expected the simplest and the shortest premodifier structure (M0) to associate with the most complex postmodifier (P9+), but this is not the case at 3%.

5. Interaction of predictors motivating postmodifier complexity

In this section the results of interaction of predictors motivating postmodifier complexity are presented. As can be seen in Figure 2, the interaction of register and syntactic function motivating simple or complex postmodifier is shown.

```
                              Postmodifier
                         ┌─────────────────────┐
                         │       Node 0        │
                         │ Category   %      n │
                         │ ■ simple  89,7  3077│
                         │ ■ complex 10,3   355│
                         │ Total    100,0  3432│
                         └─────────────────────┘
                                Register
```
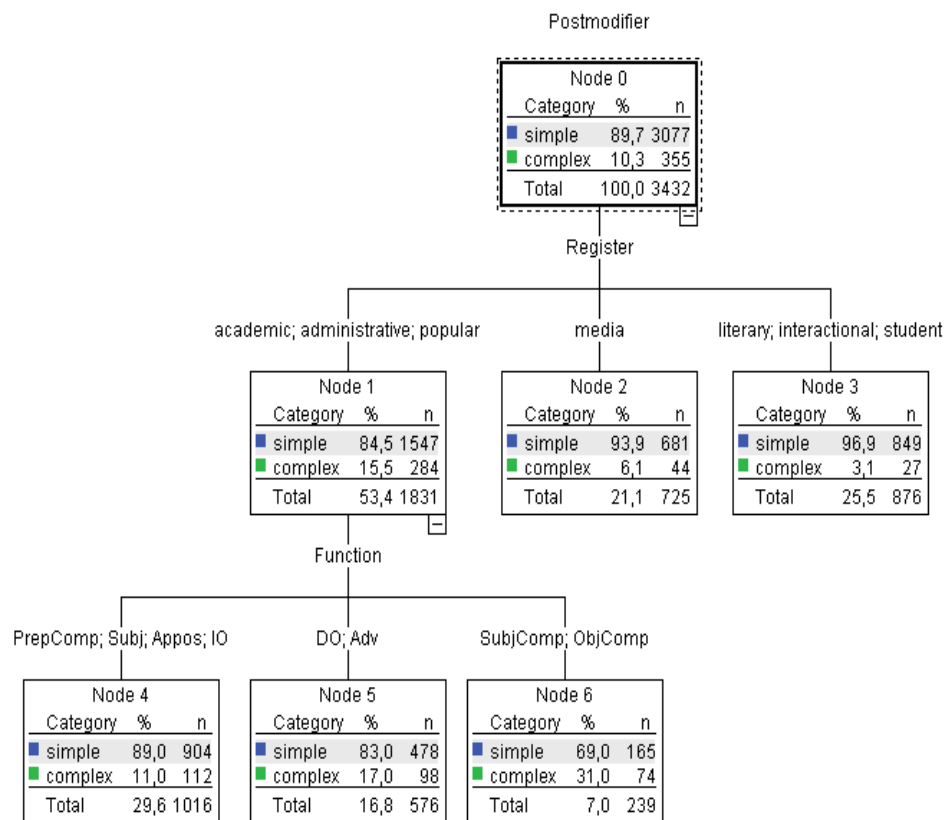
Figure 2: A decision tree showing interaction of predictors motivating choices

As the decision tree suggests, there is some amount of interaction of the predictors in motivating simple or complex postmodifier. It can be observed that register explains more of the variation than syntactic function, which explains only 54% of the observations. More specifically, it can be observed that academic, administrative, and popular texts interact with prepositional complement, subject apposition, and indirect object syntactic functions.

6. Conclusion

In this paper, three issues relating to the structure of postmodifier in Nigerian variety of English in the light of similar varieties of English have been investigated. These include (1) the occurrence/non-occurrence of a postmodifier within an NP structure, (2) structural type of the used postmodifier within an NP structure being a clause, phrase, or word, and (3) the weight/complexity of the used postmodifier within the NP structure. Findings from Nigerian variety, in the light of other inner and outer circle varieties, show that Nigerian NP is more unlikely to realise a postmodifier within an NP structure (61%) than to realise one (39%). Given that postmodifier contributes to the overall complexity of NP, this result therefore shows that there is high tendency of structural simplification hypothesis being validated in the

variety. In other words, it indirectly attests to the hypothesis of structural simplification in New Englishes (Gorlach 1998, Schneider 2007, Schilk & Schaub 2016, Akinlotan 2016a, and also see Chapters 4-7). In addition to this, the recurrent preference for simple-structured postmodifier across the varieties further consolidates the tendency for simplified structural pattern in outer circle varieties of English. In most of the varieties studied, the use of complex postmodifier (P5, P9+) is rare, showing the nature of NP complexity in New Englishes, which Mesthrie et al. (2008) have also described as being likely to be simple-structured. As findings in Hong Kong, Indian, Singaporean, and Jamaican show, this manifestation of structural simplification in outer circle varieties are motivated by different factors, ranging from external and internal ones (Akinlotan 2017). As shown, patterns in Nigerian and Singaporean varieties behave similarly in the occurrence/non-occurrence of postmodifier. However, the Nigerian pattern differs from Indian, Jamaican, and Honk Kong varieties, which according to Schneider (2007), should exhibit similar features, given their similar stage of development. Such difference may demonstrate Babalola's assertion (2010) that Nigerian variety has tendency to manifest patterns of syntactic immaturity, which is expected to characterise a developing language.

Furthermore, the paper shows where we might or might not find postmodifier, on the basis of three determinants representing register, syntactic function, and preweight, which have been established in the literature as relevant to the phenomenon at hand. Biber et al (1998), Schilk & Schaub (2016), and many works have shown the significant predictive strength of register explaining structural variation. At the same time, Chapter 4, and Schilk & Schaub (2016), and Akinlotan (2017) have also shown that register and syntactic do compete for influences in motivating linguistic choices/alternation or variation. The present study further attests to the competition that associates with the predictive strengths of register and syntactic function. While register outweighs syntactic function explaining where we might find simple or complex postmodifier, syntactic function outweighs register explaining where postmodifier might occur or might not occur. This pattern is also found to be the case for the inner circle varieties (i.e. Nigerian and Ghanaian English) examined. Such result suggests that different contexts interplay with predictive strength of internal or external linguistic factors, together with the nature of linguistic variation being investigated (Biber et al 1998, Akinlotan 2017). This scenario reflects resultant issues that might be associated with a binary syntactic model methodology in which only two syntactic functions are distinguished (i.e. subject versus non-subject as employed in Schilk and Schaub 2016) In this model, non-subject function will consist of all other syntactic functions other than subject function, such that an imbalance distribution might occur.

Table 12 shows a detailed summary of the analyses, explicating how each predictor behaves in relation to occurrence/non-occurrence, structural types and structural weight of postmodifier. Among many other findings, Table 12 shows that administrative, literary and interactional registers, rather than academic and media, relate more with structural complexity than had expected on the basis of previous findings reported in the literature review section. As Table 7 and 8 show, administrative, literary, and interactional registers, rather than academic and media, are more likely to realise a varying degree of complex postmodifiers (P5-P8, P9+). Furthermore, the predictors exert varying degree of influence across the three issues investigated, such that there are patterns that emerge from each issue. For the postmodifier occurrence, we can see a pattern in which NPs in Nigerian English are likely to omit postmodifiers, which ultimately impact on the NP complexity. As for cases where we

might find a postmodifier, syntactic function appears the strongest predictor, followed by the register, and then weight.

For instance, the percentage differences[2] in syntactic function (82%, 86%, 92%, 94%, 34%, 96%, 56%, 38%) are not only higher than those in register (0%, 28%, 22%, 16%, 55%, 48%, and 22%) but are also equally divided along postmodifier and unpostmodified NPs, which allow us to make specific statements about specific contexts where postmodifier is present or absent within the NP structure. Meanwhile, there is stiff competition between register and syntactic function in asserting influence on postmodifier structural choices. As Table 12 shows, the percentage difference between syntactic function and register is very close. Yet, there is a pattern that emerges; prepositional phrase is the most likely postmodifier structural type, while adjective and adverbial structural types of postmodifier are always almost not preferred choices. As can be seen, it is noteworthy that complex premodifiers (M2, and M3) associate with clausal postmodifier. This suggests that, though in a very small way, there is still some sort of structural complexity present in the structural constructions of New Englishes, and indeed in Nigerian variety of English. Hence such presence of structural complexity, irrespective of how small it might be, may invalidate Babalola's (2010) assertion of characterising the syntactic structure of Nigerian variety as immature.

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[2]These are numbers in bracket for each predictor. They are derived from deducting the highest distribution from the lowest/other scores. For instance, occurrence in academic returns 50% for postmodified and unpostmodified, which (50%-50%= 0%) returns 0%, while media (64%-36%) returns 28%. The next line of bracket contains percentage difference for structural type. For example, the percentage differences for academic, following the method above, returns 43% (65%-22%), 57%, (65%-8%), and 59% (65%-6%). The third line of bracket is for postweight percentage difference, which is derived from the same method. For example, student's percentage difference returns 12% (54%-42%), 52% (54%-2%), and 51% (54%-3%).

	Occurrence			Structural Type					Structural Weight			
	PM	**UPM**		**CL**	**PP**	**ADJ**	**ADV**		**P1**	**P2-P4**	**P5-P8**	**P9+**
REGISTER												
Academic (0) (43, 57, 59) (35, 37, 48)	+	+		-	+	-	-		-	+	-	-
Media (28) (11, 30, 47) (37, 58, 62)	-	+		-	+	-	-		-	+	-	-
Student (22) (33, 62, 65) (12, 52, 51)	-	+		-	+	-	-		-	+	-	-
Administrative (10) (34, 56, 60) (26, 26)	+	-		-	+	-	-		+	+	-	-
Interactional (58) (19, 37, 52) (24, 25, 44)	-	+		+	-	-	-		-	+	-	-
Literary (48) (14, 46, 49) (38, 47, 51)	-	+		-	+	-	-		-	+	-	-
Popular (22) (22, 45, 53) (6, 29, 45)	-	+		-	+	-	-		-	+	-	-
SYNTACTIC FUNCTION												
Direct object (82) (31, 55, 58) (34, 52, 59)	+	-		-	+	-	-		-	+	-	-
Indirect object (86) (42, 71, 71) (5, 47, 36)	-	+		+	-	-	-		+	-	-	-
Object complement (92) (23, 48, 53) (8, 54, 54)	-	+		+	-	-	-		+	-	-	-
Preposition complement (94) (23, 48, 53) (20, 53, 53)	+	-		-	+	-	-		-	+	-	-
Subject complement	-	+		-	+	-	-		-	+	-	-

(34) (9, 44, 47) (27, 39, 51)										
Apposition (96) (16, 14, 19) (31, 46, 51)	-	+	-	+	-	-	-	+	-	-
Subject (56) (32, 44, 56) (24, 52, 56)	+	-	-	+	-	-	-	+	-	-
Adverbial (38) (21, 32, 43) (13, 56, 56)	+	-	-	+	-	-	-	+	-	-
PREWEIGHT										
M0 (26) (29, 53, 58) (22, 48, 53)	-	+	-	+	-	-	-	+	-	-
M1 (2) (19, 37, 40) (19, 38, 43)	-	+	-	+	-	-	-	+	-	-
M2 (14) (21, 01, 27) (41, 56, 55)	-	+	+	-	-	-	-	+	-	-
M3+ (17) (8, 34, 42) (30, 65, 65)	-	+	+	-	-	-	-	+	-	-

Table 12: A summary of the performance of the predictors in the three issues discussed

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