

Some diachronic changes in Yoruba grammar

Abstract

The major assumption of this paper is that earliest written documents on Yoruba language may be a source of evidence for diachronic changes in the language. Using documents such as Crowther (1852) and Bowen (1858), some syntactic and phonological changes in the language are described via the formalizations of generative syntax and Optimality Theory in combination with assumptions from Historical Linguistics. A number of proposals are made for Yoruba pre-history based on the method of internal reconstruction. Using the generative syntax to describe the diachronic data from Yoruba leads to a number of issues that concern some proposals in the theory. Some diachronic data are found to support Rizzi's (1997) left periphery proposal. But a question that becomes pertinent from some other data concerns what the hierarchy is between the perfective aspect and the imperfective aspect. The paper finally shows that the combination of the methods of Historical Linguistics with those of generative theories to account for diachronic changes leads to greater theoretical refinement.

1.0. Introduction

One major issue that has been left largely unaddressed in the literature of Yoruba linguistics is the extent to which earliest written records on Yoruba grammar could be a source of evidence for diachronic changes. There is a huge literature on Yoruba standard orthography, ranging from those that trace its historical development, such as Johnson (1921), Ajayi (1960), Bámbóṣé (1965), Oyèláràn (1973) and Arohunmóláṣe (1987) (according to Olumuyiwa 2013), those that compare it with the Arabic script, Ajami, which was used to write Yoruba in the nineteenth century, such as Ogunbiyi (2003); to those that compare the present orthography with the writing practice of the contemporary Yoruba writers. In most of these works, distinctions such as those between (1) and (2) below is often read as a distinction between old and new Yoruba orthographies rather than as evidence for morpho-syntactic or phonological changes.

1. Nwón lé wọ́n (Crowther, 1852:17)

3PL pursue 3PL

“They pursued them”

2. Wón lé wọ́n

3PL pursue 3PL

“They pursued them”

In accounting for the differences between sentences such as those presented in (1) and (2), there are some issues that have to be addressed. One of these has to do with whether the early documented grammars of Yoruba faithfully represented the speech of the Yoruba people at the time they were written in the mid-nineteenth century. To address this issue, I call on one of Schneider’s (2006:86) criteria for establishing validity of written texts for the study of language variation and change: internal consistency. It is interesting to note that most of the early patterns discussed in the subsequent sections can be found in most of the early written grammars of the language. While the differences between the contemporary Yoruba grammar and the grammatical forms described in such works as Crowther (1852), Bowen (1858), and *Vocabulary of the Yoruba Language* (VYL, 1852), and *Language Studies in Yoruba* (LSY, 1914) both of which were published by the Lagos Church Missionary Society, may sometimes be a matter of orthography, the systematicity and consistency demonstrated across those early writers and across different contexts cannot but go beyond mere differences in orthographic representation. The nature of those texts as grammatical description and dictionary, rather than as literary texts, also suggests that they can be taken as representative of the grammar of the language at the time they were written, so that the limitation of author’s ideolectal influence (Kietkiewicz-Janowiak 1999: 58) and the influence of prescriptive literary tradition that obscures variation in language use at a given time in the past (Schneider, 2006: 71) can be easily ruled out. Another reason to suggest that these orthographic differences encode diachronic changes in Yoruba is the fact that these works documented some variations, whose remnants are still attested among some speakers of the language, especially among old people. In other words, forms that are recorded in those

early works but which are no longer grammatical in the contemporary standard Yoruba, can still be heard occasionally among some old people.

As Campbell (2013: 391) points it out, investigating older written documents of a language can contribute to our knowledge of sound changes as well as other changes that have taken place in the history of a given language. My primary purpose in this paper is to demonstrate that some diachronic changes have taken place in Standard Yoruba, taking as evidence changes in orthography as well as grammatical descriptions in the earliest written grammars of the language. However, using early works on Yoruba grammar to track diachronic changes in the language need to be done with caution, as there are cases where the forms used in those early documents reflect a clear case of idiosyncratic orthographic representation.

In order to account for the diachronic changes identified in this paper, I employ the mechanisms of generative grammar, specifically that of generative syntax and Optimality Theory. A brief background to the application of generative theory to the study of language change is provided in Section 2. In section 3, I examine some morpho-syntactic changes in the language. Section 4 describes some phonological changes and makes a case for some internal reconstructions. Section 5 concludes with a summary of the paper and some discussions about future research in internal reconstruction of the Yoruba language.

2.0. Theoretical Orientation

One issue that has continued to be a matter of concern in the theories of language change and language variation is how diachronic changes in linguistic forms are to be modeled in generative linguistic theories. Should historical changes be a concern of linguistic theories? What explanation should linguistic theories proffer to language change? These and others are questions addressed in Holt (2003) who traces the application of generative theories to historical changes

from the works of Postal (1968) and McMahon (1994). Holt (2003) demonstrates that several challenges have surfaced for works that apply generative theories to language change but that these challenges have been addressed in recent works with the same theoretical persuasion. One of such challenges is the lack of evidence for the claim that languages evolve to a simpler state. Another one has to do with the assumption that the underlying representation is the same across a long stretch of space and time. It is noted however that recent works in this tradition have moved beyond these challenges. While there are many contemporary theories that have been applied to diachronic changes, progress made in the use of Optimality Theory and generative syntax are particularly noteworthy, especially as these are the two major theories employed in this paper.

Some of the earliest works in Optimality Theory of language change include Jacobs (1995) and Holt (1997). More recent works are Miglio and Moren (2003) and Gess (2003). According to Holt (2003), diachronic changes in these works are often modeled in terms of stages in the history of the language being studied, with each stage having different constraint hierarchies or rankings. A good example is found in Gess (2003), where three levels of language change are proposed. The first stage is the lexical level which corresponds to Miglio and Moren's (2003) inert stage. This is the stage or level at which the traditional or language-specific ranking of the universal constraints is maintained. Register-dependent level, the second stage, is the level at which at least one of the constraints has been re-ranked, while the register-independent level, the third stage, is the stage where the re-ranking has been expressly phonologized in the synchronic grammar of the next generation of speakers. This is the model employed to account for the phonological changes discussed in this paper (Section 4).

The use of generative syntax to account for diachronic syntactic changes is also well established in the literature. Since the works of Langacker (1977) and later that of Robert (1993), syntactic

changes have been expressed in terms of changes in parameters. Kroch (2001), Roberts (2007) and Kemenade and Vincent (1997), in particular, have shown that the same analytical devices that have been used to describe variation among the synchronic grammars of different languages can be used to describe the diachronic grammars of a given language. As a result, a language may have different parameter settings across different times. In describing the morpho-syntactic changes in this paper (Section 3), I abstract away from these assumptions. In the next, section, I explore some of the morpho-syntactic changes that have taken place in the Yoruba grammar.

3.0. Morpho-syntactic changes

The first morpho-syntactic change examined here involves analogical leveling of second and third person plural pronouns with respect to their syntactic cases. An example of this has been demonstrated above with the distinction between (1) and (2). According to Crowther (1852:12) and Bowen (1858:18), the third person nominative plural pronoun has two forms. These are *àwọn* and *nwọn*. Its accusative and genitive counterpart is given as *wọn* in Crowther (1852). In the same version, the second person nominative plural pronoun is given as ‘*ẹnyin*’ while its accusative and genitive counterparts are given as ‘*nyin*’ by both authors. This description of the nineteenth century Yoruba grammar is given in (3).

3. Old Yoruba second and third person pronominal distribution

Person	Nominative	Accusative	genitive
Second	ẹnyin	nyin	nyin
Third	àwọn/nwọn	wọn	wọn

Bowen (1858) goes ahead to show that the nominative forms of both the second and third person pronouns were also used in certain accusative and genitive contexts. Most of these contexts involve focus or contrastive constructions. The same thing goes for *àwọn/nwọn*. From Bowen’s

description, *àwọn* had a wider distribution than *nwọn*. Most of these distributions also involve contrast and focus. The implication of this is that even though *àwọn* and *nwọn* were in free variation, *nwọn* was already loosing domains at the time these two grammars were written. Employing the devices of internal reconstruction (Campbell, 2013:198), one may postulate Pre-Yoruba forms for the lexical items in (3) as in (4):

4. Development of second and third person plural pronominal distribution (Pre-Yoruba to the contemporary).¹

Stage 1 (Pre-Yoruba):	Nominative	Accusative/Genitive (AG)
	*È̀n̄yin	*n̄yin
	*À̀n̄wọn	*n̄wọn
Stage 2 (Pre-Yoruba):	*È̀n̄yin	*n̄yin
	*À̀n̄wọn/n̄wọn	*n̄wọn
Stage 3 (Crowther Yoruba):	È̀n̄yin	n̄yin
	Awọn/nwọn	wọn
Stage 4 (Contemporary Yoruba):	Èyin	yin
	Àwọn/wọn	wọn

The first stage assumes a point in time in the history Yoruba where the two pronouns exhibited the same paradigm, having an alveolar nasal immediately after the first vowel in the nominative and beginning the word in the AG. The second stage assumes a subsequent point in time where the AG form of the third person plural pronoun was used interchangeably with the nominative form. This continued to the third stage, the stage recorded by Crowther and Bowen. At this stage, however, the nasal segment in some of the forms has been lost. The fourth stage, the contemporary Yoruba grammar, is where analogical leveling has taken place and all the forms no longer have nasals. It has to be noted however that, despite the fact that the majority of speakers of standard Yoruba no longer use any of the nasal forms, some old people can still be heard

¹ Note that the first two stages are not attested in any written document, this derivation is based only on logical speculation which may turn out to be right when Yoruba is compared with its sister languages or wrong entirely. But it could be a starting point in looking at what Pre-Yoruba forms might have looked like.

using *nwɔn*. Also due to its preservation in the early Yoruba Bibles, Christian sermons occasionally use *nwɔn* as well, especially when discussing verses where this is used. This scenario is similar to the use of English *thou* and *thy* in the contemporary time.

The proposed stages in (4) are in line with empirical assumptions in the study of language change that there is a continuous pull between disruption and restoration of patterns (Aitchison, 2004:253). This disruption is often caused by sound changes, resulting in irregularity of paradigms, while analogical leveling brings such irregularity back to a regular paradigm (Campbell, 2013:96). In the case of (4), the deletion of /n/ in the nominative ‘awon’ and the AG ‘won’ resulted in an asymmetry in the paradigm in Stage 3. In Stage 4, the asymmetry in the paradigm is resolved by analogical leveling. This case does not, however, involve a change in parameter in the sense that no syntactic re-organization is involved. The syntactic operation that holds here is similar to what Kemenade and Vincent (1997, citing Langacker 1977) call re-analysis, where the structural change to an element does not involve its reorganization in the surface structure. In what follows, I turn to a phenomenon which is a bit more complex than the analogical leveling discussed above. This is a case of the phenomenon that has been regarded as the Split-C in the generative tradition since the work of Rizzi (1997).

Crowther (1852) and Bowen (1858) describe structures where there appears to be two heads of a given clause, what in English is tantamount to something like ‘**that** we **that** we go’(that we go). Some Examples from both of these works as well as an example from LSY (1914) are presented in the following.

5. a. **Kí** olúkúlùkù **kí** ó tójú ara rẹ (Crowther, 1852:16)
that each.person that 3SG care body 3SG
‘Let each person take care of themselves’

b. Jé kí nwọn kí ó mú (Crowther, 1852:18)

let that 3PL that 3SG take

‘Let them take’

c. Kí èmi kí ó rí (Bowen, 1858:28)

that 1SG that 3SG see

‘that I shall/will see’

d. ...kí ènyin kí ó fi owó fún wọn (LSY, 1914)

that 2PL that 3SG use money give 3PL

‘... that you give them the money.’

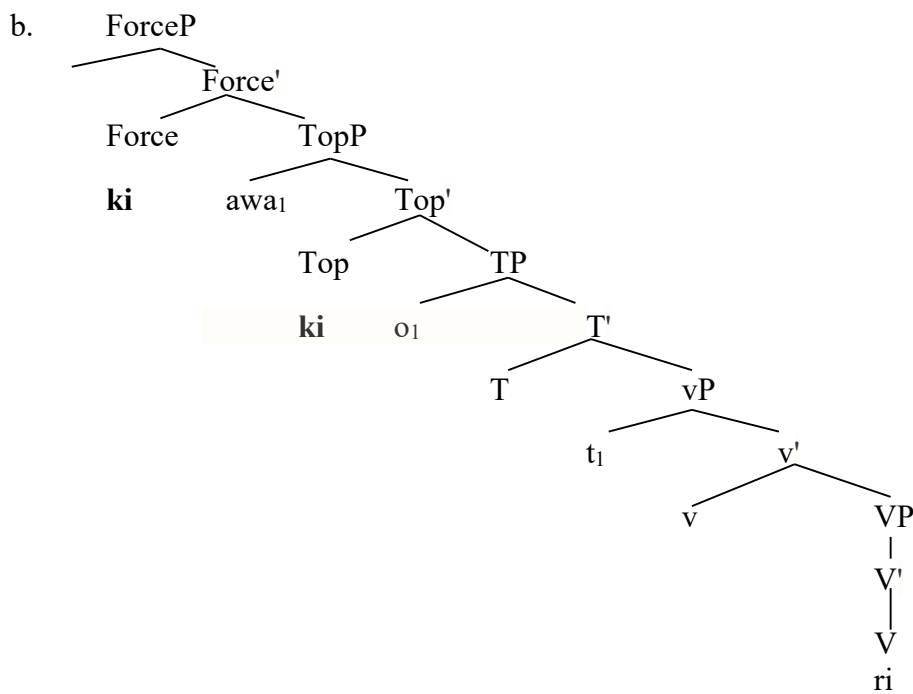
The example in (5d) is taken from a whole expression, ‘Mo tẹnumọ wipe ki enyin ki o fi owo fun won’ which is translated as ‘I insist on your giving them the money’. The general pattern in all of the expressions in (5) is that there is a complex C (Complementizer) head as seen in the string ‘ki...ki’ (that...that). In the contemporary grammar, the second *ki* is generally dropped so that, (5a) for instance is realized as ‘Kí olúkúlùkù ó tójú ara rẹ’.

Before the work of Rizzi (1997), who lays the groundwork for what is now popularly referred to as the left periphery or the Split-C phenomenon, the data described in (5) would have constituted a major challenge to the generative syntax which erstwhile assumed that there is only one C head per clause and that elements that move to the left periphery have only one slot to occupy, Spec CP. On such assumption, the Yoruba diachronic data above would be a mismatch for the structural representation that was used at that time. Rizzi (1997) proposes that the the C- (Complementizer) system is complex and contains some other projections such as FocP (Focus Phrase) and TopP (Topic Phrase). Rizzi’s C system formulation can be rendered as [ForceP [TopP [FocP [FinP [IP]]]], where TopP is recursive and FocP is not. This formulation has been

worked out in quite a number of subsequent works including that of Abboh (2004:300) on Gungbe and Haegeman (2012) which comprises a general survey of cross-linguistic distribution. To account for the diachronic data in (5), I employ Rizzi’s C-system formulation following Aboh (2004) and Haegeman (2012).

My first assumption is that the first *ki* is a Complimentizer head that projects a CP (which is rendered as ForceP) while the second is a Topic head that projects a Topic Phrase. To illustrate this, (5c), repeated in (6a), is formulated as in (6b).

6. a. **Kí** èmi **kí** ó rí (Bowen, 1858:28)
 that 1SG that 3SG see
 ‘that I shall/will see’



One issue that needs to be addressed with regard to (6) is the status of the resumptive pronoun ‘o’ which occupies Spec TP. Adesola (2010:73) provides two possible ways of accounting for resumptive pronouns like ‘o’ in Yoruba. The first possibility is to assume that the resumptive pronoun originates from Spec vP but moves to Spec TP to check its Case feature. The second

possibility is to assume that ‘o’ is derived by insertion via internal merge to satisfy EPP (Extended Projection Principle). Adesola, however goes ahead to show that it is the second possibility that has empirical support in the language. For this reason, I assume that ‘o’ is inserted in Spec TP to satisfy EPP. As a result, *awa* is assumed to originate from Spec vP; it then move to Spec TopP to satisfy the Topic-Comment criterion (See Rizzi, 1997 for movements involving satisfaction of a criterion rather than feature checking). One evidence for the validity of the derivation in (6) comes from the fact that it involves resumptive pronoun. Cross-linguistically, topicalization involve resumptive pronoun of some sort. A language internal support comes from the fact that focus phrases also make use of the same resumptive pronoun ‘o’ in Yoruba. It will already be clear from the forgoing that FocP and TopP are similar in many respects. One of such similarity is presence of resumptive (clitic) pronouns. The only difference between the two is with respect to recursion: TopP is recursive; FocP is not. According Haegeman (2012:15) the Top head is unpronounced in English. This is true for some other languages as well where there is no overt element sitting in the Top head. Aboh (2004), however, provides evidence from Gungbe where there is overt Top head. The derivation in (6b) provides another evidence for the possibility of an overt Top head, and lends additional support to Rizzi’s (1997) C-system formulation.

From the discussion above, it can be argued that there is a parameter which defines the overt-ness of the Top head and that languages defer with respect to how this is realized in the grammar. As an illustration, English sets this parameter to NO while Gungbe sets the same parameter to YES. A formalization of this is given in (7).

7. Parameter A. TopP head is overt.

a. English: NO

b. Gungbe: YES

The formulation in (7) is a synchronic account of this cross-linguistic variation. As argued in Section 2 above, this same analytical device used to account for the variation between English and Gungbe can be used to account for the Yoruba diachronic data (See Roberts, 2007:11 for this argument). The Yoruba diachronic variation with respect to the overt-ness of Top head is formalized in (8).

8. Parameter A: TopP head is overt.

Crowther Yoruba: YES

Contemporary Yoruba: NO

Before moving on to the next case, an observation is in order. From the description in Crowther (1852), Bowen (1858) and LSY (1914) and how TopP head is used in examples therein, it appears that both of the two possibilities (overt Top head and covert Top head) were in free variation in their time, although Bowen (1852:31) notes that the Top head is used when the first nominal item has more than one syllable or begins with a consonant. It could be assumed that over time the Top head became dropped by the new generation of speakers, leaving it to be relevant only in religious texts and contexts and in the grammar of some old people.

The next syntactic diachronic change comes from cases where a functional element is sprinkled on different slots in the verbal system. The particular case in question involves a phenomenon that is generally absent in the contemporary grammar, where the aspectual marker *n* is pre-posed to each element in the verbal structure in some instances and other instances where the preposition targets some of the functional element in the verbal system and not the others. The following is a list of this phenomenon from both Crowther (1852) and Bowen (1858).

9. a. Ènyin ñ ti ñ sá (Crowther, 1852:19)

2PL PROG PFV PROG run

‘You have been running away’

b. B́í è̀nyin ñ bá ñ ní

(Crowther (1852:26)

If 2PL PROG were PROG have

‘If you were having’

c. B́í à ñ bá ñ tí ñ fẹ wọ̀n (Crowther, 1852:30)

if 1PL PROG were PROG PFV PROG love 3PL

‘if we had been loving them/ if they had been being loved’

d. È̀mí ñ tí ñ rí

(Bowen, 1858:27)

1SG PROG PFV PROG see

‘I have been seeing’

A generalization found in the examples in (9) is that an upward cyclic movement of the progressive marker is a regular part of the Yoruba grammar in the 17th century. This cyclic movement is generally absent in the contemporary grammar of the Standard Yoruba, so that (9a) for example is only grammatical, when it has only one progressive marker as in *È̀yin tí ñ sá*. Crowther (1852:21), however, notes that forms where the progressive marker *n* is pre-posed to every verbal element and those where it is placed only before the main verb were in free variation. It can be argued that this free variation continued to a point where upward cyclic movement was abandoned by new generation of speakers so that this feature remains relevant only in some dialects.

The data in (9) may be considered an unusual phenomenon in natural language given that cases where there are three identical aspectual markers having the same function such as in (9) are not common in the literature. The closest reported case is that of double aspectual marking in

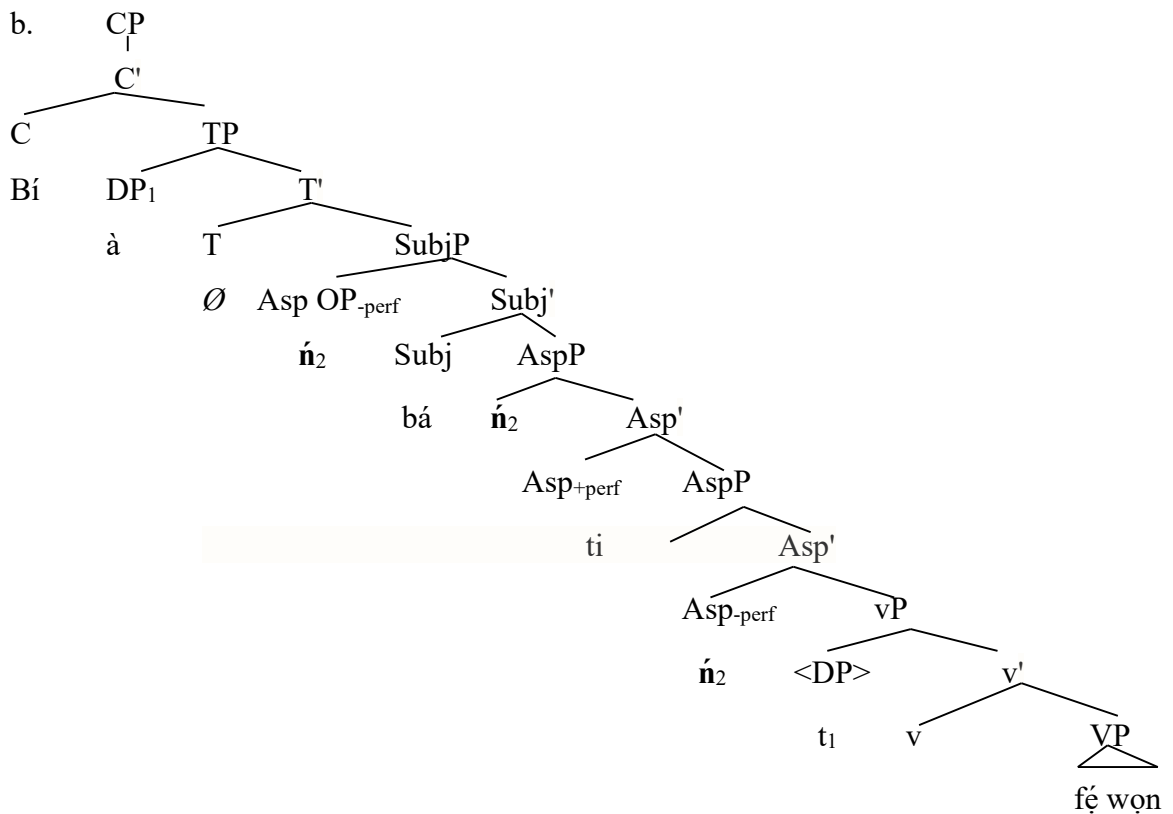
Mandarin Chinese reported in Klein et al. (2001) and explored in details in Blaszcak et al. (2017), where *zhe* and *zai* are used in the imperfective/progressive aspect, while *le* and *guo* are used in the imperfective aspect (Klein et al., 2001:723). Each of the markers in each pair have been shown to contribute different kind of meaning to the sentences in which they are used, but what is clear is that the markers are formally distinct since they are unidentical. They are therefore considerably different from the data in (9). The question therefore is how to account for the diachronic data outlined in (9).

My first assumption is that the progressive aspectual marker *ní* originates in a position close to the VP but moves upward in the derivation in the version of the popular feature percolation (Ortiz de Urbina, 1993). I follow Kamp and Reyle (1993) in assuming that there is an aspectual operator (let us call this Asp OP, after Ajiboye, 2005:161). I further assume that there is an Asp OP_{-perf} which has a scope higher than every other functional head above the VP but which is lower than the TP. The aspectual marker *n* which is located lower in the derivation therefore percolates the imperfective feature to this position leaving a phonologically specified trace in all the intermediate landing sites it gets to before reaching this position. The implementation of this assumption is presented in (10). Example (9c), repeated in (10a) for convenience, is used in the derivation.

In (10b), *bá* is a subjunctive auxiliary and is, as a result, assumed to head a functional projection named subjunctive phrase (SubjP). I do not go into the details of whether this is empirically or conceptually justified in so far as it provides a heuristic to address the major concern here. The general assumption in (10b) is that the imperfective feature percolates from a lower position to the Spec of a functional projection that is immediately below the TP. In (10b) this functional projection is the SubjP. In other cases where there is a different functional projection located

right below the TP, the Asp OP_{-perf} will land in the Spec of such projection. Taking (9a) as an example, the functional projection located immediately below the TP is AspP headed by an Asp_{+perf}. In this case, the final landing site for the Asp OP_{-perf} is the Spec of the AspP_{+perf}.

10. a. Bí à ñ bá ñ ti ñ fẹ wọn (Crowther, 1852:30)
 if 1PL PROG weer PROG PFV PROG love 3PL
 ‘if we had been loving them/ if they had been being loved’



Another assumption encoded in (10b) is that the Asp OP_{-perf} is pronounced in this diachronic data whereas in the description in Kamp and Reyle (1993:598) what corresponds to Asp OP_{-perf} in English is unpronounced. The same thing is true for the contemporary Yoruba grammar. Assuming that this analysis is in the right direction, a parameter can then be postulated where the contemporary English and Yoruba will have the same parametric specification. This is defined in (11).

11. Parameter B: Asp OP_{-perf} is pronounced.

Contemporary English: NO

Contemporary Yoruba: NO

Using the same parameter to account for the diachronic change in the grammar of Yoruba described in (9) is straightforward from this point. It is simply assumed that during different stages in its evolutionary continuum, Yoruba has different settings for this parameter. This is captured in (12).

12. Parameter B: Asp OP_{-perf} is pronounced.

Crowther Yoruba: YES

Contemporary Yoruba: NO

Before moving on to the next syntactic case, there are some conceptual and empirical issues that need to be addressed concerning the derivation in (10). The analysis put forward as well as the data described raise some serious conceptual question and makes a serious prediction. The question it raises is: what is the hierarchy between the perfective aspect and the imperfective aspect? That is, which one of the two is higher than the other? The serious prediction that the analysis makes is that the imperfective, that is the imperfective aspectual operator (Kamp and Reyle 1993), is higher than the perfective aspectual operator. Whether or not this prediction is right or the question is legitimate, in so far as the analysis provides a heuristic to describe the diachronic data from Yoruba, this is a matter that I do not address in this paper.

I turn now to cases involving the clitic 'i' in Yoruba. From the two historical documents that we have been looking at, Crowther (1852) and Bowen (1858) as well as VYL (1852), it is possible to trace the development of this clitic as well as make some assumptions about some Pre-Yoruba

grammar. In the following examples, I will be distinguishing two forms of this clitic. The first one functions as a resumptive pronoun which is glossed as RP, while the second one functions as a progressive marker (glossed as PROG).

13. a. Èmi ni í má í kọ ọ ní isé (Crowther 1852:19)
 1SG FOC RP IMPV PROG teach 2SG ní work²

‘It is I who used to teach you to work’

b. Ìwọ ni í tí í má í mú mi lọ sí ilé-ìwé
 2SG FOC RP PFV RP IMPV PROG take 1SG go to house-book

‘It is you who had been taking me to school’ (Crowther 1852:19)

c. Kì í se àwòdì... (Bowen, 1858:32)
 NEG PROG be hawk

‘It is not a hawk’

d. Lọ í pe ọmọ mi (Crowther, 1852:19)
 Go RP call child 1SG

‘Go and call my child’

e. Lọ í gba takada wa... (Crowther, 1852:34)
 Go RP take paper come

‘Go and take a paper’

f. Àwọn wá í bè ọ (Crowther, 1852:19)
 3PL come RP beg 2SG

‘They come to beg you’

g. Ta lí o wá í mu igi koloju (VYL, 1852)

² Ni here is different from the focus marker. Its primary function here is to indicate which of the two objects receives the theta role of theme.

who FOC 2SG come RP take stick confront

‘Whom did you come to confront with a stick?’

The case of the progressive marker *í* is interesting in the sense that in the 19th century it alternated with *ń*, the progressive marker described above. However, in the contemporary grammar, it appears to be losing domains to the latter. Take (13a) for example, the sequence of the imperfective marker *má* and the progressive marker *í* has been lexicalized to *máa-ń* (an imperfective aspectual marker described in Ajiboye, 2005). As a result, instead of *má í* of the 19th century, *máa-ń* is the imperfective marker in the contemporary grammar. In other cases where *ń* did not replace it, it became lexicalized to some preceding functional item with which it is commonly used. One good example is the case of *ko*, a negative marker, which is lexicalized with *i* (13c). Bowen (1852:32) notes that when *ko* is used with *i*, it is changed to *ki*, because of what he calls euphony. What is clear from this is that the hiatus situation that resulted from combining the two particles is resolved through regressive assimilation. Going by this assumption, the two forms are coalesced to *kíí*. From Crowther’s (1852:19) description, it can be noted that this kind of regressive coalescence was already present in fast speeches during Crowther’s days. Even though this coalescence is present in the contemporary grammar, some writers continue to write *kì í* while others alternate between *kì í* and *kíí*. Elsewhere (Adebayo, forthcoming), I have argued that *kíí* is the unmarked negative marker in the imperfective aspect. Factoring in this historical development, it becomes clear why such assumption has been made. This case borders on re-analysis rather than on parametric setting just as in the first case considered in this section.

To formalize this regressive coalescence, I assume that the progressive marker *i* reduced to a tonym, a High Tone Syllable (HTS) in Ajiboye’s (2005) term. It then docks on the preceding lexical item, thereby inducing vowel lengthening. Consider (14).

14. a. Gbigbo ni **aja** n gbo
 Barking FOC dog PROG bark
 ‘Dogs bark (generically)’

b. Gbígbó ni **ajáá** gbó
 Barking FOC dog.HTS_{PROG} bark
 ‘Dogs bark (generically)’

Both (14a and b) are present in the contemporary grammar, but the vowel elongation in *aja* ‘dog’ in (14b) can only be explained by the process of regressive coalescence. We can then propose stages of this coalescence, using the example in (14b).

15. Process of regressive coalescence

Stage 1 (Crowther’s days):	Gbígbó	ni	ajá í	gbó
Stage 2: Contemporary underlying form:	Gbígbó	ni	ajá HTS_{PROG}	gbó
Stage 3: Contemporary surface form:	Gbígbó	ni	ajáá	gbó

Turning now to the second form, let us first observe that the regressive coalescence described for the imperfective marker *i* is also true of the resumptive pronoun *i*. I return to this below. One major diachronic change to the resumptive pronoun ‘i’ is that it is now largely replaced by pronouns corresponding to the person (first, second, or third person) of the noun in focus. To illustrate, consider the contemporary version of (13a and b) in (16).

16. a. Èmi ni **mo** máa-n kó ọ ní isé

1SG FOC 1SG IMPV teach 2SG ní work³

‘It is I who used to teach you to work’

b. Ìwọ ni o tí máa-n mú mi lọ sí ilé-ìwé

2SG FOC 2SG PFV IMPV take 1SG go to house-book

‘It is you who had been taking me to school’

Apart from replacement, deletion also appears to have taken place. There is one considerable difference between (13b) and (16b). The resumptive pronoun *i* which occurs between the perfective marker *tí* and the imperfective marker *má* in (13b) appears to have been deleted or lost in (16b), the contemporary grammar.

From the descriptions of focus marking, and by extension, topicalization earlier in this section, it would have appeared that they are characterized by the presence of resumptive pronouns. Based on this, it can be established that the syntactic environments where resumptive pronouns are present in Yoruba are focus marking and topicalization. Ajiboye (2005:92) also shows that resumptive pronouns are present in *wh*-constructions. But one additional environment that the data in (13), particularly (13d-g), suggests is in serial verb constructions. In (13d-g), the resumptive pronoun *i* is located in between serial verbs. In the contemporary grammar, it has been coalesced into the preceding functional element through the process of regressive coalescence described above, so that the result of (13d-g), for example, is as it is presented in (17).

17. a. Lọ́ọ́ pe ọmọ mi

Go.RP call child 1SG

‘Go and call my child’

³ *ní* here is different from the focus marker. Its primary function here is to indicate which of the two objects receives the theta role of theme.

b. **Lòṓ** gba takada wa...
 Go.RP take paper come

‘Go and take a paper’

c. Àwọ̀n **wáá** bè ó
 3PL come.RP beg 2SG

‘They come to beg you’

d. Ta ni o **wáá** mu igi koloju
 who FOC 2SG come.RP take stick confront

‘Whom did you come to confront with a stick?’

Note, however that in (17a and b), I assume that the resumptive pronoun present as an HTS in the first verb in the serialization is co-indexed with a second person phi-feature present at the Logical Form (LF). This assumption is based on the hypothesis in Nchare (2012:397 after Zanuttini, 2008) that imperative CPs host a second person phi-feature and are able to satisfy the EPP. The question that arises from this proposal that there are resumptive pronouns within serial verbs is: why are there serial verbs in the contemporary grammar without this HTS such as the example in (18)?

18. Sá gba èyìnkùnlé

Run take backyard

‘Escape through the backyard’

My assumption is that the resumptive pronoun *i* has been lost generally in this environment but that it is fossilized in constructions such as those in (17). The regressive coalescence proposal also makes a serious prediction about tonyms, or tone syllables, generally. It predicts that tone syllables are diachronic segmental syllables which weakened to a tone over a long period of

time. Again, I do not address this prediction here. I have only called on this proposal as a heuristic to understand the diachronic data in (13).

I have surveyed a number of syntactic diachronic changes in this section, and have raised a number of issues for the Pre-history of Yoruba as well as the theory of generative syntax. Most of the issues raised here can be subjects of further studies in the pursuit to reconstruct pre-Yoruba and to further refine the theory of generative syntax. In the next section, I address issues that have to do with phonological changes.

3.0. Phonological Changes

Tracking changes in phonological forms in past written documents may not be as straightforward as tracking syntactic changes, but it is often the case that some phonological patterns characteristic of the past phonological forms of a language can be adequately retrieved from written documents, by paying attention to different details. Since we are considering different documents written by different authors, there is the advantage of comparing a controversial form across those authors. First, I address a case that appears to be popular among Yoruba people and which is often the first reference that people make when discussing how the old orthography defers from the current one. This is a case involving vowel hiatus as shown in (19).

- 19. a. **aiyé** ‘world’ (Bowen, 1858:32 and VYL, 1852:25)
- b. **àiyà** ‘breast’ (Bowen, 1858:12b)
- c. **eyẹ** ‘bird’ (VYL, 1852:58)
- d. **ènìà** ‘human being’ (Crowther, 1852:16)
- c. **yíò** ‘will’ (Crowther, 1852:20)

The data in (19) raises an important question about vowel hiatus in Yoruba. From the description in Ola (1995), Yoruba generally does not favor vowel hiatus post-lexically and it is often resolved by deletion. If a phonological phenomenon is prohibited post-lexically in a language,

then it can be generally assumed that such a phenomenon will be strongly prohibited lexically in such a language. With the data in (19), there are two possibilities involved. It is either the case that (19) provides a diachronic evidence for lexical hiatus in past Yoruba grammar or it is the case that the forms above do not represent the language as it was spoken in the 19th century and are simply as a result of scribal error. There are a quite a number of factors that conspire against the second possibility. One of such factors is that these forms are documented in not just one document by just one author but in different documents, by different authors and sometimes by many authors. One other factor is that the remnant of these forms can still be heard in the grammar of some old people. But perhaps the most convincing of these factors is the fact that forms without hiatus were also documented by the same authors, thereby ruling out scribal error. Examples of this are presented below.

- | | | | |
|----------------------------|-------------------|----------------------------|-------------------|
| 20. a. aiyé ‘world’ | (Bowen, 1858:32) | àyè ‘life’/ ‘alive’ | (Bowen, 1858:12b) |
| b. àiyà ‘breast’ | (Bowen, 1858:12b) | aya ‘wife’ | (Bowen, 1858:21b) |
| c. eyè ‘bird’ | (VYL, 1852:58) | èyè ‘worthiness’ | (VYL, 1852: 101) |

Based on this understanding, we can conclude that, rather than being a misrepresentation of the language that was spoken in the past, the forms in (19) provide an evidence for lexical hiatus in past Yoruba grammar. To account for this data through optimality theory, I invoke two major constraints, MAX (as defined in McCarthy, 2007) and NO-HIATUS (as defined in Ola, 1995 and Pulleyblank, 2004). MAX prohibits deletion of a segment from the input while NO-HIATUS prohibits a sequence of two adjacent vowels at the syllable boundary. In Section 2, it was stated that application of OT to language change is often described in terms of stages. I take the data from Crowther’s time as representing the first stage which depicts a specific ranking of the two universal constraints MAX and NO-HIATUS (MAX >> NO-HIATUS) which reveals

a fairly transparent relationship between input and output forms (Miglio and Moren, 2003:203). I propose a second stage, an intermediate stage where one of the constraints, NO-HIATUS, has been re-ranked to a higher position (NO-HIATUS>> MAX) resulting in new optimal candidates, and then a third stage where these new ranking has been phonologized by the next generation of speakers. These stages are presented as follows:

21. Stage 1 (lexical level): MAX >> NO-HIATUS

Stage 2 (register-dependent level): NO-HIATUS>> MAX

Stage 3(register-independent level): NO-HIATUS>> MAX

The tableau in (22) shows how the lexical level ranking accounts for the data in (19).

22. Stage 1 (lexical level): MAX >> NO-HIATUS

/aiyé/	MAX	NO-HIATUS
→ a. [aiyé]		*
b. [ayé]	*!	

The first candidate is the optimal candidate because it obeys the highest ranking constraint, MAX. The second candidate on the other hand is less optimal at the lexical stage because it violates MAX. Here, there is a fair transparent relationship between the input and the output in that the optimal candidate looks exactly like the input. This is a general characteristic of the lexical stage as formulated by Miglio and Moren (2003:203).

23. Stage 2 (register-dependent level): NO-HIATUS>> MAX

/aiyé/	NO-HIATUS	MAX
→ a. [ayé]		*
b. [aiyé]	*!	

The same explanation given for the tableau in (22) applies here as well in the sense that candidate (b) which does not respect the highest ranking constraint, NO-HIATUS, is knocked out, while candidate (a), which respects it, emerges as the winner. But what appears interesting here is how the re-ranking of an erstwhile lowly ranked constraint to a higher position in the hierarchy produces new harmonious forms. Register-dependent and register-independent stages have common ranking. The basic difference is that the re-ranking is done by some members of an older generation in the register-dependent stage, while this re-ranking is now the grammar of the next generation of speakers in the register-independent stage.

The next and last case discussed in this section involves nasal spreading, vowel raising and analogical leveling, but the most exciting thing about it is that it gives a clue to possible internal reconstruction. I follow this lead or clue and pursue a reconstruction of some basic terms in Yoruba in the discussion that follows. In Crowther (1852:9), VYL (1852:205&234) and Bowen (1858: 59b and 65b), the following are forms given to ‘man’ and ‘woman’:

- | | | |
|-----|-------|-------------------|
| 24. | ‘Man’ | ‘woman’ |
| | a. | Ọkònrì obìrì |
| | b. | Ọkònrìn obìnri |

The forms in (24a) are presented as the primary form in all of the references. Crowther (1852) does not provide the forms in (24b); Bowen (1858) provides the form in (24b) only for ‘woman’; while VYL (1852) provides the form in (24b) for both ‘man’ and ‘woman’. A conclusion that can be drawn from this observation is that the forms in (24a) are the most widely used by the Yoruba speakers in the 1800s and that the forms in (24b) were just emerging and were not as widespread. When we compare these forms to the contemporary forms, it will appear that this conclusion is empirically justified as this development presents a clear case of analogical

leveling. Moving from (24a) to (24b), two processes can be assumed to be active: nasal spreading that derives *òkònrin* from *òkònrì* and analogical leveling that makes *òbìrì* to copy *òkònrì* and derive a new form *òbìnrì*. Moving from these forms to the contemporary forms follows a similar pattern, and we can thus assume stages of development as shown in (25).

25. Stage of development for ‘man’ and ‘woman’ words

	‘Man’	‘woman’
Stage 1: similar paradigm	Òkònrì	òbìrì
Stage 2: Analogical leveling	Òkònrì	òbìnrì
Stage 3: Nasal spreading	Òkònrin	
Stage 4: Analogical leveling	Òkònrin ⁴	òbìnrin
Stage 5: Vowel raising (Contemporary forms)	Òkùnrin	òbìnrin

The pattern of change assumed in (25) is fascinating, but what could be more interesting is the information that we can infer from it about the Yoruba pre-history. The general assumption about Yoruba is that some words like ‘Òkùnrin’ and ‘òbìnrin’ are not, or appear not to be, compositional. But a description that Bowen (1858:59b) gives about *òbìrì* gives some kind of hint that could possibly tell us about the composition and possible development of these words. Bowen (1858:59b) defines *òbìrì* ‘woman’ as *òbò ènià* which is a combination of *òbò* ‘female sexual organ’ and *ènià* ‘human being’. Given that the pair in (25) are patterned after each other via analogical leveling, one can project the analogical leveling further back in time, so that just as there is *òbò ènià* we can reconstruct something like **okó ènià* ‘man’, a combination of *okó* ‘male sexual organ’ and *ènià* ‘human being’. This reconstruction, then, leads to the following inference: if these two forms were indeed used in the past, there must have been a word that meant ‘human being’ but which got reduced to ‘*ri’ overtime. As such, it must have been

⁴ Note that this form can still be heard in some dialects in Oke-Ogun area of Oyo State.

combined with *òbò* and *okó* in the version of *òbò+ri* and *okó+ri* to produce the respective forms **òbòri* and **okóri*, which then transformed into the forms in Crowther’s days, *obìri* and *Okònri*. A look at a number of other words that have this paradigm, such as *akọ* ‘male’, *abo* ‘female’, *àpón* ‘unmarried man’, and *opó* ‘widow’, suggests that we can push this assumptions further and make an hypothesis about the development of the words. Crowther (1852:46) observes that Yoruba nouns are formed from monosyllabic verbs in quite large number of cases, and then posits that in cases where the meaning of the monosyllabic form is not available, it can be assumed that the monosyllabic verb lost its meaning over time while it is fossilized in a noun form. Based on this, Crowther gives a probable reconstruction of some verbs whose meanings were no longer available. I appeal to this hypothesis and posit that *òbò* and *okó* are formed respectively from the verb *bo* ‘to cover’, which probably meant ‘to have sex (for a female person)’, and *ko* ‘to meet’ which probably meant ‘to have sex (for a male person)’. The pairs of words in this paradigm are them assumed to originate from these two verbs. This *kó/bò* hypothesis is presented in (26).

26. The *kó/bò* hypothesis

Stages	Male paradigm	Female paradigm	Meaning ⁵
a.	*kò	*bò	verbs meaning to have sex, probably derived from the meaning of ‘to meet’ and ‘to cover’ respectively
b.	*òh.kò	*òh.bò	‘thing that meets’/ ‘thin that covers’
c.	o.kó	òbò	‘penis’/ ‘virginal’ after nasal deletion
d.	*a.kó	*a.bò	‘person that meets’/ ‘person that covers’
e.	a.kọ	a.bo	male/female
f.	ọkọ	*obo	husband/wife
g.	*ọkọ.ri	*obò.ri	man/woman

⁵ The meaning of the male paradigm is given first, followed by the meaning of the female paradigm

h.	ọkòṅ.ri	obì.ri	man/woman after nasalization and vowel assimilation
i.	ọkòṅri	obìn.ri	‘man’/ ‘woman’ after analogical leveling
j.	ọkòṅrin	obìnri	‘man’/ ‘woman’ after nasal spreading
k.	ọkòṅrin	obìnrin	‘man’/ ‘woman’ after analogical leveling
l.	ọkùnrin	obìnrin	‘man’/ ‘woman’ after vowel raising

In stage b, the ‘on’ morpheme added to ko and bo is a shortened form of *oni* which can mean ‘owner’ as in *oni ile* ‘owner of house’. It can also mean ‘one who does’ as in *òntàjà* ‘one who sells’. The morpheme *a* in stage (e) is an agentive morpheme that is added to a verb to form a noun as in *akólé* ‘one who builds houses’. The *kó/bò* hypothesis put forward in (26) is nothing more than a crude attempt to have a glimpse into Yoruba pre-history. In the face of new evidence, the assumptions it makes may find further support, or it may turn out that it is wrong in many respects. But one thing that it may turn out to contribute is to get the discussion started on Yoruba pre-history.

5.0. Conclusion

Throughout this paper, I have shown that past written documents in Yoruba may be a source of evidence for diachronic changes in the language. Different kinds of changes were surveyed including mostly syntactic changes and some phonological ones. While describing the changes, I raise a number of issues both for the theory of generative syntax and the pre-history of Yoruba. Most of the proposals that were made for the linguistic forms of Yoruba pre-history may find further support from future research, or they may be discarded on solid grounds, but their usefulness may be in the fact that they provide a point from where to start the discussion on this subject. The Yoruba diachronic data described in this paper are only but few of many cases that may be unraveled from further consideration of earlier documents on the language. Through the

interaction between the theory of generative syntax and the Yoruba diachronic data in this paper, it has been shown that patterns from the past history of a language may lend support to linguistic theories as well as refine them. It has equally been shown that generative theories may further contribute to Historical Linguistics or theories of language change in general. Fortson (2004:13) already notes that the combination of methods in historical linguistics with those from generative linguistics has led to the solution of some long-intractable problems in Indo-European, and posits that this practice will yield greater advances to come. The implementation of the mechanisms of generative theories in this paper lends support to Fortson's conclusion and further highlights the benefits of combining the two approaches in the study of language.

References

- Aboh, Enoch O. 2004. *The morphosyntax of complement-head sequences: Clause structure and word order patterns in Kwa*. New York: Oxford University Press.
- Adebayo, Taofeeq. Forthcoming. Yoruba sentential negative markers. New York University. <http://ling.auf.net/lingbuzz/003162>.
- Adesola, Oluseye. 2010. The non-agreeing subject resumptive pronoun in Yoruba. In Aboh, Enoch and James Essegbey (eds). *Topics in Kwa syntax*. London: Springer. Pp 65–89.
- Aitchison, Jean. 2004. *Language change: Progress or decay?* Cambridge: Cambridge University Press.
- Ajayi, J. F. 1960. 'How Yorùbá was reduced to writing'. *Odu*, No.8. Pp. 249-58.
- Ajiboye, Oladipo. 2005. Topics on Yoruba nominal expressions. PhD dissertation, University of British Columbia.
- Aróhunmólàṣe, O. 1987. *Àgbéyèwò Ìdàgbàsókè: Èdè Àtí Àkótó Yorùbá:Látí Qdún 1800 sí 1985*. Ìbàdàn: Onibònoje Press and Book Industries.
- Bamgboṣe, A. 1965. *Yorùbá orthography: A linguistic appraisal with suggestions for reform*. Ibadan: Ibadan University Press.
- Blaszczak, Joanna., Anastasia Giannakidou, Dorota Klimek-Jankowska, and Krzysztof Migdalski. 2017. *Mood, aspect, modality revisited: New answers to old questions*. Chicago: University of Chicago Press.
- Bowen, T. J. 1858. *Grammar and Dictionary of the Yoruba language: with an introductory description of country and people of Yoruba*. Washignton City: Smithsonian Institution.

- Campbell, Lyle. 1995. *Historical syntax in cross-linguistic perspective*. Cambridge: Cambridge University Press
- Campbell, Lyle. 2013. *Historical Linguistics: An introduction*. Edinburgh: Edinburgh University Press, and Cambridge, MA: MIT Press.
- Crowther, Samuel. 1852. *A grammar of the Yoruba language*. London: Seeleys.
- Fortson IV, Benjamin, W. 2004. *Indo-European Language and Culture: An Introduction*. Malden, MA: Blackwell Publishing.
- Gess, Randall. 2003. On re-ranking and explanatory adequacy in a constraint-based theory of phonological change. In Holt, D. Eric. (Ed.). *Optimality Theory and Language Change*. Dordrecht, Boston: Kluwer Academic Publishers. Pp. 67-90.
- Haegeman, Lilianne. 2012. *Adverbial clauses, main clause phenomena, and the composition of the left periphery: The cartography of syntactic structures, volume 8*. New York: Oxford University Press.
- Holt, Eric. 1997. *The role of the listener in the historical phonology of Spanish and Portuguese: An Optimality-Theoretic account*. Georgetown University: PhD dissertation. [Available on Rutgers Optimality Archive.]
- Holt, Eric. 2003. 'Remarks on Optimality Theory and language change'. In Holt, D. Eric. (ed.). *Optimality Theory and Language Change*. Dordrecht, Boston: Kluwer Academic Publishers. Pp. 191-228.
- Hutton, John . 1996. Optimality Theory and historical language change. *The 4th Phonology Workshop*, University of Manchester. May, 1996.
- Jacobs, Haike. 1995. 'Optimality Theory and sound change'. In *Proceedings of the North-Eastern Linguistic Society 25* (1994) , ed. Jill Beckman. Amherst, MA: GLSA Publications. Pp. 219-232.
- Jacobs, Haike. 1995. Optimality Theory and Sound Change. In Beckman, Jill. (Ed.) *Proceedings of the North-Eastern Linguistic Society*. (25) 2. Amherst, MA: GLSA Publications. Pp. 219-232.
- Johnson, S. (1921). *The history of the Yorùbás*. Lagos: CSS Bookshops.
- Kamp, Hans. and Uwe Reyle. 1993. From discourse to logic: *introduction to modeltheoretic semantics of natural language, formal logic and discourse representation theory*. Dordrecht: Kluwer.
- Kielkiewicz-Janowiak, Agnieszka. 1999. 'Child-to-parent address change in Polish'. In E. H. Jahr (ed.), *Language change: Advances in historical sociolinguistics*. Berlin: Mouton de Gruyter. 45–63.
- Klein, W.; Li Ping; and Hendriks, Henriette. 2000. Aspect and assertion in Mandarin Chinese. *Natural Language and Linguistic Theory*, 18 Pp. 723–770.

- Kroch, A. (2001). Syntactic change. In M. Baltin and C. Collins, (eds), *The handbook of contemporary syntactic theory*. Blackwell Publishers: Oxford. Pp 699–729.
- Langacker, Ronald (1977). Syntactic reanalysis. In Charles N. Li (ed.), *Mechanics of Syntactic Change*. Austin: University of Texas Press. Pp. 59–139.
- Language Studies in Yoruba*. 1914. Lagos: Church Missionary Society Bookshop.
- McCarthy, John J. 2007. What is Optimality Theory?. Linguistics Department Faculty Publication Series. Paper 93. http://scholarworks.umass.edu/linguist_faculty_pubs/93/.
- McMahon, April M. S. 1994. *Understanding language change*. Cambridge: Cambridge UP.
- Miglio, Viola and Bruce Moren. 2003. ‘Merger avoidance and lexical reconstruction: An OT model of the Great Vowel Shift’. In Holt, D. Eric. (ed.). *Optimality Theory and Language Change*. Dordrecht, Boston: Kluwer Academic Publishers. Pp. 191-228
- Nchare, Abdoulaye. 2012. The grammar of Shupamem. PhD dissertation, New York University.
- Ogunbiyi, Isaac. 2003. The search for a Yoruba orthography since the 1840s: Obstacles to the choice of the Arabic script. *Sudanic Africa*, 14. Pp. 77-102
- Ola, Olanike. 1995. Optimality in Benue-Congo prosodic phonology and morphology. Ph.D. dissertation, University of British Columbia.
- Olumiyiwa, Temitope. 2013. ‘Yoruba writing: standards and trends’. *Journal of Arts and Humanities (JAH)*, Volume -2, No. Pp. 40- 51.
- Olúmúyìwá, Tèmitópé. 2013. Yoruba writing: Standards and trends. *Journal of Arts and Humanities (JAH)*, Volume -2, No.-1.Pp. 40-51.
- Ortiz de Urbina, Jon. 1993. Feature percolation and clausal pied-piping. In Hualde, Jose Ignacio, and Jon Ortiz de Urbina (eds). *Generative studies in Basque linguistics*. Amsterdam: John Benjamins. Pp. 189–219.
- Oyèláràn, O. 1973. ‘On Yorùbá orthography’. *Yorùbá: Journal of the Yorùbá Studies Association of Nigeria*. No.1. Pp 30-59.
- Postal, Paul. 1968. *Aspects of phonological theory*. New York: Harper & Row.
- Pulleyblank, Douglas. 2004. A note on tonal markedness in Yorùbá. *Phonology* 21. Pp. 409-25.
- Rizzi, Luigi. 1997. The fine structure of the left periphery. In Haegeman, Liliane. Ed. *Elements of Grammar. Handbook of Generative Syntax*. Kluwer: Dordrecht. Pp. 281-337.
- Roberts, Ian. 1993. ‘A formal account of grammaticalization in the history of Romance futures’. *Folia Linguistica Historica* 13. Pp. 219–258.
- Roberts, Ian. 2007. *Diachronic syntax*. New York: Oxford University Press.

- Schneider, Edgar. 2006. Investigating variation and change in written documents. J.K. Chambers, P. Trudgill, and N. Schilling–Estes (editors). *Handbook of language variation and change*. Malden, Mass.: Blackwell Publishing.
- van Kemenade, Ans and Nigel Vincent. 1997. Parameters of morphosyntactic change. In van Kemenade, Ans & Nigel Vincent (Eds.). *Parameters of morphosyntactic change*. Oxford: Oxford University Press.
- Vocabulary of the Yoruba Language*. 1852. Lagos: Church Missionary House
- Zanuttini, Raffaella. 2008. Encoding the addressee in the syntax: Evidence from English imperative subjects. *Natural Language and Linguistic Theory*, 26.1. Pp. 185-218.