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A CONSTRAINT-BASED ACCOUNT OF THE AGENTIVE PREFIX 'ONÍ-' IN THE STANDARD YORÙBÁ

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Abstract:

When attached to vowel-initial nouns to derive agentive nominals, the prefix /oní-/ 'owner/seller/doer/agent of' in the Standard Yorùbá transforms to five morphologically related variants – [al-], [el-], [ẹl-], [ol-], and [ọl-] – whose transformation is induced by four distinct phonological processes: vowel deletion, consonant denasalization, vowel assimilation, and tone docking. The rule-based approach employed in the existing studies to account for the phenomenon appears unnecessarily complex and analytically deficient in explaining how the processes fit together. It is against this backdrop that the present study proposed a constraint-based analysis within the framework of Optimality Theory, which explains the transformational journey of the agentive prefix in a parallel fashion. Data were obtained from 3 (2 males, aged 60 and 72; and 1 female, aged 62) native speakers of the Standard Yorùbá who permanently reside in the south-west of Nigeria, where the language under investigation is predominantly spoken, and a few others were adapted from previous studies. Within the premise of the approach adopted, the paper argued that the well-formedness of the variants (allomorphs) of /oní-/ is generally governed by a set of alignment, markedness, and faithfulness constraints whose ranking captures the four phonological processes in a uniform manner. Therefore, the paper posited that rather than postulating multiple unrelated phonological rules to account for the variants of the prefix, a single hierarchy suffices: NO-HIATUS, NO-FLOAT[TONE], MAX(GRWD) >> ALIGN[VOC]-L >> IDENT(AFX) >> MAX(AFX). The paper concluded that the simplicity of a constraint-based analysis has some implication for

language pedagogy in terms of learnability: a simple grammar is easier to learn than a complex one.

Keywords: Agentive prefix /oní-/, Generative Phonology, Language Pedagogy, Optimality Theory, Standard Yorùbá

1. **Introduction**

Previous studies on the transformation that the agentive prefix **/oní-/** 'owner/seller/doer/agent of' in the Standard Yorùbá (SY) (Benue-Congo, Nigeria) undergoes when it is attached to some stems, which are usually nouns, to derive agentive nominals are largely morphological while the phonological ones (e.g., Akinlabi & Oyebade 1987; Awobuluyi & Oyebade 1995; Oyebola 2004; Oyebade 2010, 2018) are rule-based in their analytical approach. When the prefix is appended to nominal roots beginning with a consonant or a high front vowel [i], its output form is invariant or slightly modified, as shown in (1) and (2), respectively.

(1)	a.	oní + fìlà → onífìlà	'owner/seller of cap'
	b.	oní + bàtà → oníbàtà	'owner/seller of shoe'
	c.	oní + gèlè → onígèlè	'owner/seller of headdress'
	d.	oní + dòdò → onídòdò	'owner/seller of plantain'
	e.	oní + mọ́í-mọ́í → onímọ́í-mọ́í	'owner/seller of mọ́í-mọ́í'
(2)	a.	oní + iṣu → oníṣu	'owner/seller of yam'
	b.	oní + igi → onígi	'owner/seller of tree/firewood'
	c.	oní + ike → oníke	'owner/seller of plastic'
	d.	oní + ìkòkò → oníkòkò	'owner/seller of pot'
	e.	oní + ìlẹ̀kùn → onílẹ̀kùn	'owner/seller of door'

Whereas the entire segmental and tonal materials of the prefix are faithfully parsed in the output in (1), the prefix's second vowel [i] is elided, albeit without its high tone, in (2).

However, there is another morphological configuration where **/oní-/** can be phonetically realized as five morphologically related variants but whose individual

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phonological shape is sensitive to the featural specificaton of the initial vowel of the nominal root to which it is prefixed. Consider the examples in (3).

(3) a.   **oní + ata → aláta**   'owner/seller of pepper'

b.   **oní + ɛpo → elɛ́po**   'owner/seller of palm oil'

c.   **oní + ẹran → ẹlẹ́ran**   'owner/seller of meat'

d.   **oní + omi → olómi**   'owner/seller of water'

e.   **oní + ọjà → ọlọ́jà**   'owner/seller of goods'

In (3), the agentive prefix is transformed to **[al-]**, **[el-]**, **[ẹl-]**, **[ol-]**, and **[ọl-]**, respectively. Within the rule-based generative framework, the modification is analyzed as being induced by four distinct phonological processes, namely vowel deletion, consonant denasalization, vowel assimilation, and tone docking. The rule-based approach employed in the literature to account for the phonological transformation of the prefix is quite laudable, at least by providing a systematic way of analysing its transformational journey. However, as laudable as the methodology may look, it still appears deficient in explaining how the phonological operations which the prefix undergoes fit together in the phonological grammar of SY. Moreover, the approach seems unnecessarily complex, as about four distinct phonological rules need to be postulated when an alternative approach is capable of achieving the same goal in a very simple and uniform manner.

It is against this backdrop that the present study proposes a constraint-based approach, within the Optimality Theory paradigm, whose main aim is to show that the transformational journey of the prefix can be accounted for in a parallel fashion as opposed to serial derivation. Within the ambit of this alternative analysis, it will be shown that the morphological variants (allomorphs) of **/oní-/** are governed by a set of alignment, markedness, and faithfulness constraints whose ranking captures the four phonological processes in a uniform manner. In particular, it will be shown that there is no need for postulating multiple unrelated phonological rules, which must also be ordered in a certain way, to account for the context-dependent variants of the prefix since a single constraint hierarchy can formally express its phonological transformation.

2. The Agentive Prefix /oní-/ in Standard Yorùbá and the Rule-Based Account

Prefixation is a very productive word formation process in Yorùbá, and one of such types involves prepending the bound morpheme **/oní-/** to a root word to derive a class of lexical items commonly referred to as 'agentive constructions' in the existing literature on Yorùbá morphology. Of all the studies on Yorùbá affixing morphology, the account of /oní-/ is the most widely engaged, ranging from its semantic characterization to positing its actual underlying form. Over the years, different proposals have been put forward (see Bamgbose 1963, 1986, 1990, 1995; Awobuluyi 1967; Oyelaran 1971; Akinlabi & Oyebade 1987; Oyebola 2003, 2004; Ogunkeye 2005/2006; Owolabi 2011; Arokoyo 2017; Oyebade 2018). Among the various proposals, the most salient is the rule which converts /n/ to [l]. It is also interesting to know that some of the existing studies even recognize **/oní-/** and **/oni-/** as two distinct agentive prefixes in Yorùbá (e.g., Bamgbose 1986; Owolabi 1995; Ogunkeye 2005/2006; Taiwo 2011). Also, contrary to the traditional account of **/oní-/** as a single-unit prefix, a number of studies have proposed that the prefix is decomposable into two separate morphemes where **o-** is analyzed as a prefix while **ní** is a verb meaning 'to have' (Adewole 1995; Awobuluyi 2008; Eleshin 2017). Although the present study would not be drawn into the arguments on the phenomenon, it lends credence to positing **/oní-/** as the underlying form of the categories of agentive constructions under investigation and, most importantly, contends that a constraint-based framework handles the issue better than the existing rule-based proposals.

Apart from the fact that this pattern of prefixation is unique in that the prefix is typically attached to nouns to derive 'larger' nouns, it is also a dynamic one considering the fact that the well-formedness of the derived noun is governed by an operation (or non-operation) of a number of phonological processes. Depending on the phonological structure of the root noun to which it is appended, the prefix manifests three morphological forms of different categories. The prefix is *unmodified* when it is prepended to consonant-initial nouns; when it is prefixed to vowel [i]-initial nouns, it is *slightly modified* by having its final vowel deleted but retaining its underlying high tone; and it is *radically modified* by an operation of an array of phonological processes when it is added to nouns beginning with any of the following vowels: a, e, ẹ, o, and ọ. Refer to data (1), (2), and (3), respectively, for empirical illustration of these generalizations.

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The third set involving radical modification is of particular interest in this paper for an obvious reason: its derivational well-formedness is triggered by a complex phonological operation. Within the rule-based generative account (e.g., Akinlabi & Oyebade 1987; Awobuluyi & Oyebade 1995; Oyebola 2004; Oyebade 2010, 2018), the modification is driven by three segmental phonological processes that are in turn formalized by their corresponding phonological rules: (i) deletion of the prefix's final vowel but without its high tone; (ii) denasalization of /n/ to [l]; and (iii) long distance assimilation of the initial vowel of the prefix to the root noun's initial vowel. A tone-centric rule, high tone re-linking or docking, is then added to complete the systematic derivation. A sample derivation is shown in (4) for **/oní + epo/ → [elépo]** 'seller/owner of palm oil'.

(4) Underlying Representation: /oní + epo/

    Rule 1: vowel deletion   on ´ epo

    Rule 2: consonant denasalization   ol ´ epo

    Rule 3: vowel assimilation   el ´ epo

    Rule 4: tone docking   elépo

    Phonetic Representation: [elépo]

As interesting as the transformational journey of the phonetic realization of **/oní-/** presented in (4) looks, there are two issues surrounding such approach. One, the multiplicity of phonological rules involved in the derivation can create a tendency of two analysts independently presenting two different patterns of rule ordering. As an example, while Akinlabi and Oyebade (1987), Awobuluyi and Oyebade (1995), Bamgbose (1990), and Oyebade (2010, 2018) are united in analyzing the denasalization rule as applying before the assimilation rule, Arokoyo's (2017) proposal presents the opposite picture: assimilation before denasalization. Whether denasalization applies before assimilation or vice versa remains open for debate. In fact, one could alternatively argue for a simultaneous application of the two rules owing to the fact that the same output would still be obtained regardless of the precedence relation holding between them. Such proposal, however, would run afoul of the principle of 'linear sequential ordering' characterizing the application of rules in the standard Generative Phonology (GP). As highlighted in Sommerstein (1977) and extensively discussed in Oyebade (2018), the phenomenon of rule ordering itself constitutes one of the issues confronting GP.

Also, Oyebade (2018) offers a possibility of positing **/olĩ-/** as the underlying form in which nasalization of /l/ to [n], as opposed to denasalization, takes place – for example, /olĩ + bàtà/ → [oníbàtà]. Meanwhile, Oyebola (2003, 2004) had posited **/olú-/** as the underlying form for all categories of agentive constructions in Yorùbá, thus giving rise to a similar rule which converts /l/ to [n]. The possibility of positing two alternative underlying representations – /oní-/ and /olĩ-/ or /olú-/ – thereby leading to two alternative rules – denasalization vs. nasalization, respectively – surprisingly reveals one of the limitations of the rule-based approach: rewrite rules are excessively input-driven, they offer little or no insight into the outcome of the derivation. Kager (1999: 57-58) explains this in detail as follows:

> In a derivation the application of a rule solely depends on whether the structural description is met by the output of the immediately preceding rule. Rules are *blind* to their own outputs, which they produce mechanically. Moreover, each rule is blind to the output of the derivation as a whole, which arises only after the last rule has applied. It is thus predicted that the application of a rule can never depend on its eventual consequences at the surface.

A final illustration of the first issue surrounding the rule-based approach demonstrated in (4) is evident in the treatment of the deletion process that operates when **/oní-/** is prepended to vowel [i]-initial nouns (e.g., /oní + ilé/ → [onílé] 'owner of house'). A lack of consensus is again observed in the literature. For example, whereas Owolabi (2011) says that it is the initial vowel /i/ of the base noun that consistently undergoes deletion, Arokoyo (2017) asserts that the final vowel of the prefix is the one that is deleted. Although Owolabi (2011) may be right given the evidence that a high-toned vowel [í] resembling exactly that of the prefix is the one that shows up in the derivation, the prevalent position taken in the literature is that the second vowel of the prefix is the one that gives way but with a retention of its underlying high tone that is eventually relinked to the base noun's initial vowel /i/. Note that this is exactly analogous to the cases where the prefix is attached to nouns beginning

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with all the other vowels except [u]¹. The seemingly inconclusive nature of this argument provides an opportunity to appeal to an alternative analytical approach in which rules have no place.

The second issue arising from the linear rule-based analysis which was sketched in (4) is that it misses a significant generalization about the unique role of some surface-structure constraint licensing those rewrite rules. In particular, there is a surface-structure condition in Yorùbá which forbids a sequence of two adjacent heterosyllabic² vowels linked to two different sets of features both intra-morphemically and inter-morphemically (Orie & Pulleyblank 2002; Ehineni 2017, etc.). If **[oníepo]** were the surface form, this constraint would be violated by the contiguous presence of [í] and [e] at the morphological boundary. Since the actual phonetic realization is **[elépo]** where the [i] of **/oní-/** is elided, the morpheme structure condition is obeyed. Similarly, the need to satisfy the output-based constraint in question motivates the deletion of the final vowel of the prefix when attached to vowel [i]-initial nouns, and the constraint is satisfied vacuously if the root noun to which the prefix is linked begins with a consonant. It could be observed in (4) that it is the first rule, vowel deletion, that opens the door for the remaining rules – denasalization, assimilation, and tone docking – to apply. Thus, one could argue that the vowel deletion rule, in conspiracy with the other rules, applies to ultimately fulfill the surface-based morpheme structure condition described above. This argument has also been upheld by McCarthy (2008: 2) when he says that, "When two or more rewrite rules are involved in a conspiracy, they directly or indirectly support some constraint on surface forms." The rule-based theory, however, lacks a formal mechanism for explaining conspiracies despite the fact that conspiracies are common in the languages of the world (McCarthy 2008).

Kager (1999) made a similar observation by claiming that the rule-based theory is not equipped with the necessary apparatus for predicting the functional unity of processes which generally operate in languages to ensure well-formedness of morphemes. Using the same example to buttress this position, the derivational representation given in (4) only portrays a sequential application of four phonological rules without a formal explanation

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¹ In the Standard Yoruba, there are seven oral and five nasal vowels: a, e, ẹ, i, o, ọ, u, an, ẹn, in, ọn, and un. All the oral vowels except [u] can occur word-initially; whereas none of the nasal vowels can occur in this position.
² The term 'heterosyllabic' means 'belonging to separate syllables'.

of the functional unity inherent among them. This is because the rule-based framework "has no formal means of expressing the notion of 'output goal' of a phonological rule" (Kager 1999: 56). Interestingly, functionally related processes are handled in Optimality Theory (OT) in a straightforward fashion on the prediction that a single markedness constraint, depending on its interaction with some faithfulness constraints, can trigger an array of structural changes even within a single language (Kager 1999).

Given the weakness of the rule-based methodology highlighted above, it is assumed that constraints which are output-oriented in nature would constitute a better alternative. The present study, therefore, aims at demonstrating OT's efficiency in explaining how phonological systems fit together, in this case, the functionally related processes which conspire to convert the Yorùbá agentive prefix **/oní-/** to its various surface alternants when it is added to vowel-initial nouns. Since "OT does not have rewrite rules or anything that resembles them" (McCarthy 2008: 6), a parallel mapping of a set of candidate outputs on the basis of a constraint hierarchy is appealed to at the expense of iterative application of rules. The thesis of this paper is built around the proposal that all the surface realizations of **/oní-/** belonging to the three categories presented in (1), (2), and (3) – unmodified, slightly modified, and radically modified – follow from different rankings of the same set of constraints.

3. Optimality Theory

Optimality Theory (OT, hereafter) is a linguistic model of grammatical analysis proposed by Prince and Smolensky (1993) with the aim of accentuating the universal properties of language through the mechanism of constraints at the expense of rules. OT is not just a theory of phonology but an encompassing theory of grammar. Although it is an offshoot of the generative grammar, it radically differs from the modus operandi of the rule-based generative theory. For instance, OT does not recognize intermediate or multiple levels of representation in which serial derivation takes place via iterative application of rules; rather, evaluation of surface forms is computed over the entire candidate set and the whole hierarchy in a parallel fashion (Kager 1999). OT carries out this task by mapping an input onto an output and evaluating the possible output forms in terms of their well-formedness and relative faithfulness to the input. The evaluation is done with the aid of violable universal constraints that are hierarchically ranked on a language-particular basis.

The OT grammar is made up of a central component known as Constraints (CON), as well as two crucial functions whose roles in the grammar are inter-dependent: Generator (GEN) and Evaluator (EVAL) (Archangeli 1999). The interconnected operations of these three forces in the grammar of every language is aptly summarized by McCarthy (2007: 4) as follows:

> OT sets up a basic dichotomy between the operational component of the grammar and the constraint component. The operational component, called GEN, constructs a set of candidate output forms that deviate from the input in various ways. The constraint component, called EVAL, receives the candidate set from GEN, evaluates it using some constraint hierarchy, and selects its most harmonic or optimal member as the output of the grammar. The output is referred to as the optimal candidate in OT parlance.

Being a theory of constraints interaction, rather than rules application, OT consists of three families of constraints: Faithfulness, Markedness and Alignment. A constraint is defined as a structural or featural requirement that may be either satisfied or violated by an output form. A form satisfies a constraint if it fully meets the given requirement, while any form not meeting the requirement is said to violate it. According to Prince and Smolensky (2004: 5), "The faithfulness constraints govern the input-output relation by conditions asking for the exact preservation of the input in the output along various dimensions." In other words, "faithfulness constraints are inherently conservative, requiring the output of the grammar to resemble its input" (McCarthy 2007: 5). On the other hand, Blutner et al. (2004), as cited in Hameed and Abdurrahman (2015: 6), claim that markedness constraints impose requirements on the structural well-formedness of the output. Such requirements may take the form of prohibitions of marked phonological structures, including segment types, prosodic structures, or occurrences of segment types in specific positions (Kager 1999). Generally, markedness constraints either demand unmarked configurations or prohibit marked configurations (Archangeli 1999).

Alignment constraints ensure proper matchness or coincidence of edges of morphological and prosodic materials. It is important to point out that alignment constraints were introduced by Prince and Smolensky (1993) originally as part of a theory of morphological infixation. The general idea, according to McCarthy (2008: 181), is that every affix is

associated with a violable constraint aligning it to initial or final position of the word, depending on whether it is a prefix or a suffix. The concept has, however, been extended to other morphological aspects, such as prefixation and suffixation, over the years. Furthermore, alignment within OT is usually interpreted in terms of the distance between the edges of morpho-prosodic constituents (see *inter alia* McCarthy & Prince 1993; Kager 1999; Orie & Pulleyblank 2002; McCarthy 2008). However, this study extends this interpretation to featural configurations, demanding some form of coincidence or resemblance between two distant phonological units, one belonging to the agentive prefix and the other to the grammatical word, that is, the base noun to which the prefix is attached.

4. Methodology

The qualitative methodology was adopted for this research. Data were obtained from 3 (2 males, aged 60 and 72; and 1 female, aged 62) native speakers of the Standard Yorùbá who permanently reside in the south-west of Nigeria, where the language under investigation is predominantly spoken. The three of them were born in the region and at the time of collecting the data from them, they claimed to have been living there right from birth. The language informants were purposively selected based on three fundamental criteria: his/her first language (mother tongue) must be Yorùbá; he/she must be at least 60 years of age; and his/her years of residence at the study area must not be less than 50. My interaction with them revealed that they are competent and fluent speakers of the Standard Yorùbá. I was able to confirm this not only because they all fulfilled the three criteria but also because I am also a competent native speaker of the Standard Yorùbá who could easily identify a fellow competent native speaker via linguistic performance.

A simple wordlist carefully designed by the researcher was used as instrument of data collection. The wordlist was partitioned into two segments; one part comprised 100 Yorùbá basic nouns of various types and their meanings since the agentive prefix attaches to nouns only, and the other segment, also comprising 100 items, contained the structuring of the prefix with the nouns. The wordlist was designed in such a way that would make the informants provide the output forms arising from combining the prefix with the nouns. In a separate but related endeavour, the three language helpers were independently asked to supply 20 Yorùbá basic nouns and thereafter provide the output forms that were derivable from attaching the agentive prefix to them. All the items were read to the language helpers by the researcher and they were told to repeat each item three times so as to ensure

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consistency and accuracy of the data being elicited. Interestingly, the same results were obtained from the three of them: attaching the agentive prefix /oní-/ to a noun produced three morphological categories of 'larger' nouns, which the present study has labelled as *unmodified*, *slightly modified*, and *radically modified*.

With the aid of a digital audio recorder, all the informants' responses were documented in an environment that was devoid of noise. During the entire data elicitation and recording sessions, the researcher implored the language helpers to be as natural as possible, and he also made sure they were as relaxed and unguarded as much as possible. The recorded data were transcribed afterwards and 40 items were randomly selected for analysis. Apart from these, 10 items were adapted from previous studies, namely Bamgbose (1990), Oyebade (2010), and Owolabi (2011). Altogether, 50 data items were presented for analysis in this paper. With respect to the analysis of the data, the researcher employed a descriptive approach that was rigorously grounded in the tenets of OT. The method of analysis was carried out by first of all presenting the selected data, followed by their analyses in the tableaux, and the tableaux were accompanied by explanatory discussions. By and large, the modus operandi of the chosen theoretical framework was judiciously adhered to in the course of analyzing the data.

5. A Constraint-Based Account

The thesis of this study is hinged on the argument that the transformation of the agentive prefix is governed by an interplay of a number of universal constraints which are ranked in Yorùbá to produce the three categories of the agentive constructions under analysis. It is, therefore, expedient to define the relevant constraints before proceeding to a formal analysis of the data. These constraints are presented as follows:

(a) NO-HIATUS

Two adjacent vowels that are linked to different sets of features are banned.
The need to satisfy this markedness constraint actually motivates getting rid of the final vowel of the prefix whenever the prefix is prepended to a vowel-initial nominal root since the configuration creates a sequence of two contiguous vowels at morpheme boundary.

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(b) MAX(AFX)

Every segmental element of an input affix must be preserved in the output.
This faithfulness constraint specifically kicks against deleting the final vowel of the agentive prefix.

(c) IDENT(AFX)

Corresponding input and output elements of an affix must be identical.
This constraint militates against both the denasalization of /n/ to [l] as well as the long-distance assimilation between the affix's and Grammatical Word's initial vowels. Note that denasalization and assimilation lead to a change in corresponding features.

(d) ALIGN-VOCOID (AFX, L; GRWD, L)

A vowel at the left edge of an affix must be aligned with the vowel at the left edge of a Grammatical Word[3].

Although alignment constraints, as originally assumed in McCarthy and Prince (1993), basically serve to measure the distance between the edges of two constituents, subsequent adaptations of the Generalized Alignment (GA) theory, a sub-theory of OT itself, have provided a way of accounting for featural coincidence of edges of two similar or opposing categories (see Akinlabi 1996; Orie 2001; Oyinloye 2020, among others). The constraint defined in (d), which is shortened here as ALIGN[VOC]-L, is feature-based; it requires total harmony between the initial vowel of the agentive prefix and the initial vowel of the GRWD, that is, the nominal root. Thus, ALIGN[VOC]-L is an adapted version of McCarthy and Prince's (1993) component of GA that is associated with two constituents belonging to the same morphological category (Mcat; Mcat). Both an affix and a GRWD are morphological categories.

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[3] The Grammatical Word in this case refers to the nominal root. It is named as such in this paper for the purpose of having a uniform way of characterizing it as a morphological entity like the affix, following the tradition of the Generalized Alignment (McCarthy & Prince 1993).

(e) NO-FLOAT[TONE]

A tone that is not affiliated with a segmental constituent is banned.
This tone-centric markedness constraint demands that the surviving tone of the elided terminal vowel of the prefix be relinked with the following tone-bearing unit, which is the vowel of the nominal root in this case.

(f) MAX(GRWD)

Every segmental element of an input Grammatical Word must be preserved in the output. In particular, this markedness constraint demands that no segment in the nominal root must be deleted in the final derivation.

In the case of the unmodified category of agentive constructions in Yorùbá, MAX(AFX) and MAX(GRWD) are highly ranked (hence, undominated) because all the segmental and tonal materials of the input affix and GRWD are faithfully parsed in the output. This also implies that IDENT(AFX) and NO-FLOAT[TONE] are vacuously satisfied. Furthermore, since the nominal root begins with a consonant, hiatal configuration is avoided in the final derivation; hence, a satisfaction of NO-HIATUS. Finally, ALIGN[VOC]-L is obeyed by default owing to the fact that the requirement of alignment is not met: the left edge of the prefix is defined by a vowel while that of the GRWD, by a consonant. Put in another way, since no alignment is required between two opposing featural edges, the alignment constraint cannot be violated[4]. In sum, none of the six constraints defined in (a-f) is violated at the morphological level by the unmodified case. Any infractions that may arise would have to exist elsewhere, for example, at the syllable level when ONSET would be violated by the onsetless initial vowel of the prefix. Since syllabification is outside the scope of this paper, such possibility is not explored here. Likewise, given the fact that the derivation of the unmodified case is devoid of transformation of any sort, the analysis is fairly straightforward. Thus, there is no point in subjecting it to a formal analysis in an OT tableau. In fact, the central aim of this paper is the transformation the agentive prefix undergoes when it collocates with a vowel-initial noun.

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[4] Note that the ideal situation to gauge the satisfaction or violation of ALIGN[VOC]-L is when both of the edges of the two morphological constituents are vocoids.

For the slightly modified category, there are two changes that take place: deletion of the prefix's final vowel and tone re-affiliation. These result in a violation of MAX(AFX) and a satisfaction of NO-FLOAT[TONE], respectively. Also, the optimal forms satisfy the remaining constraints except ALIGN[VOC]-L because the left edge (initial vocoid) of the prefix is not featurally aligned with the left edge of the GRWD. The question, therefore, is: Why does featural alignment fail to apply in this case when the left edge of the prefix and that of the GRWD are vocoids? In other words, why does the initial vowel [i] of the GRWD fail to trigger total regressive assimilation of the prefix's initial vowel just as in the radically modified category, after all, the left edges of both morphological constituents are vocoids? Two possible explanations could be made to account for this recalcitrance. The first comes from language internal evidence. Vowel [i] does not usually trigger assimilation in the SY when it is contiguous with another vowel; rather it is usually the 'target' for assimilation. Consider the data in (5) for an illustration.

(5)	a.	ilé – ìwé	iléèwé	'school'	*ilîîwé
	b.	ará – ilé	aráalé	'a family member'	*aríilé
	c.	òjò – ìbùkún	òjòòbùkún	'rain of blessing'	*òjììbùkún
	d.	ará – ìlú	aráàlú	'a community member'	*aríìlú
	e.	iṣẹ́ – ipá	iṣẹ́ẹpá	'compelled assignment'	*iṣíipá
	f.	iṣẹ́ – ilé	iṣẹ́ẹlé	'domestic work'	*iṣíilé
	g.	ilé – ifẹ̀	iléefẹ̀	'a town in Osun state'	*ilíifẹ̀

What the data in (5) clearly show is that, if at all assimilation will occur between vowel [i] and another contiguous vowel, the former cannot be the trigger. This independent evidence in the language readily serves as a pointer to why the initial vowel [i] of the GRWD cannot trigger assimilation of the prefix's initial vowel.

The second explanation is hinged on the core tenet of OT which stipulates that violation of constraints is allowed; only that it must be minimal. By implication, an optimal candidate can violate not just a lowly ranked constraint but also a highly ranked one, so long the candidate fares better on the hierarchy as a whole than its fellow competitors. Based on this assumption, optimal forms belonging to the slightly modified category violate

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ALIGN[VOC]-L under the pressure to preserve lexical contrast in the output. In particular, satisfying IDENT(AFX) takes priority over featural alignment.

From the foregoing discussion, the ranking which produces the optimal forms as far as the slightly modified case of Yorùbá agentive constructions under consideration is concerned is given in (6) while the formal analysis is presented in Tableau 1.

(6) NO-HIATUS, NO-FLOAT[TONE], IDENT(AFX), MAX(GRWD) >> ALIGN[VOC]-L >> MAX(AFX)

Tableau 1: Analysis of **/oní-iṣu/ → [oníṣu]** 'owner/seller of yam'[5]

/oní-iṣu/	NO-HIATUS	NO-FLOAT[TONE]	IDENT(AFX)	MAX(GRWD)	ALIGN[VOC]-L	MAX(AFX)
☞ a. on[íṣu]					*	*
b. ol[íṣu]			*!		*	*
c. iní [iṣu]			*!			
d. on ´ [iṣu]		*!			*	*
e. in[íṣu]			*!			*

In Tableau 1, one could observe that none of the five candidates is impeccable, as all of them violate at least one constraint each. However, the candidate with the least offences is picked as the winner by the grammar of the language under analysis, and that candidate is (a). Candidates (b), (c) and (e) are knocked out for violating the correspondence constraint

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[5] Note that in Tableau 1 and in the subsequent Tableaux, the grammatical word (GRWD) in each candidate is demarcated using square brackets; an asterisk indicates a violation of a constraint; an exclamation mark after an asterisk indicates a fatal violation; and a pointed finger identifies the optimal candidate, that is, the well-formed item in the language under investigation.

militating against change of features of the input affix whereas candidate (d) is disqualified on the ground that it entertains a floating tone, a move that is forbidden in Yorùbá. By and large, the first candidate is the form that is acceptable in Yorùbá while the rest are ill-formed.

Turning to the radically modified case which is the major concern of this study, the constraints NO-HIATUS, NO-FLOAT[TONE], MAX(GRWD), and ALIGN[VOC]-L must dominate the constraints IDENT(AFX) and MAX(AFX) for well-formedness to be achieved. The ranking is proposed in (7).

(7) NO-HIATUS, NO-FLOAT[TONE], MAX(GRWD) >> ALIGN[VOC]-L >> IDENT(AFX) >> MAX(AFX)

The given ranking in (7) can be explained in the following way. The terminal vowel of the prefix is elided under the pressure to satisfy the undominated markedness constraint NO-HIATUS. The surviving high tone of the elided vowel then docks on the GRWD's initial vowel so as to avoid a violation of NO-FLOAT[TONE], another highly ranked markedness constraint in Yorùbá. All the segments of the input GRWD are maximized in the output, leading to a satisfaction of MAX(GRWD). Finally, changing the initial vocoid of the prefix to the initial vocoid of the GRWD in order to satisfy ALIGN[VOC]-L and deleting the final vocoid of the prefix in order to satisfy NO-HIATUS imply a violation of IDENT(AFX)[6] and MAX(AFX), respectively.

On theoretical grounds, the crucial difference between the slightly modified category and the radically modified category is expressed by the mutual raking of two contending forces, one involving input-output correspondence (IDENT(AFX)) and the other involving output-based featural alignment (ALIGN[VOC]-L). For the vowel [i]-initial nominal root category, IDENT(AFX) outranks ALIGN[VOC]-L whereas reverse is the case for the 'other vowel'-initial nominal root category. What is, however, common to both cases is the lowest ranking of MAX(AFX) since both of them invoke deletion of the final vowel of the prefix to satisfy NO-HIATUS, as well as the highest ranking of NO-FLOAT[TONE] and MAX(GRWD), in addition to NO-HIATUS. More data on the radically modified type and their corresponding formal analysis are presented as follows:

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[6] Note that denasalization of the input /n/ to the output [l] also leads to a violation of IDENT(AFX).

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5.1 Derivation of **/oní-/** before Vowel [a]-initial Nouns: /oní-/ → [al-]

(8)   a.   oní – ajá   alájá   'owner/seller of dog'
                pre   dog
        b.   oní – àgbàdo   alágbàdo   'owner/seller of maize
                pre   maize
        c.   oní – aṣọ   aláṣọ   'owner/seller of cloth'
                pre   cloth
        d.   oní – àkàrà   alákàrà   'owner/seller of bean-cake'
                pre   bean-cake
        e.   oní – àánú   aláàánú   'a merciful person'
                pre   mercy
        f.   oní – àkóso   alákòóso   'manager'
                pre   control
        g.   oní – agbára   alágbára   'a powerful person'
                pre   power

Tableau 2: Analysis of /oní-ajá/ → [alájá]   'owner/seller of dog'

/oní-ajá/	No-Hiatus	No-Float[Tone]	Max(GrWd)	Align[Voc]-L	Ident(Afx)	Max(Afx)
a. on[ájá]				*!		*
b. oní[ajá]	*!			*		
☞ c. al[ájá]					**	*

Tableau 2 presents three competing candidates on the basis of the input **/oní-ajá/**. The first candidate satisfies the three highest ranked constraints: NO-HIATUS, NO-FLOAT[TONE], and MAX(GRWD), just as the last candidate does. This implies that the competition between (a) and (c) is undecided on these three constraints; hence, the need to move further on the hierarchy. The next highly ranked constraint, ALIGN[VOC]-L, however, settles the competition in that (a) violates it fatally by misaligning the left edge of the prefix (defined by vowel [o]) and the left edge of the GRWD (defined by vowel [a]); whereas (c) obeys this constraint via perfect alignment of the left edges of both morphological constituents. For the second candidate, the hiatal configuration at the boundary between the prefix and the GRWD implies a severe violation of the undominated markedness constraint NO-HIATUS. Since the last candidate satisfies the constraint, it is more harmonic with the entire hierarchy than (b), notwithstanding its violations of the last two constraints. In a nutshell, the last candidate wins the competition. The same hierarchy can be used to analyze the rest of the data in (8).

5.2 Derivation of **/oní-/** before Vowel [e]-initial Nouns: /oní-/ → [el-]

(9) a. **oní – ewúrẹ́** **eléwúrẹ́**   'owner/seller of goat'
         pre   goat

     b. **oní – ètò**   **elétò**   'a very organized person'
         pre   organization

     c. **oní – èké**   **elékèé**   'liar'
         pre   falsehood

     d. **oní – eré**   **eléré**   'one that is given to play or merriment'
         pre   play

     e. **oní – ebi**   **elébi**   'starved person'
         pre   hunger

     f. **oní – egbò**   **elégbò**   'one that is afflicted with sores'
         pre   sore

     g. **oní – èpè**   **elépè**   'one who curses'
         pre   curse

Tableau 3: Analysis of **/oní-ewúrẹ́/ → [eléwúrẹ́]**   'owner/seller of goat'

/oní-ewúrẹ́/	NO-HIATUS	NO-FLOAT[TONE]	MAX(GRWD)	ALIGN[VOC]-L	IDENT(AFX)	MAX(AFX)
a. oní[ewúrẹ́]	*!			*		
b. ol[éwúrẹ́]				*!	*	*
☞ c. el[éwúrẹ́]					**	*
d. ení[ewúrẹ́]	*!				*	
e. on[éwúrẹ́]				*!		*

Given Tableau 3, candidates (b), (c) and (e) satisfy the first three constraints which are undominated in the hierarchy. This means that no winner can be determined yet. Moving further on the hierarchy, (b) and (e) incur fatal violations of the alignment constraint, which is otherwise obeyed by (c). By implication, EVAL prefers (c) to (b) and (e) as far as their relative harmony with the given constraint hierarchy is concerned. On the other hand, candidates (a) and (d) also lose to candidate (c) for fatally violating the markedness constraint which disprefers an occurrence of two contiguous non-identical vowels. By and large, the third candidate is the observable form in Yorùbá, and it is referred to as the optimal candidate in optimality-theoretic term. All the other items in data (9) can be successfully accounted for using the same constraint hierarchy deployed in Tableaux 2 and 3.

5.3 Derivation of **/oní-/** before Vowel [ẹ]-initial Nouns: **/oní-/ → [ẹl-]**

(10)   a.   **oní – ẹran**   **ẹlẹ́ran**   'owner/seller of meat'
                pre   meat

       b.   **oní – èpà**   **ẹlẹ́pà**   'owner/seller of groundnut'
                pre   groundnut

c.	**oní – ẹyin** ẹléyin	'owner/seller of egg'
	pre egg	
d.	**oní – èṣè** ẹléṣè	'sinner'
	pre sin	
e.	**oní – ẹja** ẹléja	'owner/seller of fish'
	pre fish	
f.	**oní – ètàn** ẹlétàn	'deceiver'
	pre deceit	
g.	**oní – èkọ** ẹlékọ	'owner/seller of pap'
	pre pap	

Tableau 4: Analysis of **/oní-ẹran/** → **[ẹléran]** 'owner/seller of meat'

/oní-ẹran/	No-Hiatus	No-Float[TONE]	Max(GrWd)	Align[Voc]-L	Ident(Afx)	Max(Afx)
a. ẹlí[ẹran]	*!				**	
b. on[éran]				*!	*	*
c. ẹlí[ran]			*!		**	
☞ d. ẹl[éran]					**	*
e. ẹl ´ [ẹran]		*!			*	*

No candidate is perfect in Tableau 4, as candidates are not expected to be perfect in OT, anyway. According to the tenet of the theory, candidates with severe violations are less preferred to those with minimal violations. It is on the basis of this that EVAL selects candidate (d) as the optimal form because it is the only candidate that does not incur fatal violations. The analysis in Tableau 4 is representative of how the constraint hierarchy proposed in (7) and which is used hitherto can also be utilized to analyze the remaining items in data (10).

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5.4 Derivation of **/oní-/** before Vowel [o]-initial Nouns: **/oní-/** → [ol-]

(11) a. **oní – oyún** **olóyún** 'a pregnant woman'
          pre pregnancy
      b. **oní – òkìkí** **olókìkí** 'a famous person'
          pre fame
      c. **oní – òtítọ́** **olótìítọ́** 'a truthful person'
          pre truth
      d. **oní – òróró** **olóròóró** 'owner/seller of groundnut oil'
          pre groundnut oil
      e. **oní – oko** **olóko** 'owner of farm'
          pre farm
      f. **oní – orí** **olórí** 'leader'
          pre head
      g. **oní – òfófó** **olófòófó** 'a person who gossips'
          pre gossip

Tableau 5: Analysis of **/oní-oyún/** → **[olóyún]**   'a pregnant woman'

/oní-oyún/	No-Hiatus	No-Float[Tone]	Max(GrWd)	Align[Voc]-L	Ident(Afx)	Max(Afx)
☞ a. ol[óyún]					*	*
b. oní[oyún]	*!					
c. l[óyún]					*	**!
d. ol ´ [yún]		*!	*		*	*

The worst candidate in Tableau 5 is the last one in that it runs afoul of two highest ranked constraints for entertaining a floating tone and deleting the first segment of the grammatical word, that is, the nominal root. The constraints violated are NO-FLOAT[TONE] and MAX(GRWD), respectively. For these reasons, it is knocked out of contention. Candidate (b) preserves all of the input segments; hence, it satisfies all the three faithfulness constraints in the hierarchy, namely MAX(GRWD), IDENT(AFX), and MAX(AFX). Interestingly, it also satisfies the alignment constraint (ALIGN[VOC]-L) just as all the other candidates do. However, failure to delete the second vowel of the prefix in order to get rid of the hiatal structure at the boundary between the prefix and the grammatical word forces it to flout the undominated markedness constraint NO-HIATUS. Therefore, it is ruled out as the winner.

One could observe a very tight competition between candidates (a) and (c). They both obey the first four constraints and equally violate the last but one constraint. This implies that the competition extends to the last constraint in the hierarchy. The hallmark of OT is that constraint violation is permitted, only that it must be minimal. The two candidates violate MAX(AFX), the last constraint, but at varying degrees: while (a) does so on a single point, (c) does so on two points. Since an additional violation on the given constraint is forbidden (fatal), candidate (a) wins the competition. It is important to state that the choice of candidate (a) over candidate (c) is consistent with the principle of economy in OT which says *do only when it is necessary.* In this light, although deleting the second vowel of the prefix is required for well-formedness, any other deletion becomes unsolicited. Candidate (c) deletes the first vowel of the prefix, in addition to deleting its second vowel, thereby leading to a violation of the principle.

5.5 Derivation of /oní-/ before Vowel [ọ]-initial Nouns: /oní-/ → [ọl-]

(12)   a.   oní – ọ̀pá   ọlọ́pàá   'a policeman/owner of rod'
             pre   rod

       b.   oní – ọsàn   ọlọ́sàn   'owner/seller of orange'
             pre   orange

       c.   oní – ọpọlọ   ọlọ́pọlọ   'a brainy person'
             pre   brain

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d.	**oní – ọlá**	ọlọ́lá	'an honourable person'
	pre honour		
e.	**oní – ọtí**	ọlọ́tí	'a drunkard'
	pre alcohol		
f.	**oní – ọta**	ọlọ́ta	'owner/seller of bullet'
	pre bullet		
g.	**oní – ọkọ**	ọlọ́kọ	'owner of husband'
	pre husband		

Tableau 6: Analysis of **/oní-ọ̀pá/ → [ọlọ́pàá]** 'a policeman/owner of rod'

/oní-ọ̀pá/	NO-HIATUS	NO-FLOAT[TONE]	MAX(GRWD)	ALIGN[VOC]-L	IDENT(AFX)	MAX(AFX)
a. ọlí[pàá]			*!		**	
☞ b. ọl[ọ́pàá]					**	*
c. on[ọ́pàá]				*!		*
d. oní[pàá]			*!			

The first and the last candidates in Tableau 6 elide the initial vowel of the grammatical word. This leads to a fatal violation of the undominated faithfulness constraint which requires the input segments of a grammatical word to be maximized or preserved in the output. The third candidate infracts the alignment constraint which requires the left edges of the prefix and the grammatical word to be featurally aligned. The second candidate is the most harmonic form due to its obedience of all the highly ranked constraints which are otherwise violated by its fellow competitors. Note, however, that the winner itself is not without fault; it flouts the last two faithfulness constraints by changing the first two segmental features of the prefix and deleting its last segment. Nevertheless, considering the fact that these constraints are lowly ranked in the hierarchy, violating them is not

consequential to the outcome as far as the given candidates in the tableau are concerned. In a nutshell, given the input /oní-òpá/, the actual output form is [olópàá].

As opposed to the multiple rules usually postulated in the rule-based frameworks, the foregoing constraint-based analysis has shown that a single set of constraints can account for the three categories of the agentive constructions examined in this paper. Each formal analysis presented in each tableau is representative of how the same set of constraints can account for all the data sets. In particular, the constraint set uniformly captures the various phonological processes that the prefix undergoes in order to be well-formed when it is prepended to a nominal root. Even when the prefix does not undergo any transformation with respect to the case where it is attached to consonant-initial nouns, the same set of constraints is tenable. The only difference among the three broad categories of data presented in (1), (2) and (3) follows from re-ranking of the same set of constraints. Explaining both inter-linguistic and intra-linguistic variations is one of the strengths of OT, and this is premised on the assumption that languages are generally the same with respect to the constraints, they only differ in how they individually rank the same set of universal constraints. By and large, a constraint-based grammar is more economical than a rule-based one. Consequently, a more economical grammar has more pedagogical relevance. This is briefly discussed in the next section.

6.   Implication for Language Pedagogy

At the heart of Universal Grammar is language pedagogy, a sub-field of applied linguistics which entails the teaching and learning of a language, either a mother tongue or a second (or foreign) language. The exercise of teaching and learning most especially a foreign language is a herculean one, taking into consideration a host of variables or factors, such as the task of securing a pedagogical setting that is suitable for the exercise, availability of up-to-the-task human resources (tutors), choosing and applying an apt teaching methodology, procurement of resourceful instructional materials, inevitable individual differences of the learners, cultural variation between the learners' native languages and the target language, temporal factor, and, most crucially, the nature of the grammar of the language to be learned. Needless to say, complex grammars often prove much more difficult to teach and learn than simple ones.

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The rule-based approach proposed hitherto in existing studies of the morpho-phonological transformation of the agentive prefix **/oní-/** 'owner/seller/doer/agent of' in the Standard Yorùbá appears much more complex than necessary, and has a serious implication on two major pedagogical grounds. One, since the prefix undergoes four distinct phonological processes when it is appended to nouns beginning with a vowel other than [u], four separate (unrelated) phonological rules must be postulated to adequately account for the changes. By implication, foreign learners of Yorùbá would not only have to go through the rigours of learning how the processes operate but also to postulate relevant rules for the processes in formal terms. Two, since the 'golden rule' in rule-based phonological framework stipulates that multiple rules must be appropriately ordered, then, the needed rules for the processes undergone by the prefix must be made to apply in a certain fixed way, otherwise the analysis would be faulty. This again becomes a problem for foreign learners of Yorùbá with respect to the systematic derivation of agentive nominals, as they would need to master the rubrics of rule ordering in phonology first before determining how to situate such knowledge within the context of the subject matter which they are learning in the language.

On the contrary, employing a simple, straightforward and uniform approach proposed in this study would not only assist the tutor in teaching how the surface forms of the prefix are derived from the underlying form in a less arduous manner but would also fast track the learning of the subject matter by the learners. While constraints are inherent in the grammar of a language, rules are postulated by analysts to account for the observable changes in the language. Therefore, as learners are learning a language, they are by default learning about how the language employs the constraints in building its grammar. Finally, learning a language using a constraint-based methodology would offer the learners the additional advantage of being exposed to the universal properties of human language much more than it would be possible using a rule-based approach for an obvious reason: constraints are linguistically universal but rules are language-specific.

7. Conclusion

The present paper has argued for a constraint-based approach to the study of the agentive prefix **/oní-/** 'owner/seller/doer/agent of' in the Standard Yorùbá within the framework of Optimality Theory. It was established that the morphological form of the prefix remains

unchanged when it is attached to stems (nouns) beginning with a consonant; it is slightly modified when it is attached to nouns beginning with a high front vowel [i]; and it is radically transformed to either [al-], [el-], [ẹl-], [ol-], or [ọl-] when it is added to nouns beginning with [a], [e], [ẹ], [o], or [ọ], respectively. The modification of the prefix in the latter context is systematically triggered by four distinct phonological processes: vowel deletion, consonant denasalization, vowel assimilation, and tone re-linking or docking. By implication, four phonological rules would be postulated and formalized to account for the derivation within a rule-based analytical methodology. The study has pointed out some of the issues associated with favouring such approach. Those issues, as argued in the paper, are avoidable if recourse is made to a constraint-based framework.

The alternative approach proposed in this study was crucially motivated by the observation that the rule-based analytical approach employed in the existing studies to account for the phenomenon appears unnecessarily complex and analytically deficient in explaining how the processes fit together. Within the context of the alternative approach, the paper argued that the well-formedness of the variants (allomorphs) of **/oní-/** in SY is generally governed by a hierarchy of alignment, markedness, and faithfulness constraints that captures the four phonological processes in a parallel fashion. In this light, it was posited that rather than postulating multiple unrelated phonological rules, which must also be ordered in a certain way to account for the context-dependent variants of the prefix, a single hierarchy suffices: NO-HIATUS, NO-FLOAT[TONE], MAX(GRWD) >> ALIGN[VOC]-L >> IDENT(AFX) >> MAX(AFX). The paper hereby concludes that the simplicity of a constraint-based analysis has some implication for language pedagogy in terms of learnability: a simple grammar is easier to learn than a complex one.

Abbreviations

AFX	Affix
CON	Constraints
EVAL	Evaluator
GEN	Generator
GP	Generative Phonology
GRWD	Grammatical Word
IDENT	Identity
L	Left

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MAX	Maximality
OT	Optimality Theory
Pre	Prefix
SY	Standard Yoruba
VOC	Vocoid

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INTERROGATIVE PRONOUNS IN DAGBANI AND LIKPAKPAANL

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Abstract:

The prime goal of this paper is to provide an analysis of the properties of interrogative pronouns in two Mabia languages drawing data from Dagbani and Likpakpaanl. We focus on the inventory, internal structure, and key grammatical characterizations of the interrogative pronouns. We show that interrogative pronouns are salient syntactic elements in the content question systems of these languages under study. In addition, we demonstrate that number marking, the distinction between human/ non-human and lexical ambiguity are key grammatical properties of these interrogative pronouns. We further show that the inflection for number employs both suppletive and non-suppletive patterns in Dagbani whereas Likpakpaanl uses only the non-suppletive pattern. We provide a formal syntactic account of the interrogative words claiming that they project an Interrogative Phrase headed by the wh-pronoun. In furtherance to this theoretical assumption, we further propose that Number Phrase (NumP) is a functional projection within the Interrogative Phrase layer that is headed by a number affix, drawing evidence of the existence of the Number Phrase from the fact that some of the pronouns are sensitive to number. The data are based on native introspection of the authors who are native speakers of these languages, supplemented with text-based data. This paper is important because of its empirical and theoretical contribution to the study of interrogative pronouns in the Mabia languages.

Keywords: interrogative pronouns, Mabia, inventory, grammatical properties, number marking

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1. Introduction[1]

The availability of overtly expressed interrogative words in the derivation of content questions has been attested in many Mabia (Gur) languages: Dagaare (Bodomo 1997), Buli (Ferreira and Ko 2003, Sulemana 2019), Kusaal (Abubakari 2018, Musah 2018), Safaliba (Schaefer 2009), Gurɛnɛ (Dakubu, 2003, Atintono 2013) among others. The focus of this current paper is to provide a description of the key characteristics of these interrogative pronouns drawing data from two Mabia (Gur) languages, Dagbani and Likpakpaanl. Genetically, Dagbani belongs to the South-Western Oti-Volta subgroup of the Mabia (Gur) group of languages (Bendor-Samuel 1971 and Naden 1988, 1989). Dagbani has three major dialects, namely Tomosili (Western Dialect), Nanunli and Nayahali (Eastern dialect). Whereas the Tomosili is spoken in and around Tamale (the political capital of the Northern Region), Nanunli dialect is spoken in and around Bimbilla and Nayahali (Eastern dialect) is predominantly found in Yendi and its environs (Olawsky 1999, Hudu 2010 et seq.). Likpakpaanl is a Mabia (Gur) language belonging to the Gurma subgroup of the Oti-Volta branch of the North Central Mabia (Gur) languages (Manessy 1971; Naden 1989). Likpakpaanl has close linguistic affinity with Bimoba and Bassare and is spoken predominantly in the Eastern corridors of the Northern region of Ghana and parts of Northern Volta. Some speakers of the language are also found in the Republic of Togo (Schwarz, 2007:116). Both languages are tonal languages since the pitch with which vocalic segments are produced is phonemic in these two languages. Tone is an important feature of the grammar of both Dagbani and Likpakpaanl. However, the current orthographies of these two languages do not recommend the marking of tones (Dagbani Orthography, 1997; Likpakpaanl Orthography, 2019). Nevertheless, we have marked tones on all our Dagbani and Likpakpaanl data for the purpose of the paper. The decision to mark tone is motivated by the fact that tone constitutes a crucial aspect of the grammars of the

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[1] List of Abbreviations used in this paper are: 1st, 2nd, 3rd for first, second, and third person respectively, ANT=Inanimate, D'=Determiner-bar, DEF=Definite Article, DP=Determiner Phrase, EMPH=emphatic pronoun, FOC=Focus Marker, iNUM=interpretable number feature, IPFV=Imperfective aspect, IW=interrogative Word, NEG=Negative marker, NP=Noun Phrase, NumP=Number Phrase, Num=Number, PFV=Perfective Aspect, PL=Plural, PST =Past Tense, SG =Singular, uNUM= uninterpretable number feature.

languages under investigation. This is irrespective of the fact that tone, as a suprasegmental feature, does not affect the grammar of the issues under investigation.[2]

According to Siemund (2001), the requirement for pronoun elements as indicators of the semantic notion of interrogativisation is established to be a key morphosyntactic characterization of content/wh-questions in natural languages. Siemund (2001) posits that all natural languages have a set of interrogative pronouns, which are salient in the morphosyntactic characterization of constituent questions. Siemund (2001:1023) further demonstrates that although languages differ regarding the inventory of interrogative words, there are mainly those that substitute for the core arguments of a predication (English *who*, *what*) and those interrogative pronouns that substitute for adjuncts. The semantic distinctions that languages typically draw in the domain of interrogative words are person, 'who', object 'what', location, 'where' time, 'where', manner 'how' and reason 'why'.

It is asserted in Ultan (1978: 228-229) that: "interrogative phrases are characteristic of all languages, that is, all languages have interrogative substitutes for nouns and a number of adverb-like words or phrases expressive of locative, temporal, enumerative, manner, purpose and other functions." These interrogative words typically substitute for both arguments and non-arguments within the clause structure of languages. According to Siemund (2001:1018), interrogative pronouns are "analyzed as placeholders or variables in a proposition to be filled or assigned a value by an answer." Some scholars also refer to interrogative pronouns as interrogative/wh-phrases (Dryer 2013). In this work, we use interrogative pronouns to refer to these items. Although these interrogative pronouns constitute a salient morphosyntactic property of the constituent interrogatives of the Mabia (Gur) languages, little attention has been paid to their grammatical characterization. It is worthy of mention that it is not only within the Mabia (Gur) languages that the linguistic characterization of interrogative words has not been a subject of systematic linguistic investigation, but the Ghanaian languages in general.

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In almost all studies available on interrogative words, researchers always provide a rather cursory examination of these items focusing on the fact that they are salient syntactic elements in the derivation of content/wh-questions but do not provide a detailed account of their linguistic properties. Therefore, this current paper intends to fill this research gap by providing a comparative study of these class of words drawing data from Dagbani and Likpakpaanl. Specifically, we seek to address the following questions regarding Dagbani and Likpakpaanl interrogative pronouns: (i) What meanings (semantic categories) are encoded in the Dagbani and Likpakpaanl interrogative pronouns? (ii) What is the internal structure of the interrogative pronouns of Dagbani and Likpakpaanl? (iii) What kind of inflectional categories are available for the Dagbani and Likpakpaanl interrogative pronouns? (iv) What are the distributional characteristics of the Dagbani and Likpakpaanl interrogative pronouns? We shall endeavour to offer proposals, which attempt to answer these questions raised above. However, we address the fourth research question only minimally.

The remainder of this paper is structured as follows. In section 2, we provide an account of the inventory of the interrogative pronoun system of Dagbani and Likpakpaanl. After establishing the inventory of the interrogative pronouns, section 3 discusses the internal structure of the interrogatives, demonstrating that there are both morphologically simple and complex interrogative pronouns. In section 4, we focus on a discussion on the grammatical characteristics of these interrogative pronouns. We discuss the distinction between human/non-human, lexical ambiguity and the marking for number in some of these interrogatives as characteristics of these interrogative words. Section 5 sums up the paper with a conclusion and areas for further investigation.

2. The inventory of Dagbani and Likpakpaanl interrogative pronouns

As mentioned in the preceding section, interrogative pronouns are instrumental in the derivation of constituent questions; see Aboh (2004) for Gungbe, Saah (1988), Boadi, (1990) for Akan, Muriungi et al. (2014) for Gichuka, among many others. This section focuses on outlining the inventory of the interrogative pronouns of the two languages under study. Despite the proposal of Siemund (2001) that interrogative pronouns constitute a key characteristic of every language, he notes that natural languages display variation in the inventory of these interrogatives. After a proposal on the inventory, we discuss the internal

structure of these interrogative pronouns based on the typological claims of Heine et al. (1991), who attempt to establish the possible correlations between the semantic domains of interrogatives and their phonological and morphological properties.

Research into the cross-linguistic diversity of interrogative pronouns has often focused on the semantic categories typically fulfilled by these items in natural languages. Mackenzie (2008:1132) sampled 50 languages for a typological study and observed six (6) different semantic categories expressed by interrogative words. These semantic categories are; reason, location, manner, individuals, quantity, and time. Cysouw (2004, 2005) also sampled 67 languages and provided results similar to the findings of Mackenzie (2008). However, unlike Mackenzie (2008), Cysouw (2004; 2005) does not only consider the semantic gaps filled by interrogative words but also the morphological characteristics of the elements. In his studies, Cysouw (2004; 2005) identifies three categories of interrogative words: major, minor, and incidental. This categorization is based on the forms of the interrogatives. Whereas the elements of the major semantic category are interrogative word forms that are not analyzable within the synchronic structure of the language, the minor category consists of synchronically analyzable compound lexemes, which are generally derived from the elements of the major group. He further opines that the elements of the incidental interrogative category "are only unanalysably lexicalized in incidental cases" (Cysouw 2004: 18). The inventory of interrogative words provided by Cysouw (2004; 2005) included (i) major interrogative categories (*person, thing, selection, place*), (ii) minor interrogative (*quantity, time, manner*) and (iii) incidentals (*reason* and *quality*). Tables 1 and 2 outline the list of interrogative pronouns in Dagbani and Likpakpaanl, respectively, based on the semantic categorization of these items proposed by Cysouw (2004).

Table 1: List of interrogative pronouns in Dagbani

Interrogative pronoun	semantic category	Gloss
ŋùní	person	who
bòzùɣù	reason	why
yà	place	where
díní	selection	which
álá	amount	how much
bòndàlì/sáhá díní	time	when
wùlà	manner	how

bò	thing	what

Table 2: List of interrogative pronouns in Likpakpaanl

Interrogative pronoun	**Semantic category**	**Gloss**
ŋmà	person	who
bàŋà	reason	why
lá	place	where
nìlàn	selection	which
ìŋà	amount	how much
bàdáál	time	when
kínyé	manner	how
bà	thing	what

Another distinctive parameter of interrogative words is their grammatical categories. The set of interrogative words in a particular language is usually perceived as consisting of items that belong to a closed word class. This assumption is based on the morphological, syntactic, and semantic characteristics of the items. Nevertheless, based on typological findings, it has been asserted that interrogative words do not mostly "exhibit a homogeneous lexical category, as they conventionally cut across other parts-of-speech classes" (Schachter & Shopen, 2007: 33). In English, for instance, in the set of interrogative words, there are those such as 'who', and 'what', which belong to the class of interrogative pronouns, there are also interrogative adverbs like 'where', 'when', and the final class known as interrogative determiners (*which* as in which book) (Schachter & Shopen, 2007:33). Thus, it is proposed that in most languages of the world, 'interrogative words may differ grammatically, and they may belong to varied word classes. Accordingly, the grammatical categories or word classes of interrogative expressions cannot be universally presupposed' (cf. Schachter & Shopen, 2007: 34).

However, there is a typological inclination regarding the typical parts-of-speech categories of interrogative words in natural languages (cf. Velupillai, 2010: 358). Although the presence or absence of a given grammatical category varies from language to language, the prototypical categories that interrogative substitutes are pronouns, determiners, adjectives, quantifiers, ordinal numbers, adverbs and verbs (cf. Idiatov & van der Auwera, 2004; König & Siemund, 2007: 302; Velupillai, 2012: 359). These categories perform typical

syntactic functions across languages. According to König & Siemund (2007: 302), usually, there are interrogative words, which "replace the core constituents or arguments of a sentence", and that they can classically function as the subject, object, adverbial, adjectival modifier and predicate, in the clause (cf. König & Siemund, 2007: 302).

In summary, this section has investigated the inventory of the interrogative pronoun system of the two Mabia languages in the light of typological claims. We have shown that there are eight distinct semantic classes of interrogative pronouns, which are essential in the characterization of content (wh-questions) in these languages under investigation. These words also represent various word classes. In the next section, we concentrate on the internal structure of these words showing that they consist of both complex and simplex words in Dagbani and Likpakpaanl.

3. The internal structure of Dagbani and Likpakpaanl interrogative pronouns

Typologically, the study of the internal structure of interrogative pronouns is of concern to linguists (Heine et al., 1991). Here, our attention is on the morphological characterization of these interrogatives identified in the two languages, whether they are internally complex or simplex. Their morphological characterization regarding affixation is discussed under number marking in section 4.3. We present data from Dagbani and Likpakpaanl to illustrate that some of the interrogatives exhibit a contrast between singular and plural forms and, for that matter, are argued to inflect for number via suffixation. Based on a cursory account provided in Issah (2020), we propose that the interrogative pronouns outlined in Tables 1 and 2 of the preceding section have different morphological compositions. It is worth noting that the interrogative words consist of both morphologically complex and simplex words in both languages. For instance, the interrogative words for 'who' **ŋùní** and **ŋmà** for Dagbani and Likpakpaanl respectively, are morphologically simplex in that they are monomorphemic. Similar morphological claims are made of the Dagbani interrogative word **bò** 'what' for as well as **nìlàn** and **díní** 'which' for Likpakpaanl and Dagbani, respectively. It is not only the above interrogative words but also, we make the same morphological assumptions for **wùlà** and **kínyé** 'how' respectively for Dagbani and Likpakpaanl. However, Likpakpaanl and Dagbani also have a set of interrogative words that are morphologically complex. For instance, in examples (1) and (2), the interrogative pronouns within the domains of time, temporal setting, **bòndàlì** 'what **day**' and **sáhá díní** 'which time' for Dagbani and **bàdáál** 'what day' for Likpakpaanl are compound expressions in both languages. The Likpakpaanl interrogative word is made up of **bà** 'what'

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and **dáál** 'day' while the Dagbani **bòndàlì** is also made up of **bò** 'what' and **dali** 'day'. We notice an epenthetic nasal segment being /**n**/ inserted in Dagbani, which we see as a confirmation of the claim by Fabb (1998:66) that compounding might give rise to certain phonological and morphological processes.

(1) a. **Bòn-dàlì   kà   bɛ   kú   kpáŋ   máá?**
        What-day   FOC   3PL   kill.PFV guinea fowl   DEF
        'When did they kill the guinea fowl?'
     b. **Sáhá   díní   kà   bɛ   kú   kpáŋ   máá?**
         time   when   FOC   3PL   kill.PFV guinea fowl   DEF
         'What time did they kill the guinea fowl?'
(2)   **Bà-dáál   lè   bì   kù   ùkpààn   gbààn?**
        what-day   FOC   3PL   kill.PFV   guinea fowl   DEF
        'When did they kill the guinea fowl?'

Interestingly, we observe that the interrogative pronoun for reason **bozùɣù** 'why' and **bàŋà** 'why' for Dagbani and Likpakpaanl, respectively, are both complex items. The interrogative pronoun for 'reason' **bozùɣù** 'why' is a complex item, made up of **bò** 'what' and **zùɣù** 'head', that of Likpakpaanl **bàŋà** is also morphologically complex comprising the free morphemes **bà** 'what' and **ŋà** 'do'. Thus, the meaning of the concept of *why* in Likpakpaanl is expressed as **bàŋà** which can be translated literally as ,"what do?' or ,"what happened?" It can be seen that each of the components brings their individual meanings to bear in arriving at the interrogative word **bàŋà** 'reason' in the Likpakpaaanl. By compounding, we mean the formation of new words via joining two or more already existing bases. Christaller (1875:19) posits that "a compound word is formed by two or more words, each of which may be either primitive or derivative or even a compound" whereas Welmers (1946:48) is of the view that a compound is "a group of two or more stems [...] with a compound base." The characterization of the interrogative word of time as morphologically complex does not seem to be a peculiar property of the Mabia languages since similar conclusions have been established for two Kwa languages: Akan (Saah, 2000) and Ga (Kotey, 2002).

Now, we turn to the typological claims in the literature concerning the phono-morphological characterizations of interrogative words and their semantic domains. The aim is to establish a correlation between the findings on the morphological properties of

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the interrogative pronouns of Dagbani and Likpakpaanl and the typological claims of Heine et al. (1991: 55-59). In their attempt to show correlations between the semantic domain expressed by interrogative pronouns and their phonological and morphological characteristics, Heine et al. (1991: 55-59) employ a 'small-scale' language sample. They concluded that the interrogative pronouns for person, object and location are the ones that exhibit the least phonological and morphological complexity in languages of the world. They, therefore, concluded that in the majority of the world's languages in their sampled data, these concepts are expressed using monomorphemic and monosyllabic interrogative pronoun forms.

From the interrogative pronouns presented in Tables 1 and 2, it is observable that this typological claim of Heine et al. (1991) concerning the monomorphemic characterization of the interrogative pronouns for person, object and location are valid in both languages since they are simplex interrogative items.[3] They further note that the interrogative words for time and manner are generally more complex in natural languages and that the most complex pronouns in terms of morphological composition are interrogative words coding reason or cause (and purpose). Heine et al. (1991) propose that these interrogative words usually consist of more than a single morpheme. They further conclude that in the light of this typological claim, the English *why* is an exception. Thus, a similar conclusion is drawn that the interrogative words **bozùɣù** and **bàŋà** for the expression of reason in both Dagbani and Likpakpaanl are morphologically complex.

Regarding the syntactic structure of these interrogative pronouns that have been discussed so far, we propose that they are question operators in both languages. Following the syntactic accounts in earlier works such as Rizzi (2001) and Aboh (2004), we propose that the interrogative pronouns project an Interrogative Phrase (IntP), which is headed by Int as schematized in (3). With this structure, the assumption is that the head of the phrase, Int hosts the "question operator". We further assume that the head of the phrase, Int has the interpretable question feature [iQ], which enables it to project an Interrogative Phrase. Therefore, Feature checking (or valuation), which is achieved via the operation Agree,

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[3] We admit that the interrogatives for place **yà** could also be realised as **yà pòló** 'where place' and **lá ché** 'where place' for Dagbani and Likpakpaanl respectively.

operates between Int, the probe, and the wh-pronoun, goal, the commanding item, and the c-commanded items, respectively.

(3)

```
            IntP
           /    \
              Int'
             /    \
          Int      NP
          [iQ]    /  \
        probe   wh-pronoun
                  [uQ]
                       ▲Goal
              Agree
```
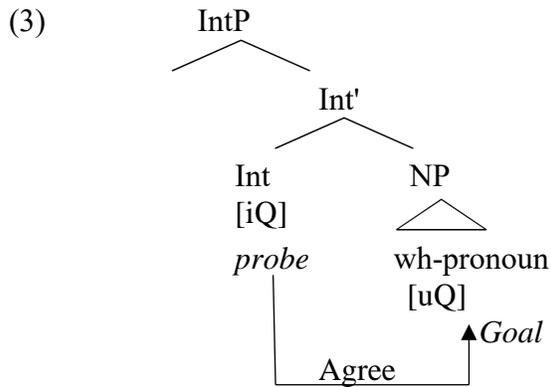
From the structural account in (3), we contend that the head of the IntP is Int, which bears a strong interpretable feature [+question operator] that undergoes feature checking operation with an uninterpretable NP (a pronominal element that is a question word for that matter). Thus, per our syntactic account, the Interrogative Projection, IntP, has its head as Int, which hosts the question feature (Q). In summary, we have so far provided an overview of the inventory of the interrogative pronouns in Dagbani and Likpakpaanl. In addition, we have discussed their morphological composition and concluded, based on the empirical data available, that interrogative pronouns comprise both simplex and complex items in both languages. Finally, we proposed a syntactic structure for the Interrogative Phrase in the languages under study. In the section that follows, we provide a systematic study of the key characteristics of the interrogative pronouns.

4. The characteristics of Dagbani and Likpakpaanl interrogative pronouns

In the preceding section, we discussed the inventory and internal structure of Dagbani and Likpakpaanl interrogatives. This discussion was in the light of the typological claims that have been made in the literature regarding these words. In this section, we examine the key characteristics of the interrogative pronouns. We show that in Dagbani and Likpakpaanl, the properties of the interrogative words include the distinction between human/non-human as discussed in section 4.1, lexical ambiguity is discussed in section 4.2 and finally on marking for number in section 4.3.

4.1 Distinction between human and non-human interrogative pronouns

This section examines the distinction between human and non-human referents as a grammatical property of Dagbani and Likpakpaanl interrogative pronouns /wh-phrases and briefly comments on the distribution of the interrogatives. In the typological study of interrogative pronouns, as in the works of Lindström (1995), Ultan (1978), among others, it is generally attested that most languages make this human/non-human distinction in the characterization of their interrogative pronouns. Siemund (2001:1023) claims that 'one of the distinctions that virtually all languages make, and seems almost universal, is the one between interrogative words used to inquire about human referents and those used for non-human referents, i.e., between *who* and *what'*. This distinction is evident in the distinction between 'what/who' in English. Siemund (2001:1021) also points out that the human/non-human distinction is predominant in many languages such as in the Russian **kto** and **ₗto**, **shéi** and **shénme**, in Mandarin, and in Georgian **vin** vs. **ra**, **kuka** and **mikä** in Finnish and **kina** vs. **suna** in West Greenlandic. In his typological studies, Ultan (1978: 229) also proposes that "the number and kind of distinctions, which Question Words [QWs] may or may not reflect in terms of those existing elsewhere in a given language vary considerably from language to language, but at least one contrast appears to be nearly universal: Q-pronouns show a human/non-human or, in a few cases, an animate/inanimate dichotomy". For instance, Givón (1984) demonstrates that a language like Ute distinguishes between animate/inanimate semantic domains. Ute is an endangered Uto-Aztecan language of the northernmost (Numic) branch of the Uto-Aztecan language family spoken by the Ute people (Givón, 2011). The claim on the animate/inanimate distinction in Ute is illustrated in (4).

(4) a. **Áa**   **wúuka-xa?**
         IW.SG.ANIMATE   work. INANT
         'Who worked?' / 'Which one worked?'

     b. **'Agá-ru**   **qorúc'ay-kya?**
         IW.INANT   break.INANT
         'Which thing broke?   (Givón 1984: 226)

Based on empirical data available, we propose that there is evidence in Likpakpaanl and Dagbani to indicate that the distinction operational in these languages is based on [+/-human]. Thus, the *wh*-words are sensitive in their selection depending on whether the DPs they substitute for are human or non-human referents. This is illustrated in (5) for Dagbani and (6) for Likpakpaanl.

(5) a. **Ŋùní n   sà   kú   bùa   máá   sòhàlà?**
        who FOC PST kill goat   DEF   yesterday
        'Who killed the goat yesterday?'
     b. **Bò   n   sà   kú   bùa   máá   sòhàlà?**
        what FOC PST kill goat   DEF   yesterday
        'What killed the goat yesterday?'

(6) a. **Ŋmà fù   kù   ùŋùò   gbáán fénnà?**
        who PST kill goat   DEF   yesterday
        'Who killed the goat yesterday?'
     b. **Bà   fù   kù   ùŋùò   gbáán fénnà?**
        who PST kill goat   DEF   yesterday
        'What killed the goat yesterday?'

From the data presented in (5) and (6), it is evident that in Likpakpaanl **ŋmà** is specified for [+human], **bà** is specified for [-human], whereas in the case of Dagbani, we have **ŋùní** 'who' and **bò** 'what' for [+human] [-human] referents. The selection of these pronominal referents is conditioned by the [+/-human] features of the referent in question. This means that Dagbani and Likpakpaanl are not different from what pertains in English, where the interrogative pronouns are specified for [+/-human] by employing the interrogative pronouns '*who*' and '*what*.'

The next question that arises from the above discussion is the availability of any language-internal evidence to motivate the claim of [+/-human] distinction in these interrogative words rather than [+/-animate] characterization. One piece of evidence that supports the [+/-human] distinction is the fact that neither **ŋmà** nor **ŋùní**, for Likpakpaanl and Dagbani respectively occurs in contexts where referents are expected to be animate. If it were the case that the distinction was based on [+/-animate] dichotomy, one would have expected these interrogatives to occur with animal referents, since they are animate. This is, however,

contrary to the empirical facts on the language showing why the sentences in (7) and (8) are ungrammatical depending on the semantic features of the selected interrogative pronouns for Dagbani and Likpakpaanl respectively.

(7) a. **Ŋùní/ *bò   n   kpé-rí   dùú   máá   nì?**
        Who/what   FOC   enter.IPFV   room   DEF   inside
        'Who is entering (inside) the room?'
     b. **Bò /*ŋùní   kà   pàgà   máá   sà   dá-rá?**
        What/who   FOC   woman   DEF   PST   buy-IPFV
        'What was the woman buying yesterday?'

(8) a. **Ɗmà/*bà   bì   kóó   kìdíík   gbáán   nì?**
        Who/what   IPFV   enter   room   DEF   inside
        'Who is entering (inside) the room?'
     b. **Bà /*ŋmà   lè   ùpìì   gbáán   fù   bì   dà?**
        who/ what   FOC   woman   DEF   PST   IPFV   buy
        'What was the woman buying yesterday?'

Given the evidence in (7) and (8) regarding the distributional restriction of these interrogative pronouns for *who* and *what,* we conclude that selecting these interrogative pronouns instead of another is regulated by the semantic features of the referents in a particular context. Bodomo (1997: 72) also makes this semantic distinction between human and non-human interrogative pronouns in Dagaare, an areal language. It is worthy of mention that despite the [+/-human] distinction in Dagbani and Likpakpaanl interrogatives, there is a particular context in which **ŋùní** 'who' and **ŋmà** 'who' for Dagbani and Likpakpaanl respectively, can occur with non-human referents. This is for a context where a non-human referent has so much identified with a people to the extent that it is no longer treated as non-human but human. For example, there is a goat at home, which everyone adores and treats with admiration. When such an animal is referred to, it can be personified and result in sentences like (9).

(9) a. **Ŋùní n   ŋmá-ri   ŋmánà   dùú   máá   nì?**
        who FOC   break.IPFV   calabashes   room   DEF   inside
        'Who is breaking bowls (inside) the room?'
     b. **Ɗmà bì   wíír   tìyír   kìdíík   gbáán   nì?**

who IPFV   break   calabashes   room   DEF   inside
'Who is breaking bowls (inside) the room?'

In the context of (9), the animal, which is not human, has been personified and treated as human, so the interrogative pronoun for person has been used and accepted as appropriate in both languages. Siemund (2001: 1021) suggests that despite the prevalence of the [+/-human] and [+/-animate] dichotomy in interrogative pronouns, there are some languages in which this distinction does not hold. A language proposed not to make this distinction is Latvian, which makes no distinction between who and what (10).

(10) **Kas   tas   ir?**
     'Who/what   is   that?'   (Siemund, 2001: 1021)

Another typical property that is usually discussed in the literature concerning content questions is the distributional characteristics of the interrogative words (see, e.g., Greenberg, 1966; Siemund, 2001; König & Siemund, 2007; Dryer, 2013a; Dryer, 2013b). Although the impetus of this current work is not to offer a systematic account of the distributional properties of the interrogative words in Dagbani and Likpakpaanl, we would briefly comment on this syntactic property. The grammaticality of sentences (11) and (12) indicates that the interrogative words can occur in both the in-situ positions in addition to the ex-situ position[4]. This suggests that these languages can be categorized among the languages described as optional fronting languages; thus, languages that allow their wh-elements to be either hosted in the base position or left peripheral position (cf: Cheng, 1997; Potsdam, 2006), among others. The claim on the compatibility of the interrogative words with the in-situ and ex-situ positions is exemplified (11) for Dagbani and (12) for Likpakpaanl.

(11) a. **Ká   bòzúɣù kà   bán   tì   fábìndí   làlá**? (Abdulai, 2007:26)
        And   why   FOC   3PL.EMPH   PRT   complain   like that
        'And why are they complain like that?'
     b. **Bí-hí   máá   cháŋ   yà?**   (Yakubu 2012: 19)
        child   DEF   go.PFV   where

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[4] For details on the distribution of Dagbani interrogative words, readers may consult Issah (2020, 2012) and Hudu (2012) and references cited therein for further details.

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'Where have the children gone?'

(12) a. **Kínyè   lè   ùkpán   gbáán   kù   kóln   gbáán?** (M & T 2000: 27).
    how   FOC   hunter   DEF   kill. PFV   elephant   DEF
    'How did the hunter kill the elephant?'

   b. **Nááchínn   kù   sándéé   lá?**   (Kunji, 1983: 1).
    hyena   kill.PFV   rabbit   where?
    'Where did the hyena kill the rabbit?'

The morphosyntactic characterization of the two types of wh-questions differs in both languages. For instance, in the ex-situ strategy, as shown in (11a) and (12a), the focus markers *ka* for Dagbani and *lè* for Likpakpaanl are required.[5] As shown in earlier works, the requirement for these overt focus markers in ex-situ wh-questions is characteristic of the focus system of (West) African languages. For instance, researchers have made similar observations in several other Mabia (Gur) languages: Dagaare (Bodomo, 1997; Hiraiwa & Bodomo, 2008), Kusaal (Abubakari, 2018; Musah, 2018) and Gurɛn (Atintono, 2013; Dakubu, 2003). The same appears to be applicable in the literature of Kwa language as in Gungbe (Aboh. 1998, 2004, 2007), Akan (Boadi, 1990; Marfo, 2005; Marfo & Bodomo 2005; Saah, 1988, 2000), and Ewe (Ameka, 1992, 2010 *inter alia*).

In summary, we have demonstrated that Dagbani and Likpakpaanl interrogative pronouns exhibit a [+/-human] distinction. We have also commented on the distribution of the interrogative words showing that they occur in both the base positions and the clausal left periphery. In the next section, we discuss lexical ambiguity, another property of Dagbani and Likpakpaanl interrogative pronouns.

4.2 Ambiguities in Dagbani and Likpakpaanl interrogative pronouns

Another key characterization of the interrogative pronouns in Dagbani and Likpakpaanl is that they exhibit lexical ambiguity. We understand ambiguity here, as in the proposal of

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[5] As shown earlier in example (9b), the Likpakpaanl focus marker *lè* is not required in the focusing of interrogative pronouns that substitute for subject arguments.

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Crystal (1991:17), who defines it as a phenomenon whereby a word or sentence expresses more than one meaning. Since we are dealing with lexical items; our concentration shall be on lexical ambiguity triggered by the alternative/multiple meanings of an individual lexical item. Although the typological study of Cysouw (2005) notes that ambiguity in interrogative pronouns is uncommon in languages of the world, we show that the interrogative words for the expression of manner: **wùlà** for Dagbani and **kínyé** for Likpakpaanl exhibit ambiguity. Because these interrogatives have this semantic property, they can be interpreted with either a manner, reason or an instrumental reading. Consider the ambiguous interpretation of these lexical items, which we exemplify in (13) for Dagbani and (14) for Likpakpaanl.

(13) Q: **Wúlàᵢ**   **kà**   **á**   **dí**   **bíndírígú** **máá** **tᵢ?**
     how   FOC   2SG   eat.PFV   food   DEF
     'How did you eat the food?'

A1. **Dírígù**   **kà**   **ń**   **záŋ**   **dí**   **bíndírígú** **máá.** ₍instrument₎
    spoon   FOC   1SG   use   eat.PFV   food   DEF
    'I used a spoon to eat the food.'

A2: **Bíɛlábíɛlá** **kà**   **ń**   **dí**   **bíndírígú** **máá**   ₍manner₎
    slowly   FOC   1SGF   eat.PFV   food   DEF
    'I ate the food slowly.'   (Issah 2020: 72)

A3: **Kum**   **m**   **mali**   **ma**   ₍reason₎
    Hunger   FOC   has   1SG.OBJ
    'I was hungry.' Lit: 'because I was hungry.'

(14) Q: **Kínyéᵢ** **lè**   **nì**   **kù**   **ùkpáán** **gbáán**   **tᵢ?**
     how   FOC   2PL   kill   guinea fowl DEF
     'How did you kill the guinea fowl?

A1. **Kíjùùk**   **lè**   **tì**   **dì**   **kɔr**   **ùkpáán** **gbáán.** ₍instrument₎
    knife   FOC   3PL   take   slaughter.PFV   guinea fowl DEF
    'We used a knife to slaughter the guinea fowl.'

A2: **Málámálá**   **lè**   **tì**   **kɔr**   **ùkpáán**   **gbáán.** ₍manner₎
    quickly   FOC   3PL   slaughter.PFV   guinea fowl DEF
    'We slaughtered the guinea fowl quickly.'

A3: **Ùkpáán**   **gbáán** **áá**   **kpá**   **lááféé.** ₍reason₎

           guinea fowl   DEF   NEG   have   health
           'The guinea fowl is not healthy.'

From the answers provided in the data in (13) and (14), we observe that (13Q) and (14Q) have several answers. We interpret the availability of the varied, yet correct answers as in (13A1, 13A2, 13A3) and (14A1, 14A2, 14A3) to be attributable to the multiple/ambiguous interpretation of **wùlà** and **kínyé** as either substituting for syntactic elements, which are within the semantic domains of [+manner], [+reason], and [+instrument]. This explains why in (13A1) and (14A1), **wùlà** and **kínyé** provide answers with focus on the instrument of the action 'knife'*,* which is the instrument of the action 'slaughter', whereas, in (13A2, 13A3) and (14A2, 14A3), they substitute for manner and reason respectively.

In summary, this subsection has been devoted to examining ambiguity as a property of interrogative pronouns in Dagbani and Likpakpaanl. We established that notwithstanding the typological rarity of lexical ambiguity in interrogative pronouns, there is language-internal evidence to propose that **wùlà** and **kínyé** exhibit ambiguity. In the next subsection, we pay attention to number marking, another salient property of these interrogative pronouns.

4.3 Number marking in interrogative pronouns

Another characteristic of interrogatives in Dagbani and Likpakpaanl is the fact that they inflect for number, thus distinguishing between interrogative words in the singular and plural. It is worthy to mention that not all interrogative pronouns inflect for number in these languages. According to Dalrymple (2012: 2), 'number marking can appear on pronouns or nouns, indicating the number of members in the group referred to, or as agreement marking on determiners, adjectives, verbs, prepositions, and other categories." The interrogative words that inflect for number are those within the semantic domains of [+THING], [+SELECTION] and [+PERSON]. This explains why they distinguish between plural and singular referents within the grammar of these languages. The observation that the interrogative pronouns for [+THING], [+SELECTION] and [+PERSON] inflect for number tallies with the conclusion of Cysouw (2004:7), who posits that languages mostly inflect their interrogative pronouns specified for person, thing and such grammatical properties as

number, case, and gender. The number-marking paradigm is shown in Tables 3 and 4 for Dagbani and Likpakpaanl, respectively.

Table 3: Number marking in Dagbani interrogative pronouns (Issah 2020: 66)

semantic category	singular	plural	Gloss
[+PERSON]	ŋùní	bànímà	who/whom
[+SELECTION]	dìní	dìnnímà	which
[+THING]	bò	bònímà	what

Table 4: Number marking in Likpakpaanl interrogative pronouns

semantic category	singular	plural	Gloss
[+PERSON]	ŋmà	ŋmàmàm	who
[+SELECTION]	nìlánì	tìlánì	which
[+THING]	bà	bàmàm	what

Based on the data presented for Dagbani in **Error! Reference source not found.** and **Error! Reference source not found.** for Likpakpaanl, we propose that not all the interrogative words in the languages under investigation that inflect for number. The interrogative pronouns that are specified for [+HUMAN], [+THING] and [-HUMAN] are sensitive to number marking in Dagbani and Likpakpaanl.

Having shown that some of the interrogative words are sensitive to number, we now examine the patterns of number marking available in the two languages under investigation. From the empirical material presented in **Error! Reference source not found.** and **Error! Reference source not found.**, one observation is that in the marking of number in these interrogative pronouns, the roots of interrogative pronouns in the singular and plural forms either differ phonologically or are the same. This empirical material on the characterization of the number markings leads to the conclusion that inflecting for number in the interrogative pronouns exhibits both non-suppletive and suppletive patterns, at least for Dagbani. Whereas in the latter, there is morphological sameness in the root of the singular and plural as in **dìní** [singular], **dìn-nímà** [plural], and **bò** [singular], **bò-nímà**[plural], for Dagbani and **ní-lán** [singular], **ti-lán** [plural], and **bà** [singular], **bà-màm** [plural], **ŋmà** [singular], **ŋmàmàm** [plural], for Likpakpaanl, in the latter, the root of the singular is different from that of the plural as evident in **ŋùní** [singular] and **bà-nímà** [plural] not *ŋùnínímà [plural] Dagbani.

There is generally a phonological disparity in stems in suppletion, resulting in different roots for different contexts. This suppletive pattern in the pronouns is not surprising since, in the study of suppletion, pronouns are established to exhibit suppletion regularly in the marking of number compared to their lexical noun counterparts (Corbett, 2005, 2007, 2009). The phenomenon is widely studied, especially in lexical nouns and pronouns (Corbett, 2005, 2007, 2009, Moskal, 2013, 2015). According to Moskal (2015: 363), "suppletion refers to the situation where a single lexical item is associated with two phonologically unrelated forms, and the choice of form depends on the morphosyntactic context."

A classic illustration of suppletion is the English example *good, better, best*, for positive, comparative and superlative, respectively, where the roots differ based on context. Research into this phenomenon has gained quite appreciable attention in linguistics and within the domain of morphology and allomorphy. Based on allomorphy, the interrogative word 'who' has a context-free exponent, which is **ŋùní,** whereas, within the context of plural, it has a corresponding variant, which is **bànímà** as a context-free exponent with a corresponding plural variant, which is **bànímà** for Dagbani. We show the contrast in number marking using the data in (15) through (18) using the contrast in **ŋùní/bànímà** (15) and **bò/bònímà** (17) for Dagbani and **ŋmà/ ŋmàmàm** (16) and **nílán/tílán** (18) for Likpakpaanl.

(15) a. **Ŋùní   m   bò-ri   bùkù   màà?**
      who.SG FOC want-IPFV book   DEF
      'Who wants the book?'

    b. **Bà-nímà   n   bò-ri   bùkù   màà?**
      who-PL   FOC want-IPFV book   DEF
      'Which people want the book?'

(16) a. **Ŋmà   bàn   kìgbáŋ   gbáán?**
      who.SG   want-PFV book   DEF
      'Who wants the book?'

    b. **Ŋmà-màm   bàn   kìgbáŋ   gbáán?**
      who-PL   want-PFV book   DEF
      'Who wants the book?'

(17) a. **Bò   kà   Adam   dà   dáá   màà   ní?**

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what FOC Adam   buy.PFV market   DEF   inside

'What has Adam bought in the market?'

   b. **Bò-nímà**   **kà**   **Adam**   **dà**   **dáá**   **màà**   **ní?**

    what-PL   FOC Adam   buy.PFV market   DEF   inside

    'What (things) has Adam bought in the market?'

(18)   a. **Bà**   **lè**   **Koonja**   **dàà**   **kìnyáŋ gbáán**   **nì?**

      what FOC   Koonja   buy.PFV   market   DEF   inside

      'What has Koonja bought in the market?'

    b. **Bà-màm lè**   **Koonja**   **dàà**   **kìnyáŋ**   **gbáán nì?**

     what-PL   FOC Koonja   buy.PFV   market   DEF inside

     'What (things) has Adam bought in the market?'

Based on the empirical material presented on the marking of number in Dagbani and Likpakpaanl, we contend that the interrogatives that are specified for [+thing], [+selection] and [+person] are sensitive to number because they alternate for plurality. Since we have demonstrated that some of these interrogative pronouns contrast between singular and plural (inflect for number), we attempt to provide a formal account of the syntax of number. We do this by adopting the theoretical tenets of Minimalism (Chomsky, 2000, 2001). We propose that the interrogative pronouns, which inflect for number, have strong uninterpretable number feature [uNum]. The head of the number NumP, which are affixes (suffixes), then carry interpretable [iNum] number feature, which leads to them projecting a phrase. A Feature checking (or valuation) mechanism is obtained via the operation Agree, which operates between the commanding item, the probe, and the c-commanded item, the goal. The proposed structural characterization of the syntax of number within the IntP layer is shown in (19).

(19)

```
                  IntP
                 /  \
                    Int'
                   /  \
                 Int    DP
                       /  \
                           D'
                          /  \
                        NumP
                        /  \
                           Num'
                          /  \
                    [iNUM]    NP
                    probe     /\
                          wh-pronoun
                          [uNUM]
                                  Goal
```
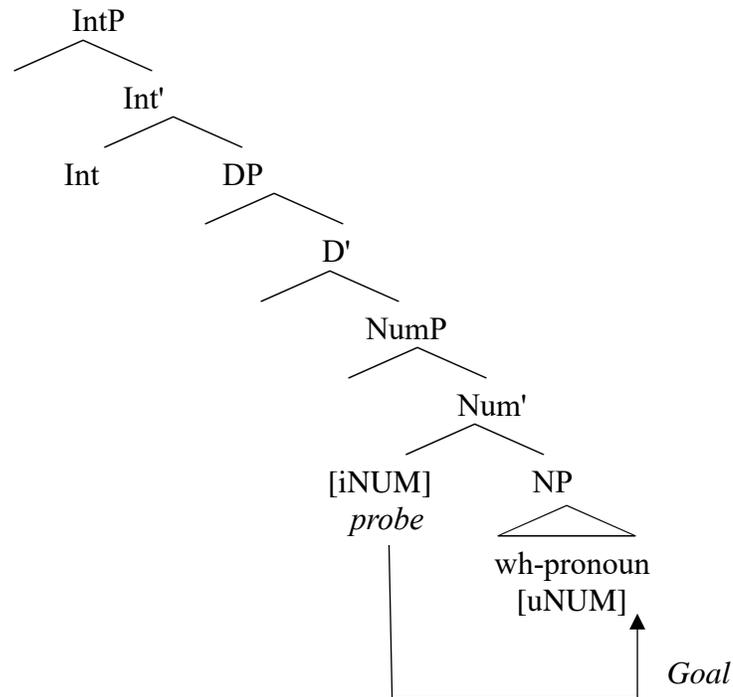
There are three related questions that arise from the proposal of the number phrase within the interrogative phrase in (19), which include (i) is there a number phrase only when the wh-element is sensitive to number? (ii) How does the number-phrase know that the wh-element is specified for number, and (iii) what happens within the structural layer when the wh-element does not show a number distinction? We assume that once the number phrase is a functional projection, it is only required in the syntax when the feature that projects it is present. Consequently, when a wh-element does not have a NUM feature, the number phrase is not projected.

Following Ritter (1991), we assume that NumP, as a functional layer, is below the DP and above NP as in the structural representation in (19). Then, we have the DP below it to license the number feature. Having demonstrated that number marking is a characteristic feature of some of these interrogative pronouns in the languages under investigation, it is

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worthy of mention that similar findings have been made in other languages of the word where pronouns within the same semantic domains as those for Dagbani and Likpakpaanl inflect for number. In Kusaal, another Mabia language of Ghana, we have **anɔ'ɔn** (SG) and **anɔ'ɔn-nama** (PL) for 'who', **bɔ** (SG) and **bɔnama** (PL), **dinɛ** (SG), **dina** (PL) for 'which' (see Abubakari, 2018). A similar pattern exists in the Paasali dialect of Sisaali as argued by (Dumah, 2017), where the interrogative pronouns within the same semantic domain as observed of Dagbani and Kusaal, also inflect for number as in **annɛ** (SG) and **tabeele** (PL) for 'who', **bekɪŋ** (SG) and **bekina** (PL) for 'what' and **kɪbee** (SG)/ **kɪbeema** (PL).

It is not only in these Mabia languages that there is evidence for the number contrast in these interrogative pronouns, but the same pattern is discovered in other languages of the world. For instance, according to Sadock (1984:200ff), in West Greenlandic, the interrogative word for questioning non-human referents 'what' also distinguishes between singular and plural as in *kina* (SG) and *ki-kkut* (PL). He, therefore, argues that an English content question like '*who is here?*' corresponds to two different interrogative pronouns in West Greenlandic as exemplified in (20).

(20) a. **Kina maaniit-pa-∅?**
         IW.SG be.here-INT-3SG
         'What single person is here?'
      b. **Ki-kkut maaniit-pa-t?**
         IW-PL be.here-INT-3PL
         'Which people are here?' (Sadock 1984:200)

A very similar distribution is found in Swedish, which differentiates between singular (*vem*) and plural (*vilka*) in the case of human nouns (21).

(21) a. **Vem öppnade dörren?**
         'Who opened the door?'
      b. **Vilka öppnade fabriksportarna?**
         'Who (PL) opened the factory gates?' (Siemund 2001:1022).

To conclude, this subsection has provided an empirical and theoretical analysis of number marking as a key characteristic of some of the interrogative pronouns in Dagbani and Likpakpaanl. We have demonstrated that number marking is indeed a grammatical

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property for some of the interrogative pronouns, justifying the proposal for a functional NumP within the internal structure of the interrogative DP.

5. Conclusion

This article has investigated the key characteristics of interrogative pronouns of two Mabia (Gur) languages of Ghana. The work focused on the lexico-semantic and morphological properties and the distributional characteristics of interrogative pro-forms in Dagbani and Likpakpaanl. We first outlined an inventory for the interrogative pronouns and examined their internal structure. It was demonstrated that internally, the interrogative pronouns include both morphologically simplex and complex items. We established that the properties of the interrogative words in these languages include the distinction between human/non-human referents. Both languages distinguish between the interrogative pronouns based on whether they inquire about human/non-human referents. Other characteristics established included the marking of number and lexical ambiguity. On the inflection for number in the interrogatives, we further showed that the number marking exhibited both suppletive and non-suppletive patterns in Dagbani, but only the non-suppletive pattern in Likpakpaanl. Both languages, however, do not seem to be showing any parameter of variation in gender and case. The contribution of this paper is both empirical and theoretical. Empirically, we have offered a comparative study of an aspect of the Mabia languages that has been largely ignored in the Mabia literature.

In the theoretical landscape, we provided a formal syntactic account of the interrogative words. We claimed that they project an Interrogative Phrase headed by the wh-pronoun. Based on the empirical evidence of the sensitivity of some of these interrogative words to number marking, we further proposed that Number Phrase (NumP) is a functional projection within the Interrogative Phrase layer that is headed by a number affix. Suppletion did not receive a detailed examination in this paper. This is because suppletion in pronominals is currently an interesting domain of study that has attracted the attention of linguists. This area is, therefore, a potential topic for further investigation in the interrogative pronouns of Mabia (Gur) languages. The paper is essential because it contributes to the ongoing debate on the study of interrogatives in natural language, mainly by bringing data from lesser-known languages.

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PROGRESSIVE VOWEL HARMONY IN GOMOA

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Kwasi Adomako

Abstract:

Previous studies on Akan ATR vowel harmony have centered on the concepts of regressive (anticipatory) directionality, very little empirical evidence has been provided for the existence and robustness of progressive ATR vowel harmony in Akan. This paper, therefore, discusses progressive ATR vowel harmony (VH) in Gomoa, a sub-dialect of Fante, one of the major dialects of Akan (Kwa, Niger-Congo). The paper attempts to argue that Gomoa unlike the other Akan dialects has progressive ATR vowel harmony. In this study, we show that the +ATR vowel in the root/stem word triggers rightward to harmonize with the -ATR vowel in the suffix or a following vowel in the same domain. Data gathered, show that Gomoa extensively displays progressive vowel harmony in stem words, verbal suffixes, and nominal suffixes, and also shows +ATR dominance vowel harmony. We discuss this occurrence within the framework of Autosegmental phonology (following Goldsmith, 1976) to show the directionality and spreading ATR harmony. This paper, therefore, contributes to the study of the directionalities of vowel harmony in Akan.

Keywords: Vowel harmony, ATR, Gomoa, Autosegmental Phonology

1.   Introduction

This paper discusses progressive ATR vowel harmony (VH) in Gomoa. The paper argues that Gomoa, unlike the other Akan variants, has progressive ATR vowel harmony. The paper adds to the existing knowledge of the directionality of vowel harmony in Akan. Existing literature shows that vowel harmony in Akan phonology is mainly regressive (Berry 1957; Stewart 1967; Schachter & Fromkin 1968; Clements 1981, 1984, 1985;

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Dolphyne 1988). Clement (1981) and Baković (2002) have established that Akan ATR harmony involves featurally symmetric assimilations of affixes to root, i.e. it is root-controlled. Stewart (1967), Schachter & Fromkin (1968), and Dolphyne (1988) posit that Akan ATR vowel harmony is based on the asymmetric anticipatory direction of [-ATR] to [+ATR]. In the words of Dolphyne (1988:117);

> vowel harmony in Akan is basically a regressive process in which advanced vowels assimilate unadvanced vowels that precede them.

According to Casali (2012:34), "Akan manifests a number of patterns that superficially appear to involve right-to-left spreading of [+ATR], and there is considerable evidence that harmonic alternations in Akan are based on (anticipatory) assimilation to [+ATR]." He further adds that "...instances of /a/ to the *right* of a [+ATR] vowel (as in sìká 'money') do not surface as [æ]."

Other phonologists like Boadi (1991), Obeng (2000), O'Keefe (2003), Mahanta (2007), Ballard (2010), Owusu (2014), Kügler (2015), and many others emphasize that Akan has more prefixes than suffixes and for that matter, postulate that Akan possesses regressive vowel harmony. Abakah (1978) demonstrates that progressive vowel harmony exists in Boka (Eastern) Mfantse but he did not account for it in detail.

Albeit these scholarly ideas are factual in most of the Akan dialects, however, Gomoa, a variant of Fante, exhibits robust progressive (i.e. left-to-right) vowel harmony. Here, the [+ATR] vowel in the stem spreads rightward to assimilate the [-ATR] vowel in the suffix morphemes. This paper, therefore, discusses progressive tongue root vowel harmony in the Gomoa variant of Fante (henceforth, referred to as Gomoa). It demonstrates that the Gomoa ATR harmony system is distinctive and manifests many features that are not in the other Fante varieties and for that matter, Akan in general.

Data presented in this paper are drawn from a variety of sources, including primary and secondary. In addition, we make use of various examples elicited from twelve adults (including six men and six women) speakers of the Gomoa Mfantse in Gomoa Otapirew, Gomoa Abonyin, and Gomoa Afransi, all in Gomoa Central District in the Central Region of Ghana. One of the author's intuition as a native speaker was useful in the data gathering and analysis processes. The data gathered were categorized, transcribed, and glossed into

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English. The descriptive analysis is formalized within the Autosegmental Phonology (AP) framework by Goldsmith (1976).

2 Background

2.1 Gomoa variety and its speakers

Gomoa is one of the major variants of the Fante language. Fante has several known varieties, which makes it different from the other two major dialects of Akan (Asante and Akuapem). These varieties include Gomoa, Agona, Breman, Bɔrbɔr, Iguae, and Anee (western) Mfantse. Abakah (1978, 2016) classifies these major Fante variants into three groups, namely; Boka Mfantse (Eastern Fante), Iguae Mfantse (Cape Coast Fante), and Anee Mfantse (Western Fante). The Boka Mfantse comprises Gomoa, Bɔrbɔr, Ajumako, and Etsii-Kwaman-Kɛse (cf. Abakah 2016). The Iguae Mfantse consists of the Fante spoken in Cape Coast and its environs, and the Anee Mfantse also constitutes Fante spoken in Takoradi and its environs.

We argue that Gomoa is an autonomous variant of Fante and not just a subcategorize variant of Fante. This is because Gomoa, Agona, Ekumfi, Breman, Bɔrbɔr, Enyan, and Ajumako are all in the said Boka (Eastern) Fante. Thus, in this study, we modify the Boka Mfantse and classify them into three main nodes, namely; Gomoa, Agona, and Breman, where the Gomoa is one node for Ekumfi, Bɔrbɔr, Enyan, and Ajumako Mfantse. This is based on the fact that all these variants are phonologically similar.

The indigenous Gomoa speakers occupy the inland and coastal zone of Gomoa East, West, and Central in the Central Region of Ghana. They share geographical boundaries with the Agona, Breman, Mankessim, Assin, up to the Greater Accra borders. People usually refer to their dialect as a "deep Fante" due to the naturalness of its phonology or pronunciation. The language has several properties that differentiate it from the other variants. Vowel harmony in Gomoa is both regressive and progressive (bidirectional) and not just regressive as generalized by some Akan phonologists. Another disparity to consider between Gomoa and other Fante variants is that the latter display –ATR vowel harmony in most root words and the former shows synchronic +ATR vowel harmony in such words. This variety has received virtually no erudite attention in the Akan literature both in its phonology, syntax, morphology, and other linguistics-related subfields.

2.2 Gomoa Vowel Inventory

Gomoa, as a variety of Fante and for that matter Akan, has ten (10) oral vowels [**i, ɪ, u, ʊ, e, ɛ, o, ɔ, a, æ**] at the systematic phonetic level (Schachter & Fromkin 1968; Clements 1976; Dolphyne 1988; Eshun 1993; Abakah 2002, 2006, 2013) and five (5) phonemic nasal vowels [**ã, ɪ̃, ĩ, ũ, õ**] (Eshun, 1993; Abakah 2002, 2006,2013; Manyah, 2008; Dolphyne, 2006). In terms of their distribution, eight vowels [**i, ɪ, e, ɛ, a, æ, ɔ, o**] occur word-initially in Fante and six [**e, ɛ, a, æ, ɔ, o**] in Akuapem and Asante. All the ten (10) phonetic vowels occur at the word medial position. In Fante, all the ten phonetic oral vowels occur word-finally. However, in Asante and Akuapem, only nine (9) vowels [**i, ɪ, u, ʊ, e, ɛ, o, ɔ, a**] occur word-finally (Abakah, 2006; Odoom, 2011). The vowel [æ] is allophonic, not phonemic. It is in complementary distribution with [a], where [æ] occurs before advanced high vowels and [a] occurs elsewhere (Clements, 1981, 1984; Stewart, 1983; Dolphyne, 1988 Abakah, 2004; and Adomako, 2015). Dolphyne (1988) explains that [æ] is a predictable [+ATR] allophonic variant of [a] before a following [+ATR] vowel. The chart below shows the ten phonetic oral vowels in Akan.

Chart 1: Gomoa Vowel Chart

Odoom (2011, 2013)
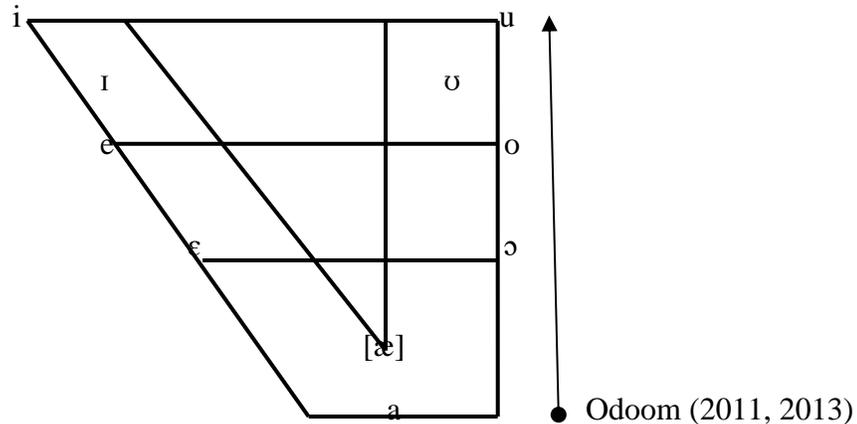
Based on the tongue root position, Gomoa vowels are grouped into two main features as tabled below. Table (1) shows Gomoa vowels based on tongue root position.

Tongue Root	Front	Central	Back
[+ATR]	/i/		/u/
	/e/		/o/
		/æ/	
[-ATR]	/ɪ/		/ʊ/
	/ɛ/		/ɔ/
		/a/	

Table (2) below also shows the categorization of Gomoa vowels based on the lip posture.

Lip Posture	+ATR	-ATR
[+ROUND]	/u/	/ʊ/
	/o/	/ɔ/
[-ROUND]	/i/	/ɪ/
	/e/	/ɛ/
		/a/

Table (1) and (2) demonstrate the matching pairs of [±ATR] vowels and [±Round] vowels respectively. In Gomoa, the [+ATR] vowels, which are the triggers, target the [-ATR] vowels in the given word domain. That is, the [+ATR] vowels cause the vowel assimilation and the [-ATR] vowels undergo harmonization (Kaye, 1982; Baković,2002; Pavlik, 2003; Mahanta, 2007). Examples in (1a) are words with [+ATR] vowels and (1b) are words with [-ATR] vowels.

1 (a)	[+ATR]	Gloss	1(b)	[-ATR]	Gloss
(i)	**æ**bu**roo**	'maize'		as**õ**mdʑɥɪɪ	'peace'
(ii)	**æ**tu**d**ur	'gun powder'		ab**ɔ**dam	'madness'
(iii)	**æ**ko**k**ompe	'jumping on one toe'		ɱf**ɔ**ts**ɪ**	'termites'
(iv)	**æ**sit**ɕ**ire	'sugar'		ah**õ**ɔdz**ĩĩ**	'strength'
(v)	kokr**o**mets**i**r	'thump'		p**ã**ŋk**ʊ**r	'a tall person'
(vi)	kw**e**si**e**ɲ**ĩ**mp**i**	'by force'		ɔt**õãã**	's/he is lying'

The [+ATR] and the [-ATR] vowels are in bold faces. The data below also shows [±round] within words. Examples in (2a) are words with [+round] vowel and (2b) are words with [-round] vowels.

2 (a)	[+Round]	Gloss	2 (b)	[-Round]	Gloss
(i)	nt**uro**p**o**	'a kind of garden egg'		**e**dʑɥ**a**p**a**dz**ɪ**	'treasure'
(ii)	**o**k**o**s**oo**p**uu**	'kind of shell-fish'		a**ɕ**ɥ**ɪɕ**ɥ**ɛ**ɲ**ĩ**w**æ**	'spectacles'
(iii)	**o**t**o**k**u**r	'a hole'		ŋk**e**m**i**ns**ææ**	'a shirt'
(iv)	k**ɔ**k**ɔ**b**ʊ**	'a fox'		**a**d**a**dz**ɪ**r	'time'
(v)	ns**uk**oo**k**oo	'lily plant'		kw**e**s**i**l**æ**	'Sunday

The [±round] vowels are in bold faces. Rounding vowel harmony affects both stems and affixes. Gomoa rounding harmony is purely regressive. In a verb stem in which vocalism is [-round, +round], the [+round] vowel spreads right-to-left to assimilate the [-round] vowel(s) in that word domain as shown in the examples below.

3	UR	[+Round]	Gloss
(i)	mɪk**ɔ**	mʊk**ɔ**	'I go'
(ii)	mɪrɪkɔh**ʊ**wu	mʊrʊkɔh**ʊ**w	'I'm going to smoke'
(iii)	mɪrɪbɛt**u**	murubot**u**	'I'm coming to remove it'
(iv)	wɔrɪbɛh**u**ro	woruboh**u**ro	'they're coming to hoot'
(v)	mɪ # **o**kunu	mu k**u**n	'my husband'

The triggering vowels are in bold faces. It is discernable that the [+round] vowel in the verb stem spreads leftward to assimilate the [-round] vowels in the prefixal morphemes. In

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examples (3i-ii), the high front unrounded vowel /ɪ/ surfaces as high back rounded vowel /ʊ/. In example (3iii-v) too, all the unrounded vowels in the underlying form surfaced as rounded vowels. The unadvanced mid rounded vowel /ɔ/ surfaces as advanced mid rounded /o/. In example (3v), there is a feeding and bleeding process at the output form. The mid-high back rounded vowel /o/ spreads and deletes at the phonetic level (P-level). It is apparent to state that Gomoa vowel harmony is root-controlled. These occurrences are very common in Gomoa phonology. However, this paper mainly focuses on ATR harmonic feature.

3 Literature Review

3.1 Vowel Harmony (VH)

The subject of vowel harmony has received appreciable theoretically informed attention in the Akan and other African languages. Among the pioneering authors who have made such contributions to Akan vowel harmony are Christaller (1933), Stewart (1967), Schachter & Fromkin (1968), Clements (1981, 1985), Dolphyne (1988), among others. It is an archetypical feature of Akan phonology. Vowel harmony is generally defined as a phonological process that groups vowels in a particular language into two or more sets so that in a particular word domain, all vowels are required to share the same feature (Goldsmith, 1990:304). It constrains the distribution of vowels in a language so that vowels in lexical stocks or across words must have identical feature values (Clement 1981, 1985; Goldsmith 1990; Dolphyne, 1988; Abakah, 2012, Cohen 2013). In the view of Clements (1976), vowel harmony consists of a co-occurrence restriction upon the vowels that may occur in a word. In other words, all the vowels in a word must be drawn from one or another of two or more mutually exclusive sets. If within a domain the vowel features are not harmonious, then a harmony process is triggered (Katamba, 1989; van der Hulst & van der Weijer, 1995; Akanlig-Pare & Asante, 2016).

Dolphyne (1988) explains that Akan vowel harmony is a property of the word, and it characterizes a whole word at a time. She argues that Akan undergoes harmony with respect to both tongue root position and lip rounding. She pays much attention to verb stem and the prefix morphemes as discussed in (1a&b) below.

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4 (a) Subject-Concord Prefixes in Akan

	Prefix and Verb Stem	Gloss	[±ATR]
(i)	**o**d**i**	's/he eats'	[+ATR]
(ii)	mæd**i**	'I've eaten it'	[+ATR]
(iii)	ɔdɪ	's/he is called'	[-ATR]
(iv)	mɛ̨dɛ̨[1]	'I am called'	[-ATR]

Dolphyne (1988:15)

4 (b) Tense/Aspect Prefix

	Prefix and Verb Stem	Gloss	[±ATR]
(i)	**o**be h**u**	'he will see'	[+ATR]
(ii)	**o**k**o**h**u**	'he goes and sees'	[+ATR]
(iii)	ɔbɛkɔ̨[2]	'he comes and fights'	[-ATR]
(iv)	ɔkɔkɔ̨	'he goes and fights'	[-ATR]

Dolphyne (1988:16)

The datasets above demonstrate asymmetric assimilation of [-ATR] to [+ATR]. The pioneering works of Berry (1957), Stewart (1967), Schachter & Fromkin (1968), Clements (1981, 1985), and Dolphyne (1988) have helped scholars like Obeng (2000), Abakah (2003), O'Keefe (2003), Ballard (2010), Casali (2012), and Kügler (2015) to do further research works in the language. O'Keefe (2003) clarifies that Akan exhibits a strong system of harmony for tongue root position. In his study, he enlightens that a language with vowel harmony should have two sets of vowels with a highly marked co-occurrence. He identifies tongue root position and lip rounding as the two kinds of vowel harmony in Akan as already identified by the Akan phonology pioneers. On the domain this harmony occurs, O'Keefe (2003) identifies three main domains, which are stem, prefixes, and suffixes. He copiously draws examples from Dolphyne (1988) to demonstrate asymmetric anticipatory assimilation (regressive) of [-ATR] to [+ATR] harmony as discussed above.

According to Casali (2012), instances of /a/ to the *right* of a [+ATR] vowel as in sìká 'money' do not surface as [æ] in Akan and this assertion seems to be an overstatement. Meanwhile, Boadi (1981) and Abakah (2002, 2003, 2016) have given instances where

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[1] The segment [ɛ̨] is represented as the unadvanced front high [ɪ] in the IPA chart.

[2] Also, the vowel [ɔ̨] in Dolphyne's example is presently represented as [ʊ] in Akan phonology.

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unadvanced low vowel /a/ surfaces as [æ] to the *right* direction of [+ATR] in Gomoa. Thus, the generalized [+ATR, -ATR] fusion of 'sìká' in Akan surfaces as [+ATR, +ATR] in Gomoa.

These works and many others have consistently regarded Akan vowel harmony as an asymmetric anticipatory of [-ATR] to [+ATR] (regressive) process. This paper attempts to provide empirical evidence to suggest an alternative view to this notion, albeit regressive vowel harmony which predominantly exists in Akan, progressive vowel harmony is productive in the Gomoa variety. This paper, therefore, discusses progressive vowel harmony in Gomoa within the Autosegmental framework.

3.2   Directionalities of Vowel Harmony in Gomoa

Directionality plays a major phonological and morphological role in the vowel harmony process. Morphologically, it helps us to know the harmonic domain and the affixes that undergo alternations. Phonologically, it shows the curtain of the harmonic feature, the one which triggers and one which undergoes alternation.   There are phonological and morphological domain constraints that control the direction the dominant feature may affect the target vowels to assimilate (Archangeli & Pulleyblank 2007 p.363). Depending on where the dominant feature, also called the trigger, is placed, the vowels to its left or right will be affected. Archangeli and Pulleyblank (2007 p.367) further explain that the root is morphologically the trigger in root-controlled harmony, causing affixes to undergo the alternation of spreading its feature both regressively to the prefixes and progressively to the suffixes. The directions of spreading in vowel harmony are discussed below.

3.2.1 Regressive Directionality

Regressive vowel harmony occurs when in the sequence of segments AB, segment B exerts influence on segment A. In other words, segment B is the assimilator while segment A is the assimilee: A⟵B (Pavlik 2003). Abakah (1993, 2004) also claims that regressive vowel harmony occurs when the [+ATR] vowel in the stem/root word spreads leftward or backward to assimilate the [-ATR] vowel in the prefix, as illustrated below.

Figure 2: *+ATR feature spreading and –ATR feature delinking*
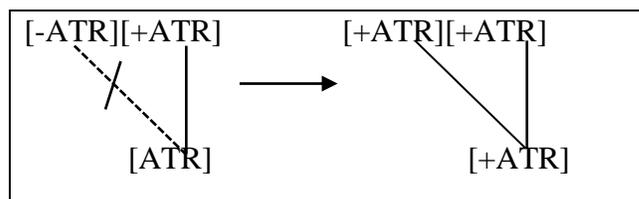
Illustration 2 above shows the right-to-left spreading of the [+ATR] feature to the [-ATR] vowel in the prefix. The [+ATR] vowel in the stem/root word spreads backward to assimilate the [-ATR] in the prefix. The following examples from Akan (O'keefe 2003) show this directionality.

5.   **UR**   **Regressive vowel harmony**

   (i) mɪ-di   mi-di   'I eat'
   (ii) wʊ-di   wu-di   'you eat'
   (iii) ɔ-di   o-dzi (Fa.)   's/he eats'
   (iv) ɔ-bɛ-tu   o-be-tu (Ak./As.)/obotu (Fa.)   's/he comes and digs it up'
                                                                  (O'keefee, 2003: 11, 13)

It can be seen from example 2 that the [+ATR] vowel in the stem verb harmonizes with the [-ATR] vowel in the pronominal prefix. This direction of harmonizing is what is termed regressive or anticipatory vowel harmony (see Schachter & Fromkin 1968, Dolphyne 1988, O'keefe 2003, Ballard 2010, and Casali 2012 for evidence of regressive vowel harmony in Akan).

3.2.2 Progressive Directionality

Progressive vowel harmony occurs when in the sequence of segments AB, segment A exerts influence on segment B. In other words, segment A is the assimilator while segment B is the assimilee: A ⇒ B (Pavlik 2003). In a given harmonic feature, say ATR, the [+ATR] vowel in the stem word spreads rightward or carries over to assimilate the [-ATR] vowel in the suffix morpheme or the [-ATR] vowel in the same word domain, as illustrated below.

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Figure 3:   *+ATR feature spreading and –ATR feature delinking*

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│  [+ATR][-ATR]          [+ATR][+ATR]          │
│      │   ╱                  │   ╱             │
│      │  ╱                   │  ╱              │
│      │ ╱          ──────▶   │ ╱               │
│     [ATR]                 [+ATR]             │
└─────────────────────────────────────────────┘
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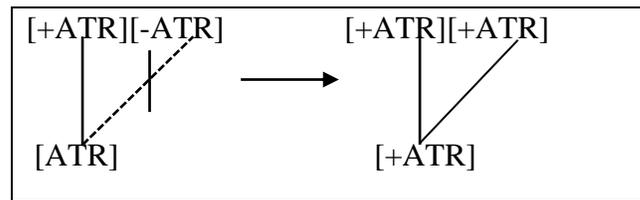
It can be seen that the [+ATR] vowel in the stem word spreads left-to-right to harmonize with the [-ATR] vowel in the suffix or within the same word domain. The following examples from Dagara (Kuubezelle & Akanlig-Pare 2017) summarize this directionality.

6.   **UR**   **Output level**   **Gloss**

   (i) ýúorɛ   ýúore   'opening'
   (ii) kõnɛ   kone   'the crying'
   (iii) gɓolʊ   gɓolu   'the penetration'

                                                     (Kuubezelle & Akanlig-Pare 2017: 4, 5, 6)

It can be seen from example 3 that the [+ATR] vowel in the root/stem word spreads progressively to assimilate the [-ATR] suffix vowel to surface as [+ATR]. The nominal suffix /ɛ/ and /ʊ/ surface as /e/ and /u/ (see Kuubezelle & Akanlig-Pare 2017 for more information). Akan phonologists such as Dolphyne (1988), Abakah (2002, 2004), O'Keefe (2003), and Adomako (2008) elucidate that, it is [+ATR] feature that spreads to assimilate the [-ATR] vowel in the affixes, and for that matter [-ATR] vowel features, on the other hand, cannot spread to assimilate [+ATR] vowel in Akan. This process is ruled as;

$$\left[\begin{matrix} \textbf{V} \\ \text{[-ATR]} \end{matrix} \longrightarrow \begin{matrix} \textbf{V} \\ \text{[+ATR]} \end{matrix} \Big/ \underline{\qquad} \begin{matrix} \textbf{V} \\ \text{[+ATR]} \end{matrix} \right]$$

This rule explains that [-ATR] vowel is assimilated to [+ATR] in the environment where [+ATR] follows [-ATR] or [-ATR] precedes [+ATR] in the word or morphemic boundary domains.

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3.2.3 Trigger and Target

Trigger and target are the basic elements in vowel assimilation. Contextually, the trigger is a vowel, which assimilates another vowel sound (transfers some features to it) and the target is the vowel that changes (cf. Kaye 1982, Pavlik 2003, Mahanta 2007). In other words, the trigger is the vowel that causes the vowel assimilation, and the target is the vowel that the trigger assimilates or harmonizes with. The trigger is the dominant feature. Van der Hulst &Van de Weijer (1995) claim that the harmonic domain of vowel harmony is the morphological word. Hence, in Gomoa, the vowel that usually causes the vowel harmony of the target vowel is from the stem/root word. The trigger can spread right-to-left or left-to-right to assimilate or value a feature in the target vowel. When vowel harmony follows this nature of spreading, the stem/root word becomes the harmonic domain. The following examples show the trigger and the target vowel.

7. Vata Vowel Harmony   **Output level**   **Gloss**
   (i) /pi + lɛ/   pile   'prepare with'
   (ii) /ɓlɪ + lɛ/   ɓlɪlɛ   'sing in'
                                                   (Mahanta, 2007: 18)

It can be seen from example 4 that the stem-final [+ATR] vowel spreads progressively to assimilate the [-ATR] instrumental-locative suffix /-lɛ/ vowel /ɛ/ to surface as [+ATR] vowel /e/. This means vowel /i/ and /ɪ/ are the triggers and the instrumental-locative suffix vowel /ɛ/ is the target.

4. Theoretical Framework

This study is framed within Autosegmental phonology. Autosegmental phonology was developed within the tradition of the classical Generative phonological theory of Chomsky and Halle (1968), following the works of Williams (1971) and Leben (1973) on tone systems in West African languages such as Margi, Igbo, and Mende. But the principal and remarkable innovations of Autosegmental phonology are exemplified in Goldsmith (1976) in his dissertation to Massachusetts Institute of Technology (MIT).

Autosegmental phonology is not different from the principles of Generative phonology organized in Chomsky and Halle s *Sound Pattern of English* (*SPE*) in 1968. It is a non-linear version of phonological analyses of Generative phonology while SPE is a linear

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version of phonological analyses. In this theory, there are conditions governing a well-formed association of tones and vowels such as one-to-one mapping and from left-to-right without unassociated tones or vowels deriving the surface patterns by simple rules operating in local environments. Instead, tone stability occurs; since tones are autonomous, when a vowel is deleted, the tone persists on its tier and maps to an adjacent syllable to ensure maximal association. Phenomena such as stress, the syllable, vowel harmony (Clements 1976), and nasalization, which could not be represented in SPE were addressed in generative phonology so that phonological processes could be expressed in autosegmental terms (Hyman 1982, Clements & Keyser 1983). Therefore, vowel harmony, which involves two vowels showing agreement in the values for a particular feature can be represented within this theory of autosegmental phonology using feature spreading. The main idea of autosegmental phonology is that a segment, which is the abstract representation of sound, can be accounted for under phonological operations of deletion or the spreading. In this framework, phonological representations are made up of more than one linear sequence of segments.

Goldsmith (1976) proposes that non-linear phonological representations should be comprised of multiple tiers of segments, which agree to the different gestures of speech and differ according to the features that are specified for the segments on them. A linear sequence constitutes a separate parallel tier with each tier representing a segment known as autosegment. The tiers are joined by association lines between the segments. The effect of restructuring results in the addition and deletion of association lines. The autosegmental analysis is useful because it can be used to analyze and account for both segments and suprasegments as in this study. Thus, three tiers/levels of representation linked by association lines are employed as follows; the featured tier (harmonic tier), which is represented as ATR, the skeletal tier is represented as X - the intermediate tier that links segments on the featured tier to segments on the segmental tier, the segment tier is represented as second - features are assigned to segments by association lines.

Based on the well-formedness condition for vowel harmony, all vowels are associated with the harmonic feature with lines that link segments on the featured tier to segments on the segmental tier (association lines) defined as follows;

(i) A solid association line indicates pre-linking.
(ii) A broken association line indicates active linking (using spreading).

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(iii) A crossed-through association line shows delinking or disassociation

(iv) Brackets show the boundaries of a phonological form.

In the autosegmental representations, assimilation is represented by spreading a feature from one fasten to another, represented by a broken association line. The autosegmental representation makes it possible to display the naturalness of assimilatory processes since it shows how features spread from one tier to affect features on other tiers (van der Hulst, 2016; Kuubezelle & Akanlig-Pare, 2017).

5. Data Presentation and Analysis

5.1 *Progressive vowel harmony within stems in Gomoa Mfantse*

Generally in Akan, when unadvanced low vowel /a/ follows advanced vowel in stem verbs, the unadvanced low vowel /a/ does not undergo harmonization (cf. Dolphyne 1988:20). However, in Gomoa Mfantse, this phenomenon does not exist. The unadvanced low vowel /a/ undergoes harmonization. The [+ATR] vowel in the stem word spreads progressively to assimilate the unadvanced low vowel /a/ to surface as an advanced low vowel [æ] as demonstrated in the following comparative data below.

8. Progressive vowel harmony within verb stems

	Stem	Gomoa	Agona	Iguae	Gloss
(i)	tua	tʷ**uæ**	tɥia	tɥia	'to pay'
(ii)	dua	dʷ**uæ**	dɥia	dɥia	'to plant'
(iii)	fua	fʷ**uæ**	fɥia	fʷuwa	'to plant'
(iv)	kura	kʷ**uræ**	kʷura	kʷura	'to hold'
(v)	bisa	bʲ**isæ**	bʲisa	bʲisa	'to ask'
(vi)	tɕia	tɕi**ɛæ**	tɕia	tɕia	'to greet'
(vii)	hia	hʲ**ĩæ**	hʲĩa	hʲĩa	'in need'

It can be seen that the Gomoa variant shows extensive [+ATR] progressive harmony within all the given verb stems. The stem-initial [+ATR] vowel spreads left-to-right to assimilate the unadvanced low vowel /a/, which directly follows it. The unadvanced low vowel /a/ surfaces as an advanced low vowel [æ]. This shows that, in Gomoa, when the unadvanced low vowel /a/ comes after an advanced vowel, the unadvanced vowel is assimilated to the

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feature of the preceding vowel. This spreading process is formalized at the systematic phonetic level as; [+ATR, -ATR]$_{stem}$ = [+ATR, +ATR]$_{stem}$. In Agona and Iguae, it is discernable that both advanced and unadvanced vowels co-occur within the stems. It has a stem-initial advanced vowel and stem-final unadvanced vowel and this leads to an exception to the Akan vowel harmony rule (cf. Dolphyne 1988). The Autosegmental representation below shows the [+ATR] feature spreading on [-ATR] features.

Figure 4: *+ATR feature spreading and –ATR feature delinking*
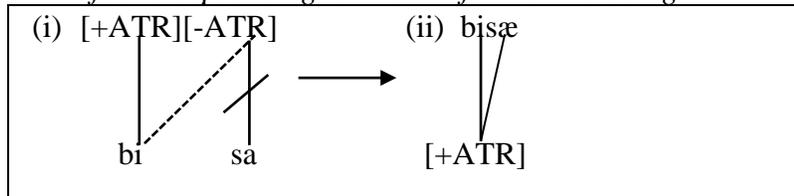
It is not only verb stems that exhibit progressive vowel harmony within stems in Gomoa, noun stems also demonstrate the same phenomenon as illustrated below.

9. Progressive vowel harmony within noun stems

	Stem	Gomoa	Agona	Iguae	Gloss
(i)	sika	s**i**kæ	sika	sika	'money'
(ii)	bura	bʷ**u**ræ	bʷura	bʷura	'well'
(iii)	aduwa	ædʷ**u**wæ	edʷuwa	edʷuwa	'beans'
(iv)	akuma	ækʷ**u**mæ̃	ekʷumã	ekʷumã	'axe'

It can be seen from example (9) that the [+ATR] vowel in the stem word progressively assimilates the unadvanced low vowel /a/ to surface as [æ]. In examples (6iii-iv), the [+ATR] vowel spreads leftward in Agona and Iguae Mfantse but spreads bidirectionally in Gomoa Mfantse. This shows that Gomoa exhibits both regressive and progressive vowel harmony as discussed already. Following the regressive spreading of the [+ATR] vowel, it can be seen from examples (9iii-iv) that, while the unadvanced stem initial low vowel /a/ surfaces advanced low vowel /æ/ in Gomoa, it surfaces advanced mid-high vowel in Agona and Iguae Mfantse.

The analyses so far show that progressive vowel harmony exists in Akan, specifically in Gomoa Mfantse. Therefore, the description of some phonologists (Berry 1957, Stewart

1967, Schachter & Fromkin 1968, Clements 1981, Dolphyne 1988, Casali 2012) that Akan does not exhibit left-to-right vowel harmony is faulted. According to Dolphyne (1988:20), there are instances where advanced and unadvanced vowels co-occur in stem words, particularly, the unadvanced low vowel /a/ occurring after advanced vowels, and this phenomenon violates the vowel harmony rule. We have seen that these phenomena exhibit full progressive harmony in Gomoa Mfantse.

Another phonological related variant of Fante known as Bɔrbɔr Mfantse also demonstrates progressive vowel harmony. Bɔrbɔr and Gomoa fall within the Boka Mfantse as classified by Abakah (1978, 2016). Let us consider the examples below.

10.	Root	Gomoa	Bɔrbɔr	Gloss
(i)	sika	sʲikæ	sʲikæ	"money"
(ii)	bisa	bʲisæ	bʲisæ	"to ask"
(iii)	aɲiwa	æɲĩwæ	æɲĩwæ	"eye"
(iv)	nsu a	nsʷu æ	nsʷu æ	" it's water"
(v)	awi a	æɥi æ	æɥi æ	"s/he is a thief"
(vi)	ayi a	æji æ	æji æ	"it's funeral"

All the examples demonstrate progressive vowel harmony. The [+ATR] vowel in the stem progressively assimilates the [-ATR] vowel /a/ to surface as [+ATR] vowel [æ]. The [+ATR] feature again spreads leftward to harmonize with the stem-initial unadvanced vowel to surface as [æ] as illustrated in the autosegmental representation below.

Figure 5:

Figure 5: (i) UR   (ii) +ATR spreads rightward (iii) –ATR delinking   (iv) Output

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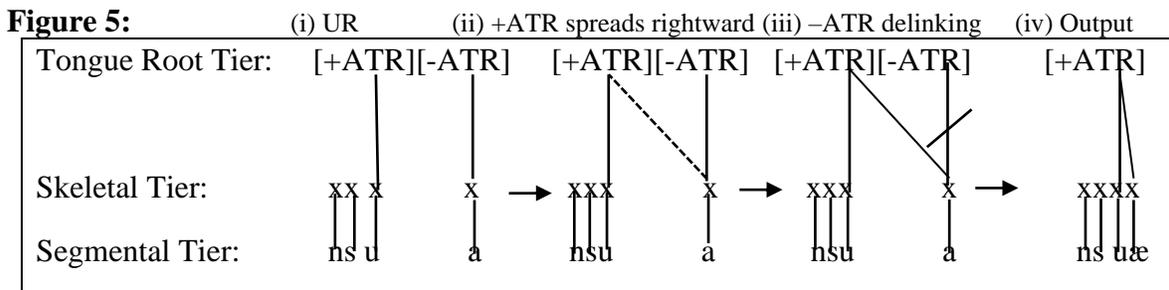
It is discernable from Fig. 5 that the [-ATR] low vowel /a/ has surfaced as a [+ATR] low vowel /æ/ due to the progressive influence of the stem-initial advanced feature.

5.2   Progressive vowel harmony in verb stem and past suffixes

In Gomoa, the past suffix has two different realizations. It can be realized either as /-i/ or /-ɪ/ for intransitive verb stems. Using the harmonic feature ATR, the variant /-i/ occurs after [+ATR] vowels verb stems, and the other variant /-ɪ/ too occurs after [-ATR] vowels in verb stems. Odoom (2011, 2013, 2020) explains that the underlying past suffix morpheme /-ɪ/ is progressively assimilated to advanced high front vowel /-i/ when preceded by [+ATR] vowel in the verb stem. The [+ATR] vowel in the verb stem spreads rightward to harmonize with the [-ATR] vowel in the underlying form to surface as [+ATR] at the phonetic level (PL). These two variants are distinct only in the advancement of the tongue root, and that is the feature we have used to describe them. Example (11) below shows the progressive vowel harmony between verb stems and suffixes.

11.   **UR**   **Gomoa**   **Gloss**
   (i)   ɔ-su + -ɪ   o-sʷũ-ĩ   's/he cried'
   (ii)   ɔ-bu + -ɪ   o-bʷu-i   's/he broke it'
   (iii) ɔ-di + -ɪ   o-dzi-i   's/he ate it'
   (iv)   ɔ-da+ -ɪ   ɔ-da-a   's/he slept'
   (v)   ɔ-kasa +-ɪ   ɔ-kasa-a   's/he talked'
   (vi)   ɔ-pɪra +-ɪ   ɔ-pra-a   's/he swept'
   (vii) ɔ-tɕɛ+ -ɪ   ɔ-tɕɛ-ɛ   's/he shared it'

The [-ATR] high suffix morpheme /-ɪ/ surfaces as advanced high vowel /-i/ irrespective of the lip posture of the triggering vowel after [+High, +ATR] verb stem as shown in examples (11i-iii) above. The [+High, +ATR] vowel in the verb stem spreads progressively to assimilate the underlying [+High, -ATR] suffix vowel to be realized as [+High, +ATR] at the phonetic level. This leads to progressively advanced height harmony. Height harmony occurs when the [+High, +ATR] feature precedes the [+High, -ATR] vowel. The [+High, +ATR] feature spreads rightward to assimilate the [+High, [-ATR] vowel to surface as [+High, +ATR] as shown above. Stahlke (1971) referred to it as "Equal-Height Condition". This makes all vowel sequences at the systematic phonetic level have only vowels that are identical at least as to tongue height and tongue root position.

In examples (11iv-vii), since the vowel in the verb stem is [-ATR], it progressively agrees with the underlying [-ATR] suffix vowel morpheme. The [-ATR] feature in the suffix morpheme deletes and is replaced by the lengthening[1] of the same stem-final [-ATR] vowel at the output level. We, therefore, formalized the [+ATR] spreading in the autosegmental representation below.

Figure 6: (i) Underlying representation   (ii) +ATR feature spreads leftward and rightward
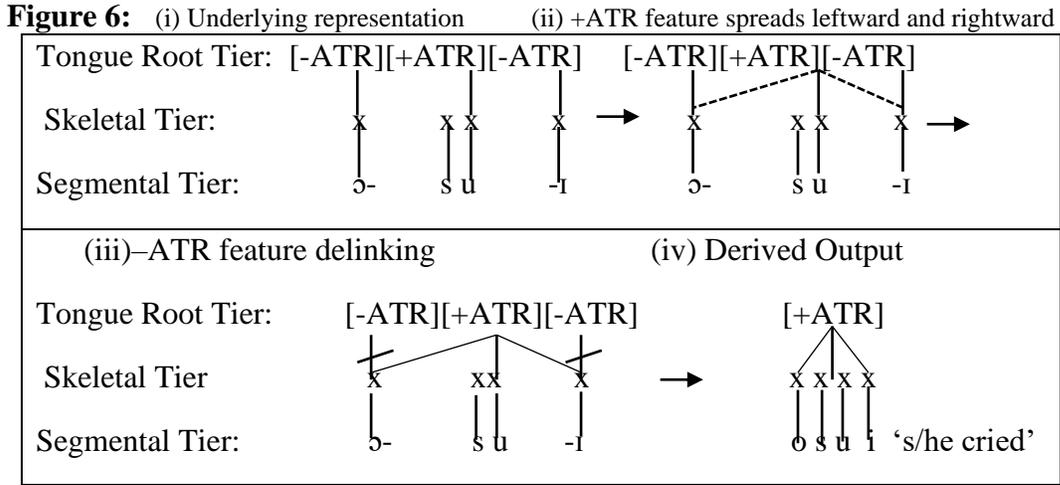
In Fig. 6, the [+ATR] vowel in the verb stem harmonizes with the 3rd person singular subject pronominal and is realized as [o] at the phonetic level. The same [+ATR] verb stem vowel spreads left-to-right to harmonize with the [-ATR] past suffix morpheme to surface as [i] at the derived output. The [u]~[i] harmony is influenced by the height of the preceding advanced vowel.

Following the verbal suffix morphemes, Gomoa moreover displays identical lengthening past suffix morphemes [-ii] or [-ɪɪ] after intransitive verb stems which have nonvowel sonorants at its final segment. Similarly, morpheme /-ii/ harmonizes with [+ATR] verb stems, and the morpheme /-ɪɪ/, on the other hand, harmonizes with [-ATR] verb stems as discussed already. The suffix /-i/~/-ii/ occurs in the same phonological environment, while /-ɪ/~/-ɪɪ/ occurs in the same phonological environment. These verbal suffix morphemes are controlled by [+ATR] stem/root word, as demonstrated in example (12) below.

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12.   **UR**   **Gomoa**   **Gloss**

	UR	Gomoa	Gloss
(i)	ɔpuowu+-ɪɪ	opʷoɥii	's/he barked'
(ii)	ɔkumu + -ɪɪ	okʷumĩĩ	's/he killed it'
(iii)	ɔfiri + -ɪɪ	ofʲirii	's/he credited it'
(iv)	ɔdʑimi + -ɪɪ	odʑimĩĩ	's/he fooled'
(v)	ɔnʊmʊ + -ɪɪ	ɔnõmĩĩ	's/he drunk'
(vi)	ɔkɪnkanɪ + -ɪɪ	ɔkɪŋkaĩĩ	's/he read it'
(vii)	ɔnantsɪwʊ+ -ɪɪ	ɔnãntsɪɥɪɪ	's/he walked'

The dataset above is divided into two main features. Examples (12i-iv) display [+High, +ATR] harmony and the examples in (12v-vii) demonstrate [+High, -ATR] harmony. As discussed in data (12), the stem-final [+High, +ATR] or the trigger, spreads rightward to harmonize with the underlying [+High, -ATR] suffix morpheme to surface as [+High, +ATR] feature as shown in examples (12i-iv). In example (12v-vii), since the trigger in the verb stem and the underlying suffix morpheme have the same [-ATR] feature value, they agree in harmony.

Moreover, all the underlying word-final high vowels are deleted at the systematic phonetic level. This makes the non-vowel sonorants emerge as a word-final consonant (Abakah 2012). This emphasizes that no morpheme in Akan is consonant-final at the systematic phonemic level and, for this reason, any analysis that posits an underlying consonant as a morpheme-final consonant starts on a faulty note (Abakah, 2005:7). We formalize example (12ii) within the Autosegmental representation as seen below.

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Figure 7: *Progressive vowel harmony in verb stem and past suffixes*
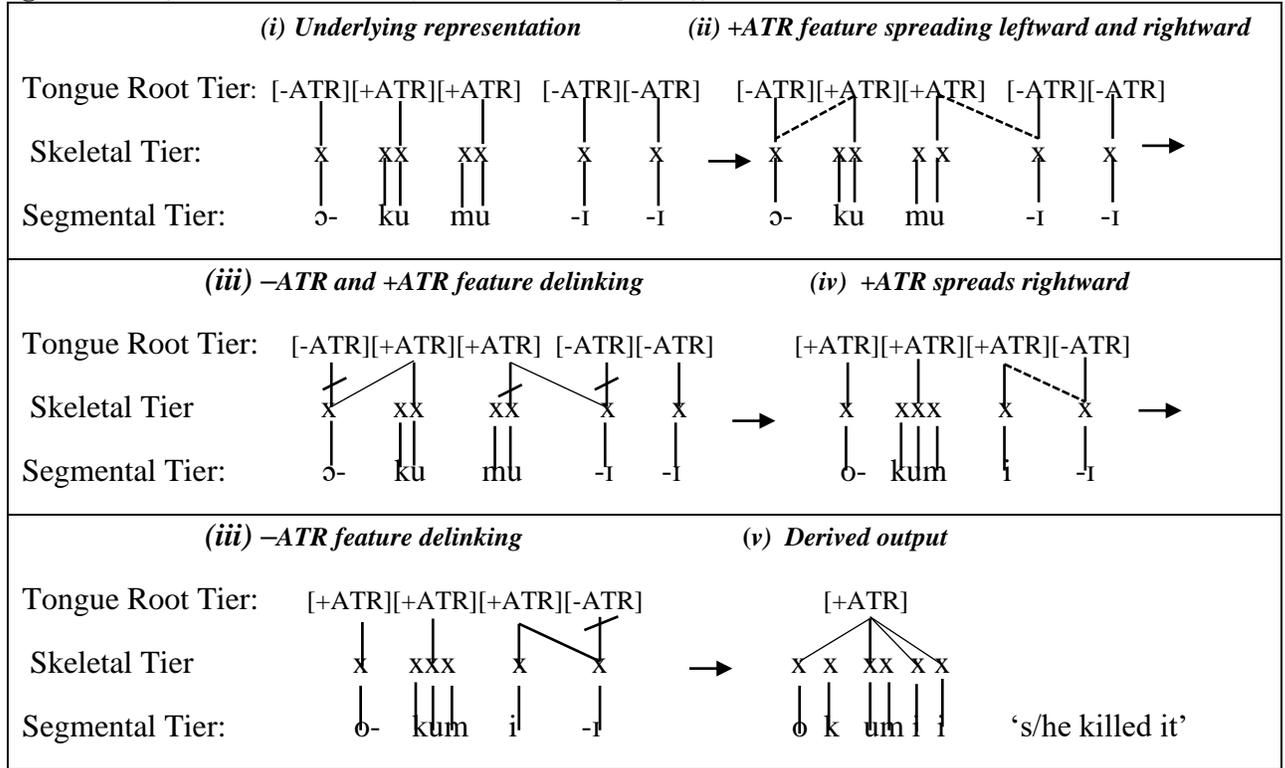
5.3 *Progressive Vowel Harmony in Verb Stem and Nominal Suffixes*

In Gomoa, some nouns are derived from verbs. These derived nouns are simply acquired by adding nominal affixes. The nominal prefixes are either vowels [i-, e-, a-, o-, ɔ-, ɪ-] or homorganic nasal [n-, m-, ŋ-, ŋ͡m-, ɲ-]. In addition to the nominal suffixes [-fʊ, -nʊm, -wa, -ba, -ɲi], Gomoa has other derived nominal suffixes [-ɪ, -ɪɪ] for verbal nouns. When these underlying nominal suffixes are preceded by [+ATR] vowel from the verb stem, they surface as /-i/ or /-ii/, in harmony with the ATR value of the stem-internal vowel. The ATR value of the suffix vowel is determined by that of the stem-internal vowel. The same process applies to the nominal vowels. The following examples show the verb stem and nominal suffix harmony for derivational nouns.

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13.   **UR**   **Gomoa**   **Gloss**
         P   V   S
(i)   ø   fitsi + ɪ   fʲitsĩĩ   'gimlet'
(ii)   a +pue + ɪ   æpʷuwei   'eastern'
(iii) N +bubu+ ɪ   mbʷubʷui   'paralysis'
(iv)   N +butuwu+ɪɪ   mbʷutʷuɥii   'kneeling'
(v)   a +tsɪna + ɪ   atsɪnaɪ   'sitting place'
(vi)   a +nʊm + ɪɪ   anʊ̃mĩĩ   'river bank'
(vii) N+tsɪ + ɪ   ntsɪɪ   'hearing'

It is discernable from the above data that the stem-internal ATR feature of the verb progressively assimilates the [+High, -ATR] feature of the suffix morpheme at the phonetic level as shown in examples (13i-iv). In examples (13v-vii), since the verb stem stem-final vowel is [-ATR], it progressively agrees with the [+High, -ATR] feature of the suffix morpheme. This makes the harmony span have height and ATR feature value.

Comparatively, the occurrence of progressive vowel harmony in verb stem and suffixes in Gomoa has similar counterparts in the Asante Twi dialect. In Asante, the nominal suffixes -e/-ɛ, -o/-ɔ agree in lip position with the vowel of the noun stem (Dolphyne, 1988) as demonstrated in the examples below.

14 (a) **UR**   **Gomoa**   **Asante**   **Gloss**
(i)   owu   owu   owu-o   'death'
(ii) nsu   nsu   nsu-o   'water'
(iii) etu   itu(r)   etu-o   'gun'
(iv) kʊkʊ   kʊkʊ   kʊkʊ-ɔ   'chest'
(v)   dʊdʊwʊ   dʊdʊw   dʊdʊ-ɔ   'stamina'
(vi) ɛbʊ   ɔbʊ/abʊbaa   ɛbʊ-ɔ   'stone'

It can be seen that Asante Twi exhibits progressive rounding suffix harmony. The suffix morphemes agree in lip position and tongue root with the vowel of the noun stem. This makes the examples in (14i-iii) surface as [+Round, +ATR] and the examples in (14iv-vi) emerge as [+Round, -ATR] progressive vowel harmony. Moreover, in data (14b) below,

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the examples in (14i-iii) demonstrate [-Round, +ATR] feature value, and that of the (14iv-vi) show [-Round, -ATR] feature value.

14(b)

	UR	Gomoa	Asante	Gloss
(i)	efi	ofʲie	efʲi-e	'house/home'
(ii)	esi	isʲiw	esʲi-e	'anthil'
(iii)	dʐɥuwu	idʐɥuw	edʐɥi-e	'louse'
(iv)	asɪ	asʲɪ	asʲɪ-ɛ	'the base of
(v)	kɛsɪ	kɛsʲɪ	kɛsʲɪ-ɛ	'big'
(vi)	adɪ	adzɪ	adʲɪ-ɛ	'thing'

We, therefore, conclude that the nominal suffix progressive harmony in Gomoa occurs with the [+High, -ATR] feature of the suffix morpheme and that of Asante Twi occurs with [±Round, ±ATR] feature of the noun stem.

6. Conclusion

This paper discussed the robustness of progressive vowel harmony in Gomoa Mfantse. The paper tried to challenge a long-held view about the directionality of vowel harmony in Akan. This is because the previous studies have been focused on the concepts of regressive (anticipatory) directionality, and very little empirical evidence has been given for the existence of progressive ATR vowel harmony in Akan. We demonstrated that the [+ATR] vowel in the stem verb or noun triggers the harmonic process and targets the [-ATR] vowel(s) in the suffix morpheme. We discussed that the [+ATR] in the stem/root word triggers rightward to harmonize with the [-ATR] vowel in the suffix or a following vowel in the same domain [VH=(-ATR)$_{prefix}$ + (+ATR]$_{stem}$ + (-ATR)s$_{uffix}$= [(+ATR, +ATR, +ATR)]. We moreover added that there is a process of compensatory lengthening when forming past tense with verb stems whose root final vowel is [-ATR] in Gomoa Mfantse.[3] The various major domains of progressive vowel harmony discussed in this paper included stem/root words, verb stems and verbal suffixes, and noun stems and nominal suffixes.

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[3] Compensatory lengthening (CL) refers to processes where deletion of a segment leads to lengthening of another segment (Campos-Astorkiza, 2005). It can be seen from examples (8iv-vii) that the deletion of the underlying suffix high vowel leads to the lengthening of the stem-final vowel, which has [-ATR] feature value as the delinked segment.

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Additionally, the paper comparatively revealed that there is evidence of progressive vowel harmony in Bɔrbɔr Mfantse[4] and Asante Twi. The paper added that the Gomoa nominal suffix progressive harmony occurs with the [+High, -ATR] feature value while the Asante Twi nominal suffix progressive harmony occurs with [±Round, ±ATR] feature value. Therefore, this paper contributed to the study of the directionality of vowel harmony in Akan.

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[4] Bɔrbɔr Mfantse: a variant of Fante spoken around Mankessim and its environs.

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THE INFLUENCE OF AMERICAN AND BRITISH ENGLISHES ON GHANAIAN ENGLISH: A CORPUS-BASED STUDY OF SOME SELECTED VERB FORMS AND MODALS

Kwaku Osei-Tutu

Abstract:

English has been the *de facto* official language of Ghana since the country gained independence from Britain in 1957. According to Dolphyne (1995:31) "it is… standard written [British] English that newspaper editors and editors of journals aim at, as well as teachers in their teaching of English at all levels." Shoba et al. (2013) also reinforce this stating that British English has remained the standard of the Ghanaian educational system since colonization. In recent times, however, American English has become more popular in Ghana, especially in the entertainment industry (Anderson et al., 2009). Using data from the International Corpus of English (Ghana component – written and spoken; British component – written and spoken; and the American component – written), the Corpus of Contemporary American English (COCA), and the corpus of Global Web-Based English (GloWbE), this paper looks at the frequencies of *got*, *gotten* and the modals *will*, *shall*, *should* and *must* with the aim of finding out which of the two native varieties Ghanaian English patterns after. The results of the study reveal that while Ghanaian English reflects some influence from American English by showing a tendency to pattern after it with regard to *got* and *gotten*, the same cannot be said regarding the modals *will*, *shall*, *should* and *must*.

Keywords: Ghanaian English, International Corpus of English, ICE-Ghana, Corpus-based, modals

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1. Introduction

English arrived on the shores of Ghana (then, the Gold Coast) with British traders in the 16th Century (Adika, 2012) and various political events, culminating in colonization, led to the language becoming the language of administration. After the country gained independence from Britain on 6th March 1957, English remained the official language. Since then, despite calls for the adoption of (an) indigenous Ghanaian language(s) as the official language(s), English has remained the *de facto* official language of Ghana (Adika, 2012; Anderson, 2009; Dako, 2019). Because of Ghana's historical ties to Britain, the English spoken and written in Ghana has always traced its roots to British English. Spelling conventions, for instance, are typically British (for example, *colour*, *centre*, *tyre*, etc.) and there are still teachers across the educational spectrum who underline alternative spellings as incorrect. Apart from spelling, vocabulary is also another area where Ghanaian English is typically British (for example, *toffee* for *candy*, *biscuit* for *cookie*, *trousers* for *pants,* etc.). The tendency towards British English is corroborated by Dolphyne (1995: 31) who says "it is this standard written [British] English that newspaper editors and editors of journals aim at, as well as teachers in their teaching of English at all levels. Shoba et al. (2013) also reinforce this stating that British English has remained the standard of the Ghanaian educational system since colonization.

However, with the advent of television (especially, movies from Hollywood) and the internet, many words have made their way into Ghanaian English from American English – a development which is predicted by Owusu-Ansah (1994: 344), who, writing within the context of the early 1990s, notes that "… [though] Ghanaian English is still mostly influenced by British English, … CNN broadcasts, which started recently, may change this in the future." Some of these words exist side-by-side with their British English counterparts (for example, British English *film* and American English *movie*); however, there are some which are still seen as indicators of American English (for example, *pants* for *trousers*). As part of the dynamics of English in Ghana is the often-recurring question of whether Ghanaian English is still mainly influenced by British English or has 'succumbed' to the influence of American English. While teachers and educators (as stated above) often argue that Ghanaian English needs to hold on to its British English heritage, it is easy to observe, especially in the media, the influence of American English (Anderson et al., 2009). In fact, some studies (such as Dako (2019) and Shoba et al. (2013)) have revealed that a lot of Ghanaian radio presenters copy American pronunciation in order to sound more sophisticated. The accent that has resulted from this imitation of the American accent has come to be referred to as LAFA,

an acronym for *Locally Acquired Foreign Accent* (Bruku, 2010; Dako, 2019; Shoba et al., 2013).

It is, therefore, against this background that this paper conducts a cross-variety study of Ghanaian English, British English and American English by examining the occurrence of some selected high-frequency vocabulary items within their respective components of the International Corpus of English (ICE), the Corpus of Contemporary American English (COCA) and the Corpus of Global Web-Based English (GloWbE) with the aim of finding out which of the two native varieties Ghanaian English patterns after. The vocabulary items which were selected are the verbs *got*/*gotten* and the modal auxiliaries *must*, *should*, *will* and *shall*. More will be said later about the rationale for selecting these specific items, but for now, the rest of the paper is structured as follows. Section 2 reviews some of the relevant work that has been done on Ghanaian English in order to situate this paper within the gap that it seeks to fill. Next, in Section 3, the research questions that drive the study are outlined. Section 4 then lays out the study design and explains the reasoning behind the methodology used for the study. Then, in Section 5, the paper presents the results of the data analysis and discusses their implications for the research questions of the study. Finally, Section 6 provides the concluding remarks of the paper.

2. Review of Relevant Literature

Though there has been a lot of research done on various aspects of English in Ghana (Adika, 2012; Anderson et al., 2009; Bruku, 2010; Dako, 2019; Dolphyne, 1995; Tingley, 1981) or Ghanaian English (Anderson, 2009; Asante, 2012; Dako, 2003; Huber, 2004, 2012; Huber & Dako, 2004; Sey, 1973; Shoba et al., 2013), not much, has been done based on corpus data. Many studies such as Sey (1973), Tingley, (1981), Dako (2003), Huber & Dako (2004) and Asante (2012) have made use of some sort of corpora by relying on examples drawn from newspapers and examination scripts, but very few (Brato, 2020; Huber, 2012; Schneider, 2015) so far have branched out beyond that to take advantage of a specialised database such as that of the ICE project and the benefits it brings. Of the papers mentioned above, Sey (1973) is considered the seminal work on English in Ghana as it was among the first to broach the topic and provide a broad overview (and some description) of the English used in Ghana. This overview includes aspects of phonology, semantics, pragmatics and lexis. As part of the peculiarities of lexis, he provides a list of words/expressions that are peculiar to Ghana, which he calls 'Ghanaianisms'. Dako's (2003) *Ghanaianisms: A Glossary* expands Sey's (1973) list and provides a comprehensive number of such expressions. Apart from these studies that explore the vocabulary or lexis of Ghanaian English, there are some

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which deal with aspects of its syntactic structure. Among these, Huber & Dako (2004) is perhaps the most comprehensive and they point out particular tendencies of Ghanaian English such as omission and insertion of articles, lack of subject-verb agreement, cleft construction, topicalization, etc. While these studies have given some insight into the structure of Ghanaian English, they do not benefit from the input of a large corpus which this paper believes would lend even more authority to the definitive statements they make about the variety. With the advent of Corpus (based) linguistics as a methodology, it has been suggested that Ghanaian English will benefit from such a study. Indeed, Ngula (2014:188) argues that "[a] major problem inhibiting comprehensive studies into the distinctive linguistic features of GhE has been the lack of publicly available electronic corpora on the variety." He goes even further to link this situation to the slow pace of progression from the Nativisation Phase to the Endonormative Phase of Schneider's (2014; 2007; 2003) Dynamic Model of new Englishes. It is, therefore, not surprising that Ngula & Nartey (2014) argue that corpus-based studies will be a huge step in the development of Ghanaian English – an opinion which is shared by this paper.

As stated above, Huber (2012), Schneider (2015) and Brato (2020) are some of the studies which have relied on large corpus data to describe aspects of Ghanaian English. Schneider's (2015) dissertation examines tense, aspect and modality in Ghanaian English by comparing the instances and uses of the progressive and the modal *will* in two corpora – a Ghanaian corpus (consisting of ICE-GH and a Corpus of Spoken Ghanaian English) and ICE-GB. Among her findings which are relevant to this study is that she points out that *will* is significantly more frequent in spoken Ghanaian English than it is in spoken British English – an issue that will be revisited later in this paper. In his work, Huber (2012) examines the complexity of relative clauses in Ghanaian English and compares them to those in British English to see what sort of mechanisms are at play in a variety that is currently undergoing Nativisation (within Schneider's (2014; 2007; 2003) model of New Englishes. In order to achieve his aims, Huber also draws from the Ghanaian and British subcorpora of ICE (i.e., ICE-GH and ICE-GB, respectively). Brato's (2020) study is similar to Huber (2012) and to this paper because it also looks at an aspect of Ghanaian English (Noun Phrase complexity) by undertaking a comparative study of two corpora. The difference is that, whereas this paper and Huber (2012) employ a synchronic approach by comparing corpora from a similar time frame, he favours a diachronic approach. In other words, the two corpora he compares (i.e. the Historical Corpus of English in Ghana and ICE-GH) are situated in different time periods. Despite this difference between the two studies, both researchers, by adopting a corpus-based approach, show how useful such databases are when it comes to efforts to describe varieties of English (in general) and Ghanaian English (in

particular). In fact, Huber (2012: 222) notes specifically that the corpora that make up the ICE project "lend themselves ideally to a direct comparison of varieties of English because of their identical design[.]". This view, thus, supports this author's position that there is much to gain from studies that make use of corpora such as ICE. Additionally, Huber (2012: 219) explains that his rationale for comparing Ghanaian English to British English is because the latter is the former's "historical input variety" and, also, that the two varieties are still in contact. This rationale is also in line with this paper's argument that Ghanaian English is still considered by many to be deriving its norms from British English (which is a point that Huber (2012) also makes). Additionally, Huber's (2012) study finds that though relative clauses in British English show more complexity than those in Ghanaian English – due to certain features (some of which are traceable to indigenous Ghanaian languages) – taken individually, these constructions are not ungrammatical in British English *per se*, but occur with much more frequency in Ghanaian English when looked at from a wider perspective. This is a finding is also relevant to this paper because, as will be shown in Section 5, some of the tendencies shown by Ghanaian English are only significant because they occur more frequently in the variety than in either of the two native varieties.

While the studies discussed above have shown the rich contribution that corpus-based research can make to the description of Ghanaian English, all of them have considered British English (or, in the case of Brato (2020), an older version of Ghanaian English itself) as the only variety worthy of comparison[1]. This is not altogether unexpected since, as stated in the introduction, there is a widely-held view in Ghana (as reported by researchers such as Dolphyne (1995) and Shoba et al. (2013)) that Ghanaian English has been influenced more by British English than by any other variety. General observations, though, show that certain features commonly associated with American English are prevalent in Ghanaian English. In fact, even a paper as early as Criper (1971), in distinguishing Type I Ghanaian English from Native (i.e. British) English, mentions that *park* used in place of *sportsground*, might be an import from American English. Despite observations such as this, however, there are as yet no studies that have been able to provide any empirical evidence for this belief. Consequently, to help fill this gap, this paper sets out to look at some aspects of Ghanaian English and compare it to British English and American English in order to see which of the two native varieties Ghanaian English patterns more closely after. Even though differences in vocabulary are what most users of a language readily identify as specific to a variety, it is notoriously difficult to identify such trends in a corpus unless such vocabulary are

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[1] It should be noted here, though, that one of the papers already mentioned (i.e., Owusu-Ansah, 1994) does compare Ghanaian English to American English; however, the author bases his study on a set of 44 (22 from each variety) informal letters written by Ghanaians and Americans.

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high-frequency words. Consequently, this study looks at trends that have been reported in the verb forms of the two native varieties (British English and American English). The verbs that were selected are *got/gotten* and the modal auxiliaries *must, should, will* and *shall*.

The first reason that *got* and *gotten* were selected is because previous corpus-based studies (Algeo, 2006; Biber et al., 1999) have shown that even though both verbs are used in British English and American English, *got* is more prevalent in British English, while *gotten* is found more in American English. Algeo (2006:14), for instance, states that there are "32 times as many tokens of *gotten*" in American English than in British English in the Cambridge International Corpus. This, however, is not the only reason the words were selected. The second reason is that the distinction between *got* and *gotten* is generally considered by Ghanaians as a prototypical feature of British English and American English. In other words, Ghanaians perceive *got* as British (and, by implication, Ghanaian), while they see *gotten* as American with an (unfortunate) side-effect being that *gotten* is sometimes frowned upon by some teachers[2].

With regard to the modals, those selected are the primary modals which mark obligation or necessity (*must* and *should*) and volition/prediction (*will* and *shall*) in English. These were also selected because both Algeo (2006) and Biber et al. (1999) report that they are more frequent in British English than American English. Another reason this paper decided to look at modals is due to the findings of Collins (2009). In his study, he examines the use of modals and quasi-modals in World Englishes using the ICE corpus (Written Component) for all the varieties except American English, for which he uses a corpus he created himself (which he names C-US). The results of his study show that the general trend seems to be the rise of quasi-modals and the fall of modals. The aspect of his study that is most important to this study, however, is that his analysis showed that American English was the trend-setter in this shift in modal usage (in written texts). It will be interesting therefore to see whether Ghanaian English patterns more after American English with regard to the modals selected or whether it will stick to its historical roots. Additionally, as noted earlier in the literature review, Schneider (2015) finds that *will* shows up more frequently in the spoken Ghanaian English than in spoken British English. Thus, the results on the three-way comparison that this paper does will shed some light on whether there is any significance among the three varieties.

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[2] This dislike of *gotten* is so strong that the author has seen examples of (university level) grammar exams in which students have to make the choice between *got* and *gotten*, and they are expected to select *got* as the right answer even though either word would fit in the context of the sentence.

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3. Research Questions

In line with the discussion so far, the following research questions are addressed in the study:

1. How do the normed frequencies of the selected words (*got, gotten, must, should, will* and *shall*) compare across the three varieties (i.e., Ghanaian English, British English and American English)?

2. What can the answer to Research Question 1 tell us about the relationship among the three varieties?

4. Methodology

4.1 Data

As mentioned in the introduction, the study draws its data from the Ghanaian (Huber & Dako, 2013), British and American components of the International Corpus of English (ICE-GH, ICE-GB and ICE-US, respectively), the Corpus of Contemporary American English (Davies, 2008) and the Corpus of Global Web-Based English (Davies, 2013). The ICE corpora consist of written and spoken components. The written component is drawn from the following genres: academic, popular writing, instructional material, social letters, business letters, private and business emails, press reports, persuasive editorials and creative novels (Greenbaum & Nelson, 1996). The spoken component is drawn from private conversations, private phone calls, class lessons, broadcast (discussions and interviews), legal (presentations and cross-examinations), parliamentary debates, business transactions, demonstrations, unscripted speeches and spontaneous commentaries (Greenbaum & Nelson, 1996). The authors of texts used and speakers who were recorded were 18 years or older and had been educated in English. They were also either born in the country where the data was being collected or had moved to the country as children (Greenbaum & Nelson, 1996).

Since, according to the official website of the International Corpus of English (www.ice-corpora.net) the spoken component of ICE-US is not yet available to researchers for download, the comparison for American English was done with the Corpus of Contemporary American English (Davies, 2008), which is hosted at https://www.english-corpora.org/coca/. According to its website, the corpus (henceforth, COCA) which currently contains one billion words from various sources such as "spoken, fiction, popular magazines, newspapers [and] academic texts", is probably the most widely consulted corpus of English. Though the ideal corpus for

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comparison would have been ICE-USA, it was still possible to achieve some uniformity in the data used by applying some restrictions to the selections made from both the COCA and ICE corpora. The first restriction was with regard to the genre of the samples selected. In this case, since the spoken section of COCA is broadcast news, the study restricts the data from ICE-GB and ICE-GH to broadcast discussions, broadcast interviews, broadcast news and broadcast talks; thus creating a comparable subcorpus (in terms of genre) of 152,634 words (ICE-GH) and 337,785 words (ICE-GB). Secondly, the spoken COCA corpus used for this study was drawn from 2009, 2010 and 2011 and the total number of words is 12,098,607. These years were chosen, firstly because the version of the COCA corpus available at the time of writing this paper did not allow for a more precise selection and, secondly, the data from ICE-GH was collected around this same period. With regard to the written corpora, the comparison was fairly straightforward since all three varieties – British English, American English and Ghanaian English – have written components in the ICE corpus. The total number of words in the various written corpora are 403,085 (ICE-GH), 423,581 (1CE-GB) and 436,749 (ICE-US).

Though ICE and COCA were the original databases on which the research depended, it became necessary to include the Corpus of Global Web-Based English (GloWbE)[3] because it provides a much larger corpus (approximately, 1.9 billion words) than all the others and, as such, made it easier to find more tokens of some of the variables of focus. As its name suggests, GloWbE contains texts from online sources (with about 60% coming from blogs). Thus, including GloWbE serves as a good way to crosscheck the results gained from the smaller dataset. Table 1, below, provides an overview of the corpora used in the study.

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[3] many thanks to the anonymous reviewer who suggested the inclusion of GloWbE in the study.

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Table 1: Breakdown of the Corpora

	Ghanaian English	**British English**	**American English**
Written (All Categories)	ICE-GH 403,085 words (191 texts)	ICE-GB 423,581 words (200 texts)	ICE-US 436, 749 words (200 texts)
Spoken *(Broadcast talks, news, discussion & interviews)*	ICE-GH 152,634 words (55 texts)	ICE-GB 337,785 words (70 texts)	COCA 2,098,607 words (2009-2011)
GloWbE	38,768,231 words (50,967 websites)	387,615,074 words (446,192 websites)	386,809,355 words (357,416 websites)

4.2   Analysis

The analysis was done by finding the frequencies of the selected words: *got*, *gotten*, *will*, *shall*, *must* and *should* in the various corpora, with the aid of three concordancing software. The use of three different corpora was necessitated by the fact that COCA, GloWbE and ICE-GB have their own concordancers, which have to be used to access the data – the one for COCA and GloWbE is built into the website, while the one for ICE-GB is a stand-alone software (ICECUP) which is distributed as part of the corpus package. For the rest of the ICE data (i.e., ICE-GH and ICE-US), the AntConc software was used. Regarding the search parameters for eliciting the frequencies, in the case of *got*, since the study was not interested in the simple past tense of *get*, but the perfective form, the search was performed with *got* plus *have* and *has*. In other words, the search terms used were *have got* and *has got* (and the contracted forms, *'ve got*, and *'s got*). This ensured that only the perfective form *got* was retrieved from the corpora. After frequencies for all the words were generated, the raw counts were normalised to tokens per 100,000 words (for the ICE and COCA corpora). The normalising of the counts was another measure taken to allow for a more representative comparison between ICE and COCA because, according to Biber & Conrad (2009: 62), the process mitigates the disparity in comparing texts of different lengths by "providing the rate at which a feature occurs in a fixed amount of text." In the case of this paper, the disparity in length was because, as Table 1 shows, the spoken section of the corpora used for this study were of varying lengths. As mentioned earlier, the GloWbE corpus was added as way to confirm the trends noticed in the ICE and COCA corpora, especially, with regard to the *got*/*gotten* tokens; thus, it was analysed separately and, due to its size, the raw counts were normed per million.

5. Results and Discussion

5.1 Got and Gotten
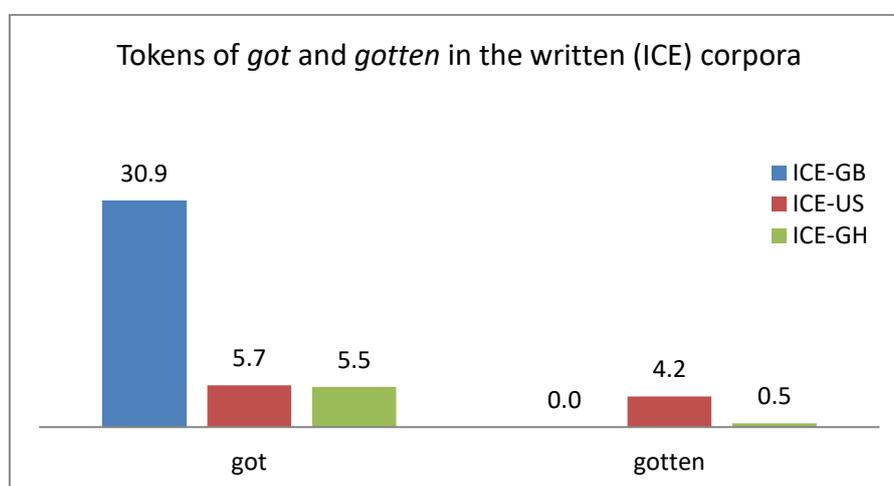
Figure 1 normalized frequencies (per 100,000w) of got and gotten in the written (ICE) corpora.

As Figure 1 shows, *got* appears in all three of the varieties in question; whereas *gotten* is not found at all in ICE-GB. From the figure, we can see that true to previous research (Algeo, 2006; Biber et al., 1999) *gotten* is more common in AmE. It is also clear from the normed frequencies that even in the varieties that use *gotten*, it is not as common (4.2 in ICE-US and 0.5 in ICE-GH) as *got*. The picture for *gotten* is not much different, barring the size-differences between the corpora, when we consider the instances of *got* and *gotten* in the GloWbE sample (which is presented below in Figure 2); though, with regard to *got* we see an increase in the frequency in American English.

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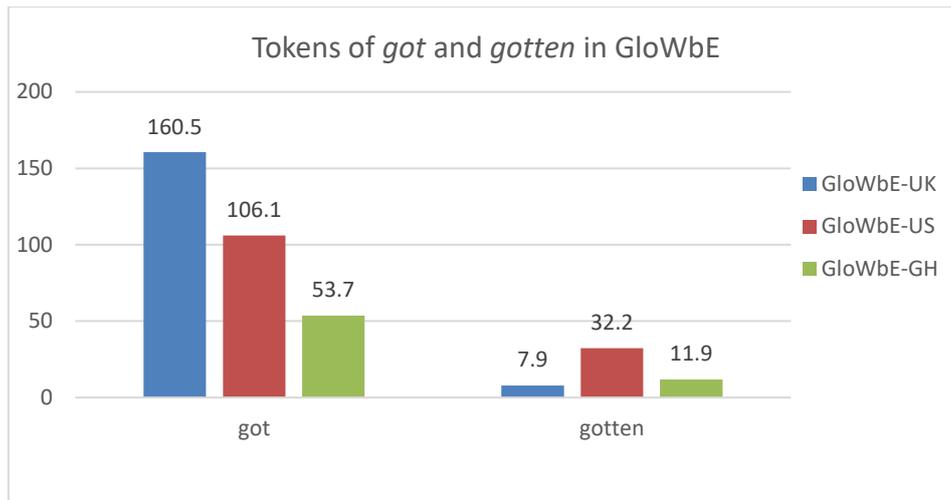
Figure 2: normalized frequencies (per 1,000,000w) of got and gotten in GloWbE.

What is even more interesting for this study is the difference in frequencies between GloWbE-UK (7.9) and GloWbE-GH (11.9), which seems negligible at first glance; however, a Chi-squared test of proportions (X^2=66.747, df=1) yields a p-value of 3.088e-16 indicating that the difference in the frequencies of *gotten* between the two varieties is significant. Thus, one could argue that *gotten* is used significantly more in Ghanaian English than it is in British English. This, therefore, could be taken as an indication that Ghanaian English has broken with British English with regard to the use of *gotten.*

Additionally, a closer look at some the excerpts from the ICE data reveals some interesting trends:

(1) Thankfully however, I have **gotten** a job in Accra with CHF international [ICE-GH: W1C-016]
(2) The District Assembly has **got** sub-structures under it. [ICE-GH: W2D-008]
(3) She had **gotten** married the previous year. [ICE-US: W1B-11]
(4) She really sounds like she's **got** her act together. [ICE-US: W1B-008].
(5) Well Professor Greenbaum has **got** chicken pox. [ICE-GB: S1B:012]

One noteworthy observation from the excerpts above is that Ghanaian English does not just seem to be using *gotten* more than British English, but it is also patterning its use after American English. This is because Algeo (2006; 14) points out that though the difference in the uses of *got* and *gotten* in British English and American English appears to be dialectal, American English shows a strong preference for using *got* for "static

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senses like 'possess' in *I've got it* = 'I have it' and 'be required' in *I've got to go* = 'I must go'", whereas it prefers *gotten* for "dynamic senses like 'acquire' in *I've gotten it* = 'I have received it' and 'be permitted' in *I've gotten to go* = 'I have become able to go.'" This is significant because, as the examples show, *gotten* as used in (1) refers to a dynamic sense (i.e., I have acquired a job), just the same way as the American English *gotten* in (3) (i.e., she acquired a spouse). Again, *got*, as used in the Ghanaian English example (2), is in a static sense (i.e., the District Assembly possesses sub-structures), the same way the American English *got* is used in (4) (i.e., she's in full possession of her faculties). What this means is that Ghanaian English is indeed acquiring this use of *got* and *gotten* from American English.
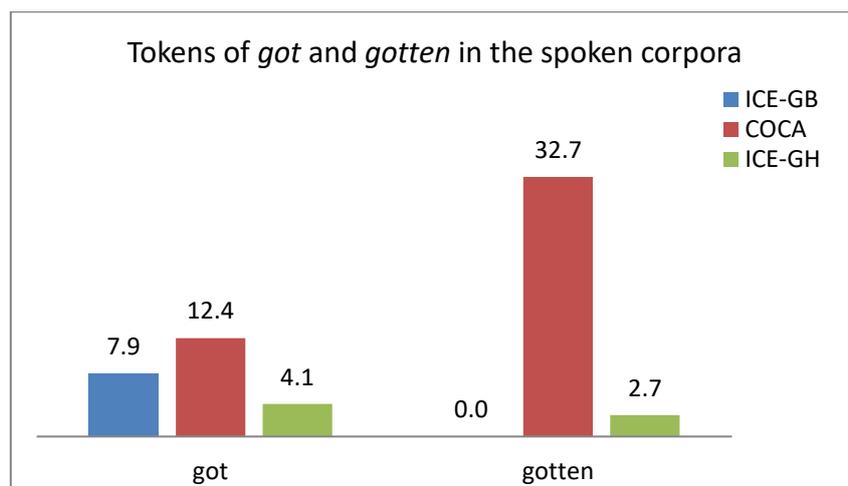
Figure 3: normalized frequencies of got and gotten in the spoken corpora

The first observation we can make about Figure 3 above is that there are a lot more tokens of *gotten* here than in Figure 1. This is expected since, as already mentioned above, *gotten* has been shown to be more common in speech than in writing (even in American English) (Algeo, 2006). Secondly, it is also worthy of note that COCA has more tokens of *got* than ICE-GB. At first glance, this might seem surprising; especially, since it was stated above that *got* has been found to be more common in British English than in American English. However, Biber et al. (1999) report that even though *got* is less common in American English (than in British English) in general, the combination *have got* is actually more frequent in American English. A closer look at the frequency of *got* in COCA in this study revealed that the majority (more than half) of the tokens occurred in the sequence *have got.* This, therefore, explains why COCA has a much higher frequency of *got* than ICE-GB in Figure 3.

Finally, Figure 3 also shows that while ICE-GH has a normed frequency of 2.7 for tokens of *gotten*, ICE-GB has no tokens at all. At first glance, the absence of *gotten* in ICE-GB might be attributed to smallness of the size of the corpus. However, a search of the spoken section of the British National Corpus (BNC) yielded only 20 tokens of *gotten* out of 10,409,858 words (which is a frequency of 0.2 per 100,000 words). Here again, even though the difference is not very big, a chi-squared test of proportions (X^2=4.4598, df=1) between ICE-GH and the BNC yielded p-value of 0.0347, which shows that the difference in occurrence of *gotten* in the two varieties is significant. Thus, despite the relatively low frequency of *gotten* in Ghanaian English, it is still significantly more frequent than it is in British English. This, therefore, points towards a preference for the American English form than the British English form, which is not surprising since the tendency has already been hinted at in the introduction (and elaborated upon below). Also, it is not surprising that ICE-GH shows more tokens of *gotten* in the spoken component than in the written component since speech tends to show language change far earlier than writing. Also, as mentioned earlier in the paper, Shoba et al. (2013) report that it is increasingly the case that some Ghanaian radio presenters adopt certain phonological features of American English in their speech (such as the rhotic and the TRAP vowel /æ/). It will, therefore, not be surprising if they show other tendencies of American English (in this case, a preference for *gotten* over *got*). This argument is supported by the fact that the spoken component was drawn from broadcast texts in the ICE corpus. Here are some examples of how *got* and *gotten* are used in the spoken corpora.

(6) We haven't ***gotten*** our regulations together we are just about to mine this oil. [ICE-GH: S1B-039]

(7) Do you think his travelling has ***got*** something to do with the rising tension in Togo? [ICE-GH: S2B-008D]

(8) These people are crowding around this bank because they've ***gotten*** a message from the government [COCA, Spoken, CBS_NewsMorn, 2011]

(9) No team has ***got*** within single digits of them this year. [COCA, Spoken, NPR_TalkNation, 2010]

(10) Mrs Tatcher may have ***got*** Philip Oppenheim's support in the first round. [ICE-GB: S2B-003]

5.2 Will, shall, must and should
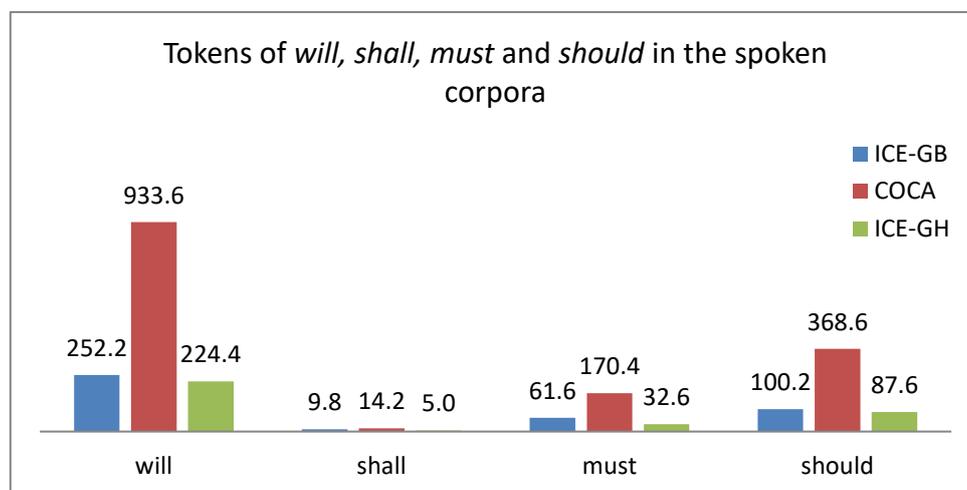
Figure 4: normalized frequencies of the modals in the spoken corpora

There are two main points of interest that arise from the frequencies of the selected modals. The first, as can be seen in Figure 4 above, is that ICE-GH consistently has lower frequencies for all the modals in the spoken corpora than ICE-GB and COCA. In fact, with all the modals in the spoken corpora, American English has the highest frequencies followed by British English and then Ghanaian English. Meanwhile, as Figure 5 below shows, this trend seems to be reversed in the written corpora where with all the modals, Ghanaian English has the highest frequencies followed by British
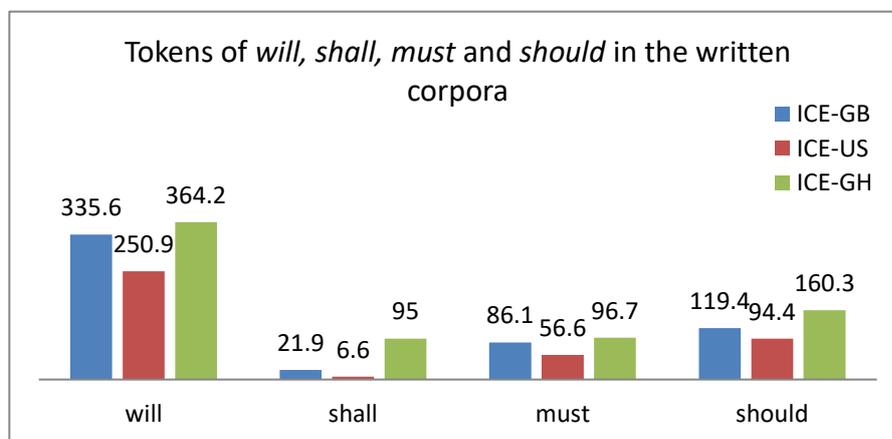

Figure 5: normalized frequencies of the modals in the written corpora

English and then American English. This reversal of the trend is the second point of interest.

One explanation that can be offered for this is based on Collins (2009). As mentioned above, he reports that within the Inner Circle (i.e., the Native varieties, *à la* Kachru (1985)) the modals are giving way to quasi-modals in writing, while this trend does not seem to have caught on as yet with the Outer Circle varieties (to which Ghanaian English belongs). The frequencies in Figure 5 (above) certainly seem to support his findings. In other words, it is possible that the use of the modals is still pretty high in Ghanaian English because it is yet to follow the trend that is developing in the Inner Circle. Such a possibility is understandable if the variety, as suggested by Huber (2012), is still not quite emerged out of the Nativisation Phase of Schneider's (2014; 2007; 2003) model. In other words, Ghanaian English may still be clinging to norms from the Inner Circle varieties (i.e. British English and American English), which are no longer being followed by said varieties. Furthermore, Figure 5 also shows that of all the modals, the one in which the difference stands out the most is *shall*, whose frequency of 95 in ICE-GH is more than that of the combined frequencies of ICE-GB (i.e., 21.9) and ICE-US (i.e., 6.6). A closer look at the contexts of occurrence of *shall* (in all three ICE corpora) shows that *shall* appears to occur in legal texts, religious texts and personal letters (used with the first-person pronouns – *I* or *we*). Here also, despite this general pattern of use, there is a noticeable distinction between ICE-GH, on the one hand, and ICE-GB and ICE-US, on the other hand. This is seen in the distribution of *shall* across the three genres mentioned above, as ICE-GH has more tokens of *shall* in legal and religious texts than in personal letters, while the opposite appears to be the case for ICE-GB and ICE-US. The following extracts from the three corpora illustrate this point:

(6) Scripts ***shall*** be marked and recorded in ink by the Internal Examiner and ***shall*** be submitted together with the marks sheet to the Head of Department. The Head of Department ***shall*** submit the scripts together with the sheet to the External Examiner where appropriate. [ICE-GH:W1B-020]

(7) Anyway my darling, I ***shall*** stop at the bottom of this page [ICE-GB:WIB-006]

(8) … becomes a submerged landmass, I ***shall*** move to SF and join her [ICE-US:WIB-004]

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The trend may suggest that *shall* is still seen in more formal terms by users of Ghanaian English, whereas such a distinction is not made by users of British and American English. Apart from these differences, *shall* appears to be used the same way in all three varieties and it just seems more common in Ghanaian English than in the other two varieties. Additionally, with specific regard to *will*, Schneider (2015) provides two reasons for the higher frequencies in Ghanaian English (than British English) – the Ghanaian English preference for *will* where British English uses *would* and an extensive use of *will* to mark habitual situations in Ghanaian English.

Based on the discussion so far, it can be argued that with regard to *got* and *gotten*, Ghanaian English appears to pattern more closely after American English. This may indicate that despite the claims of Ghanaians to a British English heritage, Ghanaian English, the spoken version at least, may slowly be drifting towards American English. This observation is supported by Dako (2019:236) who states that "[w]hereas the Ghanaian does not see him/herself assuming a British identity in mode of speech, the American accent is highly regarded." If as Dako suggests, there is such a high regard for the American accent in present-day Ghana, it is reasonable for one to conclude that other Americanisms – especially, something (which to the Ghanaian speaker is) prototypical of American English – may also be on the rise in Ghanaian English. Perhaps, it is in recognition of this trend that the West African Examinations Council (WAEC) permits students to use either British or American conventions in their writing[4] during the West African Senior School Certificate Examinations (WASSCE). Before any more definitive conclusions can be drawn, however, more variables will need to be looked at. With regard to the modals, the discussion shows an interesting dichotomy between the spoken and written corpora. Following the work of Collins (2009), it would be interesting to see how often quasi-modals are used in ICE-GH as this might help explain the high frequencies of modals in the written component.

6. Conclusion

The study set out to compare a set of variables (*got*, *gotten*, *will*, *shall*, *must* and *should*) across three varieties of English (BrE, AmE and GhE) in order to determine if Ghanaian English was patterning after either of the two Inner Circle varieties. Based on the frequencies of the selected variables in ICE-GB, ICE-US, ICE-GH and COCA, and with the addition of data from GloWbE and the BNC where necessary, it is fair to say that in some ways Ghanaian English seems to be patterning after American English,

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[4] This was reported to the author by senior high school teachers who are WAEC examiners.

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while in others it retains the trend often associated with new varieties of English (Collins, 2009), especially, for a variety that is not yet in the Endonormative (i.e. the penultimate) stage of the life cycle of these varieties (Brato, 2020; Huber, 2012; Schneider, 2014; 2007; 2003). In order for a firmer conclusion to be drawn, more distinctive features from British English and American English need to be isolated and compared with data from Ghanaian English. Also, once the spoken component of ICE-US becomes available, it may prove useful to compare these variables using just the ICE corpus, since that will make for a better comparison. These measures will also go a long way to mitigate some of the limitations of this study.

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CONCEALMENT IN POLICE-SUSPECT INTERACTION IN IBADAN, NIGERIA

Temidayo Akinrinlola

Abstract:
Police-suspect interaction (PSI) is an integral aspect of forensic discourse studies. Existing scholarly works on police discourse have engaged PSI from the linguistic and non-linguistic viewpoints. However, studies have been silent on the use of concealment in extracting confessional statements from suspects. It is against this backdrop that this study examines the discursive roles of concealment in PSI, with a view to describing concealment strategies and their implications for the language of police interrogation. The study is anchored on Dell Hymes' ethnography of communication (EOC), considering its unequivocal engagement with contextual linguistic resources in representing participants' goals in discourse. Interrogation sessions on conspiracy, felony, stealing, affray, and illegal possession of arms were tape-recorded at the State Criminal Investigation and Intelligence Department (SCIID), Ìyágankú, Ibadan, Oyo State, Nigeria. The study adopts the non-participant observation technique, as well as unstructured and structured interviews. Analysis of data reveals that interrogating police officers (IPOs) and suspects adopt veiling, jargonisation, lexical replacement, hedging and deflection as concealment strategies. While suspects resort to concealment to seek exclusion, ignorance, withdrawal and anonymity, IPOs' concealment strategies were orchestrated to seek suspects' co-operation, allay suspects' fears, boost suspects' confidence, achieve confession with minimal input and protect suspects' rights during interrogation sessions. Further studies on PSI could engage a comparative analysis of the use of concealment in PSI and civil cases.

Keywords: Forensic discourse, **c**onfessional statement, concealment, police-suspect interaction, Ibadan

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1. Introduction

PSI is a form of institutional discourse that is characterised by peculiar genre and style. The social actors (police officers and suspects) involved in the discourse manipulate linguistic resources to achieve institutional goals in the encounter. A police officer is a person whose job, within the confines of the law, is to apprehend suspects while a suspect is a person who is thought to be guilty of a crime (Akinrinlola, 2016). During PSI, the two social actors work at cross purposes; IPOs are motivated by the desire to get suspects confess to crime while suspects weave their responses to escape incrimination. IPOs' questions and suspects' responses are laden with varying linguistic devices aimed at expressing a number of ideologies in PSI. One of the noticeable discourse devices employed is the preponderant engagement of concealment. IPOs and suspects withhold certain information for specific purposes. Concealment is "the use of language to hide information and intentions during interaction" (Clark 1992: 2). It is a discourse device aimed at making information unknown to a third party. The Criminal Investigation and Intelligence Department, Ìyágankú, Ibadan, Oyo State, is a unit of the Nigeria Police Force devoted to crime investigation. It is a section of the Force to which serious criminal cases within Oyo State are referred. This unit parades highly trained police officers who possess respectable crime investigation skills. In their interactions, the use of concealment by these social actors is context-driven. In other words, the context of the cases informs the use of concealment in such encounters.

Studies (Abbe and Brandson, 2014; Szczyrbak, 2014; Akinrinlola, 2016; Akinrinlola, 2017; Sunday and Akinrinlola, 2017; Akinrinlola, 2019; Ajayi and Akinrinlola, 2020) have investigated police discourse from the linguistic and non-linguistic viewpoints. However, sufficient discourse analytical investigations have not engaged the resourcefulness of concealment and its roles in PSI. Besides, studies have not sufficiently engaged Dell Hymes' contextual variables in assessing how information is managed via concealment in PSI. Although studies have interrogated the deployment of concealment in news reports, such studies have not established the role of concealment in institutional discourse. This study maintains that scholarly investigations have not engaged the discursive import of concealment in PSI. More specifically, existing studies have not interrogated how contextual features: setting, participant, ends, key, instrumentalities, norms and genre of discourse activate meaning via concealment. It is against this

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background that this paper investigates the role of concealment in PSI with a view to describing the motivation behind concealment in PSI. This paper is premised on the following research questions: What is the motivation behind the use of concealment in PSI? What are the discursive tools of concealment in PSI? What does concealment reveal about the language of police interrogation? To respond to these questions, this study uses Dell Hymes' Ethnography of Communication as the theoretical framework, considering its resourceful engagement of context in representing meaning in language. This study is significant for a number of reasons. Apart from provoking an understanding of how police interrogation works, a discursive engagement of context-motivated concealment in PSI will be of immense benefit to students and teachers of discourse analysis. The study will also be a good inclusion to existing studies in forensic discourse studies.

1.1. Concealment in discourse

Concealment is a discourse strategy for managing information in discourse. Since information is central to decision making, concealment becomes a strategy for achieving an end in any discourse enterprise. From the linguistic perspective, concealment is the act of withholding information for specific reasons. It is the deployment of linguistic variables to hide information and intentions. From the pragmatic perspective, concealment is interpreted as a form of positive politeness strategy (Rana and Al-Deleimi, 2018). It is conceived as an aspect of Gricean maxims, which is laden with a number of pragma-rhetorical import. Clark (1992: 2) describes concealment as "a means of hiding information and intentions from other over-hearers." To Schroter (2013: 5), concealment is "a form of silence, although it can also be rather wordy." Concealment is presented as "an act that prevents others from gaining access to facts" (Odebunmi 2011:12). Akinrinlola (2017:13) sees concealment as "a strategy of deception or manipulation". Fyke (2014: 10) explains that concealment is "a means of persuasion in that the concealer controls information by creating a way that suits him in a bid to win others' admiration". He further argues that concealment is an act of withholding information for specific purposes. He maintains that the act of concealing information is characterised and defined in terms of context and purpose. He contends that these conditions determine the nature and the strategies of concealment in discourse.

Mc Cornack (1992) holds that concealment is a strategy of manipulation alongside three other strategies: fabrication, distortion and equivocation. Ekman (1985) sees concealment as "a preferred form of deception compared to lying". They define concealment in terms

of 'incompleteness' not telling the whole truth, whereas lying is the act of telling the untruth. According to Baron (2003:21), concealment "involves issuing lies and false assumptions to hide the truth". Baron (2003) and Asya (2013) agree that the mental activity is instrumental here. The speaker could rely on the emotions of the target to manipulate. From the foregoing, concealment could be described as a resourceful information management strategy employed by IPOs and suspects to achieve institutional goals. The goal of such information management strategy, from the perspectives of IPOs and suspects, is to extract confessional statements from suspects and evade incrimination.

2. Review of related literature

A plethora of studies have been done on police discourse. While some of the studies engage PSI from the non-linguistic approach, a good number of the studies investigate PSI from the linguistic viewpoint. Carter (2009) examines police interview interaction using conversation analysis. She adopts participants' mutual understanding and orientation to the context shown through their own talk. The study explores thirty-five (35) extracts from a corpus of one hundred and fifty (150) police interviews. The study reveals that policing talk uses laughs and silence as forms of conveying ideologies in police interview. On the impact of police behaviour on confessional statements by suspects, Karlijn, Giebels, and Taylor (2010) examine how the use of different influencing behaviour by IPOs affects the provision of information by suspects. Using authentic video-taped police interview, the study submits that rational arguments were more effective in eliciting case-related information from low-context suspects than high high-context suspects. On the contrary, high-context, rather than low-context suspects, seemed to respond negatively in terms of explicitly refusing to give information. On the use of the English language in the Nigeria Police Force (NPF), Udoh (2010) engages a description of linguistic features of the language of the Nigeria Police, using Onitsha as a case study. The study uses participant observation technique to investigate the use of the English language in the Force. Results show that proficiency in the use of the English language in the Nigeria Police Force depends on police officers' level of education. Udoh's study revolves around features of occupational variety of the English language in the NPF.

Drawing data from police interviews, Abbe and Brandson (2014) investigate how rapport is built and managed in police interview. The study holds that rapport in police interview can increase information from witnesses and improve trust, cooperation, agreement and

negotiation. He however, regrets that law enforcement agents pay little or attention to rapport in police interrogation. Szczyrbak (2014) studies pragmatic marker use in police interviews. The study submits that IPOs and suspects rely on contextual import of pragmatic markers to signal their intentions during interrogation. Farinde, Olajuyigbe and Adegbite (2015) investigate discourse control strategies in the use of the English language in police interrogation in Nigeria with a view to identifying the themes embedded in such discourse. Using the meta-pragmatics model, the study reveals that, assault, affray, house-breaking, obtaining by false pretense, abduction and robbery cases were the common themes in the discourse. The study equally submits that IPOs employ illocutionary force to demonstrate control in the discourse. The study is relevant in terms of its exposition of power negotiation via pragmatic means in PSI. Akinrinlola (2017) investigates the discursive import of deception in PSI in Ibadan, Nigeria. Tape-recorded interrogation on assault, burglary and stealing, rape and affray constitute the data for the study. The study submits that equivocation and baiting are vital instruments of deception in PSI.

On negotiation tactics in PSI, Sunday and Akinrinlola (2017) investigate negotiation strategies adopted by IPOs in eliciting confessions from suspects. They identify persuasion as one of the potent strategies of eliciting confessing, especially with hardened criminals. On the discursive representation of evidence in police interview, Harworth (2017) examines the construction of evidence in rape discourse. The goal of the study was to produce defense evidence. The paper demonstrates the interactional mechanisms through which interview co-constructs the interviewee's own version of events. The study equally provides justification for the legal ramifications by focusing on the construction of consent. Kahn, Steels, Mc Mahon and Stewart (2017) investigate differential activities across cultures during PSI. The study focuses on white, black and latino suspects. The study uses 139 white suspects, 42 blacks and 35 latino suspects. The use of force case files and associated written narratives were analysed. Results show that blacks and latino suspects receive more force in the beginning stages of the interaction whereas whites escalated in level of force faster after initial levels.

With regard to influence of procedures on police interrogation, John and Michael (2017) analyse and develop series of hypotheses regarding the use of procedurally just policing during suspect encounters. The study relies on systematic social observation of data from police encounters with suspects. Findings show that from regression model, the most important predictors of police officers' exercising authority in a procedurally just manner

include: the level of self-control displayed by suspects, the number of citizens onlookers voice and social status. Considering the influence of police behavioural pattern on criminal identification, Omoroghomwan (2018) examines four known police behavioural strategies towards criminal identification among police personnel in Nigeria. The study uses two hundred and seventeen (217) respondents. Analysis of data reveals that police officers' use of service and defection is vital to criminal identification. It establishes that the strategy assists the police in tracking criminal activities. While Omoroghomwan's study investigates behavioural patterns on criminal identification, the present study describes how concealment functions as a means of extracting confessional statement from suspects. Considering the role of deixis in PSI, Akinrinlola (2019) investigates the discursive roles of deixis in PSI in Ibadan, Nigeria. Tape-recorded interrogation sessions on rape, burglary and stealing, affray, obtaining by false pretense, arson, kidnapping and robbery were analysed, using insights from discourse analysis. The study reveals that IPOs and suspects manipulate deixis to express collectivism, self-assertion and labeling.

While most of these studies (Karlijn et al., 2010; Carter, 2015; Farinde, et al., 2015; Akinrinlola, 2017; Harworth, 2017; John and Michael, 2017; Kahn et al., 2017; Sunday and Akinrinlola, 2017; Omoroghomwan, 2018; Akinrinlola, 2019) are devoted to discursive practices in PSI, only Udoh (2010) investigates the sociolinguistics of the English language in the Nigeria Police Force. Studies are yet to engage how context defines extraction of confessional statements in PSI. Concealment remains a viable discursive mechanism used by IPOs and suspects to sustain the management of confessional statements during police interrogation. This explains why this paper examines how concealment functions as a means of managing information in PSI.

2.1. Theoretical Framework: Ethnography of Communication

Ethnography of speaking (EOS) was propounded by Dell Hymes in 1962 to describe what transpires when we engage in communication. It favours the social approach to language. The concept of EOS explains how our experiences are communicated in our cultures. EOS was later redefined as Ethnography of Communication (EOC) in 1964. It is the analysis of communication within the context of the social and cultural practices and beliefs of members of a particular society. Hymes (1964) holds that ethnography of communication describes the relationship between language and social class. EOC explores the connection between language and the extra-linguistic cultural context. The

concept holds that any speech event comprises several components, and the analysis of the components is an integral aspect of ethnography of communication. These components define the features of context of communication. The features of communication, according to Dell Hymes, include:

Setting: This refers to the time an action takes place. It also includes the psychological setting, nature of the communication and the degree of formality of the speech event. The setting is the State Criminal Investigation and Intelligence Department, Ìyágankú, Ibadan, Oyo State, Nigeria.

Participants: This refers to the speakers and hearers of a particular speech event. It also takes into account the social roles of the participants, and how it influences the communication. The participants involved in the discourse are IPOs and suspects who share unequal social roles during PSI.

Ends: This has to do with the goal, purpose or outcome of the communication. IPOs and suspects work at cross purpose; while the goal of IPO is to get suspects confess, suspects, on the other hand, manipulate linguistic resources to escape incrimination.

Act and sequence: This refers to the order of the communication. In other words, it has to do with the form a speech event takes. Communication is ordered in a particular manner so that it can be meaningful to the other participants. PSI is rendered in adjacency pairs. IPOs enact control of the discourse through interrogative constructions while suspects also perform a number of acts in their responses.

Key: This has to do with the way we behave during speech event. Context of speech informs the way we behave during interaction. For example, we use different tones when we are engaged in different discursive practices. Our tones and facial expression communicate different meanings in contexts. IPOs and suspects resort to a number of social practices in a bid to achieve their goals.

Instrumentalities: This holds that the context of discourse influences speech. It refers to the style we adopt in speech events. In casual conversations, our words are mostly colloquial. However, in any formal speech, we choose our words carefully. IPOs are formal in their interaction with suspects. The social actors (IPOs and suspects) choose words that would enhance their goals.

Norms: These refer to the social rules governing the behaviour of people in a particular discourse. PSI is guided by some conventional rules, and these rules are strictly followed during interrogation sessions.

Genre: This refers to the kind of speech act performed. Different speech communities have different ways of identifying a genre. PSI as a peculiar genre is marked with institutional formalities. These formalities influence the entire interrogation process.

This paper's adoption of Dell Hyme's ethnography of communication is predicated on the fact that PSI manifests a robust use of concealment as a discourse strategy. Since EOC investigates the connection between language and context, the paper relies on its use in interrogating how the use of concealment in PSI reveals the negotiation of intentions, social action, social roles and discursive practices in PSI.

3. Method

Police interrogation sessions constitute the data for the study. The researcher tape-recorded police interrogation sessions at the State Criminal Investigation and Intelligence Department, Ìyágankú, Ibadan, Oyo State, Nigeria. It is a department of the Force that is saddled with crime investigation of cases from around the State. Approval to collect data was sought for, and obtained from relevant authorities. Twenty-five sessions of interrogations were randomly audio tape-recorded. Interrogations on cases such as conspiracy and stealing, malicious damage, affray and illegal possession of arms were tape-recorded. The non-participant observation technique was adopted. The study also adopted structured and unstructured interview. One hundred IPOs, comprising sixty senior personnel and forty members of the rank and file, were interviewed on the rationale behind the use of concealment in police interrogation. The selected officers demonstrate good knowledge and robust experience of the techniques of engaging concealment as an interrogative strategy in interrogation. The essence of such interview was to compare the submissions of the IPOs with the results of the study. The suspects were briefed that the interrogation process would be observed for research purposes. They were reliably informed that the research was for academic purpose, and that the results of such research would only be kept in the library for teaching and further research. The purpose of informing and educating the suspects was to address the bias that might arise as a result of the presence of non-police officers and a recording device at the venue of the interrogation.

For ethical reasons, the permission of the suspects was sought orally and documented by the IPOs. The names and locations of the suspects were also coded. However, ten cases were purposively selected because of their relative manifestation of concealment in the interaction. IPOs and suspects' contributions were studied closely, and the use of

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concealment as means of expressing their motivations was identified. The data collected were transcribed into text, and for conversations in Yoruba and Pidgin, efforts were made to translate them into the English language. The translation process follows a one-to-one process to ensure that meaning is not distorted in the analysis. The study uses Dell Hymes' ethnography of communication to describe the motivation behind concealment in PSI. Concealment strategies of IPOs and suspects were identified and described in relation to their contextual features. The study identifies various discursive devices used in negotiating concealment in PSI. The discursive devices were described in terms of their contextual functions and implications for the language of PSI.

4. Data Analysis

4.1. Veiling

Veiling is a discourse strategy employed by speakers or writers to hide information during speech events. Such discourse strategy is aimed at meeting some conversational ends. Our corpus manifest instances of the use of veiling to achieve some discursive ends in the selected interactions. An instance of the use of veiling is presented below:

Excerpt 1

1. P: Ṣé o ṣe tán láti fọwọ́ sọwọ́pọ̀ pèlú wa?/Are you ready to cooperate with us?
2. S: Ọ̀gá, mi ò sí lára àwon ọmọkùnrin náà./Sir, I was not part of *the boys.*
3. P: Dákẹ́! Báwo lo ṣe mọ XX?/ Keep quiet! How did you know XX?
4. S: Alábágbé mi ni. /He is my neighbour.
5. P: Báwo lẹ se pinnu isẹ́ náà?/ How did you plan *the deal*?
6. S: Ìsẹlẹ̀ náà sẹlẹ̀ nígbà tí mo rìrìnàjò./*The incident* happened when I travelled, Sir.
7. P: Ṣé ìyẹn túmọ̀ sí pé o ò sí lára wọn?/ Does that mean you were not part of the gang?
8. S: Bẹ́ẹ̀ ni ọgá. Mi ò lè ṣe irú nǹkan burúkú bẹ́ẹ̀./ Yes, Sir. I cannot do such *a terrible thing*.
9. P: (*Ó súnmọ́ ọ̀daràn náà*) Màá yanjú ìwé ìtúsílẹ̀ rẹ tí o bá sọ òtítọ́. Ẹjọ́ tí ò le ni./ *(Moves closer to the suspect)* I will prepare your bail if you tell the truth. It is a light case.
10. S:(*Ó ń sunkún)* Ọ̀gá, màá sọ gbogbo nǹkan tí mo mọ̀ nípa rẹ̀./ (*Sobbing)* Sir, I will tell you everything I know about it.

11. P: Ṣé o ṣe tán láti fi àgọ́ ọlọ́pàá sílẹ̀?/ Are you ready to leave the Police Station?
12. Bẹ́ẹ̀ ni ọ̀gá. Ẹ jọ̀wọ́, ẹ ràn mí lọ́wọ́./ Yes, sir. Please, help me.
13. Ẹjọ́ rẹ ò le. Sáà fọwọ́ sọwọ́pọ̀, kí n sọ fún olórí àgọ́. A á yanjú ìwé ìtúsílẹ̀ rẹ./ Your case is a bail-able offence. Just cooperate, and let me inform the Station Officer. Your bail form will be prepared soon.

Excerpt 1 presents a case of conspiracy and felony. The suspect was arrested for conspiring with some persons to rob a named community Head in XX. The IPO and suspect resort to the use of nominal group orchestrated veiling. The participants adopt nominal items to exclude and background culpability in their utterances. In line 4, the IPO uses *the boys* to refer to the gang that robbed the complainant. The choice of *the boys* in the above line conceals the identity and role of the criminal. The same linguistic strategy runs through line 7. The IPO demands an explanation of how the gang orchestrated the robbery act. The IPO consciously uses the nominal item, *the deal*, to refer to the robbery case. The concealment of the offence committed through the deployment of veiling is a discursive strategy aimed at luring the suspect to confess to the crime committed. The suspect equally resorts to the use of *the incident* in line 8 to exclude the nature of crime committed.

In line 10, the suspect deploys tagging with the use of nominal items to describe the act as being *a terrible thing*. The suspect uses *a terrible thing* in the above line to dissociate himself from the incident. In other words, the nominal group is adopted to castigate and cast aspersion on the perpetrators. The suspect's social acts includes: castigating, withdrawing, tagging and rebuking. All these discursive acts are consciously performed to evade incrimination. The IPO, on the other hand, presses further by promising the suspect of release from custody provided he confesses. This explains why he (the IPO) affirms in line 11 that, *I will prepare your bail if you tell the truth. It is a light case*. Veiling via the use of nominal group is a veritable concealment strategy adopted in the excerpt to exclude the background information that could reveal culpability of the suspect within the case-related phase of the interrogation. The strategy deployed in the excerpt is aimed at mitigating the suspect's role in the crime. In accordance with Hymes' (1964) ethnography of communication, both the IPO and suspect resort to veiling as a discursive tool to achieve an end in the discourse. The social roles of the participants inform their choice of discursive instrumentalities. This study is in tandem with Akinrinlola's (2017) investigation of deception in PSI. However, the area of divergence lies in the

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discursive approach. The present study reveals that IPOs and suspects tone down information via discursive means in a bid to achieve institutional goals.

4.2. Jargonisation

One of the discursive tools adopted in the interrogations to conceal intention is the use of police jargon. Police jargon are lexical choices that are strictly technical and restricted to the Nigeria Police Force. Many of these words were used in the course of the interrogation. Some of the jargon include: *exhibits, complainant, suspect, custody, bail, bail bond, defendant, station, statement, crime, beat, surveillance,* and *patrol* were mainly used by IPOs during interrogation. Here is an example from the data:

Excerpt 2

1. P: When did the incident happen?
2. S: That was on 5th August, 2013.
3. P: Were you not on duty that day?
4. S: I was, Sir.
5. P: What do you do in the office?
6. S: I am a technician.
7. P: So, as a technician, what do you do?
8. S: I repair all electronic gadgets there.
9. P: Okay. I don't want to treat you as a suspect if you confess to me. The complainant even said you could not have done something like this.
10. S: (*Shaking his head*) Yes, Sir! He knows me!
11. P: If you confess your part in the case, I won't keep you in custody.
12. S: Okay, Sir!
13. P: Why did you run away yesterday when our surveillance team came to your shop?
14. S: Sir… sir… I was afraid!
15. P: You thought you would get away with such a crime?
16. S: I did not commit any crime, Sir.
17. P: The Station is a place where you can explain your part in the crime and be granted bail after obtaining your statement.
18. S: Yes, Sir!

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The above interaction is a case of stealing. The suspect was one of the workers in a computer firm. Four of the laptops in the company got lost, and the case was reported to the Police Station. Having investigated the case, the IPO got to know that the suspect was one of those that conspired with another worker to steal the laptops. In the interaction, the IPO engages a number of police jargon. Such jargon are laden with contextual meanings. In line 9 of the excerpt, the IPO asserts that, *Okay, I don't want to treat you as a suspect if you confess to me. The complainant even said you could not have some done something like this*. In the above lines, the choice of *suspect* underscores the fact the suspect being investigated has committed a crime, though his culpability has not been ascertained within the confines of the law. The IPO's words technically exonerate the suspect because suspects are usually subjected to series of manhandling during interrogation, but the IPO declares that the suspect would not be treated as such. The choice of the word, *suspect* conceals the intention of the IPO.

The IPO's use of *complainant* in the interaction also expresses concealment. A complainant is the person who reports a crime to the police. Ordinarily, a complainant expects the police to interrogate a suspect so as to ascertain his culpability, but in this circumstance, the IPO informs the suspect that the complainant had attested to the integrity of the suspect. The IPO further conceals his intention in line 11 by asserting that, *If you confess your part in the case, I won't keep you in custody*. The use of *custody* by the IPO has contextual connotation; it means the state of being detained before trial. The choice of *custody* includes detention, loneliness, fear, discomfort and ill-treatment. In this circumstance, the IPO has only requested the suspect to confess. The suspect's confession automatically guarantees freedom.

In line 13, the IPO uses *surveillance* to establish that the police had been trailing the suspect. In line 17, *crime* and *bail* are used to express the degree of the suspect's crime and the positive face of the law. The IPO uses *crime* and *bail* to affirm the strength and positive face of the law. The use of *bail* prepares the suspect's mind for amicable settlement. In line with Hymes' ethnography of communication, the choices made in the interaction reveal orientations of the participants towards the subject of interrogation. Jargonisation is used by the participants to achieve discursive ends in the interaction. The use of jargonisation as a form of concealment in PSI reveals that, within the sequence in PSI, the IPO and suspect deploy contextual variables to express inherent institutional goals. The use of such contextual variables reveals linguistic peculiarities of police interrogation.

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4.3. Lexical replacement/ Orchestrating anonymity

Richardson (2007:47) states that "words convey the imprint of society and value judgments'. Words convey connoted as well as denoted meaning". Richardson explains further that all types of words, but particularly nouns, verbs, adjectives and adverbs carry connoted in addition to denoted meanings. These categories of words are often referred to as content or lexical words. Deictic elements were used in the sampled interactions to manipulate and conceal vital pieces of information. The success of any interrogation is hinged on voluntary confession. Aware of such consequences, suspects concealed information from IPOs. IPOs also deployed deictic elements to shroud information in a bid to achieve confessions from suspects. The case of illegal possession of arms in the excerpt below presents the resourcefulness of deictic elements as a concealment strategy in the data:

Excerpt 3

1.P: (Ìgbà wo lo darapò mọ́ (*Ó tọ́ka sí àwọn ìbọn tí wọ́n gbà padà*) ẹgbẹ́ yìí?
    When did you join this (*pointing to the recovered weapons on ground*) group?
2.S: Ọ̀rẹ́ mi ló mú mi wọ̀ ọ́.
    (My friend introduced me to it, sir.)
3.P: Mo rò ọ́ láti fọwọ́sọwọ́pọ̀ pẹ̀lú wa ní ẹjọ́ yìí. Rí i pé o sọ òtítọ́.
     (I advise you to cooperate with us in this matter. Ensure you tell the truth.)
4.P: Báwo lo ṣe darapò mọ́ ẹgbẹ́ yìí?
    (How did you get initiated into the group?)
5.S: Ọ̀rẹ́ mi ló ràn mí lọ́wọ́. Mo wà ńlé lójọ́ kan tí mi ò ṣe nǹkankan ni ọ̀rẹ́ mi wá tí ó ní kí n darapò mọ́.
    (It was one XX, a friend of mine that assisted me. I was just at home doing nothing
      when he came, and introduced it to me.)
6.P: Báwo lẹ ṣe rí àwọn ohun èlò tẹ́ẹ fi ń ṣiṣẹ́?
    (How did you get the materials you use to operate?)
7.S: XX ló máa ń kó o wá sí ibi ìpàdé wa.
     (XX usually brought them to our meeting point.)
8.P: Báwo lẹ ṣe ń pinnu iṣẹ́ láabi tẹ́ẹ ń ṣe?
    (How do you plan the terrible things you do?)

9.S: XX ló máa ń ta wá lólobó a á sì lọ síbẹ̀ kété tí a bá ti ṣe tán.
    (XX usually gave us hints about operation and we mobilise to the area whenever we
        are set.)
10.P: Àwọn nǹkan wọ̀nyí (*Ó nawọ́ sí ìbọn, ọ̀bẹ àti oògùn*) ni a rí ní ilé rẹ. Báwo lo se rí
        won?
      (These things (pointing to guns, knives and charms) were found in your house. How
        did you get them?)
11.S: 'Idea' ló fún mi gẹ́gẹ́ bíi irinṣẹ́ tèmi.
    ('Idea' gave them to me as my own instruments.)

Excerpt 3 presents a case of illegal possession of arms. The suspect being investigated was arrested for having some ammunition in his custody. The IPO resorts to the use of deixis as lexical replacement in a bid to avoid labeling the suspect during interrogation. The IPO's use of *this group* in line 1 captures the use of lexis to shield the real identity of the suspect. Considering the setting of the interaction, the IPO and the suspects share unequal roles as participants. The unequal roles of the participants are reflected in the sequence of the interrogation. Using Dell Hymes' ethnography of communication, the IPO deliberately tones down the culpability of the suspect by using the phrase *the group*. However, the recovered weapons, available at the scene of the interrogation, justify the *ends* of the interrogation. The IPO is geared towards extracting confessional statements from the suspect while the suspect, on the other hand, is keen on escaping incrimination. The use of *the group* by the IPO is a strategy aimed at luring the suspect to confess to crime.

In line 2, the suspect further conceals the identity of the group with the use of an exophoric reference, *it*. He (the suspect) affirms that, "My friend lured me into it, Sir". Both participants in the discourse use language to shroud the suspect's culpability by repressing the severity of the crime committed. On how the suspect got the weapons, the IPO mitigates the interrogation by deploying lexical replacement to save the suspect's face. In the IPO's use of *How did you get the materials you use to operate?*, two important choices, *materials* and *operate* are consciously made to douse the tension of the suspect. These choices are instances of what Dell Hymes calls instrumentalities. The IPO's use of *materials* instead of *weapons*, is a strategy to get the suspect confess to crime. The suspect, in line 7 says, *XX usually brought them to our meeting point*. The use of *them* in line 7 refers to the weapons used in perpetrating criminal acts. In line 8 of the excerpt, the IPO uses the phrase, *the terrible things* as a replacement for the criminal acts

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of the suspects and his gang. The same concealment strategy is adopted in line 9. The use of *these things* refers to the ammunition used by the suspect in perpetrating criminality. Hymes' ethnography of communication reveals how meaning is achieved via the use of contextual variables in the interaction. The social roles of the participants inform the use of language to communicate intentions. The IPO uses lexical replacement to conceal the severity of the suspect's crime, in a bid to get him confess to crime. The use of such lexical replacement functions as the key and instrumentalities that allay the fears of the suspect. The deployment of the instrumentalities of interaction by the IPO in the excerpt reveals the social action negotiated in the interaction.

4.4. Hedging

Hedging is used to dissociate self from the truthfulness or otherwise of a statement. Hyland (1998:1) states that, hedging refers to "any linguistic means used to indicate either a lack of complete commitment to the truth value of an accompanying proposition, or a desire not to express that commitment categorically". Hedging as a linguistic strategy may be used to facilitate turn-taking, show politeness and mitigate face-threats. Speakers make use of this to lessen threat to public self-image of others. Sometimes, hedge is expressed to conceal information. This is done through vagueness. IPOs and suspects deploy hedges as instrumentalities of discourse. Since interrogation centres on information management in PSI, IPOs and suspects are conscious of their utterances. Confessional statements made by suspects are laden with preponderant use of hedges to achieve a number of interactive goals. An example from our data is presented below:

Excerpt 4

1. P: Dem sey you fight with the Fulani man.
      You fought with the Fulani man.
   S: Oga, dis Fulani don dey disturb us since many months now. Dem dey destroy our crop de way dey like.
   Sir, these Fulani people have been disturbing us for months now. They destroy our crops at will…
2. P: Dem sey you kill two of im cow.
   They alleged you killed two of his cows.
   S: (*silence*)

       S: Na lie be that.
       That is a lie!
3. P: I don go where the thing happen. You don know?
       I have been to the scene of the crime. Do you know that?
       S: I no know sir.
       I don't know sir.
4. P: The Fulani man sey one of im cow don sick.
       The Fulani man told us one of the cows is sick.
       S: I think im dey talk lie.
       I guess he is telling a lie.
5. P: How?
       S: I no sure sey any of the cow dey sick.
       I am not sure anyone of the cows is sick.
6. P: Watin you mean?
       How do you mean?
       S: He talk that one to put me for trouble.
       He said that to implicate me.
7. P: You no hit the cow?
       Didn't you hit the cow?
       S: Wetin I know be sey the cow no sick. All the cow dey well when I see them for farm.
       As far as I know, the cow is not sick. All the cows were healthy when I saw them on the farm.

The suspect involved in this interaction was arrested for fighting a Fulani herder on his (the suspect's) farm. The suspect was also accused of hitting one of the cows. The suspect, on the other hand, accused the Fulani man of malicious damage. In the interaction above, the IPO's social act is that of alleging the suspect. He does this by establishing the fact the suspect fought with the Fulani man. The suspect, on the other hand, performs the act of denying such allegation. In a bid to further establish the suspect's culpability, the IPO affirms that he had visited the crime scene. The IPO's mention of the crime scene serves a discourse instrumentality aimed at luring the suspect to confess to crime. Instead of yielding positively to the IPO's demands, the suspect decides to hedge in a bid to achieve his interactional goal. The suspect's goal is to avoid being incriminated. In line 3, the IPO asks if the suspect is aware that he had visited the

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crime scene. The suspect's response, *I don't know* is a deliberate hedge to express ignorance so as to escape being held responsible for the crime.

In line 4, the IPO informs the suspect about the state of one of the cows. Instead of claiming responsibility, he says, *I guess he is telling a lie*. The use of *I guess* by the suspect expresses uncertainty towards the subject of the interrogation. It is an attempt to conceal meaning in a bid to avoid being held responsible for the crime. In line 5, the suspect further pursues his interactional goal by asserting that he was not sure if any of the cows was sick. Here, the suspect hedges to express withdrawal and ignorance. In line 7, the suspect responds, *As far as I know, the cow is not sick*. The use of *As far as I know* is a form of hedge which is aimed at dissociating the suspect from the crime committed. In line with Hymes' model of communication, the participants deploy hedges to achieve interactional goals. The suspect resorts to hedges in a bid to conceal his involvement in the crime. The suspect's use of hedges in the interaction is aimed at establishing his innocence and ignorance. The contextual use of hedges in the interaction affirms that hedges are resourceful linguistic devices used in projecting thematic issues in PSI (Farinde et al., 2015; Harworth, 2017; Sunday and Akinrinlola, 2017). This study contends that IPOs and suspect deploy hedges to express their orientation towards the subject of interrogation. Hedges function as a viable interactional instrumentality in PSI.

4.5. Deflection

In the course of interrogation, both IPOs and suspects sustain their turns by introducing extraneous details in their responses and testimonies. Deflection is "a communicative strategy in which a current speaker veers into some other details, which are extraneous with the goal of sustaining and holding the floor and seeking attention or registering his presence during communication" (Akinrinlola, 2016:11). Suspects adopted this strategy when IPOs confronted them with questions in the interrogation room. They deflected in their responses to achieve a number of interactional goals. An example from our data is described below:

Excerpt 5
1.S: Oníṣòwò ni mí.
      (I am a business man.)
2.P: Kínìtúmọ̀ oníṣòwò?
      (What do you mean by business man?)

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3.S: Mo ń ta epo ròbì fún àwon oníṣòwò kékèké.
   (I sell crude oil to retailers.)
4.P: Ǹjẹ́ òwò yẹn bá òfin mu?
   (Is that a legal business?)
5.P: Kí ló sún ẹ dé ìdí olè?
   (What led you to stealing?)
6.S: Ọ̀gá, oníwàpèlẹ́ ọkùnrin ni mí. Mi ò jalè rí láyé mi.
   (Sir, I am a gentleman. I have never been involved in any crime before.)
7.S: Ní àgbègbè yẹn, ọ̀pọ̀lọpọ̀ iṣẹ́ láabi ni àwọn ènìyàn ṣe.
   (Along that area, so many people perpetrate different crimes.)
8.P: Ǹjẹ́ o ti rí wọn rí?
    (Have you seen them before?)
9 S: Bẹ́ẹ̀ ni ọ̀gá. Mo lè mú yín lọ sí ibi tí wọ́n fojú pamọ́ sí.
   (Yes sir. I can even take you to their hideouts.)
10. P: Olódodo ènìyàn ni ẹ́. Màá sọ fún ọ̀gá mi nípa ìwà dáadáa rẹ.
    (You are an honest person. I will tell my boss about your cooperation.)
11. S: Mo gbọ́, ọ̀gá.
    (Okay, sir.)
12. P: Ìgbà wo ni àwọn ìgárá ọlọ́sà yén máan sẹṣẹ́ láabi won?
    (Those at the crime spot, when do they carry out this act?)
13. S: Ìrọ̀lẹ́ sátidé àti alẹ́ ọjọ́rú
    (On Saturday evenings and Wednesday nights.)
14. P: A máa lọ síbẹ̀ láìpẹ́. Fún tìẹ, màá rí ọ̀gá mi láti ṣètò àtijáde rẹ.
    (We may need to go there in few hours' time. And as for you, I will see my boss and arrange how to prepare your bail.)

The case above is that of stealing. The suspect was arrested for engaging in illegal crude oil business. He was part of the gang that carried out the destruction of a particular pipeline. He was subsequently arrested and subjected to interrogation. In the course of the interrogation, the suspect, in a bid to sustain the interaction, creates extraneous details to engage the attention of the IPO. The participants engage deflection as a form of concealment to douse tension in the interrogation room. In line 6, the suspect's response to the IPO's question on why he ventured into crime is a form of deflection to create a positive face before the IPO. The suspect affirms, *Sir, I am a gentleman. I have never been involved in any crime before*. Such contradicting response is orchestrated to conceal the suspect's involvement in the crime. In line 7, the suspect adopts deflection as a form

of discourse instrumentality to achieve his interactional goal. He technically manipulates the interaction to foreground deflection. In a bid to pursue his interactional end, he calls the attention of the IPO to several criminal activities carried out in the area. His utterance in line 7 is a radical departure from the required responses desirous of the IPO.

The suspect's concealment of his crime via deflection runs through lines 8 and 9 as he expresses readiness to take the IPO to the scene of the crimes. However, the IPO, in line 10, appeals to the suspect's positive face so as to elicit the needed confessional statements from him. In a bid to pursue the goal of the interrogation further, the IPO demands information on the activities of other suspects in the said area. The suspect's positive response in line 13 propels the IPO to assert that, *We may need to go there in few hours' time. And as for you, I will see my boss and arrange how to prepare your bail*. In the entire interaction, both the IPO and suspect resort to deflection to orchestrate concealment. While the IPO deflects to douse tension associated with the case being investigated, the suspect deflects to engage positive face so as to escape incrimination or reduce the charges against him. Deflection is adopted in the interaction to achieve rhetorical effect. Apart from functioning as discourse instrumentality, it connects the context of the interaction to realise interactional goals.

5. Implications of concealment for police-suspect interaction in Ibadan, Nigeria

The discussions presented reveal that IPOs and suspects at the State Criminal Investigation and Intelligence Department, Ìyágankú, Oyo State, Nigeria deploy concealment in interrogation to pursue distinct institutional goals. In the sampled interactions, IPOs and suspects rely on concealment to extract confessional statements from suspects so as to evade incrimination. Concealment is a strategy for manipulating the setting and genre of the discourse. In the data presented, IPOs adopted concealment to seek suspects' co-operation during interrogation. The idea behind the use of concealment is to get suspects committed to the interaction. Besides seeking suspects' co-operation, concealment is adopted to allay the fears of suspects in the interrogation room. IPOs deploy concealment as a strategy to appeal to suspects' emotions. To boost suspects' confidence during interrogation sessions, linguistic resources are deployed to tone-down the severity of cases being investigated. The use of concealment in PSI equally reveals that the language of investigation is persuasive. IPOs engage discursive strategies to orchestrate concealment in a bid to get suspects confess without resorting to physical torture. On implications of the use of concealment by suspects, the study reveals that

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suspects are significant stakeholder in PSI; they negotiate power through their manipulative deployment of linguistic resources to escape incrimination. One of such engagements of linguistic tools is the use of concealment to tone down their incriminating acts. Worthy of mentioning also is the premium placed on suspects' rights during investigation. The deployment of concealment prevents suspects' rights from being abused during PSI. Adoption of concealment as an interrogation strategy in PSI reveals that the language of police interrogation is persuasive and context-driven.

5.1. Conclusion

This study reveals that concealment is an effective strategy for managing confessional statements in PSI. Concealment strategies function as veritable devices used for negotiating motivations and ideologies in PSI. IPOs and suspects resort to the use of concealment to achieve a number of discursive effects during interrogation sessions. This study has engaged an investigation of concealment in PSI in Ibadan, Nigeria. It reveals the contextual import of concealment as a discursive practice in police interrogation. Of particular concern in the study is how the orientations of participants (IPOs and suspects) are communicated and negotiated via concealment. The study identifies that PSI is premised on information management. Managing information is crucial to crime investigation. The study's adoption of Dell Hymes' EOC as theoretical model reveals how contextual variables function in orchestrating concealment in PSI. In accordance with the objectives of the study, attention was on the linguistic devices adopted in negotiating concealment and its implication for police communication (interrogation). The study reveals that IPOs deployed concealment through the use of veiling, jargonisation, lexical replacement, hedging and deflection. These concealment strategies are geared towards excluding, withdrawing, dousing tension, seeking co-operation, boosting confidence and extracting confessional statement from suspects with minimal input. The findings of this study are relevant in teaching the discursive practices involved in negotiating confessional statements in PSI. In addition, the study extends the frontiers of knowledge in PSI; an engagement of concealment in PSI improves an understanding of how police interrogation works. The study suggests that further research could focus on comparative investigation of concealment in PSI and civil cases.

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LANGUAGE AND ETHNIC SENTIMENTS IN READERS' COMMENTS ON FACEBOOK PAGES OF SELECTED SOCIO-CULTURAL GROUPS IN NIGERIA

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Abstract:
Many studies exist which explore the roles of language in national development and unity and those that investigate patterns of self-assertiveness among ethnic groups characterised by ethnolinguistic vitality. However, patterns of ideological conflicts and solidarity based on ethnic affiliations on Facebook have been under-researched. The present study relies on readers' responses to Facebook comments on issues of national interest such as politics and economy to determine the role of language and ethnicity in solidarity formations in Nigeria. Data for this work was collected on the Facebook pages of some socio-cultural groups in Nigeria. Ethnolinguistic Identity Theory and its revised standard version was adopted as the theory for the analysis. The study revealed that ethnic bias reflects in the comments and response of people on Facebook. The study also shows that posts on the Facebook pages of MASOB and MEND generate more ethnic sentiments than other groups. The use of linguistics features such as pronouns, and deictic pronouns, qualifiers, implicatures, naming and reference, invective/insults, and tribal references, are evident in the Facebook comments. They are used for ethnic inclusion and exclusion on Facebook.

Keywords: ethnic sentiment, ethnolinguistic identity theory, readers' responses, Facebook, socio-cultural

1.   Introduction

Language plays pivotal role in any human society. The functionality of language depends on its usage. The choice of words and the context of usage determine the effect on the people. Language can be used to unite and also be used to disintegrate people. Kelma (1971:21) cited in (Gardeazabal, 2011) opines that language can be an instrument to unify people and also be used to separate people. The number of languages and ethnic groups in society may determine the tendency of the segregation caused by language and ethnic

loyalty. Nigeria is a plural society with several languages and ethnic groups. At the moment, English is used as a language of wider communication (LWC) in the country, particularly for those who are literate in the language (about 39% based on UNESCO Institute for Statistics). Nigerian Pidgin serves a similar purpose for the majority of the people who are non-literate in English but can speak pidgin. Given the role of English as a LWC, literate people of different languages interact without much linguistic barrier. The English language facilitates communication. However, ethnic differences are still evident in the reactions and comments of people in different discourses which sometimes may lead to conflict and separation. Conflicts erupt because differences between social groups tend to create feelings of threat, the uncertainty of status, fear, and rivalry (Igboanusi & Peter, 2005). As Igboanusi (2017) has argued, this kind of conflict may not be motivated by language differences, but by other social factors such as competition for limited resources and power, as well as by religious ideologies.

Language and ethnicity cannot be separated. Following Obeng and Adegbija (1999), language is seen as the storehouse of ethnicity. This informs the kinship reference seen in the use of 'my brother' or 'my sister' in addressing someone that comes from the same ethnic group as the speaker. For example, it is in common place to see an Ibo man referring to another Ibo man as 'my brother'. However, language is also used to exclude others that do not belong to the same ethnic group. It is also used to make derogatory references and discriminate. It can be used to insult, relegate, label, name, and also separate others. Obeng and Adegbija (1999) state that the togetherness of the in-groups who had identical habits and ethnicity led to the exclusion of people who were linguistically and ethnically different. Obeng and Adegbija explain further that exclusionism often led to various degrees of indifference and xenophobia as well as mild amusement to indifference and in extreme cases, to hostility towards other ethnic and linguistic groups. This hostility is observable in the readers' comments on Facebook. The linguistic sentiment is seen in the choice of words of an individual when referring to others outside his/her group. This sentiment is also seen in reference to ethnic groups. The use of language to refer to others in a derogative manner or exclude them may be referred to as ethnic sentiment.

A socio-cultural group is a group of people based on social relations, such as race, socioeconomic, gender, language, etc. Socio-cultural groups in Nigeria may be said to

have emerged based on ethnic and linguistic relations. They usually have common ground for agitation. We have socio-cultural groups from the north, south, and west. From the southwest, we have such groups as Odua People's Congress (OPC), Agbekoya, Yoruba council of elders, etc. From the north, we have such groups as Arewa Consultative Forum (ACF), Northern Youth Forum (NYF), Arewa People's Congress (APC), etc. From the South and the Niger Delta states, we have such groups as Niger Delta Avenger, Movement for the emancipation of Niger Delta (MEND), Movement for the Actualization of the Sovereign State of Biafra (MASSOB), etc. It is important to state at this juncture that the Niger delta regions have the highest number of socio-cultural groups that are agitating for resource control. This is not unconnected with the fact that the mainstream of the economy of the country is from the region and the region has been neglected for long by successive governments. There are different groups in the region clamouring for resource control and even secession. However, other regions also have one reason or the other to agitate through their different groups. Facebook remains one of the platforms the groups are exploring.

Facebook has turned to be a public sphere where issues of national interest are debated. Globally, Facebook is a platform where faceless (people who have never met before) people meet and interact meaningfully. Ayantayo and Akintola (2017) state that almost every incident in the country (Nigeria) is reported on social media such as Facebook. Discourse on Facebook attracts responses from every part of the country, irrespective of ethnic affiliation. Responses may be for or against the post on politics, economy, or security, depending on individual prejudice. Faceless friends now discuss to agree and disagree on any issue of interest. Users disagree and express sentiment by discriminating against others who are not within their ethnic 'in-group'. Ethnically, language is used on Facebook to create in- and out-group to reflect solidarity.

Many studies explore the roles of language in national development and unity (for example, Emeka-Nwobia 2015; Danladi 2013; Obiegbu 2015) and those that investigated patterns of self-assertiveness among ethnic groups characterised by ethnolinguistic vitality (e.g. Nkadimeng and Makalela 2015; Garri and Mugaddam 2015; and Chew 2014). Kamran and Mansoor (2017), and Dressler and Dressler (2016) investigate language use with ethnolinguistic colourations on Facebook. Similarly, Zhou (2017), Shohamy (2006), and Thomas (2015) focus on the role of ideology in language conflict. However, patterns of ideological conflicts and solidarity based on ethnic affiliations have

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been under-researched. It is common to see ethnic affiliation and segregation in Facebook comments among Facebook users. Nigeria, being a multi-ethnic society, is facing a different ethnic crises. Thus, the role of social media in generating ethnic conflict cannot be underrated. Consequently, it is imperative to prevent an ethnic characterized conflict that may emanate from Facebook communication. The present study, therefore, relies on readers' responses to Facebook comments on national issues to determine the role of language and ethnicity in solidarity formations in Nigeria. We believed that the contribution of this study will help to prevent ethnic conflict and expand the frontier of linguistic analysis of social media language. To achieve these, the paper is premised on the following research questions: What are the linguistic and sociolinguistic features of ethnicity in Facebook communication? How do the linguistics and sociolinguistics feature express ethnic affiliation? What are the intercultural conflicts that reflect in the use of language on Facebook by Nigerians? To answer these questions, the paper adopts Ethnolinguistic Identity Theory (ELIT) and its revised standard version. The theory is relevant because of its resourcefulness in identifying in and out-group in human interactions. The research is timely considering the fragile nature of the ethnic relations in the country at the moment based on political sentiments and resources control agitation. It will help to address the use of language to discriminate against 'out-groups', especially on Facebook.

2.   Review of relevant literature

While working on the politics of language, identity construction, and state-building that divided Sudan into two states, Garri (2016) explores the politics of language, identity construction, and state-building that the pre- and post-colonial regimes adopted in Sudan to address the debated problems of language, identity and state-building. The study discovers that under both regimes, there are two distinct policies that had a knock-off effect on the separation of South Sudan from Sudan. The two policies include; the sustenance of the southern isolated divide and rule ideologies and the adoption of Arabicisation policies to exterminate the native languages in South Sudan. The study revealed that the south Sudanese resisted the policies and embraced separation from Sudan because they believed that the North Sudanese power-wielding elites were deliberately pushing them to separate. The findings are relevant to show various ways of measuring linguistic and ideological polarisation. Adekanmi (2009) examines language

discrimination in the Federal civil service, Ibadan. She elucidates discrimination in Nigeria labour setting vis-a-vis its causes and effects. The uniqueness of her thesis is seen in its trial blazing in the area of advocacy for fairness concerning the treatment of employees in the Nigerian workplaces, irrespective of their linguistic or ethnic affiliation, and strict monitoring of workplaces in Nigeria to ensure that workers in such workplaces are not maltreated as a result of their language or ethnic origin.

Babatola (2015) adopts Ethno-linguistic Identity theory to investigate language and ethnic-based discrimination in Ibadan. The study reveals that there are language and ethnic-based discrimination in securing accommodation within the Ibadan metropolis. Anthony et al. (2013) investigate the importance of ethnicity in the hiring process in France, using three different French ethnic identity, namely; French-sounding names, North African-sounding names, and foreign-sounding names and provides a novel test for statistical discrimination. The study shows that within both male and female groups, all non-French applicants are equally discriminated against when compared to French applicants who reveal that racial discrimination in employment is directed against members of non-majority ethnic groups, and highlights the importance of favouritism for in-group members.

Ndonye (2014) studies social media, ethnic hatred, and peace journalism in the use of Twitter and Facebook use in Kenya to know the incidences that account for ethnic hatred on the two media in Kenya. The study also determines the influence of ethnic hatred on peace journalism in Kenya. The study suggests that the root cause of ethnic hatred such as historical injustices, lack of media objectivity in coverage, politics based on ethnic blocks be addressed, and also that all social media pages that promote ethnic hatred be closed down. Dressler and Dresser (2016) examine one teen's identity positioning through her Facebook posts from two separate study abroad experiences in Germany. The study reveals that the teen used Facebook posts to position herself as a German-English bilingual and a member of an imagined community of German-English bilinguals by making a choice on which language(s) to use, reporting her linguistic successes and challenges, and indicating growing language awareness. Kamran and Mansoor (2017) examine the written comments of Pakistani students on the official Facebook sites of the public and private sector universities to study their English language skills and social networking systems and their implications for language policy in education. The study reveals the dominant use of English and a significant difference between public and

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private sector students in their preference to use English. The result of the study shows that there is the issue of language discrimination between students of public and private sector universities.

The above reviewed works are relevant to the present research. Gari (2016) examines discrimination motivated by the authority, Adekanmi (2009), Babatola (2015), and Anthony et al. identify discrimination at workplace. Ndonye (2014), Dressler and Dresser (2016) and Kamran and Mansoor (2017) investigate discrimination in the media and Facebook. They provide insight into the study of discrimination at various levels of human interaction. The studies provide a foundation on which Language and ethnic sentiments in Nigeria can be investigated with evidence from responses to comments on Facebook**.** Social media, of which Facebook is one, has become another speech community where people interact on different issues. The interaction on social media cuts across cultures and different backgrounds. It allows for discussion of different ideas, such as politics, economy, education, sports, and even agriculture. In these discussions, the choice of words by discussants reflects their tribal and ethnic affiliation in most cases. Language of hatred against one another is shown on social media. Previous works are silent about these. The dearth of this in the academics informs the present work with the hope to identify and analyse linguistics features that promote ethnic sentiment on Facebook. This will be useful to promote harmony among Facebook users and researchers.

3.   Theoretical Framework

The study adopts Ethnolinguistic Identity Theory (ELIT) and its revised standard version as the anchor theory. The theory is a social psychological approach proposed by Giles and Johnson (1981). According to Oakes (2001), it is an extension of Social Identity Theory (SIT). ELIT and SIT are conditioned on the notion of the 'other' as opposed to the 'self'. ELIT is similar to SIT in its fundamental principles of belongingness. The principles include social categorization, social identity, social comparison, and psychological distinctiveness which are relevant to enhance individuals' self-esteem. The theories emphasis the notion of 'self' and 'others' identity. It harps on the segmentation of 'self' and 'others' in the society, which explains the inclusion and exclusion that represent a contest between groups and institutions within the society. Giles and Johnson

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(1981) opine that as people grow up, they also learn to group themselves and other people into social categories which usually use language as a marker for ethnic distinctiveness. ELIT stresses the feeling of 'us' which reflects in the use of language. This explains the fact that people are more likely to use the language of the group they belong to and also use the same language to exclude others that do not belong to their group.

An extension of this is the Convergence and divergence theory that originated in the Accommodation theory propounded by Giles (1973). 'Convergence' is a method whereby individuals adapt to the communication patterns of each other during interaction (Giles and Coupland, 1991). It suggests that speakers converge to belong and integrate to a certain group or individual. In contrast, divergence refers to how speakers accentuate their verbal and non-verbal differences to distinguish themselves from others. It follows that whereas convergence enhances solidarity with the in-group, divergence accentuates difference with the out-group. The relationship does not necessarily imply total assimilation as in the original formulation of ELIT but recognises intermediate states of acculturation where both dominant and minority identities are retained (Oakes, 2000).

On Facebook (our source of data), there are different people with tribal and ethnic affiliations interacting on different issues. Their ethnic background is usually reflected in their comments which sometimes reflect hatred towards others. There are also elements of ethnic solidarity noticeable in their choice of words. The notion of in and out-group is easily noticed. This makes ELIT a relevant and suitable theory for this work because it recognizes and emphasizes that people segregate others that do not belong to their group using language as an instrument and comfortably associate with people they feel belong to their group.

4.   Methodology

This research combines quantitative with the textual analytical methods. Textual analytical research means that data for analysis are sourced only from the text(s) and interpreted in accordance with how the data are used in the texts where they are selected. Quantitative is adopted to show the frequency of the ethnic sentiment in the comments on the Facebook page of the selected socio-cultural groups.
Readers' responses constitute the data for this research. Data were collected from the Facebook pages of four socio-cultural groups in Nigeria. The socio-cultural groups

include Odua People's Congress (OPC), Arewa people's congress (APC), Movement for the Emancipation of Niger Delta (MEND), and Movement for the Actualization of the Sovereign State of Biafra (MASSOB). These socio-cultural groups give even representation to the major ethnic groups in the country, hence, the choice of their Facebook page for data collection. OPC is a Yoruba nationalist organisation in Nigeria and neighbouring countries where Yoruba is spoken. It was founded by Chief Frederick Fasheun. The MASSOB is a secessionist movement in Nigeria associated with Igbo nationalism, led by Ralp Uwazuruike. APC is a group in Northern Nigeria established to protect the interest of the Hausa/Fulani, chaired by retired captain Sagir Muhammed. MEND is one of the largest militant groups in the Niger Delta region of Nigeria. The group is headed by Chief Henry Okah and has been active since 2004 till date. MEND and MASSOB may be said to have represented the eastern part of the country. This is so because the region has been bedevilled with agitation for resource control which makes the region exposed to several groups. It is important to state that the pages have an uneven number of comments. However, we make effort to sample 100 comments from each page, making our sampled data totalling 400 comments. The number of comments that generate ethnic sentiments also varied considerably base on the topic of discussion. We sampled posts that discussed issues of national interest. For this study, 22 comments were purposively selected and discussed to show different ethnic sentiment strategies used in the discourse. However, the study presents statistical data of the comments that reflect evidence of ethnic sentiment to show the frequency of occurrence according to the socio-cultural group selected. Grammatical expressions such as; lexis, phrases, clauses, and sentences in the data are studied within their context of usage to identify convergence and divergence.

5.   Data presentation and analysis

As earlier mentioned, 400 comments were sampled from four (4) socio-cultural groups. 100 comments were sampled from each Facebook page of the selected socio-cultural groups. The table below shows the occurrence of evidence of ethnic sentiment in the sampled comments.

Table 1: showing the occurrence of evidence of ethnic sentiment in readers' comment on Facebook

S/N	Socio-cultural group	Number of comment	Occurrence of ethnic	Percentage

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		sampled	sentiment	
1	MASSOB	100	73	30.4 %
2	MEND	100	68	28.3 %
3	APC	100	57	23.8 %
4	OPC	100	42	17.5 %
	Total	400	240	100%

As shown in the table, out of the 400 comments sampled, 240 reflect ethnic sentiment through different strategies. Four socio-cultural groups were sampled. MASSOB takes the preponderance of the total sampled with 73 shreds of evidence of ethnic sentiments out of 240, representing 30.4%. This shows that the socio-cultural group posts more on issues that generate sentiments. It is strictly followed by MEND with 68 pieces of evidence out of 240 representing 28.3%. The two socio-cultural groups are from the eastern bloc of the country. The bloc is known for its agitation for resource control and secession. As said earlier, their agitation is connected to the fact that the major source of revenue for the country comes from the region and the region has been neglected by successive governments in terms of infrastructural development. This informs the reason for their preponderance in terms of evidence of ethnic sentiment in the comment on their posts. Most of the posts on their pages bothered on resource control and secession. The region is not only feeling neglected but also cheated and desired to secede from the country. To this end, the region hates other regions of the country and even referred to the country as a **zoo** in most of their posts. From the foregoing, we can infer that the bloc generates more ethnic sentiment than other regions in their posts on Facebook because they are being cheated. APC takes the third position with 57 data of 240 representing 23.8%. This is also connected to the fact that the region it represented (north) is the incumbent at the federal level and has been accused of self-centeredness. Other regions of the country believe that the region is the most backward despite their longest stay in power. Most of the posts on their page reflect defence for being in power and the fact that they are not backward as insinuated. We can also infer their posts generated ethnic sentiment because of their perceived 'egocentricity'. Finally, OPC has 42 data representing 17.5% of 240 data. Most of the posts on their page are about the performance and celebration of the group and members. The comments are mainly congratulatory messages to celebrants. It is however not devoid of ethnic sentiments. This shows that the group does not give room for many sentimental posts on Facebook. The data, therefore, reflects that the OPC and APC generate fewer ethnic sentiment posts

compared to MASSOB and MEND on Facebook. This is because every region in the country has different reasons to be angry and the 'cheating' in the country is perpetrated by leaders which spread across regions in the country and not by ethnic groups.

Subsequently, we shall discuss the strategies used in generating sentiment with examples from the comments. To achieve this, we identify, classify and discuss the linguistic features used for the strategies. This study examines the contexts that make these strategies obvious. Likewise, the paper takes note of other words in the same environment that help to generate in and out-group and the intention of the writer.

5.1 Tribal reference

Nigeria is ethnically polarized with both major and small ethnic groups. Among these are Yoruba, Igbo and Hausa/Fulani, Idoma, Efik, Ibibio, Jukun, etc**.** indigenes of these groups are loyal to their groups. Nobody desires their group to be presented negatively. Major ethnic groups are usually recognized at the expense of the minor groups. The major ethnic groups in Nigeria include; Yoruba, Igbo, Hausa, Ijaw, Fulani, Tiv. Kanuri, and Ibibio.

In the comment box, these ethnic groups are well represented and their representatives also made their comments. In the comments, there are pieces of evidence of ethnic inclusion and exclusion. The sociolinguistic variable identified here is an ethnic reference. Without mincing words, readers give a direct attack on the ethnic group they wish to attack by mentioning the ethnic's name. The public self-image of those ethnic groups was attacked without consideration. The following excerpts are examples from Facebook comments that promote ethnic sentiment.

1. *The **Yoruba** built the seaports in Lagos, but in 1975, Muritala muhammad, a **fulani** through a military decree took the shoreline...*
2. ***Northernans Hausa/Fulani** and **Southwest Yoruba** in Nigeria are evil, wicked, thieves, and self-centered animals. They are not worthy to stay with anybody in the world. The ultimate thing to do is to disintegrate zoo (sic) called Nigeria.*
3. *Thank God that **Igbo** people have opened their eyes through Mazi Nnamdi Kanu. I wonder who is going to open **Hausa** people's eyes*

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Excerpt 1 is a comment from a Yoruba man commenting on the legacy of the Yoruba people in Nigeria. There was a post by the OPC on the contribution of each region to the development of the country. A Hausa man had condemned the post and described the post as a fallacy. In a swift response, a Yoruba man responded with a tribal reference to show sentiment between the two sects concerned. The response shows that the Yoruba while in power contributed to the infrastructural development of the country. However, Fulani is mentioned as an apposition to Muritala Muhammad in the response. Mentioning Fulani here is to show divergence. The decision to mention the ethnic name is to discriminate against the ethnic group. This is because while in power, an individual is not meant to represent himself/herself, neither is he/she expected to represent his/her ethnic group but the whole country. The decision to mention the ethnic names is a way to foreground the 'bad' of the group. On the same post, an easterner intervened and derogatorily referred to Hausa and Yoruba. The writer could just use other words such as pronouns to represent them or mention the name of the individual that is referred to as '*evil, wicked, thieves and self-centered animals*' because the entire ethnic group could not have perpetrated 'evil' and be wicked at the same time. Instead of this, the writer deliberately mentioned the ethnic names and even their region. The two ethnic groups are used as the agent/actor in the sentence. This foregrounds the name of the two ethnic groups. The writer presents the whole ethnic group as **wicked, thieves, and self-centered** to discriminate against them in the society**.** This is a stereotype against the ethnic groups mentioned. It is often said that there is no absolutely bad ethnic groups. This is discriminatory and shows hatred towards the group. This also reveals the fragile nature of the ethnic relations in the country. It also shows the level of mistrust among the ethnic groups which is seriously threatening the existing cohabitation.

In excerpt 3, there are two ethnic names mentioned. The Igbo and the Hausa. The writer was commenting on the activities of the IPOB leader, Nnamdi Kanu. The writer saw him as eye-opener, a liberator. To the writer, the Hausa are yet to be liberated. This is sentimental because the argument is baseless. There is no evidence to substantiate the claim. At least, Hausa is one of the major ethnic groups in the country. The writer mentioned the two ethnic groups to include himself in one group and exclude himself in the other.

Ethnic name referencing is used here to solicit ethnic solidarity and also to show segregation. We can easily see evidence of convergence and divergence in the comments as members of different ethnic groups adopted accusation, abuse, Cursing, and name-calling as seen in the above excerpts to refer to other groups. The ethnic group of individuals that made comments is easily identified based on their ethnic reference choice. The social implication of this is obvious. Such comments are capable of generating ethnic conflict in society as people of different ethnic affiliations now perceive one another as enemies. Sentimental comments on Facebook may reflect in the social lives of the people. Interaction and accommodation may be affected if care is not taken as people breed hatred towards one another. This type of comment is capable of influencing the way an individual relates to society, this may be so as the millennium age is greatly influenced by happenings in the digital world.

5.2 Implicature

Chiluwa (2008) defines implicature as the component of the speaker's meaning that constitutes an aspect of what is meant without necessarily being part of what is said. Akintola and Ayantayo (2016) note that Implicature is a pragmatic aspect of the meaning of an utterance, produced in a specific context that is shared by the speaker/hearer. Some comments that do not require further interrogation even when the writer and readers do not share the same background knowledge.

On the Facebook page of OPC and MEND, the issue of natural resources in Nigeria and their distribution among different sections of the country are being discussed. This discussion also attracts different comments. One of the commenters as seen in excerpt 4 insinuates that his/her ethnic group has better natural resources than others. The commenter in excerpt 5 also boasts of his/her nation which is alien to the constitution of the federal republic of Nigeria. There are elements of implicature in the responses which promote ethnic sentiment.

4. *Yoruba land is very sweet.* **All tribe (sic) may come and join us here**.
5. *Make ona tell them about our* **new nation** *'NAIJA DELTA COUNTRY'* **the homes of renewable resourcse (sic)**

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In excerpt 4, the writer sees his ethnic group as having good natural resources. The second sentence in the excerpts implicates that other ethnic groups do not have good land. That the land is 'very sweet' according to the writer, implicates that there is relative peace in the Yoruba land. This can be inferred from the background knowledge that both the northern and the eastern parts of the country are faced with terrorist attacks and militants. In the north, there is the menace of Boko haram and the Fulani herdsmen. In the eastern part, there is the trouble of Niger Delta militants. This informs the reason the writer is saying that the Yoruba land is 'sweet'. He is saying this, to present other ethnic groups as crisis-prone areas. This is sentimental because security issue is a national issue and should not be seen as if it is peculiar to a particular ethnic group. The use of land and sweet is symbolic and metaphoric to indicate peace in the region.

Excerpt 5 also aligns with this assertion. The commenter is commenting on the issue of the Niger Delta resources. With the background knowledge, one knows that most of the crude oil is got from the eastern part of the country. The writer sees the zone as the 'food basket' of the nation. This informed the reason he used the personal plural pronoun 'our' to show solidarity with his people in the phrase 'our country' and 'them' to create an out-group. Such proclamation is self-centered. There cannot be a country within a country. There must be mutual agreement and amendment of the constitution before that could be permitted. Failure to do so will amount to a criminal offence. The comment is therefore sentimental because they are not the only part of the country contributing to the growth and development of the country. The writer makes it look as if the Niger delta is the only region that is contributing to the nation and discriminates against other ethnic groups in the country. This comment makes other ethnic groups look useless in the country.

These comments promote ethnic sentiment and segregation in the country. This is capable of disintegrating the country as ethnic groups will see one another as enemies. There are elements of convergence and divergence in what the writer means but not written. Implicature is used to promote ethnic sentiment. This conforms to the Giles and Johnson (1981) ethnolinguistic identity theory as evidence of segregation and solidarity are glaring in the comments through the use of implicature.

5.3 Pronoun usage

Pronouns are used to replace nouns, grammatically. They are also used to avoid monotony in discourse. Ayantayo (2019) notes that pronouns are also used to deemphasise the involvement of a person in a discourse. Cornish (1986) also explains that pronoun involves the avoidance of redundancy or repetition by the use of a semantically attenuated expression in place of a full lexical expression initially used. In Facebook discourse, pronoun is used to promote in- and out-groups. This is seen in the choice of words by readers' responses. The post to which people commented is about the agitation of the Niger Delta militants to have their own country. Niger Delta states in Nigeria comprise of 9 states, Abia, Akwa-Ibom, Bayelsa, Cross River, Delta, Edo, Imo, Ondo, and Rivers states. These states are the states with crude oil where Nigeria taps most of its resources. The states in this region are agitating for resource control. There are several ethnic groups in the region, among which are IPOB, MASSOB, Niger Delta Avengers, etc. These groups have been attacking government and multinational companies. Other ethnic groups in the country mostly describe them as militants. In this discourse, a pronoun is used by commenters to either 'include' or 'exclude' themselves. The following excerpts reveal the use of pronouns to promote ethnic sentiment.

6. *Make* **ona** *(you) tell* **them** *about* **our** *new nation 'NAIJA DELTA COUNTRY' the homes of renewable resourcse (sic)*
7. **My** *people, let* **us** *be wise because the bible says that* **we** *should be wise like sapient (sic).*

In excerpts 6 and 7, pronouns are used for solidarity and segregation. It is used to exclude others who do not belong to the same ethnic group as the commenter and include those that belong to the same ethnic group. Pronouns such as **ona (you), them, our, and my and us** are used in the above excerpts. **'Ona'** is the second person pronoun **you** in Nigerian pidgin. *Ona and them* are used by the commenter to refer to other ethnic groups in the country but the **Naija delta people**, as seen in the reference to **Naija delta country. Our** is first person plural pronoun that is used to refer to people in the same ethnic group. The pronouns are used in the responses to show solidarity and segregation between ethnic groups. We can easily infer that the writer belongs to NAIJA DELTA. The pronoun **our** and **my** make the understanding of this possible as a solidarity pronoun while **ona (you),** and **them** are used to show exclusion from the Naija Delta ethnic group**.**

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More examples are seen in the following excerpts. In excerpt 7, **my, us,** and **we** also perfume the same function of solidarity.

8. *I am from Delta state. **we** can't (cannot) face the whole of north and west and middle belt alone in war(sic) together with **their** international allies which are hunting for **our** oil too.*
9. *Some of **them** are afraid to join the struggle because of Nigeria (sic) intimidation and killing all over Nigeria.*
10. *Whatever Hausa Fulani will do on earth will never be impressed by **those** people. So don't waste your time because **they** can't (cannot) stop what God had already design (sic).*

Excerpt 8 is culled from the Facebook page of MEND. **We** is used in the excerpt as the agent in the sentence to refer to the people of the Niger Delta. The comment shows the weakness of the Niger delta to confront other ethnic groups in the country. This presents the group as the victim of injustice in the country. The pronoun **our** is a possessive pronoun used to show ownership of the natural resources which is the reason for agitation. The two pronouns (**we** and **our)** are used to include the Niger Delta loyalist while excluding other ethnic groups in the country with the use of the pronoun **their**. **Their** as used in the excerpt to show other ethnic groups in the country, namely ***north and west*** as can be seen in the excerpt. The commenter presents his ethnic group as a victim of collaboration between other ethnic groups and ***international allies*** to exploit the Niger delta resources. In excerpt 9, **them** is used to show the weakness of other members of MASSOB who are scared of joining the ethnic group for the 'liberation struggle'. The pronoun is used to present others as timid and weak. This is an in-group sentiment. This set of people is referred to as betrayal. Except 10 is culled from the Facebook page of APC. In the excerpt, **those** is used to present other ethnic groups in the country except the **Hausa** ethnic group**.** The commenter sees other ethnic groups as enemies who are never satisfied with whatever the Hausa Fulani is doing. **They** also refers to other groups and describe them as weak and incapable of stopping what God is doing. One can infer from this that the commenter insinuates that Hausa is enjoying God's favour which others are not enjoying.

In excerpts 8, 9, and 10, pronouns are used to show in- and out-group. **We** and **our** are used to show convergence in the discourse. **Their, them, they, and, those** are used to

refer to others who do not belong to the same ethnic group and therefore show divergence. They are used as instruments of sentiment and discrimination.

The pronouns help to identify ethnic sentiment in the response of the readers. This is in tandem with Giles and Johnson (1981) because the writer succeeded in dividing the society with the use of pronouns. This is capable of disintegrating the country along ethnic lines. The social implication is obvious as people will not be accommodating to one another and it breeds ethnic bigotry in the society.

There is also the use of Deictic pronouns**.** Mey (2000) submits that deixis entails the process of 'showing by means of language; that is, 'pointing' at things/objects/persons by means of special words. These are words that are used by speakers to point at objects or persons. Understanding of deixis is context-based. Without the knowledge of the context of the speaker, it becomes excessively difficult to understand the meaning. Yule (2010) identifies three forms of deixis; spatial deixis, person deixis, and temporal deixis. Spatial deixis points to location while person deixis points to a person and temporal deixis points to time. Mey (ibid) notes that certain pronouns and adverbs (of time and place) are characteristic pointers of deixis. The pronouns and adverbs point to persons, time, and even location. In Facebook discourse, there are deictic words that are used to point to person and place. This deixis is used to create polarity and identity in society.

On the Facebook page of the OPC, there is a post that discussed the activities of the MASSOB; the attack on government properties, and subsequent destruction. There are various reactions to the post depending on individual prejudice. The following are examples of comments that reflect ethnic sentiment.

11. *It is better to die for what one believed in… we will continue following Maazi rather than following **those** bloodsucking looters.*
12. *No other tribe is known for greed and selfishness except where **you** originated from.*
13. ***You** are a great man. **You** deserve great honour, **we** love **your** kind of personality. It is **your** kind of personality **we** need in this modern age. **You** make **our** tribe pride (sic). **Our** tribe is not like **theirs***.

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14. *My director the agitation of our lovely country Biafra must slowly come to pass, **we** don't belong **here**. Let's leave them.*

In excerpt 19, the writer claimed that he/she prefers to die than to live with **those** bloodsucking looters. The pronoun **those** points to other ethnic groups in the discourse. The referent cannot be ascertained as no name was mentioned. The pronoun **those** only points at others excluding self. This is used to create a polarity between the ethnic groups. It is sentimental as it excluded others from the writer's ethnic group. Other deixes such as **you, your, and theirs** are used for exclusion while **we and our** are used for inclusion. These are person deixis**. You** is a second person singular plural pronoun that is used to point to others. It functions as the subject here that assigns a role to the verb *make*. The name was earlier mentioned (as my director) but never mentioned again but pointed to with the use of the pronoun **you. Your** and **theirs** are possessive pronouns that show ownership. They are used to point to persons that readers may not understand except they share similar background knowledge. **Those, you, your,** and **their** can be referred to as exclusion deixis while **our, we, and here** may be referred to as inclusion deixis.

The *exclusion deixis* is used to point to others outside the ethnic group of the writer. The deixis foregrounds sentiment in the discourse. Those that belong to the in-group are welcome and celebrated but those that belong to the out-group are segregated against. Language becomes an instrument here as posit by Giles and Johnson (1981). Deixes are used to create class and status in society. For example, *You are a great man. You deserve great honour, we love your kind of personality. It is **your** kind of personality **we** need in this modern age. **You** make **our** tribe pride (sic). **Our** tribe is not like **theirs**.* The addressed person and ethnic groups are ranked high in status which makes the people embrace their activities. This reflects solidarity in the use of language. The writer adopts deictic pronouns to segregate against others while he/she associated with his/her ethnic group. This is capable of generating ethnic rivalry and bigotry in society. Those that are excluded and discriminated against will not be happy and hate others that excluded them. Their retaliation may lead to a crisis in society. The outcome of such retaliation is better imagined than experienced.

5.4 Invective words

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Invectives are abusive words used to condemn others. It is used to show hatred towards others in society. These words are usually not acceptable because they are competitive. Olekalns & Smith, (2003) state that the hallmark of competitive languages is by behaviours such as justifications, irrelevant arguments, personal attacks, and excessive demands and threats. Invective words are usually an attack on person(s) and a threat to public self-image. It usually promotes sentiments.

On the Facebook page of MASSOB, there is a post about resource control and the plan demonstration of the MASSOB to tell the whole world that they want 'their own country'. The post also talked about the 'sit-at-home' plan of the Niger Delta militant. This is against the will of the government, not only because it is unproductive economically but because it shows the militant has hijacked governance. Expectedly, it is only the constituted authority that has the power to declare curfew in any society. The plan of the militant displeased other parts of the population in the society. They are however soliciting support from society through the post. The post also causes division among the loyalist of the group on Facebook. While some want them to seek help, some believed they are self-sufficient. This leads to different name-calling and the use of invective words about other ethnic groups in the country. The following are excerpts from the readers' responses.

15. *Northernians, Hausa/Fulani and southwest, Yoruba in Nigeria are **evil, wicked, thieves, and selfcentered (sic) animals**. They are not worthy to stay with anybody in the world.*
16. *No other tribe is known for **greed** and **selfishness** except where you originated from.*

The words **evil, wicked, thieves, greed, and selfishness** are used as nouns to co-refer to the ethnic groups mentioned earlier in the sentence. The writer decided to put them in the same grammatical category as the ethnic names to equate them with those ethnic groups. This results in direct comparison. Readers will therefore see those ethnic groups as evil, wicked, thieves, greed, selfish, and consequently attempt to avoid them in the society. This may create societal stigma and rejection. It attacks the public self-image of the ethnicities mentioned. These invective words are competitive. The use of invective words is sentimental and capable of disintegrating the country. This aligns with Taylor

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(2014) who states that a person using a competitive form of language focuses on self and a motivation to maximize personal outcome even at the expense of the other party. Excerpt 12 is a comment by a northerner on the same post. **Greed and selfishness** are used to derogatorily refer to easterners. The comment is a rejoinder to the allegation that the northerners are evil. Words such as **greed** and **selfishness** are evidence of invective words to discriminate against others in Facebook discourse. It also follows Giles and Johnson (1981) convergence and divergence in society.

5.5 Naming and reference

Every individual and situation is named and referenced. This gives a signal to who and what the person and situation are. It allows a third party to understand who the person is. It is also important to state that the way we want people to be seen and understood in society is the way we name them. The way we name and refer an individual determines the way society will accept the person. Following Richardson (2007:49) the way people are named in discourse can have a significant impact on how they are viewed. To promote ethnic sentiment in Facebook discourse, a member of an ethnic group foregrounds the 'good' of their ethnic group and background the 'good' of others through naming and reference.

On the Facebook page of the chosen groups, there are assertions that a particular part of the country has been ruling the country for a long without consideration for the other parts of the country. This action was condemned on the pages with different opinions from different commenters. In the comments, there are elements of ethnic sentiment. Nigeria as a nation is also condemned and reduced to a park displaying different live animals.

   17. *The ultimate thing to do is to disintegrate **zoo (sic)** called Nigeria.*

In excerpt 13, Nigeria is referred to as a zoo. A zoo is a place where animals are kept for display. With this, the commenter is equating 'Nigerians' (excluding his ethnic group) to animals. When a human is referred to as an animal is to be brutish. This reference is derogatory and reflects ethnic sentiment. The expression **zoo called Nigeria** shows that the commenter is not a member of the group.

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In the same post on the MASSOB page, there is another comment that reflects ethnic sentiment. A northerner on the page disagrees with the claim that the northerner has been ruling for a long and therefore called for peace in the country. To the commenter, it is only peace that can solve Nigeria's problem and not conflict. This sermon got other commenters angry. The response to those comments promotes ethnic sentiment as seen in the following excerpt.

   *18. Another **herdsmen (sic)** talking. Shame on you **blood sucker.***

Words such as **herdsmen** and **bloodsucker** in excerpt 14 reflect ethnic sentiment. This reference has metaphorically likened the commenter to the herdsmen. At the moment, the herdsmen are clashing with different rural villagers and killing them. In the attacks, there are bloodshed and loss of properties. The herdsmen are presumably northerners. This is the reason the second commenter refers to the first commenter as **herdsmen and bloodsuckers**. The comment derogatorily refers to the first commenter as herdsmen and bloodsucker so that the whole world will perceive all northerners as bloodsuckers. This is capable of creating hatred towards the northerners in society. The choice of the word **another** in the excerpt presupposes that the commenter is not referring to the first commenter alone. It suggests that he/she is referring to the whole ethnic group.

On the Facebook page of the Arewa People's Congress (APC), there is a post on the activities of the Biafra militants and the Nigerian military. The post also talked about some Nigerians arrested in Malaysia for fraud. In the post, the writer insinuates that most of the people arrested are Ibo and the writer calls on Nigerians in the diaspora to come home and develop the country rather than committing crime outside the country and presenting the country negatively to the entire world. On the post, some comments explain ethnic sentiment. The Ibo are referred to differently with different names. There are also referents to the northerners. Words such as Boko haram terrorist, herdsmen militants, dirty thieves are some of the lexes used to refer to the northerners. These words create a divergence in the country among ethnic groups. Furthermore, the easterners are also referred to in the comment box with different sentimental words. Some of such words include **lazybiafra**, **biafraud**, **terrorist,** and so on.

   *19. **Boko haram killer** is talking rubbish.*

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*20. Another **biafraud terrorist** showing his level.*

Boko haram is a terrorist group operating majorly in the northern part of the country. They kill people and destroy properties on a large scale. Referring to a commenter as **Boko haram** is sentimental because there is not enough evidence to show that the commenter is a member of Boko haram. The commenter referred to this person with the insinuation that the person is from the north. This allegation is not healthy because some northern elites and cultural groups are also condemning the actions of **Boko haram.** Consequently, referring to the whole north as **Boko haram** is sentimental. The word **biafruad** in excerpt 16 is a combination of clipped Biafra as '**bia**' and fraud. The **bia** represent **Biafra** which is the ethnic name of a section of the country while fraud is a crime of cheating others. This linguistic innovation to combine a morpheme from the ethnic name, Biafra is derogatory and reflects ethnic sentiment. It is simply calling all Biafrans cheaters and criminals. This should be discouraged because it is capable of disintegrating society. The reference will affect the interaction between and among people of different ethnic backgrounds and consequently lead to social disharmony.

In the above excerpts, we see naming and reference as an instrument of ethnic sentiment in the hand of Facebook. Facebook users present others that do not belong to their ethnic group negatively to society. This is not safe for a multi-ethnic society like Nigeria.

5.6 Qualifiers

Qualifiers are used to give a vivid descriptions of an object or event. They give the readers or listeners a better understanding of the object or event. The qualifier may be post or pre-positioned. In Facebook discourse, it is used to create beliefs depending on the prejudice of participants. As we shall see below, qualifiers are used to promote ethnic sentiment.

On MEND's Facebook page, there is a post on the activities of the militant group and the response of the government. In the post, the writer claimed that the group will outsmart the government to achieve its aim of resource control, either peacefully or by force. This post attracts different comments from people of different ethnic backgrounds. Qualifiers like cheat, dishonest, and fraud are used to describe different ethnic groups in the comment box. In the following excerpt, the Ibo are described as brainy and cunning.

> *21. the Ibo tribe are (sic) set (sic) of **brainy and cunning** tribe that enjoys killing others to go through that is why I can never support state of biafra because it will never involve killings and making away of (sic) money and cheating.*

In excerpt 17, the writer qualifies the Ibo as **brainy**. This means they are intelligent and smart. The writer also describes them as **cunning**. This means that they are crafty and deceitful. The qualifiers are prepositioned. This shows that the writer wants readers to read the qualifiers before the tribe to present them to the reader with a particular ideology of being 'crafty'. It co-refers to the ethnic name mentioned earlier in the statement. One can easily conclude that the use of brainy is sarcastic. It simply means that the brain they have and the intelligence are used for dubious things. This is sentimental because numerous Ibo people are engaging in decent and legally recognized businesses. It is also important to state that criminality does not have ethnic limitations. The qualifiers adopted by the writer only discriminate against the Ibo ethnic group.

On the same page, other commenters condemned the activities of the MEND especially as it relates to the killing and destruction of properties. These commenters were attacked and qualified differently by other commenters with different words that reflect ethnic sentiment. Words such as infidels, cowardice, and unsatisfied are used to describe them.

> *22. Let the shame of Fulani **infidels, cowardice and (sic) unsatisfied** greed for power and blood pressure prepare you all with Jubril Alsudan Buhari impersonated ...*

The qualifiers are post position to the ethnic group they qualified. In excerpt 18, the commenter was described as **infidel** which means he is an unbeliever. He is described as somebody without God. He is also described as **coward** and **unsatisfied** greed. This description discriminates against the person. The person is understood to be Fulani in the discourse. The comment discriminates against the ethnic group in this comment. In the comments, qualifiers are used to create ethnic sentiment in Facebook communication. Different qualifiers are positioned with the ethnic groups they described; with the intention of segregating them. Ibo and Fulani ethnic groups are majorly discriminated against in the discourse, using qualifiers.

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6. Summary and conclusion

In this work, we have been able to show that language is used as a strong instrument to show solidarity and a serious weapon to reflect the ethnic differences. This agrees with Giles and Johnson (1981) that language reflects convergence and divergence in society. Despite the availability of the language of wider communication (LWC), ethnic discrimination is still reflecting in the response of Nigerians to Facebook posts. Facebook users freely use derogatory language against those that do not belong to their ethnic group. There are linguistic and sociolinguistic features that are used to achieve this aim. The linguistic features are; pronouns, qualifiers, deictic pronouns, and implicatures. The sociolinguistic features are; naming and reference, invective/insults, and tribal references. There are shreds of evidences of stereotype in the use of language to address others. The use of insult, name-calling, and accusations also suffice in the discourse. Facebook users used language as an instrument of unity and a weapon of separation to reflect the 'in-group' and 'out-group'. Name-calling and references are evidence of the belief that people hold towards each ethnic group in the contemporary world. For example, the Hausa/Fulani are seen as power drunk. The Yoruba are seen as betrayals by other ethnic groups while the Ibos are seen as 'lovers' of money who can do anything to get money. This has degenerated to the social media pages.

These sentiments are not a result of different languages because they used the same language (English language) but as a result of limited and mismanagement of resources, lack of trust, intolerance, social, and religious ideological differences. There are social implications to this form of language use. It creates ethnic polarity, animosity, and hatred in the society. Such language use usually leads to ethnic bigotry.

7. Recommendations

Human beings may come from different sects and origins but nobody can leave in isolation. The choice of words may make or mar a relationship. Consequently, it is better to be conscious of our choice of words. It is believed in the Yoruba worldview that *Orin ló ń síwájú ọ̀tẹ̀* (song precedes war). The use of language on social media could spur war in the contemporary world. Whatever agitation we have, it is better to express it using legal and sincere means that will be devoid of crisis and hatred which may result in an unnecessary crisis. It is pertinent to imbibe the spirit of tolerance. This study

consequently recommends the use of cooperative language which promotes harmony in the society as against competitive language that promotes disharmony as we currently experience in the readers' response to Facebook discourse. This study recommends the study of language and ethnic sentiment on other social media platforms like Twitter, Whatsapp, and Instagram. We also recommend research into other languages phenomenal such as language competition and rivalry on social media.

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NOUN MODIFICATION IN SHINYIHA

Devet Goodness

Abstract

This paper, which is guided by markedness theory, focuses on noun modification by forms other than pure adjectives that appear within the scope of the noun phrase in Shinyiha. The paper presents the markedness of these forms in their secondary function of modification. The data used in this study were obtained from written sources and through elicitation technique conducted to 10 Shinyiha informants. Purposive and snowball sampling techniques were used to obtain the sample of the study. The study reveals that noun modification is a productive process in Shinyiha and it is performed by different forms ranging from pure adjectives to derived adjectives, verbs, participials, passives and locatives. The findings indicate that in order to perfom the function of modification nouns and verbs involve the following changes: juxtapositioning and structural coding respectively. The study concludes that although an adjective is an important category in Shinyiha, there are other various ways through which Shinyiha speakers use to express property concepts which are expressed by pure adjectives in Indo-European languages.

Keywords: adjective, modification, markedness, associative phrases, modifier, property concepts

1. Introduction

Noun modification is a process that takes place within the noun phrase. There exist several studies on the noun phrase (cf. Drier 2000; Ndomba 2006; Rugemalira 2007; Lusekelo 2009; Rijkhoff 2012; Van velde 2013, 2019) or DP structure (Carsens 1997) for those are in favour of DP Hypothesis in both Bantu and non-Bantu languages. Most studies on the Bantu noun phrase have focused on elements that appear with the head noun (Ndomba 2006; Rugemalira 2007; Lusekelo 2009). These studies have specifically attempted to answer the following questions: What kinds of elements appear in the noun phrase? What is the order of their co-occurrence? What restrictions are there in their co-occurrence? One issue of concern with the different forms that appear within the scope of the noun phrase is concerned with what label these forms should be given. As a neutral term most authors call them 'elements' (Ndomba 2006;

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Rugemalira 2007; Lusekelo 2009). Whether or not all elements that co-occur with a head noun should be regarded as modifiers is open to debate. This debate is beyond the scope of this paper. The current paper focuses on elements that in one way or another add meaning to the head noun. That is, any form that occurs with the head noun to describe it will be regarded as a modifier. I will focus on other marked forms and the way they perfom the process of modification and the various meanings they add to the head noun. In this context, modification is the process of adding meaning to the head noun. Modification is an optional and a macrofunction which covers a wide range of semantic notions. Carnie (2013) proposes informal and formal principles of modification. According to him, informally, modifiers are always attached within the phrase they modify and formally, using X bar theory, If an XP (that is, a phrase with some category X) modifies some head Y, then XP must be a sister to Y (i.e a daughter of YP. Stowel (1981) posits that every modifier must be a maximal projection (to use the minimalism concept) of phrasal category.

Rubin (1994) proposes a model where modifiers are headed by a functional category contrary to what used to be the case in the earlier Chomsky's Generative models where only lexical categories (nouns, verbs, adjectives) were heading the phrases. Traditionally, based on Structuralism there are two types of modifiers: premodifiers and postmodifiers. Premodifiers appear before the head noun while postmodifiers appear after the head noun. In English, for instance, the word 'tall' in a *tall* boy is a premodififier and the phrase *under the table* in the phrase 'the boy *under the table'* is a postmodifier. Modification is the defining function of adjectives (Croft 1991, 2001). However, it is important to note that there are other forms that when marked they perfom the function of modification.

Nouns and adjectives in Bantu languages share certain properties based on their morphology and syntactic distribution. Radford (2004) following Chomsky's approach uses plus and minus signs to distinguish between nouns, adjectives, verbs and prepositions as follows: Adjective = [+N, +V], Noun= [+N, -V], Verb= [+V, -N], prepositions are [–N, -V]. Langacker (2009) developed a linguistic structure based on cognitive approach and distinguished two types of prominence: profiling and trajectory/landmark organisation. According to him, each is strongly motivated in purely semantic terms, and subsequently proves essential for describing grammar. Langacker (2009) argues that an expression can profile a thing or a relationship. He distinguishes between adjective, verb and noun in terms of predicate structure. He identifies two types of predicates; a nominal predicate which designates a thing and a relational predicate which designates either an atemporal relation or a process. Langacker (2009) shows that atemporal relations correspond to categories such as

adjectives, adverbs, prepositions, infinitives and participles. According to him nouns are also atemporal because they do not designate processes but a thing. The word 'thing' in Langacker's words is not limited to physical objects but it also includes abstract nouns. Langacker (2009) offers a definition of a thing as a product of grouping and reification. He notes that the trajectory of an adjective is a thing (noun) which it describes as having a certain property.

The concept of 'thing' is also used by Halliday (1994) in his model showing the arrangement of the following elements in a noun phrase: *Deictic, Numerative, Epithet, Classifier, Thing, Quantifiers*. According to Halliday 'thing' is the function realised by the head noun of the noun phrase. Payne (2010) differentiates between modifiers and complements. He shows that both complementation and modification are very syntactic functions that may occur within any phrasal category. Payne shows that complements are licenced by their heads while modifiers are not. A head which is defined in purely syntactic terms expresses the meaning incompletely in itself and, therefore, requires (i.e licences) another element to complete it. This is different from a head which is defined in purely semantic terms. Payne (2010) argues that complements complete the meaning of a phrase and modifiers, and on the other hand, they may add important information but they are not licenced by their heads. According to Payne (2010) modifiers are not necessarily the expression of a complete idea. By implication here modifiers include not only pure adjectives but also other forms which in this article are included as modifiers.

In this paper, I describe different ways by which the Shinyiha noun can be modified to express various meanings, herein referred to as property concepts, which may be expressed by a single adjective in other languages. I present patterns of noun modification by other forms to express what Dixon (1977, 1982, 2004) calls property concepts. In order to narrow the focus of this paper, the closed system elements such as demonstratives, possessives and interrogatives, are not dealt with in this paper. Forms other than adjectives that perfom the function of adjectives will be referred to as adjectivals. These forms which have their primary functions but perfom functions expected to be perfomed by adjetives are marked in their functions, thus calling for markedness theory.

2. Materials and Methods

Data for this study were obtained from 10 Shinyiha speakers found in Ileje, Ntembo village. In a linguistic study like the current one, 10 respondents were considered to be enough to provide reliable data as the use of many respondents might bring

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variations between the respondents which would confuse the researcher. Therefore, 10 respondents helped to minimize individual variations. The speakers were selected by purposive and snowball sampling techniques. The researcher purposely used informants believed to be competent in Shinyiha. The sample comprised informants of different ages, ranging from 30 years and above. To minimize bias on the part of the researcher, snowball sampling technique was used. Therefore, five participants were known to the researcher and the other five participants were new to the researcher. Data were obtained from two main scources: oral sources and written sources.

Oral sources involved elicitation, a method commonly used by linguists. The researcher elicited data on noun phrases, to find out the different kinds of modifiers that co-occur with the noun and any structural coding involved when the process of noun modification occurs. The researcher used a checklist which contained Kiswahili data consisting of noun phrases with various modifiers. The respondents were asked to find their equivalents in Shinyiha. The participants were also asked to narrate any stories or events that took place in the village. The researcher noted down various structures of interest from the stories narrated. Written sources were obtained from Shinyiha story books. The different noun phrase structures were examined and thereafter analysed. The researcher used 150 tokens containing noun phrases.

3. Theoretical Approaches

As noted earlier this study is guided by Markedness theory. The concept of 'markedness' was first used by the Prague scholars, Nikolai Trubetzkoy and Roman Jakobson and it was applied in phonology. Later on, the concept received considerable attention by several other scholars and its use spread to other fields. Markedness theory holds that certain linguistic elements in the world languages are more basic, natural and more frequent (unmarked) than others which are less natural and less frequent (marked). Givon (2001) provides the following criteria for determining markedness: *Frequency distribution:* The marked category tends to be less frequent than the unmarked one; *cognitive complexity*: This involves the extent to which the form is structured and processed in the mind/brain. A complex form tends to use more mental effort than the simple one. *Structural complexity;* a marked form has a complex structure as it may require structural coding.

The criteria above imply that the unmarked category is the one that has a wider distribution and the marked one is the one that has a less distribution. Cognitively, the unmarked form tends to be simple to articulate as opposed to marked one. Structural

complexity seems to be the least controversial criterion compared to other markedness criteria. Structural complexity which is based on morphology received support from Greenberg (1966) who argued that markedness in morphological sense may be used to determine which of two related categories is more basic or more expected. Croft (2003) provides examples of mophologial markedness hierarchies as follows:
Number: (nouns, pronouns, adjective, verb), trial > dual >plural >singular
Gender: (noun, adjective) oblique > nominative person (ver): 2 >1 > 3 or 1 >2 > 3 etc.

According to Levinson (2000:137), marked forms are more morphologically complex and less lexicalized, more prolix or periphrastic. Cognitive complexity seems to be the most complex and problematic criterion. Since no one can access the mind, it is difficult to say which forms are cognitively complex and which ones are not. Similar to the concept of markedness, based on meaning, when referring to semantics, scholars differentiate different parts of speech in terms of prototypicality, a central term in prototype theory (Hopper and Thompson 1984). Scholars who are guided by prototype theory argue that certain forms are prototypical and others are peripheral. Drawing examples from animals, Taylor (1991) shows that although there are many living creatures that can be grouped under the category of birds, there are those which are more typical than others. For instance, a parrot is a better example of a bird than an ostritch. In other words, a parrot is a prototypical bird. If we apply markedness theory a parrot is unmarked while an ostritch is marked.

With regards to lexical categories, there are typical nouns, typical adjectives, typical adverbs, etc. For example, traditionally, a typical noun is the one which is inflected for number (singular and plural). More recently, syntactic approaches have dealt with distributional variability in terms of markedness. That is, they tend to define parts of speech in terms of unmarkedness or typical syntactic distribution. Based on the markedness theory, a verb is a lexical item that can be used as an actant of a specific predicate only. According to Greenberg (1966), verbs, nouns, adjectives and adverbs can be placed in a continuum to explain their markedness as follows: Verb> Noun> Adjective >Adverb. According to this scale, elements to the right end of the scale are more marked than elements to their left and marked distinctions are expected to be more readily neutralized than the ummarked ones. In this sense, adjectives are more marked than verbs. Croft (1991) argues that in many ways adjectives are an intermediate class between verbs and nouns. I will refer to Dixon's (2004) semantic classes to examine the meanings expressed by the different modifiers. In this paper, the following criteria will be used to determine a marked form: *frequency of occurrence*: forms which seem to occur infrequently. *Complex forms*: Forms that undergo morphological modification such as structural coding, compounding,

addition of other forms, derived forms and *complex meanings:* Forms that convey extra meanings not expressed by pure adjectives.

This paper shows the markedness of nouns and verbs in their role of expressing property concepts. In the following section, I begin with modification by adjectives which is its typical defining function of adjectives.

4. Modification by Adjectives

I will present adjectives in passing as they deserve a study of their own. A brief discussion is important here so as to paint a picture of how this class of words behave in Shinyiha. Then much attention will be paid to other modifiers which in this paper are considered as marked. Precisely speaking, adjectives are words which describe the noun to give it various interpretations. There exist several studies on adjectives (Bhat 1994; Mpofu 2009, Nyanda 2010). Like other nouns in the world languages, Shinyiha nouns can be modified to give the noun different interpretations. A Shinyiha adjective is best described in the context of morphosyntax since adjectives do not occur by themselves; they must co-occur with their *trajectory*, to use Langacker's (1987; 2008; 2009) term. Simply put, they occur with a variable prefix. They adopt the form of the head noun. Observe the following examples of the adjective stem **-refu** in Kiswahili (Examples from my intuitive knowledge):

(1) **mtu mrefu**   'a tall person'
    watu warefu   'tall people'
    kitu kirefu   'a tall/long thing'

The examples above illustrate the different forms of the adjective **–refu** which changes according to the form of the head noun. As is the case with other Bantu languages, adjectives in Shinyiha may be classified into two classes: underived and derived adjectives.

Underived Adjectives

Underived adjectives refer to adjectives whose roots cannot be traced from other word categories such as nouns, verbs, adverbs etc. When an adjective modifies a noun, it expresses meanings which Dixon (2004) classifies into what he calls adjective semantic types/classes. I borrow his idea here with a view to examining how these several meanings are expressed by Shinyiha adjectives. I present a semantic classification of Shinyiha adjectives hereunder:

Dimension: *-piti* 'big'fat' *-nsi* 'small'/young, *-nyela* 'thin', *-tali*' tall, long *-inu* 'fat', *-babazu* 'broad; *-baba* 'wide'.
Value: '*-inza* 'good'; *-βiβi* 'bad'; *-kaali* 'old', *-shindamu* 'honourable

Age: *songo*'elderly'; *-pwa* 'new'; *-gosi* 'old'(for people/ animals
Colour: *ilu* 'black' *-zelu* 'white' *-chemamu*'red'; *-ßogwa*'green'
Behaviour: *hata* 'lazy' ; *-luvu* 'selfish' ; *-tonsu* 'polite' ; *-ßesi* 'loiterer' ;*-hali* 'ruthless'
Physical condition: *-ßinu* 'sick'; *-gomu*'hard'
Taste : *hali* 'sour/bitter' ; *-sulu* 'fresh' ; *-nonu* 'sweet
Weight : pupusu 'light', mwaamu 'heavy'
Quantity : -nji 'many/much
State of mind : kaleza 'dull' ; pena 'mad'
Physical appearance: *-sanza* 'clean'; *-nyali* 'dirty'for things'; *-popo* 'dirty' (for people-*ßulunje* 'round'; *-papa* 'flat'

(Goodness 2014)

This classification slightly differs from what Dixon (1982, 2004) terms universal semantic types associated with adjectives. The following semantic types are not found in Dixon's (1982, 2004) list: *state of mind, physical appearance, taste* and *behaviour.* The findings indicate that it is difficult to classify meanings into discrete classes since meanings cannot be categorised into observable units like morphemes. In my view, certain meanings included under Dixon's classification need to be assigned to separate classes. For example, Dixon's physical condition includes various meanings such as taste, state of mind, physical appearance, etc. that cannot be classified together.

The classifications displayed above implies that the meaning of an adjective depends on the meaning of its *trajectory*, to use Langacker's (1987) term. In this sense, several interpretations may be assigned to a single phrase. The adjective **-piti**, in Shinyiha, for instance, can co-occur with many other nouns to denote various meanings. Consider the meanings of the adjective **–piti** when it co-occurs with different nouns.

(2) **a.** ***Umuntu umupiti***   'a famous person' or a big person
   b. ***Umulungu umupiti***   'a powerful God', the mighty God
   c. ***Ibhungaana ipiti***   'a huge crowd'
   d. ***Insibho impiti***   lit.'strong ideas'

Example (2) above clearly indicates that adjectives adopt their meanings from their trajectories. For example, the word *mupiti* in *umuntu mupiti* acquires its meaning from the noun *umuntu* 'person'. When the same adjective co-occurs with a different noun, for example, *ibhungana* 'crowd' the modified noun extends its meaning. However, one can argue that these different meanings are related to the core meaning 'big.' This is the case for meaning expansion. Examples in (2) indicate that when a noun is

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modified by an adjective, it results into various meanings which cannot be strictly divided into discrete classes. Examples in (2) above imply that one cannot ignore context in the interpretation of meaning of the modifier.

4.1 Derived Adjectives

Derived adjectives are those whose stems can be traced in other word categories. In Shinyiha most adjectives are derived from verbs. Shinyiha has a good number of derived adjectives.   Examine the following list of derived adjectives.

Table 1: Derived Adjectives

Stem	Gloss	Verb Stem	Gloss
-βinu	sick	*<βina>*	become sick
-βomvi	hardworking	*<βomba>*	Work
-βulunje	Round	*<βulunga>*	Mould
-imi	Selfish	*<ima>*	refuse to give
-jenzi	loiterer	*<jenda>*	Walk
-lozi	witch	*<loga>*	bewitch
-lumu	dry	*<luma>*	to dry
-manyi	educated	*<manyisya>*	teach
-nyali	dirty	*<nyazya>*	make dirty
-pezi	lit. creator	*<pela>*	Create
-pinyu	pregnant (animals)	*<pinya>*	become pregnant
-pumaje	quiet	*<puma>*	become quiet
-pwe	Hot	*<pwa>*	become cooked
-sankanu	talkative	*<sankana>*	Talk
-sansamsu	charming	*<sansamuha>*	be charming
-tamwe	troublesome	*<tamwa>*	be troublesome
-yanzi	talkative	*<yanga>*	Talk

I have collected 17 derived adjectives. The derived roots either have a derivational suffix *-e, -i for example, -im-i* 'selfish' *-yanz-i* 'talkative',*-jenz-i* lit.'loiterer'', or *-u* and the verb stem such as *-βin-u* 'sick', *-nyaz-u* 'dirty', A few derived adjectives end with suffix *-e* like *–βulunj-e* 'round' and *-tamwe* 'troublesome'. When a noun is modified by a derived adjective, it results in various meaning types, for example, behaviour *–tamwe* 'troublesome', *-yanzi* talkative', physical appearance '*-nyazu* 'dirty', shape 'round', etc. Generally, speaking derived adjectives modify the meaning of the head noun and this meaning is related to the meaning of the word class from

which it was derived. What puts this derived adjective in the class of adjectives is the form it adopts, the meaning of the derived stem and its syntactic distribution.

5. Modification by Participials and Passives

Participials and passives deserve a special attention as it seems they are not common in most Bantu languages and different from other derived adjectives they partly consist of the morphology of the verb extension and partly that of an adjective. A participial is a verbal form that typically ends in a verb affix. As noted before, any other form apart from an adjective that perfoms the function of modification is regarded as marked. Participials and passives have been classified separately from derived adjectives since their morphology differs from that of derived adjectives to some extent. They end in *-ile* suffix or a passive suffix *-w* which are typical verb markers. These forms are marked when they modify nouns. I have collected a few examples as shown below:

Table 2: Participials and Passives

Stem	Gloss	Verb Stem	Gloss
-lem-aye	'be disabled'	*<lemala>*	'be disable'
-finj-ile	'holy'	*<finga>*	'make holy'
-kund-w-a	'be loved'	*<kunda>*	'love'
-fw-il-ilwe	'be bereaved'	*<fwa>*	'die'

When participials and passives are used adjectively, they behave like relative clauses.as in *umwana unkundwa* (lit. a child who is loved) 'a beloved child', *umuntu umufwililwe* (lit. a person who has been bereaved) 'a bereaved person" etc. Like derived adjectives, parcipials and passives derive their meanings from the verb. They are used as a different way of forming adjectives in Shinyiha. Like pure adjectives, they express property concepts such as behaviour, for example, *finjile* 'holy', physical condition, for example, *lemaye* 'be disabled' etc. They have a restricted range of property concepts unlike pure and derived adjectives.

6. Modification by Nouns and Verbs

It is observed by various Bantuists (cf. Dixon 1982, 2004; Rugemalira 2008) among others) that properties that are not covered by adjectives in Bantu languages are covered by nouns, or verbs or both. Nouns and verbs can perfom the modification function to express property concepts. I reiterate Croft's (2001, 2003) view that

lexical categories perfom their primary functions when they are unmarked and secondary functions when they are marked. In this section, I examine the secondary function of nouns and verbs in modifying nouns.

6.1 Modification by Nouns

Following cognitive linguistics approach, what differentiates an adjective from a noun is that an adjective designates different atemporal relations while a noun designates a thing (Langacker 1987). When a noun functions as a modifier to express property concepts, its valence is reduced to one, a characteristic of adjectives. Similarly, when a noun perfoms a function of modification, it becomes atypical as this function is expected to be perfomed by adjectives. In Shinyiha, in order for nouns to function as modifiers, one of the following operations has to be perfomed: structural coding or juxtaposition of nouns. The two operations are discussed here under.

6.1.1 Structural Coding
As pointed out earlier, following Croft (2003), the marked value of a grammatical category will be expressed by at least as many morphemes as the unmarked value of that category. As one indicator of moprhological markedness, Shinyiha uses overt coding in certain pharses to modify a noun.

6.1.2 The Use of the Genitive Marker -a
Different labels have been given to what I call here a genitive marker: associatives, connectives, connexives (Van de Velde 2013). A genitive marker is a nominal possessor. Expression of linguistc possession is one of their interpretations (Van de Velde 2013). An agenitive marker -*a* can be attached to a noun, to indicate a sense of 'of something'. Observe the following examples:

(3)   *u-wa maluli*   lit. of naughtiness   'the naughty one'

        u-wa lwisi   lit. of rudeness   'the rude one'

        u-wa maha   lit. of strength   'the strong one'

Examples in (3) above show the structure of association phrases which consist of genitive marker –*a* and a noun which is its complement. The genitive marker when attached to a noun to form an associative phrase can be used with a noun to modify it as shown below.

(4)   a.   *u   -mw   -ana   u-wa   -maluli*

aug   -1   -child aug-GEN1   -naughtness
lit. a child of naughtiness 'a naughty child'

b.   *u*   *-mu*   *-ntu*   *u-wa*   *-lwisi*
aug   -1   -person   aug-GEN1   -rudeness
lit. a person of rudeness 'a rude person'

c.   *u*   *-mu*   *-ntu*   *u- wa*   *maha*
aug   -1   -person   GEN1   strength
lit. a person of strength 'a strong person'

The above bolded constructions are not adjectives as claimed by some linguists (cf. Salaün 1969). They are similar to adjectives since they perfom the function of modification to express property concepts. Such nouns answer the question 'What kind of a person? The expected answer should describe the attributes/traits of a person, which is a crucial role of an adjective. Morphologically and syntactically, these constructions differ from adjectives. Syntactically, genitive markers show concord with the noun they refer to and the whole construction may appear recursively in a noun phrase. For example,

(5)   a.   *u-mu -ntu*   *u- wa*   *maha*   *na*   *lw-isi*
aug-1 -person   aug-GEN1   strength   and   rudeness
lit. 'a person of strength of rudeness' 'a strong rude person'

        b.   *u-mu -ntu*   *u- wa*   *lwisi*   *wa*   *maha*
aug-1 -person   aug-GEN1   rudeness   GEN1 strength
lit. 'a person of rudeness of strength' 'a rude strong person'

In the above examples, one head noun *umuntu* occurs with two genitive constructions which means genitives are adjective-like as adjectives can co-occur.

6.1.3 Semantic Characteristics of Genitive Constructions

Semantically, genitive constructions display characteristics of gradability, which is a typical characteristic of adjectives: Gradability is expressed by the use of an intensifier like *nkani* as exemplified below:

(6)   a.   *Unahaonga amile mwana wa maluli nkani*
            Lit.'Nahaonga was a child of absolute naughtness'

'Nahaonga was a very naughty child'.

b.   *Umwampashi amile muntu wa maha nkani*

lit. 'Mwampashi was a person of absolute strength'
'Mwampashi was a very strong person'.

Genitive constructions allow comparison. Like pure adjectives, they are not inflected for comparison rather they use periphrastic constructions as shown in (7) below:

(7) a. ***Unahaonga amile mwana wa maluli kulusya Umwampashi***
        Lit. Unahaonga was a child of naughtiness to defeat Mwampashi'
      'Nahaonga was a naughtier child than Mwampashi'.
    b. ***Umusongole amile muntu wa maha kulusya Usikaponda***
        Lit. 'Musongole was stronger than Sikaponda.'
      'Musongole was a person who is stronger than Sikaponda'.

In the above examples, the genitive constructions behave like simple adjectives in that they may be intensified or compared.

6.2 Juxtaposition of Nouns

Two nouns, derived or underived can be juxtaposed so that one   becomes the modifier of the other. This is also marked in terms of order. Nouns that can be juxtaposed in this way are mainly those referring to human beings. These nouns, as well, answer the question whose answer is expected to be provided by an adjective (another case of markedness), 'What kind of a person?' Most nouns of this kind denote behaviour or physical condition. Examples are –*βinu* 'the sick one', -*nunu* 'dumb', -*lozi* 'witch' etc. Consider the following examples.

	Example				*Semantic class*
(8) a.	*u-mu* -*ntu*	*u-mu* -*βin*	-*u*		physical condition
	aug-1 -person	aug -1 -get sick	F		
	'a sick person'				
b.	*u-mu-ntu*	*u-mu-pin-a*			unclassified
	aug-1-person	aug-1-become poor- FV			
	'a poor person'				
c.	*u-mu-ntu*	*u-shi-nunu*			state of mind
	aug-1-person	aug-7—dumb			
	'a dumb person'				
d.	*u-mu-ntu*	*u-mw-iβ-a*			behaviour

aug-1-person   aug-1-steal-nom.suf
'a person who steals' 'a thief'

The examples above are not compounds since compounds form a composite syntactic and semantic unit that does not permit any word to be inserted between them. Like other phrases, they permit insertion of another word between them. For example:

(9)   a.   ***u-mu-ntu***   ***u-mu -tali***   ***u-mu -βin-u***
                aug-1-person   aug-1 -tall   aug-1 -get sick-der.suf.
                'a tall sick person'
        b.   ***u-mu-ntu***   ***u-mu-inza***   ***u -mu -pin***   ***-a***
                aug -1-person aug-1-good   aug -1 -become poor –FS
                'a good poor person'
        c.   ***u-mu-ntu***   ***u-mu-nyela***   ***u-mw -iβ***   ***-a***
                aug-1-person   aug-1-thin   aug-1   steal   -der.suf.
                'a thin person who steals'
        d.   ***u-mu-ntu***   ***u-mu-fupi***   ***u-mu-loz***   ***-i***
                aug-1-person   aug-1-short   aug-1-bewitch -der.surf.
                'a short person who is witch'

The words; *umuβinu, umulozi* and *umwiβa* can occur without a typical noun as in the following example *umuβinu afiha* 'A sick person has arrived.' When translating to English, these words carry a definite article as in *umuβinu,* 'the sick'. In other words, these words   are atypical nouns. They display behaviours of both nouns and adjectives. As nouns, they can occur alone as subjects and designate a thing. For example,

(10)   a***. Umwiβa aβinile***   'A thief is sick'

        b. Umupina aβinile   'The poor is sick.'

The nouns above refer to human attributes and can occur as subjects in a sentence. The noun occurring with them can be overt or covert. When these nouns occur without other nouns, the assumption is that the nouns are known. When these words occur with other nouns, they also refer to attributes/properties. These words answer the question, 'What kind of a person?' Since these *words* can occur attributively and modify nouns, on the one hand, they are adjective-like. Since they are restricted in class range and can function as subjects or objects, on the other hand, they are noun-

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like. They are somewhat different from typical nouns such as the noun *umuntu* 'person', which is not restricted in class range and cannot be used to modify another noun. For example, the noun *umuntu* refers to a human being who is adult who may be male or female and the word *mupina* 'poor' refers to a human being who is poor or an orphan. Here a human being refers to an object; a characteristic of a noun but poor refers to an attribute, which is a characteristic of an adjective. Therefore, one may argue that *mupina* is an atypical noun. By 'atypical' it means 'not representative of a type, class or group, not normal, irregular etc. but grammatical. Typical nouns cannot be modifiers. Therefore, **umuntu umwana* lit. 'person child' is unacceptable because none of the two can be a modifier of the other. It is appropriate to classify these words (*mupina, mwiβa, muβinu*) as both atypical nouns and atypical adjectives.

6.2.1 Semantic Characteristics of Juxtaposed Nouns

Some juxtaposed nouns are gradable. Therefore, they can be intensified as shown below.

(11) a. ***Uhaonga muβinu nkani***
          'Haonga is very sick'
      b. ***Umuntu βula mupina nkani***
          'That person is very poor'

They allow comparison as shown in the following examples:

(12) a. ***Uyangi umupina kulusya Umwampashi***
          'Yangi is poorer than Mwampashi'
      b. ***Unasibhale muβinu kulusya Usikaponda***
          'Nasibhale is more sick than Sikaponda'

Examples in (12) are possible in Shinyiha but very unnatural and therefore uncommon in other Bantu languages like Kiswahili. One cannot compare sick people in Kiswahili.

7. Modification by Locatives
We set a separate section for locatives since they behave like nouns and to some extent like adverbs. There are two kinds of locatives. There are those that are basic. Basic locatives include *pansi* 'below/under', *panzi* 'outside', *papipi* 'near' *patali* 'far'; *mukasi* 'inside', *pakasi* 'at the centre', *pamwanya* 'above' *paluβazu* 'on the side';

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There are also nouns that refer to location. These are nouns from classes 16 *pa*, 17 *ku* and 18 *mu*. For example, *panyumba* 'at the house', *munyumba* 'in the house', *kunyumba* 'to the house. These locatives can be juxtaposed. For example,

(13) a. *pa -shi -tengo pa -nsi*
    16 -7 -chair 16 -under
    'under the chair'
  b. *mu-nyumba mu-kasi*
    18-9-house 18-inside
    'inside a house'
  c. *ku-haya ku-tali*
    17-home   17-far
    'home which is far'

The locatives *pansi, mukasi, kutali, papipi* modify other locative nouns which suggests that these locatives are adjective-like.

7.1 Semantic characteristics of Locatives

Locatives in Shinyiha can be used adnominally or pronominally. In their adnominal use, they occur as noun modifiers. They have spatial use to designate the location of an entity and relate to that of the speaker and focus the hearer's attention to the specific location of these entities. Semantically, locatives express meanings such as near, below, far, above, under, etc. Their meanings do not fall under what Dixon (1977, 1982 and 2004) terms semantic types. When these locatives are used with nouns, they modify them. Therefore, to some extent, they function as adjectives. Their co-occurence with nouns indicates location or position. Like adjectives, locatives denote a single property. For example, the locative *kutali* 'far' denotes only distance. Its meaning refers to the meaning of its trajectory. Semantically, locatives display the property of gradability. For example, they use the same constructions used for comparison by adjectives as shown below:

(14) *Kuhaya kukwitu kutali kulusya kukwinyu*
  'Our home is farther than your home'

Like adjectives, some locatives can be reduplicated as in the following examples.

	Locative	**Gloss**	**Reduplication**	**Gloss**
(15)	*pansi*	below	*pansipansi*	'slightly below'
	papipi	nearby	*papipipipi*	'slightly near'
	patali	far	*patalitali*	'slightly far'
	pantanzi	in front	*pantanzitanzi*	'slightly in front'

The effect of reduplication on these words is that they are construed according to the quantitative aspect of SCALE schema denoting degrees of 'more' or 'less'.

8. Modification by Cardinals

Location can be expressed by cardinal directions. In Shinyiha, cardinal direction can be expressed in two ways. First, by using terms referring to the four main points of the compass. These terms are concerned with the rising and setting of the sun. That is,

(16) a *kuβuswelo*   'where the sun sets' 'West'

     kuβutukulo   'where the sun rises' 'East'

The language has no terms referring to other cardinal directions. Cardinal directions can be used with locative nouns to indicate direction as in the following examples:

(17)   a.   ***Ku-haya ku-βu-swelo***   ***βu-izuβa***
             17-home 17-15-west   of-sun
             lit. 'Home is in the West where there is sun'
       b.   ***Ku-haya***   ***ku-βutukulo*** ***βuizuβa***
             17-home   17-east   of-sun
             lit. 'Home is in the East where there is sun'

The above examples indicate that cardinals can co-occur with nouns to express direction. These cardinals agree with their relevant heads.

8.1 *Semantic Characteristics of Cardinals*

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Words indicating cardinal directions denote a single property. Therefore, they refer to the nouns with which they co-occur. These words are not like other modifiers as they do not describe the head noun. They only show direction.

9. Modification by locative nouns

Location can as well be expressed by using personal names when directing someone as exemplified below.

Names of places:
(18) a. ***Kubundali***   'to Bundali land

   b. ***Kuisongole***   'to Isongole land'

   c. ***Kubulambwe***   'to Bulambia land'

Names of people
(19) a. ***Kwamwampashi***   'to Mwampashi's place' (One Mwampashi)

   b. ***Kuβamwampashi***   'to Mwampashi clan place'

   c. ***Kwahaonga***   'to Haonga's place'

   d. ***Kuβahaonga***   'to Haonga clan's place'

Locativised names of people may occur with locative nouns as in the following example:

(20) a. ***Kuhaya kwa Haonga***   'to Haonga's home'

   b. ***Kumugunda wa Haonga***   'to Haonga's farm'

These names of people may occur with the locative prefix 'pa' to mean at a place as in the following examples:

(21) a. ***Pahaonga*** 'at Haonga place'

   b. ***PaMasebo*** 'at Masebo place'

10. Modification by Verbs

According to Langacker (2008: 123), the kinds of elements that can modify nouns are those that profile non-processual relationships. As a result, verbs have to be atemporalized in order for them to function as modifiers. In Shinyiha, two operations have to take place for this atemporalization to take place i.e., relativization and infinitization. The two operations are discussed hereunder:

10.1 Relativization

This section focuses on relativised verbs and pays no attention to relative clauses as noun modifiers in general. That would deserve a separate study. The section focuses on the form of the verb which is affected. Other periphrastic constructions involved in relativisation are beyond the scope of this paper. In order to function as modifiers, a relative marker has to be attached to a verb (overt structural coding) as shown below:

	Example	**Gloss**
(22)	a. *aβana βeβainile*	'children who have become fat'
	b. *aβana βeβanyazile*	'children who have become dirty'
	c. *muntu weahondeye*	'a person who looks smart'
	d. *ing'ombe yeyinile*	'a cow that has become fat'

Syntactically, the relative markers *β, ye* and *we* in examples (22) above agree with their head nouns.

10.1.1 Semantic Characteristics of Relativized Verbs

Relativised verbs as well describe a noun. For example, examples (22a) answer the question, 'What kind of children?' Its typical answer should be provided by a pure adjective. With regard to semantic structure, relativised verbs can be intensified as follows:

(23) a.   *a-βa-na*   *βe-βa-in-ile*   *nkani*
              aug-2-child   rel. 2-get-fat-T/A   very
              'children who have become very fat'

  b.   *u-mu-ntu*   *we -a-nyaz-ile*   *nkani*
              aug 1-person rel.1-become dirty T/A very
              'a person who has become very dirty'

  c.   *i-ng'ombe*   *ye-yi-yin-ile*   *nkani*
              aug 9-cow   rel.9-become fat-T/A   very
              'a cow that has become very fat'

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Examples (23) clearly show that relativized verbs are gradable at least in Shinyiha. However, it is not common among the speakers to use intensifiers with the relativized verbs although the use of an intensifier does not render the sentence ungrammatical. This suggests that these verbs are adjective-like.

10.1.2 Infinitization

In Shinyiha, an infinitive is formed by adding an infinitive marker ***ku-*** to the verb stem. However, it should be noted that ***ku*** can appear as a progressive marker. In order for an infinitive verb to function as a modifier, it has to be preceded by a genitive marker ***a-*** to show linguistic possession or create a sense of 'of something'. For example,

(24)   a.   ***umuntu we a kusiβa***
                lit. 'a person of thinking'
                'a thoughtful person'
        b.   ***umuntu we akuβoβosya***
                lit. 'a person of making funny
                'a funny person'

10.2 Semantic Characteristics

Like adjectives, these infinitives as well answer the question, what kind of X? The expected answer is a descriptive one. Examples (22) express the semantic type of human behaviour. Semantically, infinitives can be intensified. For example,

(25)   a.   ***umuntu we akusiβa nkani***
                'a person of very much thinking'
        b.   ***umuntu we akuβoβosya***
                'a person of making much funny'

The use of an intensifier ***nkani*** 'very' is typical with adjectives and adverbs. However, since infinitives display the characteristics of adjectives, they are adjectivals.

11. Discussion

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The results of this study have indicated that there are various ways by which a noun in Shinyiha can be modified. However, attention has been paid to few elements which have received little attention in the literature. The study has shown that there are various ways by which these modifiers resemble an adjective. The study has presented in summary the various meanings that can be expressed by adjectives in Shinyiha. Based on Dixon's (1982, 2004) notion of semantic classes the following meaning can be expressed by Shinyiha adjectives: dimension/size, value, age, colour, behaviour, physical condition, physical appearance, taste, weight, quantity, state of mind. Some of these meaning types were not presented by Dixon's (1982, 2004) semantic types.. Attention has been paid to other forms which are different from pure adjectives. These other forms that appear in the scope of the noun phrase include: derived adjectives, nouns, verbs, participials and passives, infinitives and locatives. Other forms like possessives, demonstratives, intrerrogatives, etc. lack semantic characteristics of pure adjectives and, therefore, they are not included in this discussion.

As with the adjectives, the study has revealed meaning types expressed by atypical nouns (i.e nouns that partake the nature of both nouns and adjectives). These are value, physical properties, position and behaviour. Similarly, semantic types expressed by verbs are physical properties and behaviour and those expressed by adjectives are dimension, physical property, behaviour, age, value, size, colour, difficulty and quantity. Table (4) below summarizes the three categories, adjectives, nouns and verbs and the semantic types they express.

Table 3: Semantic Types and the Word Categories

	Word category associated with each semantic type and its percentage					
Semantic Type	Adjective	%	Noun	%	Verb	%
Dimension	˅	100%	X	0%	X	0%
Physical condition	˅	90%	˅	10%	V	50%
Behaviour	˅	50%	˅	40%	V	50%
Age	˅	100%	X	0%	X	0%
Value	˅	100%	X	0%	X	0%
Position	X	0%	˅	100%	X	0
Speed	X	0%	X	%	X	%
Colour	˅	80%	X	20%	X	0%
Similarity	X	0%	X	0%	X	0%
Quantification	˅	100%	X	0%	x	0%

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Examining Table (3) above, one realizes that in Shinyiha the following semantic types are strictly associated with the adjective class: dimension, age, value, physical condition and quantification. Some semantic types are shared between adjectives and nouns, for example, physical condition and behaviour. Other semantic types are shared between adjectives and verbs. These are physical appearance and behaviour.

The paper has indicated the markedness of other forms in expressing property concepts. The paper has revealed that Shinyiha is rich in modifiers ranging from pure adjectives, derived adjectives, participials and passives, nouns, locatives and verbs. The study has shown that underived adjectives express property concepts as reported in other studies (Dixon 1982, 2004; Rugemalira 2008; Mpofu 2009).

Derived adjectives as well express property concepts. However, as in most other Bantu languages, most roots of derived adjectives are derived from verbs. Their meanings can be obtained from the meaning of the verb. These have almost all characteristics of pure adjectives. Distributionally, they occur postnominally but morphologically they share the properties of both nouns and verbs. The study has also shown that modifiers which appear within the scope of the noun phrase either retain their forms in the sense that they do not involve structural coding or require structural coding. The use of genitive markers and infinitives for structural coding is also reported in Mpofu (2009) for the Shona language. Forms that do not require structural coding are adjectives both underived and derived, participials, conjoined nouns and locatives. Forms that require structural coding are nouns and verbs.

The study has shown that modifiers that have been dealt with herein share most characteristics with pure adjectives. Such characteristics include expression of property concepts, gradability and intensification. However, their differences lie in their morphology. For example, participials have some characteristics of verbs such that they end in *–ile* suffix and passive suffix -*w.* These have been treated separately from derived adjectives which contain a verb root. Based on the Markedness theory, each form has its own primary function. Following Prototypical theory, which in one way or another resembles the Markedness theory, pure adjectives are prototypical followed by derived adjectives, then participials and passives, followed by conjoined nouns, locatives and verbs. If we use the markedness criteria, nouns and verbs which involve structural coding present complex structures which according to Markedness theory, they are more marked.

12. Conclusion

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This paper has attempted to describe some important modifiers that appear with the head noun in a noun phrase to modify it. The paper has focused on the form of these modifiers, their syntactic distribution and their semantics. The study has shonw how certain forms partake the nature of two different classes (i.e atypical). The study notes that in terms of typicality noun modifiers can be arranged in a continuum as follows underived adjectivse >derived adjectives >participials and passives > nouns > verbs > other modifiers. This implies that in terms of prototypicality underived adjectives are typical modifiers because they do not involve any modification of the stem or structural coding, they have a typical adjective stem and they denote a single property, followed by derived adjectives, followed by participials and passives whose morphology consists of the verb root and one morpheme from the verb extension making them more complex than derived verbs/ At the end of the continuum there are nouns and verbs which require juxtaposition and structural coding respectively to perfom the function of modification.

Abbreviations
Aug (augment)
GEN (Genitive)
lit. (Literally)
FV (Final vowel)

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LANGUAGE NEEDS OF FRANCOPHONE STUDENTS IN ENGLISH AS A SECOND LANGUAGE CONTEXT

Adeline Borti

Abstract:

In this study, I examined the English language needs of 73 Francophone students who enrolled to pursue their undergraduate degree in English as a second language context. The setting for this case study was a private university in Ghana. The focus of this study addresses an important gap in the literature on meeting the needs of francophone undergraduate students. The participants in this study were French-speaking students who mostly lived and learned in French-speaking countries prior to their arrival in Ghana; thus, their language needs differed from those of Ghanaian students who typically learn in English over the course of their educational careers. Due to the disjuncture of these Francophone participants' previous educational and lived experiences with the English language, I investigated the relevance of the available English language courses to their academic and career needs. Questionnaires and interviews were employed to elicit information about participants' demography, language skills relevant to their academics and future careers. In addition, the participants provided interview responses describing their reasons for learning at a university in an Anglophone country. Findings indicate that Francophone ESL undergraduate students ascribe varying degrees of relevance and importance to English courses, and these reported differences in perceived relevance cohere with participants' different academic and career goals and needs.

Keywords: Need analysis, English as a second language, Francophone students, English for academic purpose

1.0 Introduction

Teaching and learning academic English is an integral part of universities' curricula in English-speaking West African countries, including Ghana, since English is the primary language of academic discourse. Afful (2007) affirmed that the relevance of proficient written English in college is evident in that every university in Ghana offers instruction in English. Further, English as a second language proficiency courses are offered in universities in Ghana in order to prepare students for successful college and career experiences. Although all universities in Ghana offer academic writing as a course, the course title and content vary slightly from one university to another. Some examples of course titles are Academic Writing, English, and Communicative Skills.

The purpose of the present study was to investigate how relevant English courses were in meeting the needs of Francophone students at a private university in Ghana. Accordingly, I investigated the relevance of the English language courses (i.e., courses based on English for academic purposes) as perceived by the Francophone undergraduate students in relation to their academic and career needs. These participants were purposefully sampled because their cultural and linguistic socialisation has been in French-speaking countries, thereby limiting their English language experiences. In the study, I explore their language needs with regards to their intended career choices, as the ultimate goal of many students is to pursue a career in English speaking countries, where high dexterity in both written and oral English is necessary for success.

The body of literature on second/additional language learning and needs analysis (Brown, 2009; Chostelidou, 2010; Matsuda, Saenkhum & Accardi, 2013; Sarid, Peled, & Vaknin-Nusbaum, 2021; Suryasa, Prayoga, & Werdistira, 2017) suggest that carrying out a needs analysis of students' learning a language is imperative (Iwai, Kondo, Lim, Ray, Schimizu, & Brown, 1999; West, 1994). With regard to the rationale of the study, it is important to investigate the students' language needs because students who have limited understanding of the English language and low competency in English are likely to have difficulty in their academic work at the university, which may subsequently limit their career experiences and success in English-speaking countries. Thus, the study is relevant in identifying the needs of this category of students in order to improve students' success. The study is relevant as it will add to the existing literature on needs analysis of French-speaking students' education in ESL context, which is currently quite limited.

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Needs analysis is, therefore, the conceptual framework of the present study. For the purposes of this study, I adopted Brown's (1995) definition of need analysis, which is

> the systematic collection and analysis of all subjective and objective information necessary to define and validate defensible curriculum purposes that satisfy the language learning requirements of students within the context of particular institutions that influence the learning and teaching situation (p. 36).

With regard to this definition, needs analysis includes a group of procedures and a methodical tool for gathering information about the learner and the communication/language task. Needs analysis also differentiates between language needs and wants, students' present and target needs, and learners' perceived and felt needs, which lead to their prioritisation of need resolution. In this study, needs analysis is an appropriate framework used to collect and analyse students' present and target language needs. The information from the analysis was invaluable in evaluating the appropriateness of the curriculum for the language needs of the student participants. Consequently, needs analysis revealed the academic and career needs of the Francophone students and helped evaluate the goodness of fit between participants' needs and the English curriculum at this private university in Ghana.

To inform and deepen this evaluation, I engaged in a focused review of the literature on English as a second/additional language of education. Many researchers have investigated English as a second language, foreign language, or additional language of education in both native and non-native English-speaking countries (Brown, 2009; Chostelidou, 2010; Matsuda, Saenkhum & Accardi, 2013; Sarid, Peled, & Vaknin-Nusbaum, 2021; Suryasa, Prayoga, & Werdistira, 2017; West, 1994). This trend in research is crucial because our classrooms, and the socio-lingual worlds outside them, are becoming more diverse, and more non-native speakers are learning English now than ever (August & Shanahan, 2009; Bassa, 2017; British Council, 2013).

2.0 Literature Review

The review of literature in the following subsections includes research on teaching and learning English in native and non-native contexts.

2.1. English Learning in Native English-Speaking Countries

The increasing number of non-native speakers of English in English-speaking classrooms is evident by the growing body of research on English as a second, an additional, or a foreign language. Native English-speaking countries such as the United States of America, the United Kingdom, Canada, and Australia continue to experience an increasing number of non-native speakers of English in their classrooms. The evidence of this phenomenon is the growing body of research in English as a second or an additional foreign language. The foci of these researchers have been on policy issues, best practices, teacher education, and learner needs (Oliver, Grote, Rochecoute, & Exell, 2013; Park & Slater, 2014; Safford & Costley, 2008).

For example, Park and Slater (2014) examined a task-based needs analysis of learners' authentic language target skills with regard to mobile-assisted language learning (MALL). The researchers used both interviews and questionnaires to collect data from 107 English as a second language (ESL) teachers and students. Based on the findings, the participants considered mobile devices and their applications useful to speaking, listening, SMS activities, and Internet usage in language teaching and learning. The authors recommended needs analysis as the theoretical framework for identifying and streamlining subsequent academic English pedagogy development, which should include MALL.

Further, Oliver et al. (2013) underscored the importance of needs analysis in second language syllabus design; however, they argued that methods used to perform needs analysis had, thus far, been inconsistent, demonstrating the need for a coherent, inclusive framework. They focused on the use of multiple information sources and data collection strategies to develop a needs assessment framework for vocational education among the Aboriginal communities in Australia. The authors adopted a task-based approach to collecting data through interviews, observations, and from documents. The research sample included students, potential employers, and community members. The result revealed that target skills such as competence in social workplace communication and culturally related issues should be included in the students' English as a second language curriculum in order to equip them with the necessary skills for academic, social, and career success.

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The importance of needs analysis in native English-speaking countries cannot be overestimated. The authors employed needs analysis to identify the authentic language needs of students and to inform their design of relevant ESL syllabus.

2.2. English Language Learning in Non-Native English-Speaking Countries

Researchers from non-native English-speaking countries in Asia and Europe have also explored English as a second, foreign, or additional language education in their countries. Their studies focused on English education practices, English learning challenges, and acquisition of acceptable communicative and linguistic competence in English for both education and international business (Hashim, Chee, Leong & TraPich, 2014; Holme & Chalauisaeng, 2006; Kirkgoz, 2009; Lambert, 2010; Rahman, 2011).

For example, Lambert (2010) conducted an English language task-based needs analysis of graduates for second language program development. Data collection included interviewing and surveying respondents from a non-native Asian context for a second language program development. In addition, he reviewed graduate students' records from their places of work and developed a framework on the second language task requirements of the participants. The findings revealed that graduate students in their various workplaces could identify task-based needs that were relevant to them across their careers. The study confirmed that it is useful and feasible to develop language goal-oriented curricula and pedagogy for English Language teaching in Japanese universities.

In Africa, researchers have investigated English education policies, learning processes, curricula, academic writing, language needs, and challenges of learning English in non-native English learning environments (Adika & Borti, 2014; Agbedor, 1994; Kioko, 2009; Lee & Norton, 2009; Owu-Ewie, 2006; Sibomana, 2014; Wagaba, 2010). For example, Kioko (2009) studied English language needs of first-year students in a Kenyan university by using a descriptive method to analyse their performance on the English Placement Test at the university. Using 240 participants' scores from September 2003, the findings revealed that students' needs regarding language structure and vocabulary development are crucial since students had difficulty answering questions in these language areas. These findings and their indications about curricular needs stand in contrast to the current curriculum that emphasizes expository writing. Consequently, it was necessary to restructure the English placement curriculum to include lessons on language structure and vocabulary development.

There exists limited research on Francophone students studying English in Ghana and only a few studies have investigated challenges of Francophone students in universities in Ghana (e.g., Tabiri & Budu, 2017). The focus of research in Ghana has been on the English language needs of students who speak English as a second language (Ababio, 2009; Gborsong, Afful, Coker, Akoto, Tumasi & Baiden, 2015; Keleve, 1995). Keleve (1995) engaged graduate students in a Ghanaian university in a simulation exercise in order to assess their use of English. Students employed the English language in a variety of social interactions. For example, they asked permission to perform a task, inquired about people's identity, and requested assistance to select clothes in a shop. The needs of the students reflected their inability to communicate appropriately in different social contexts, although they exhibited competence in grammar and linguistic abilities.

The body of literature reviewed demonstrates substantive research in the areas of English education and learners' needs analysis. However, comparatively little research assessing foreign English language learners' needs has been published, especially about Francophone students learning English in a country where English is not a native language but an official language.

3.0 Purpose Statement

The purpose of this study is to investigate the academic and career language needs of Francophone students in a private university in Ghana, with implications for curricula development to better meet those needs. For this study, the participant group is referred to as a minority population with limited experience in English as a second language context. The study addresses the following research questions:

1. What are the academic and career language needs of Francophone university students?
2. What are the perceptions of the students with regard to the relevance of their English courses to their academic and career language needs?
3. What are the participants' reasons for pursuing their education at an English medium university?

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4.0 Method

The present study is a descriptive case study used to explore the needs of Francophone students studying in a private university college in the capital city of Ghana. I used questionnaires to elicit information about the language skills needed by students and to gather their demographic data. Further, I conducted interviews to investigate the students' reason(s) for pursuing their programs in a university in an Anglophone country such as Ghana. Stake (1995) asserted, "for the most part, the cases of interest in education and social service are people and program" (p. 1). Consequently, my focus is on the English program at a private university. The use of the case study enables a specific focus on a single case that is the academic and career English language needs assessment of the Francophone students in this university. I used the case study to explore the features of this specific case and its characteristics to unearth an in-depth description of the students' experiences. The case study allows the use of multiple methods of data collection and analysis. According to Hartley (2004), the case study method involves a comprehensive examination of data collected that occurs over a period in a milieu. Also, I purposed to get in-depth details and thick description (Merriam, 1998) about the English language program and students' needs. The use of both questionnaires and interviews enabled both qualitative and quantitative data collection and analysis.

Specifically, I explored Stake's (1995) categorisation of the case study into intrinsic, instrumental, and collective case study. I employed intrinsic case study because my study focused on a unit, a group of students' lived academic experiences in English as a second language context. Stake stated that cases exhibit uniqueness and commonality and it is these attributes that afford this study the research space to highlight the uniqueness of the case of the Francophone undergraduate students learning English in English as a second language context. Further, it is this element of commonality that enables me to address the gap in the research literature through this study since the sample and the peculiar situation and needs of the Francophone students could bear a resemblance to similar groups in ESL contexts.

4.1. Participants

The research sample was of 45 females and 28 males, totaling 73 participants with the age range from 21 to 27 years (see Appendix B). The sampling was purposeful, as all 73 participants had completed the mandatory two English courses for Francophone students

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(English for Francophone I and English for Francophone II) and one program-based English course (English III, which is Business English). Prior to their studies in Ghana, the students had seven years of secondary education, and they had obtained baccalaureate matriculation from French-speaking countries. Their qualification approximates the GCE Advanced Level. They were African students who were educated from elementary through secondary and baccalaureate in French-speaking African countries: Niger, Gabon, Cameroon, Mali, Central Africa Republic, Senegal, Congo, Guinea, Togo, Burkina Faso, Benin, and Ivory Coast. They regularly spoke their native African languages. French is their second language, and English is their third or additional language.

4.2. Setting

The study took place at a private university college in Ghana. University colleges in Ghana are universities that are semi-autonomous, and they are affiliated with public universities which have oversight responsibility for them. This university college is one of the earliest established university colleges in Ghana. At the time of the study, the students were in their second semester in the third year and had completed the three English courses. The exact setting for the data collection was one of the lecture halls at the university college. After obtaining the students' consent, I administered the questionnaires to the participants. The interviews were conducted the next day after the students had completed the questionnaires.

4.3. Procedure

First, I determined the population through purposive sampling; all invited participants were francophone students who had taken all the required English courses. The initial total of students contacted was 110 students. Next, random selection was employed by asking each student to pick a folded piece of paper that had either the inscription "yes" or "no". The students who picked "yes" participated and those who picked "no" could not. A total number of 80 students qualified to participate. Only the 73 students who gave their consent were involved as it was voluntary. The random sampling and consent approval ensured fair representation and fulfilment of ethical conditions.

Next, participants were given an hour to complete the questionnaires. After collecting the questionnaires, 10 students volunteered to respond to the interview questions the following day at the same venue.

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4.4. Data Collection

In order to answer the research questions appropriately, interviews and questionnaires were used to elicit information from the participants. Considering the number of students involved in the study (i.e., 73), employing a questionnaire was appropriate for time and cost efficiency. There was a prior notice about the date for data collection. Additionally, on the following day, ten students were interviewed; the focus of the interview was their reasons for attending a university in Ghana. The focus of the questionnaire and research interviews is described in detail in subsequent pages.

4.4.1. Questionnaire

The questionnaire (see Appendix A) was administered after three colleagues, and ten francophone students reviewed it during a pilot study. This peer-review and students' review was done in order to ascertain the validity and reliability of the instrument. The questionnaire was a mixed one with both open- and close-ended questions. Participants were asked not to write any information that could identify them in order to ensure anonymity and confidentiality. The questionnaire consisted of four parts. The first part elicited demographic information about respondents' current level at the university, their proposed future career, their gender, age, and nationality. The second part included questions on 16 language skills relevant to the academic needs of respondents. Some of the language skills relevant to the participants' academic needs that they were required to rank were *comprehension, vocabulary development, speech writing and delivery, summary and paraphrasing, letter writing, research article writing, proposal writing, and minutes writing* (see Figure 5.1). Respondents were required to choose from a ranking scale of 1 to 4 (i.e., 1 is not relevant; 2, not very relevant; 3, fairly relevant; 4, relevant). Third, the respondents ranked 16 language skills (see Figure 5.3) relevant to their career using the ranking scale of 1 to 4 (i.e., 1 is not relevant; 2, not very relevant; 3, fairly relevant; 4, relevant). Some of the language skills relevant to the participants' career needs that they were required to rank were *summary and paraphrasing, reading, proposals writing, research article writing, memorandum writing, comprehension, vocabulary development, and report writing* (see Figure 5.3). The fourth section included the ranking of the perceived relevance of the entire spectrum English courses to their academic and career needs using the ranking scale of 1 to 4 (i.e., 1 is not relevant; 2, not very relevant; 3, fairly relevant; 4, relevant). All the 73 participants completed and returned their questionnaires, indicating a 100% response rate.

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4.4.2. Interview

Each interviewee was allocated about 30 minutes to respond to a structured interview question; the question elicited the student's reason for pursuing her/his education at a university in an Anglophone country. The structured interview approach was explicitly chosen to guide the interviewer and the interviewee in order to ensure that each interviewee had the same questions to answer. The interview was recorded on the researcher's phone with permission from the interviewees. The data were transcribed verbatim, and content analysis was used to identify themes which encapsulated the reasons students enumerated for pursuing their education at a university in Ghana. The reasons the interviewees gave for pursuing their education at a university in an Anglophone country consisted of the need to *acquire high English proficiency, possess two international languages, increase one's market value after school, and secure international jobs.*

5.0 Data Analysis and Results

I used descriptive statistics to analyse the data in order to indicate frequencies and percentages because the variables were categorical rather than continuous variables. Tables and figures facilitated the presentation of the results. Both qualitative and quantitative data analysis techniques were employed. For quantitative analysis, Social Packages for the Social Sciences (SPSS) was used to analyse the data in order to calculate the frequency, rating scales, and percentages. Also, tables facilitated the presentation of the data.

Concerning qualitative analysis, a content analysis of interview responses was done in order to categorise data into themes and interpret them after transcribing. Since the focus of the interview question was specific, identifying the responses to the question and representing them in the research report was not cumbersome.

As mentioned previously, out of the 73 respondents, a majority were females (45 students) (i.e., 61.3%) and the minority, 28 males (i.e., 38.7%). Students who participated in the study were from 12 countries in Africa mentioned earlier. Although each country has a different culture, they were all assimilated by the French and have French as their official language; therefore, findings could be generalised across the countries.

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5.1. Language Skills Relevant to Francophone Students' Academic Needs

Figure 5.1. indicates 16 English language skills included in the questionnaire for respondents to select according to their relevance to the students' academic needs.

Figure 5.1. : Language Skills Relevant to Academic Needs（%）

Skill	%
Grammar	11.0
Comprehension	10.8
Reading	10.6
Vocabulary Development	10.2
Listening	9.0
Speech Writing and Delivery	8.2
Essay Writing	8.0
Summary and Paraphrasing	6.7
Report Writing	6.7
Letters	6.5
Memorandum	2.9
Research Article	2.7
Minutes Writing	2.0
Proposals	2.0
Outlining	1.6
Minutes	1.0
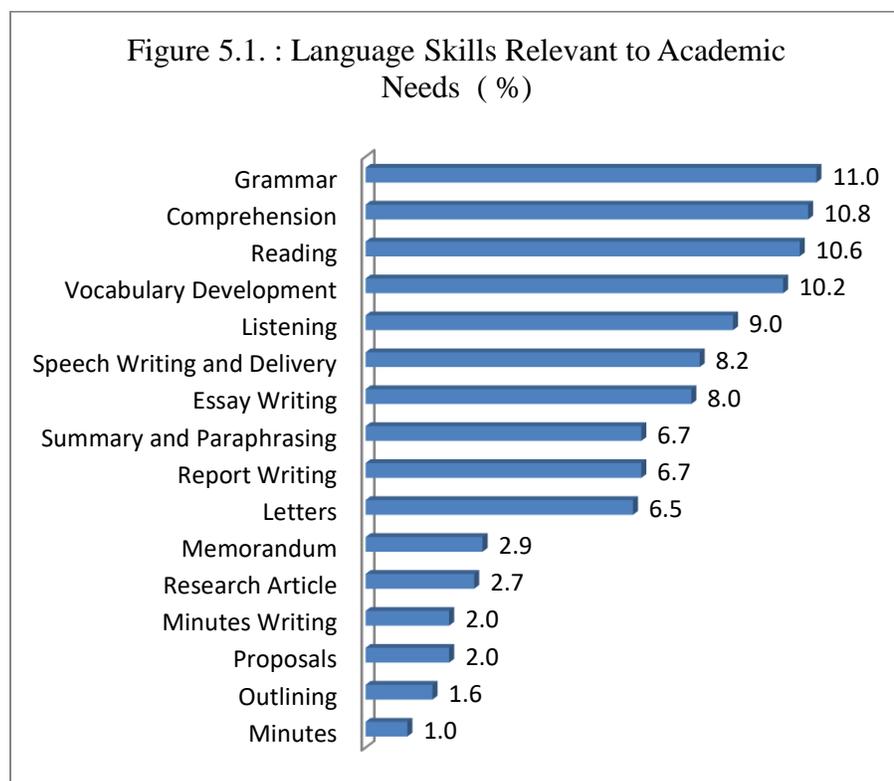
The results suggested the respondents considered *grammar* (11.0%), *comprehension* (10.8%), *reading* (10.6%), and *vocabulary development* (10.2%) as the skills needed most. The students' focus on grammar was likely the result of much emphasis placed on grammar and structure in English language learning classrooms (Yankah, 1994; Yu & Wang, 2009).

The respondents considered *vocabulary development* relevant to their academic needs. *Speech writing* and *delivery*, as well as essay writing, were rated 8.2% and 8.0%, respectively, and these percentages reflect the fact that students recognise these skills as being relevant to their needs.

Figure 5.1. indicates that the Francophone students accorded low percentages (i.e., 1.0% - 2.9%) to *proposal* and *minutes writing*. Also, the respondents did not consider *outlining* relevant to their academic needs.

5.2. Respondents' Knowledge of Future Career

The questionnaire elicited information about students' career choices and the language needs relevant to these choices. Figure 5.2. indicates that a high percentage of respondents (89.6%) decided their career trajectory before enrolling at the university, while only 10.4% did not. The majority of respondents knew their future careers, and this was instrumental in their rating the language needs relevant to their future careers.

Figure 5.2. : Respondents' Knowledge of Future Careers
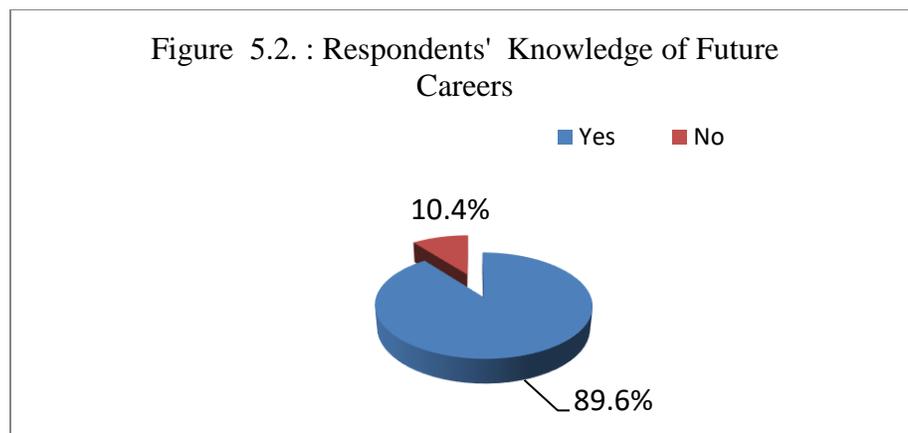
Table 5.1. Career Choices of the Francophone Students

Types of Career	Percentages
Auditing	1.3
Business Entrepreneur	16
Economist	1.3
Engineer in Programming	1.3
Doctor	1.3

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Environmental Engineering	1.3
Financial Accounting	25.6
Human Resource Management	16.0
Insurance Brokerage	1.3
IT Programmer	1.3
Manager	6.0
Maritime Engineering (transport and logistics)	1.3
Product Marketing	1.3
Service Marketing	13
Marketing Research	1.3
Total	**89.6**

Table 5.1. above shows the category of career choices of the respondents; most of them preferred business, economics, marketing, engineering, and accounting-related careers.

As indicated in Table 5.1., the majority of the students wanted to become financial accountants, and that was reflected in the highest percentage (25.6%) being accorded that career. The next higher percentages indicate that 16% of the students wanted to become business entrepreneurs and another 16% indicated human resource management as their future career path. A majority of the careers recorded 1.3%. The students considered skills such as report writing and letter writing relevant to their career needs because they will use these skills in their chosen careers.

5.3. Language Skills Relevant to Francophone Students' Career Needs

In Figure 5.3., the students rated the importance of skills such as minutes writing, summary and paraphrasing, proposal writing, letter writing, vocabulary development, grammar, report writing, comprehension, and research article writing relevant to their career needs. Figure 5.3. shows more female respondents than males rated these skills as relevant to their career needs. The study indicated that the number of female respondents was 45, reflecting 61.3%, and the number of male respondents was 28, reflecting 38.7%. Even accounting

for the fact that female respondents comprised a majority of the sample, there is a noteworthy divergence in the perceived importance of skills as reported by female and male participants—even those with similar or identical career goals. Further research to discover why female respondents rated these particular skills as being more relevant to their careers than male respondents may offer educators insights into meeting the needs of all students. The findings of this further research could be useful for the revision of the syllabus or pedagogy to address any gap identified.

Concerning the relevance of the English courses to the career needs of the students, 97.1% rated the three English courses (English III, English for Francophone I and English for Francophone II as relevant; however, 2.9% of the students did not find the three English courses above useful. Although 2.9% is a small percentage, it requires further investigation into what these respondents consider as their academic and career needs. In general, the results indicated that a majority of the students considered the current English courses relevant to their needs.

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Figure 5.3. The Relevance of Language Skills to Career Needs (%)
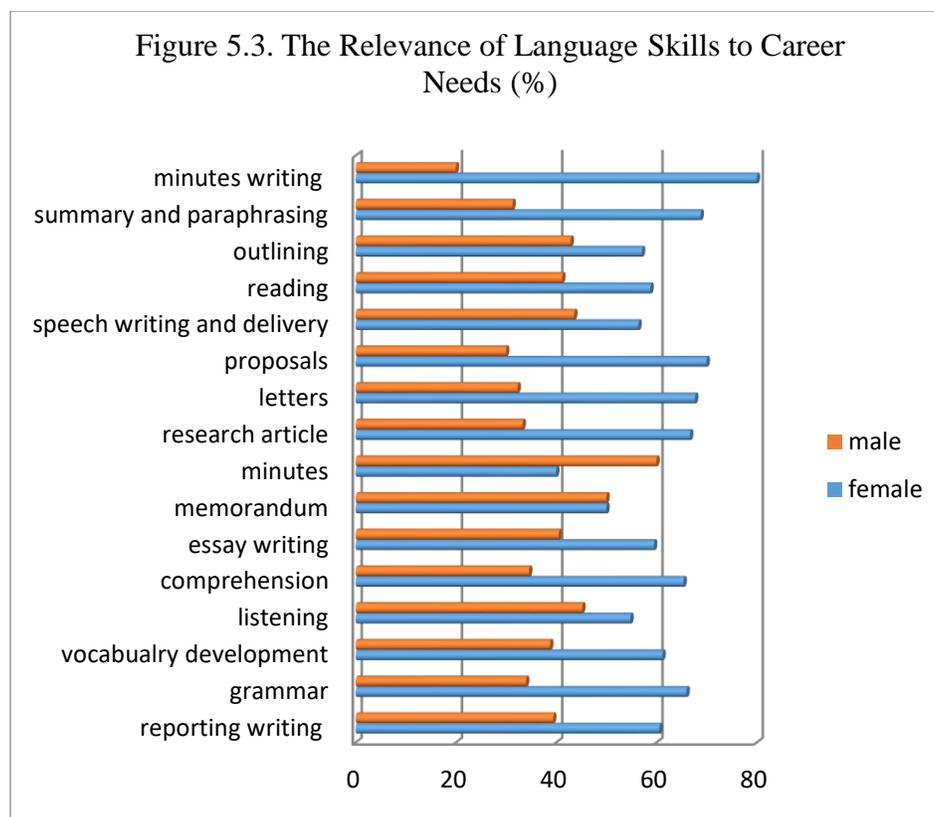
5.4. Reasons for Pursuing University Education in an Anglophone Country

The interview results revealed that students pursued degrees at a university in an Anglophone country in order to acquire high proficiency in English in addition to the French language skills they possess before entering the program, emphasizing the importance of bilingualism (Bassa, 2017; Chachu, 2016; Lomotey, 2020).

Elizabeth (Pseudonym) remarked: *Since I came to Ghana and started my program, my English has improved because I speak more English, especially in school, than I speak French. Now I am able to self-correct myself when I make some mistakes while speaking or writing in English*.

Ruth (Pseudonym): ***I have seen friends and family members succeed in their careers in Togo and in some English-speaking countries. They are able to speak and write French and English fluently. Because Ghana and Togo share a border, it is easy for us Togolese to come to Ghana to attend English schools and improve our market value after our undergraduate education.***

Another reason the interviewees gave was that competence in two international languages would increase their market value and give them a better opportunity to secure international jobs.

Paul (Pseudonym): ***I think being able to understand, read, speak, and write well in both French and English will enable me to get better international jobs and give me an advantage over people who possess only one international language. I have seen people who are proficient in both English and French get better international jobs in Senegal. I hope to get a better job opportunity when I go back to Senegal.***

James (Pseudonym): ***I know I can get a better job and income if I work with UNESCO, UN, UNICEF, ECOWAS, AU, or other international organisations. Being bilingual in two major international languages will also improve my communication. You know, my future language ability will open more doors of opportunity for me. This means a better standard of living and being able to make more money to help my family and my community.***

The consensus was that their current English courses were relevant to their academic and career needs, and the courses will enable them to be successful in their academic and career pursuits. The perception of the students interviewed is not surprising because, in Ghana, many people believe education is key to a better standard of living and these African students hold similar views. Even more, the Francophone students consider their language competence, especially competence in two international languages, central to a better livelihood.

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6. Discussion and Implications

In the study, I examined the English language needs of Francophone students in a private university in Ghana. The overall analysis showed a majority of the Francophone students found the English language skills relevant to both their academic and career needs. For example, students rated *minutes writing, summary and paraphrasing, proposal writing, letter writing, vocabulary development, grammar, report writing, comprehension,* and *research article writing* as essential to their needs.

This observation should guide English language instructors and program designers of Francophone university students in the ESL context, whose purpose in acquiring written and spoken English transcends academic goals and may influence their abilities to build successful careers. The implication is that instructors should employ needs analysis to determine the needs and the expectations of their Francophone students. In addition, instructors should determine the skills students need for academic and career purposes. The results of the study do not support the practice wherein English language instructors develop and use the same curricula for both ESL and Francophone students at the university level. The needs of the various groups of learners may be different, based on both academic and career goals. This difference is evident because students reported substantial differences in the perceived value of the skills assigned for English language acquisition.

"One-size-fits-all" approach to English language skills instruction and acquisition is an ineffective practice in meeting the needs of this student population and that further needs analysis is necessary to develop inclusive and effective curricula. Conducting needs assessments will indicate whether in situ curricula and pedagogy need revisions to meet the specific English language needs. For example, there is a need for further investigation to identify the needs of 2.9% of students who did not consider the English courses relevant to their academic and career needs. The results of the investigation could lead to a revision of the curriculum and pedagogy in order to make them more relevant to students across the spectrum of academic and career trajectories.

7. Limitations

There were 80 students qualified to participate in the study, but 73 gave their consent. It would have been ideal to have the entire 80 or even more qualified respondents for better

representation and generalisation. Also, the original goal was to interview 20 students, but only half of this number of participants was available. However, these limitations do not underestimate the relevance and the trustworthiness of the study. A further study which would include other aspects of descriptive statistics such as standard deviation, mean, effect sizes, and so on, is recommended.

8. Conclusion

While this is only one relatively small study, the number of Francophone countries represented by the study population bears significance as a representation of the varied needs of Francophone undergraduate students in English as a second language context. The differences in the perceived effectiveness of English language instruction warrant a thorough examination of the relevance of English courses to the needs of the Francophone students. This examination is particularly critical, as it addresses the needs of an often-unseen minority population at the universities in Ghana, the Francophone students learning English as a foreign language. Regardless of the ratio, these Francophone students are essential in the academic landscape of Ghanaian universities, mainly because all the countries which share boundaries with Ghana are French-speaking countries (Chachu, 2016) and because the population of Francophone students at Ghanaian universities is increasing.

It is worth noting that educators sometimes underestimate learners' ability to make informed decisions about their learning needs. This study illuminates students' perceptions of what constitutes useful content knowledge and pedagogical approaches to written and spoken English language acquisition. Francophone students were able to identify their academic and career language needs and offered an unvarnished report of the effectiveness of existing pedagogical approaches. Conducting a needs analysis is, therefore, crucial in language education because each language learner learns a language for a specific purpose. The identification of the purpose is imperative for successful curriculum design and language learning. There is a need for further research about the English courses designed for Francophone students in other universities in Ghana in order to ensure that such courses are essential and of value to students.

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APPENDIX A[1]

Francophone Students' English Language Needs Analysis Questionnaire

Preamble

The purpose of the present study is to investigate how relevant the English courses are in meeting the needs of Francophone students at this private university in Ghana. I am investigating the relevance of the English language courses as perceived by the Francophone undergraduate students in relation to their academic and career needs. Regarding the rationale, it is essential to examine the students' language needs because students who have limited understanding of the English language and low competency in English are likely to have difficulty in their academic work at the university, which may consequently limit their career experiences and success in English-speaking countries. I guarantee confidentiality and anonymity, and your information is only for the planned purpose. The survey is voluntary, and it should reflect your thoughts. Please note that your candid, honest responses are much more helpful than purely favourable answers.

Section A. Francophone Students' Demographic Information

1. What is your gender?

2. Please, state your age.

3. Please, indicate your nationality

4. Have you decided on your future career?

5. Which career or profession do you want to pursue in the future?

6. Please, state your current level (e.g., second year, first semester)

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[1] This questionnaire may not be used without explicit permission from the author.

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Section B. Rank the following statements according to the level of relevance of the language skills to your academic needs (i.e., 1 is not relevant; 2, not very relevant; 3, fairly relevant; 4, relevant).

1. How would you rank the relevance of grammar to your academic needs?

A. 1   B. 2   C. 3   D. 4

2. How would you rank the relevance of comprehension to your academic needs?

A. 1   B. 2   C. 3   D. 4

3. How would you rank the relevance of reading to your academic needs?

A. 1   B. 2   C. 3   D. 4

4. How would you rank the relevance of vocabulary development to your academic needs?

A. 1   B. 2   C. 3   D. 4

5. How would you rank the relevance of listening to your academic needs?

A. 1   B. 2   C. 3   D. 4

6. How would you rank the relevance of speech writing and delivery to your academic needs?

A. 1   B. 2   C. 3   D. 4

7. How would you rank the relevance of essay writing to your academic needs?

A. 1   B. 2   C. 3   D. 4

8. How would you rank the relevance of summary and paraphrasing to your academic needs?

A. 1   B. 2   C. 3   D. 4

9. How would you rank the relevance of report writing to your academic needs?

A. 1   B. 2   C. 3   D. 4

10. How would you rank the relevance of letter writing to your academic needs?

A. 1   B. 2   C. 3   D. 4

11. How would you rank the relevance of memorandum writing to your academic needs?

A. 1   B. 2   C. 3   D. 4

12. How would you rank the relevance of research article writing to your academic needs?

A. 1   B. 2   C. 3   D. 4

13. How would you rank the relevance of minutes writing to your academic needs?

A. 1   B. 2   C. 3   D. 4

14. How would you rank the relevance of proposal writing to your academic needs?

A. 1   B. 2   C. 3   D. 4

15. How would you rank the relevance of outlining to your academic needs?

A. 1   B. 2   C. 3   D. 4

16. How would you rank the relevance of minutes reading to your academic needs?

A. 1   B. 2   C. 3   D. 4

_____

Section C. Rank the following statements according to the level of relevance of the language skills to your career needs (i.e., 1 is not relevant; 2, not very relevant; 3, fairly relevant; 4, relevant).

1. How would you rank the relevance of grammar to your career needs?

A. 1   B. 2   C. 3   D. 4

2. How would you rank the relevance of comprehension to your career needs?

A. 1   B. 2   C. 3   D. 4

3. How would you rank the relevance of reading to your career needs?

A. 1   B. 2   C. 3   D. 4

4. How would you rank the relevance of vocabulary development to your career needs?

A. 1   B. 2   C. 3   D. 4

5. How would you rank the relevance of listening to your career needs?

A. 1   B. 2   C. 3   D. 4

6. How would you rank the relevance of speech writing and delivery to your career needs?

A. 1   B. 2   C. 3   D. 4

7. How would you rank the relevance of essay writing to your career needs?

A. 1   B. 2   C. 3   D. 4

8. How would you rank the relevance of summary and paraphrasing to your career needs?

A. 1   B. 2   C. 3   D. 4

9. How would you rank the relevance of report writing to your career needs?

_____

A. 1   B. 2   C. 3   D. 4

10. How would you rank the relevance of letter writing to your career needs?

A. 1   B. 2   C. 3   D. 4

11. How would you rank the relevance of memorandum writing to your career needs?

A. 1   B. 2   C. 3   D. 4

12. How would you rank the relevance of research article writing to your career needs?

A. 1   B. 2   C. 3   D. 4

13. How would you rank the relevance of minutes writing to your career needs?

A. 1   B. 2   C. 3   D. 4

14. How would you rank the relevance of proposal writing to your career needs?

A. 1   B. 2   C. 3   D. 4

15. How would you rank the relevance of outlining to your career needs?

A. 1   B. 2   C. 3   D. 4

16. How would you rank the relevance of minutes reading to your career needs?

A. 1   B. 2   C. 3   D. 4

Section D. Rank the following statements according to the level of relevance of the entire spectrum of the English courses to your academic and career needs (i.e., 1 is not relevant; 2, not very relevant; 3, fairly relevant; 4, relevant).

1. How would you rank the relevance of the entire English courses to your career needs?

_____

A. 1   B. 2   C. 3   D. 4

2. How would you rank the relevance of the entire English courses to your academic needs?

A. 1   B. 2   C. 3   D. 4

Thank you for taking the time to respond to these questions

APPENDIX B

Demographic Information		N
Gender	Female	45
	Male	28
Country/Nationality	Niger	4
	Gabon	4
	Cameroon	11
	Mali	2
	Central Africa Republic	3
	Senegal	6
	Congo	5
	Guinea	5
	Togo,	13
	Burkina Faso	6
	Ivory Coast	6
	Benin	8
English Courses	English for Francophone I	73
	English for Francophone II	73
	English III (Business English)	73
Age	21	11
	22	10
	23	15
	24	20
	25	8
	26	6
	27	3

A STUDY OF PRAGMATIC STRATEGIES OF HATE SPEECH IN CHRISTIAN SERMONS IN NIGERIA

Abayomi Opeoluwa Ayansola

Abstract:
Ideology loaded language may be used as instrument of control and for the production of hate speech and may be linked to the intensity of sectarian violence in contemporary Nigeria. This paper, therefore, evaluates the strategies for hate speech production in Christian sermons using Mey's (1993) proposal on pragmatic acts, a modification of Austin (1962) and Searle (1969) speech act theories. Data, with two sermons from two well-known clerics and obtained from YouTube, has revealed that hate speech were produced through the pragmatic acts of innuendos and name-calling while set-up and co-option methods were deployed for audience participation. Whereas innuendos were linguistically realised as pronouns, name-calling takes the form of adjectives but function as nouns. Set-up and co-option were indirect linguistic strategies meant to empathise and attend to hearers' face-needs. Pragmatic acts insulate preachers from backlash and highlight Nigeria's social-political undercurrents. The enactment of hate speech in sermons justifies government initiatives in regulating religious activities.

Keywords: pragmatic acts, religion, hate speech, sermons, speech acts, ideology.

1. Introduction

Language is a veritable instrument for the propagation of religious beliefs, practices and unsurprisingly, the ideology of the preacher which may be expressed through Christian sermons. Wertheimer et al (1986), cited in Okediadi (1980), postulate that through command, orders and request language may be used to control the behaviour of targets and co-opt them for hate speech. There are specific underlying pragmatic strategies through which Christian sermonisers often surreptitiously achieve these

objectives. The evaluation of such strategies which are often aided by the instrumentality of pragmatic acts is the basis for this study.

The study is motivated by the consideration that scholarship on hate speech (e.g. Rasaq et al, 2021; Shaw, 2012; St. Clare, 2018; and Ayantayo and Oamen, 2019) is focussed on linguistic activities outside the purview of religion. Moreover, research on the language of religion (e.g. Babatunde, 2007; Taiwo, 2007; Oreoluwa and Ibileye, 2016; and Awonuga and Chimuanya (2016:111) are mostly based on discourse analysis, stylistics, evaluation of tenor, and speech act analysis with the implication that a preponderance of underlying hate language and the pragmatic acts that encode them in sermons is by-passed. It should be noted that sermons are integral to religious activities and are largely conducted in monologue. This situation confers discourse advantage on preachers and social power that inform linguistic choices that aid the spread of hate and consequently set-up their members for the act of violence.

The damaging consequences of hate language in religious contexts inform Awonuga and Chimuanya's (2016:111) assertion that "nations have gone to war at the instance of religion". Taiwo (2007), in aligning with Awonuga and Chimuanya (2016) emphasises that the tenor of religious discourse and the ideational metafunction of language (c.f. Halliday, 1978) may be exploited in religious contexts to engender hatred. According to Akhimien and Farotimi (2018:1), "religious sermons are aimed at persuasion with the speaker's intention often to influence the audience to adopt, reinforce or modify certain beliefs". Akhimien and Farotimi (2018:1) are unequivocal about the disposition of preachers to ideology and its propagation, a position that re-echoes Fairclough's (2001:7) averment that "language textualize[s] the world in a particular way that leads the reader/listener to interpret it in the manner intended by the text producer". From Awonuga and Chimuanya's (2016:111) argument that "people can indirectly be made to act in a particular way by providing factual information or evaluation", this paper proposes that adherents of Christian religion may be surreptitiously co-opted into hate and violence through certain pragmatic strategies.

Taiwo (2007), Awonuga and Chimuanya (2016) and Akhimien and Farotimi (2018) fail to pinpoint the strategies through which ideology and hate language are produced in religious contexts and do not account for how clerics often use contextual clues in their sermons to set-up the audience for violence. The omission not only leaves a lacuna in scholarship but portends a socio-cultural threat to Nigeria's fluid federation and plural society where the ascendancy in the spread of hate and violence has assumed a frightening dimension, a situation that is often exacerbated by reckless

language use in religious contexts. The existing lacuna is filled by this study as well as constitutes a clarion call on the need for the authority to properly address the menace of inciting use of language particularly in religious circles in order to halt the prevalence of hate-motivated violence in Nigeria.

Media reportage of hate-induced violence and ethno-religious killings in contemporary Nigeria is mind-boggling. Clifford and Chukwumezie (2018) report that 1351 Nigerians were killed in 10 weeks in 2018 and in January of that year, "about 676 Nigerians were cut down through herdsmen and farmers clashes, sectarian crises, communal clashes, [and] Boko Haram insurgency. … The deaths are 176 more than the 500 recorded in January 2017". Considering that sermons are veritable sources for hate propagation and the knowledge that violence is often preceded by hate speech which is a linguistic behaviour that is symptomatic of ill-will, murder, genocide with the intention to intimidate or threaten the target(s) based on a trait or attribute such as sexual orientation, religion, race or gender, this paper evaluates the strategies through which hate speech and violence is propagated in Christian sermons.

2. Statement of Problem

Sermons are usually presented at the height of religious activities and often lend themselves as instrument for the propagation of ideology and hate speech. Structurally, sermon confers on preachers discourse advantage and social power relation which enable preachers with ideological leanings to propagate ideology without inhibitions. This situation portends a grave danger to Nigeria and has on many occasions pushed the country's worsening security situation to a tipping point. Preachers are influential and have their opinion well-respected with a capacity to surreptitiously produce hate speech as well as co-opt their members into the act through pragmatic strategies which are routed through the use of certain pragmatic acts. Since the evaluation of such strategies is the pre-occupation of this study, certain questions become germane: How is hate speech triggered in sermons and how is the audience invited to participate in it. What kinds of pragmatic acts are used to encode hate speech? Are there motivations for the production of hate speech in this context? These questions among others will help to unfold the pragmatic nuances behind the production of hate-laden sermons.

3. Pragmatic Acts in the Performance of Hate-Laden Sermons

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The theory of pragmatic acts, as proposed by Mey (1993) which is in response to the limitations of the speech acts theory (SAT) as originally conceptualised by Austin (1962), provides a theoretical basis for this study. SAT came to fore against the prevalence of currents in formal linguistics and the assumption "that the business of a 'statement' can only be to 'describe' some state of affairs, or to 'state some facts', which it must do either truly or falsely" (Austin, 1962) and Mey's (1993) justification of the propriety of functional linguistics over the linguistics of truth-conditions.

Searle (1969:16), in defining speech acts as "the basic or minimal units of linguistic communication", argues that "the unit of linguistic communication is not, as has generally been supposed, the symbol, word or sentence, … but rather the production of the symbol or word or sentence in the performance of speech acts". SAT as conceptualised by Austin (1962) has three distinctions: locutionary aspect, illocutionary force and the perlocutionary act. A locutionary act is the vocalisation of meaningful utterances. The locution is the utterance or the act of saying something, e.g.: I am bored. The illocutionary force of the utterance/locution (in form and intent) as in *I am bored* may be a statement or complaint.

A perlocutionary act is "that which is performed by means of saying something; persuading someone to believe that something is so" (Babatunde, 2007:52). It has to do with the effects of the utterance as may be discernable from the hearer's reaction. For instance, *I am bored* may provoke various response such as switching on the TV set, granting the speaker the permission to visit a nearby friend, or in the provision of alternative source of power supply, depending on what the hearer perceives to be the 'force' or 'intent' of the utterance.

In his modification of SAT, Mey (1993:93) contends that Speech acts are "produced not in the solitary philosopher's think-tank, but in actual situations of language use, by people having something 'in mind'". They are verbal action that "brings about a change in the existing state of affairs" (Mey, 1993:95) as may be intended and interpreted by the speaker and hearer, respectively. This is possible provided the conditions are felicitous or as Austin (1973:41) puts it, "the *circumstances* in which the words are uttered should be in some way, or ways, *appropriate*, …". The meeting of minds or the discernment of the intention of the speaker by the hearer is *sine qua non* to a successful communication, thereby prompting Searle (1969:16) to assert that:

> When I take a noise or a mark on a piece of paper to be an instance of
> linguistic communication, as a message, one of the things I must

assume is that the noise or mark was produced by a being or beings more or less like myself and produced with certain kinds of *intentions*.

In his argument in favour of a theory of pragmatics acts (TPA), Mey (1993:94), concedes that the "intentional character of speech acts is among their most distinctive classificatory features" with the argument that "intentionality is not just a matter of intentions ascribable to a particular speaker" which is contrary to Searle's (1969) grandstanding. Whereas Austin (1962) and Searle recognise the importance of contextual clues in the identification of a speech act and its illocutionary force, Mey (1993:94), contends that the analyst "must take the circumstances of the individual utterance into account [as well as] cast [the] net wider, by incorporating the general conditions which allow, and afford, a particular act of speaking".

Mey (1993:94), advances Levinson's (1979) submission that all speech, including the Christian sermon, is situated speech; and that a speech act is never just an 'act of speech', which should be considered in the total situation of activity of which it is a part. He canvasses argument in support of a "*pragmatic act*, rather than a mere speech act" with the averment that "pragmatics starts out from a conception of language as being *actively* used" Mey (1993:208).

Mey (1993:202) avers that "pragmatics is where the action is" and that "pragmatic acts do not necessarily include specific acts of speech". This position was illustrated by Mey (1993:202-208), with the "Sweet Alice" example, where an act of invitation to a cocktail was expressed "by innuendo …, a *pragmatic act* of inviting, rather than a specific, codified language formula of the speech act type" to justify that action may be expressed using a "roundabout technique". It follows also that the clergy may co-opt the audience in propagating hate through similar pragmatic strategies which may not feature specific speech acts.

Pragmatic acting is the product of participants' linguistic adaptation to the society where human activity is co-constructed rather than being, as argued by Mey, (1993:214), "the prerogative of the individual, setting 'goals' and devising 'strategies', or charting out courses of action like a captain on his ship". Mey (1993:214) further avers that "the individual is situated in a social context, which means that she or he is empowered, as well as limited, by the condition of his or her life". The religious adherents for instance are constrained by the tenets of Christianity to believe the "Minister of God" who is His acclaimed oracle.

In pragmatic acting, it is impossible to pinpoint a particular predetermined use of canonical speech act. When people practice 'indirect denial' or 'co-opting', the

speech acts used are not commensurate with the pragmatic acts performed much as for the same reason, pragmatic acts cannot be considered to be the subtype of the indirect speech acts. While speech acts, when uttered in contexts, are pragmatic acts, pragmatic acts need not be speech acts (not even an indirect one).

Pragmatic acts are largely enacted through 'hints' and 'prompts' rather than naming a specific 'performatory' verbs. This assertion validates the argument in this paper that church audience are often surreptitiously co-opted for hate speech during sermons as is demonstrated in Mey's (1993) *can you pass me the salt?* example which may be adjudged as an indirect speech act equivalent of the bald-on-record, *pass the salt*. In comparison with *I would like some salt* or *isn't this soup rather bland?,* Mey (1993:216) argues that both "the latter utterances can be seen as efforts to have somebody pass the salt, yet neither of them 'counts as' a request; rather, they are pre-sequences to requests".

The proposal on TPA is useful for this study and provides the basis for sermonisers' goal of inciting messages. Preachers are humans and are vulnerable to the existential threat of death and violence that has currently put their careers on the line. The choice of language in this situation becomes constrained both by their status on the one hand and for self-preservation, on the other. However, church audience are usually drawn from diverse background with the requirement that the clergy would have to maintain a delicate balance staying aloof of perceived bias and political affiliation, making the masking of hate speech expedient. Pragmatic acts enable the sermoniser to easily achieve this objective.

4. Speech/Pragmatic Acts in Religious Discourse

As earlier observed, scholarship with varying analytical purposes and orientation abounds on religious discourse with focus on themes other than hate speech. Granted that Babatunde (2007), Odebunmi (2007), and Oreoluwa & Ibileye (2016), to mention but a few scholars highlight the performance of speech acts in religious activities, the studies did not address the phenomenon of hate speech neither did they specify how the resourcefulness of pragmatic acts enabled the realisation of their respective communicative goals particularly in situations where speakers necessarily have to be circumspect in passing certain messages.

Whereas Odebunmi (2007) identifies the Searlean (1969) class of speech acts: representatives, directives, expressives, commissives in his study of the electronic media religious advertisements in Nigeria, Babtunde (2007:80), in his argument that

"there is a directive force underlying religious speeches which serves as a binding wire to join all the individual speech acts together", adopts Adegbija's (1982) master speech acts and pragmasociolinguistic model in his investigation of Christian religious speeches.

With the revelation that constatives constitute "25% of the total speech acts in the analysed data", Babatunde (2007:80), concludes that "constatives are very important in religious communication". He quoted Adegbija (1982:126-127) in emphasising that constatives "provide felicity for the mapping of the sequences of speech acts …" and reveals that speakers in religious speeches equally perform performative and assertive acts in persuading the targets.

Oreoluwa & Ibileye (2016:138), in their analysis of speech acts with copious references from Christian religion and the Bible reveal that "locutionary acts of religious discourse have a higher expressive index" and that perlocutionary acts of religious discourse could be "the intended or the unintended" with a proviso that "religious and social undertones greatly impact on religious discourse".

Howard (2017) and Madrid (n.d.) question the propriety of freedom of expression and that of religion particularly in a multicultural environment. Howard (2017) sees Hate speech in the politicians' commentaries on Danish cartoons affair, the Charlie Hebdo murders and the terrorist attacks in Brussels and Paris as anti-Islamic and an impediment to freedom of speech and expression. These events in the opinion of Howard (2017) further raise "questions about the limits to freedom of expression and whether this freedom can and should be restricted to protect the religious feelings of believers".

The Islamic religion and Sharia acknowledge freedom of expression as reiterated by Universal Islamic Declaration of the Rights of Man (UIDRM). UIDRM, as quoted by Madrid (n.d.), asserts that "no one is entitled to disseminate falsehood or to circulate reports which may outrage public decency, or to indulge in slander, innuendo or to cast defamatory aspersions on other persons." Madrid (n.d.) however avers that this principle was breached through the publication of the Muhammad cartoons in the Danish paper *Jyllands-Posten* in 2005 which had huge repercussions in Europe led to a reflection on the close relationship between two fundamental freedoms that can either reinforce each other or clash head on: religious freedom, and freedom of expression. The writer observed a conflict between the two freedoms in the conviction of a Swedish priest, Ake Green, for "hate speech", after preaching a sermon which criticized homosexuality. Madrid (n.d.) recalls other incidence which

underscore a clash between religious freedom and freedom of expression as the 2003 exhibition entitled, "Caution: Religion!" at the *Andrei Sakharov Museum* in Moscow, which included satirical depictions of certain Christian figures as well as recent films which portrayed the Catholic Church and its institutions as criminal organizations.

Most of these studies not only glossed over the pragmatics acts in communicative situations but exemplify language use in sub-religious fields other than sermons. Considering, however, that sermons have inherent "power to arouse, evoke and influence emotions and attitudes" (Akhimien & Farotimi, 2018:1), these studies cannot suffice for the present paper in its objective of evaluating surreptitious hate speech in sermons. Howard (2017) and Madrid (n.d.) rarely topicalised hate speech and religion albeit with focus on the production of hate speech by politically motivated actors rather than by clergies. This paper becomes expedient, therefore, considering the centrality of sermons to religious activities and also conceding that the literature on religious discourse that fails to account for inherent pragmatic strategies in sermons as well as the pragmatic acts that are deployed by preachers as part of such strategies in persuading religious adherents to act in a pre-determined manner is simply inconceivable.

6. Data Collection and Methodology

Data for this study was drawn from purposively selected YouTube hosted sermons of Bishop David Oyedepo (https//www.youtube.com/watch?reload) and Apostle Johnson Suleiman (htpps://m.youtube.com/watch/html) of Living Faith Church and Omega Fire Ministry, respectively. While the Oyedepo sermon was produced in 2018, that of Suleiman was produced in 2017. The sermons were in audio-visual form but were transcribed for ease of analysis. YouTube provides ease of access to data with a further advantage that the analysis of verbal language is enriched by speakers' paralinguistic cues. The choice of clerics was motivated by their large followership as well as visibility on YouTube, thereby informing their ability to reach a large audience in Nigeria and across the globe. The qualitative analysis was based on 20 excerpts from the sermons which exemplify hate speech and underlying pragmatic strategies through which members were set-up for hate speech and violence. Hate speech in this context was in response to the spate of killings and sectarian violence, particularly, in Northern Nigeria. In the course of denouncing these acts, certain pragmatic acts were used to communicate hate as well as to co-opt the audience into it.

7. Pragmatic Strategies and Hate Speech in Christian Sermons

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Hate speech in sermons were aided by pragmatic strategies of innuendos and name-calling while set-up and co-option strategies were simultaneously deployed for the enforcement of audience participation. These strategies which highlight Nigeria's social-political undertones and the persuasive goal of religious communication become effective through the instrumentation of pragmatic acts of name-calling, set-up, invitation, protestation, and other acts that communicate the dissatisfaction of the speaker with the current socio-political situation in Nigeria. The analysis that follows illustrates these strategies.

7.1 Pragmatic Strategies and Hate Speech of Innuendos

Innuendos are used in hate-laden sermons as a superordinate strategy in the form of pragmatic acts of hints, referencing and profiling. Innuendo is a strategy for emphasising meaning by the use of suggestive words, insinuation and for communicating implied meaning. It is a communicative strategy that gives speakers the advantage of opting-out and not being directly held accountable for the performance of an action. Examples 1 – 5 exemplify the use of innuendos and the effectiveness of the pragmatic acts of hints and profiling in this regard.

1. *Anyone* that won't let Nigeria rest God will lay them to rest. Anyone that won't let Nigeria live God will lay *them* to sleep (Oyedepo *YouTube*).
2. Therefore *every* killer of the innocent, every destroyer of the women, pregnant women, children, we decree divine judgement (Oyedepo *YouTube*).
3. … now they're shouting Biafra want to go, Biafra want to…….. , why won't they go when *you* think that the north own the own the country …(Suleiman, *YouTube*).
4. They got a Boko haram member, before we woke up they said he has escaped. Escaped! And Biafran agitators are still in prison till now, they've not escaped, but Boko Haram member has escaped (Suleiman, *YouTube*)!
5. I saw Nigeria wriggling under this in 2015. And some people still say carry on! They are all witches and thou shall not suffer a witch to live (Oyedepo *YouTube*).

The antecedents of the pronoun "anyone" and "them" in example 1 and "every" in example 2, are recoverable from the knowledge of persistent sectarian killings in the country. The pronouns were used in veiling the referents and the objects of the ensuing hate speech and curses in examples 1 and 2. In addition, the euphemism of "God will lay them to *rest*" in item 1 is also a case of hate speech which

communicates ill-will against the target. Euphemism in this context exemplifies veiled hate speech while the pronouns *them* (1) and *every* (2) profile specific targets in a case of pragmatic acting.

Based on the same strategy, the pronoun *they* in examples 3 and 4 are veiled references and pragmatic profiling of the predominantly Muslim Northern Nigeria and the government of the day, respectively. The government is led by Muhammadu Buhari, a northern Muslim of Fulani extraction. This is equally the case with *you* (example 3), a pronoun that references a particular group of people based on the hearers' understanding of the separatist agenda by the Igbos who are presently clamouring for Biafra Republic.

> *... now they're shouting Biafra want to go, Biafra want to…...... , why won't they go when you think that the north own the own the country ...*

It is highly insinuated in Nigeria that the Northern Muslims usually lay claim to power as their birth right. There is a state in that part of the country which goes with the appellation: "Born to Rule". This claim is often resisted by other Nigerians, particularly, from the South and South-East agitators who are clamouring for the resuscitation of the defunct State of Biafra.

Example 5 in particular features a vague sentence consisting of a noun phrase *some people* and subject complement *carry on*, with the connotation that holds some individuals responsible for the election of the government in power. This is the antecedent for the pronoun, *they* in the declarative sentence that follows:

> *They are all witches and thou shall not suffer a witch to live.*

The pragmatic act of invitation "to kill" those that "foist" the government on Nigerians is subtle and indicative of a "roundabout technique" (Mey, 1993) in the persuasion of hearers to act in a particular direction. The pragmatic act which profiles a particular group of people in this context is effective for the naming of the referent of *witch*. This is obvious from the understanding of contextual clues which pre-date the text including the knowledge of the political intrigues that brought President Muhammadu Buhari to power in Nigeria.

6. No government has authority to collect any land from those who own it and transfer it to another person and on the other side it never happens (Oyedepo, *YouTube*).

There are multiple uses of innuendos in Example 6 with the insinuation that the government is not only unjust but it indulges in nepotism and illegality by collecting land from legitimate owners to cronies and favoured groups. Granted that the audience can infer the particular government in question, *government* was used in the example only in its generic form. Furthermore, the pronouns *those* and *another* as used in Example 5 show the divides between the "oppressed" and the "oppressor", the legitimate owner of the land and the land grabbers, respectively. This being the case, there is no doubt that those *on the other side* are the object of the preacher's hate speech.

7. There is one short devil that calls himself Governor moving around (Suleiman, *YouTube*).

The referent of "short devil" is also not made succinct much as the hate speech of name-calling was metaphoric and an example of the pragmatic act of hint. The recovery of the referent of *short devil* though outside the immediate text is easy to pinpoint considering the forth and back battle involving the speaker and Governor Nasir El-Rufai of Kaduna State. On one occasion, the clergy prophesied the death of the Governor within a time frame!

As shall be examined in the next section, the pragmatic acts of referencing, profiling, and hints which are used for innuendos and hate speech may also be employed in the performance of name-calling which also exemplifies the use of hurtful language.

7.2 Pragmatic Strategies and Hate Speech of Name-calling

Name is synonymous with the identity of a person or group and has either good or bad connotation. Names are given thoughtfully particularly in Nigeria and Africa and are believed to have spiritual influence on the bearers. Derogatory names that profile the referent for hate feature largely in sermons.

8. I saw Nigeria wriggling under this in 2015. And some people still say carry on! They are all witches and thou shall not suffer a witch to live (Oyedepo *YouTube*).
9. Because some devilish people say there should be no other religion. Am I communicating (Oyedepo *YouTube*)?

There is a common parlance in Nigeria that a dog is called a bad name in order to hang it. This played out in example 8 when "some people" were profiled as witch. It

smacks of hatred to liken the choice of a candidate for political office by "some people" to witchcraft. Political ideology is hardly a crime that could warrant the maximum punishment of death as suggested by the preacher. The underlying pragmatic act of naming is used metaphorically to define the wrongdoing of those who brought Muhammadu Buhari to power".

Names are categorised as nouns and structurally function in the subject/object slot. "Some people" and "some devilish people" in Examples 8 and 9 pass for a name-tag with its position in the subject slot. Beneath the derogatory name-tag are the actual referents of "some people" and worse still "some devilish people". What name could be more derogatory than the devil? Beyond the smoke screen of the pragmatic acts of naming are the targets of hate speech that were merely named "some people" so that the hearer would figure out the referents from the context, thereby lifting the pragmatic veil.

Sermons are ideologically loaded while the tone of hate speech is often set by the preacher who usually co-opts audience into participating in hate speech. The strategies for achieving this are examined below.

7.3 Pragmatic Strategies of Set-up for Hate Speech

Set-up, within the context of Mey's (1993:210) proposal on pragmatic acts, "is that of implied identification with the reader or viewer" and the listener in the course of the sermon. The speaker surreptitiously sets-up the audience for hate speech and violence by playing on their emotions and using language seemingly in the interest of the audience. As exemplified in 10-15, religionists may be set-up for hate using the pragmatic act of invitation.

10. How many here wants killings to continue, how many wants pastors in churches slaughtered? How many wants to see worshippers like we saw in Benue, 2 Priests 17 worshippers slaughtered (Suleiman, *YouTube*)?
11. Many people in Kaduna are now widows, many people are now fatherless, many are orphans because some people think they own power, am I talking to somebody here (Suleiman, *YouTube*)?

Examples 10 and 11 touch on the emotion of the listeners. Whereas death is terrifying, religious adherents are usually willing to defend their religion in the face of threat. Granted that 10 and 11 are interrogative in structure, they convey the pragmatic act of invitation for the audience to take a position against wanton killings in the land by perceived enemies of the church. Hence, the utterances may be categorised

functionally as exemplifying the speech act of directives. A similar strategy is used in the next excerpts.

12. Look I didn't want to bother you with pictures, gruesome pictures. They are not things you like to see when I show them to you (Suleiman, *YouTube*).

In Example 12, the speaker, as a follow-up to 10 and 11, presents (without admitting it) the gory pictures of victims of violence, thereby setting them up emotionally against perceived perpetrators of the orgy acts.

13. If they're busy killing Christians and nothing is happening, we will kill them and nothing will happen (Suleiman, *YouTube*).
14. Are we Christians? Yes! Are we believers? Yes! We can't be widows. We can't be widowers. We can't be … Am I communicating (Suleiman, *YouTube*)?

In a case of a pragmatic act of indicting, Example 13 draws attention to the carefree posture of the government to the killings. This being the case, the speaker justifies the invitation of the audience to revenge the killings with the assurance that they would also go unpunished. They were further set-up for hate in 14 through thought provoking questions that presuppose that Christianity is not synonymous with cowardice that would make them widows/widowers. The sermoniser's preferred equation which was drummed loudly goes thus:

Christians/believer = cowards = widows/widowers (false).

15. I told you before you didn't want to believe, understand prophets are not pressure group leaders, prophets are the mouth piece of God. I saw Nigeria wriggling under this in 2015. And some people still say carry on (Oyedepo *YouTube*)!

The audience was blackmailed into buying the speaker's ideology in item 15. The speaker is insulated from politics and activism but is positioned as the "mouth piece" of God, thereby coercing the hearer to believe in God and in his prophet. Using the pragmatic act of indictment, the preacher references certain group of people who allegedly refused to believe the prophet and "still say carry on" when he (the prophet) "saw Nigeria wriggling under this in 2015".

From the illustration above, it is unarguable that the intention of the speaker is to initially prepare the audience psychologically for hate and violence by appearing to

protect their interest and/or coerce them by claiming to be speaking the mind of God. The strategy is to gear up the audience to spontaneously join the fray of hate speech. While language use in setting up the audience is indirect and motivational, the strategy for co-opting them is direct. This is illustrated in the next section.

7.4 Pragmatic Strategies of Co-opting Adherents for Hate Speech in Christian Sermons

This section brings to fore the underlying strategies for co-opting the audience into hate and violence. Co-option is a follow-up action on members who have been set-up for hate speech. In this regard, the pragmatic act of invitation is more succinct than the case is for set-up.

16. We must wake up and push this evil back. Please wake up. Don't be part of the deaf and the dumb in Isaiah 42 that did not know when war closed-in on them (Oyedepo, *YouTube*).
17. Even our Islamic friends in the north are calling for him to resign. There is nothing needy the most noble things to do is to resign. Are we going to look and allow   system to destroy the whole nation (Oyedepo *YouTube*)?

The utterance in Example 16 euphemises the call to violence against perceived enemy. The pronoun "we" and "our" (Examples 16 and 17) connote inclusiveness and used for positive politeness (Brown and Levinson, 1987). Inclusiveness entails in-group membership and unity of purpose which makes referents duty-bound to join others in "push[ing] this evil back". The pragmatics of inclusiveness and face-recognition (Brown & Levinson, 1987) linguistically enacted in the data in the form of "our" as shown in example 17 is effectively used for inviting adherents of Islamic religion to participate in hate speech.

18. So join us in prayer. Mt.11:12 every after provisions of God in redemption would always be resisted by the devil. So you need to engage them violently. Thank you Jesus. Mathew 11:12 reads, *And from the days of John the Baptist unti now the kingdom of heaven suffereth violence, and the violent taketh it by force* (Oyedepo *YouTube*).

Whereas the pronoun "our" is the object form equivalent of "we" and "our" and often serves the same functional purposes, the pragmatics of the invitation to join the speaker in "prayers" is significant. Should the lexeme "prayer" be taken on its face value? The augmentative function of the co-ordinator, "so", modifies the context of performance, making Example 18 to pass for a call to violence. This conclusion is

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reached not only by the preceding speech but also by the speaker's appeal and reference to the Gospel according to Saint Mathew. It reads:

> *And from the days of John the Baptist until now the kingdom of heaven suffereth violence, and the violent taketh it by force.*

The speaker has shifted the performance of the act of hate and call to violence to the Bible. After the initial hesitation and hedge, "thank you Jesus", he became unequivocal while re-echoing Mathew 11:12, "so you need to engage them violently". In the next examples, the strategies for co-option are rhetoric that canvasses that the hearers should join their Christian colleagues in the crusade.

19. We are not the only church praying there are several vibrant congregations that are joining. Interestingly we are all praying the same thing. Enough is enough. What an apt subject for this month in our Sunday services (Oyedepo *YouTube*) .

20. We have lawyers here, and we have some lawyers in the crowd and there's a lawyer here too. 12 people in Kaduna are dead and nobody is prosecuted, nobody is prosecuted, not one. Rivers State election, few people died, now there is a Panel of Enquiry because it is South-south, in a nation, in a state where 50 people died, they declared a state of emergency, 202 people died, there is no emergency (Suleiman, *YouTube*).

Finally, the linguistic function of "we" is extended in examples 19 and 20 in co-opting members of other churches and lawyers. In co-opting them for the sinister agenda of hate, the churches are described as "vibrant congregations". The inclusion of lawyers in example 20 is to legitimise the speaker's hate speech based on the hearers' knowledge of law and to justify the alleged misdeed of the authority and its failure to prosecuting the killers of the citizens.

8. Conclusion

Pragmatic acts of naming, protesting, inviting, and indicting are presented in this study as core communicative tools for the enlistment of religious devotees for participation in the production of hate speech in Christian sermons. Pragmatic acts manifest as innuendos and name-calling and are surreptitiously used for set-up and co-option strategies by preachers for the enforcement of audience participation in hate agenda. While innuendos are linguistically realised as pronouns with their antecedents recoverable from the context, name-calling largely takes the form of adjectives that

function as nouns. Worshippers are set-up and, then, co-opted into hate agenda through varying linguistic strategies that reference and profile the target while simultaneously empathising and attending to the face needs of the audience. With the instrumentation of pragmatic acts, Christian sermons highlight preachers' ideologies and the nation's social-political undercurrents and the persuasive goal of religious communication.

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THE INFLUENCE OF AMERICAN AND BRITISH ENGLISHES ON GHANAIAN ENGLISH: A CORPUS-BASED STUDY OF SOME SELECTED VERB FORMS AND MODALS

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CONCEALMENT IN POLICE-SUSPECT INTERACTION IN IBADAN, NIGERIA

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LANGUAGE AND ETHNIC SENTIMENTS IN NIGERIA: EVIDENCE FROM FACEBOOK COMMENTS

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NOUN MODIFICATION IN SHINYIHA

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A STUDY OF PRAGMATIC STRATEGIES OF HATE SPEECH IN CHRISTIAN SERMONS IN NIGERIA

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References made in the notes or in the text should, for the most part, conform to the American Sociological Association (ASA) Style Guide, 5th edition, including the author's last name, the date of publication and the relevant page number(s), e.g. (Bodomo 2004:18-9).

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1. Introduction

1.1. Methodology

1.1.1. Background