

TOPICS ON YORÙBÁ NOMINAL EXPRESSIONS

by

ỌLÁDÍPỌ JACOB AJÍBÓYÈ

B.A (1983), P.G.D.E (1988), M.A (1992), University of Ilorin

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

in

THE FACULTY OF GRADUATE STUDIES

(Linguistics)

THE UNIVERSITY OF BRITISH COLUMBIA

November 2005

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ABSTRACT

This thesis discusses four selected topics on Yorùbá nominal expressions: the syntax of possessives, the construal of bare nouns, the marking of specificity and salience, and plural marking strategies.

Regarding possessives, it is proposed that they have one base structure (a vP shell). The difference in surface linear order between verbal and nominal genitives is determined by which of the two arguments move. In nominal genitives, the possessum moves. In verbal genitives, it is the possessor that moves.

Regarding the interpretation of Yorùbá bare nouns, it is shown that they can be construed in one of three ways: as generics, as indefinites, or as definites. First, generics may be lexically conditioned (with permanent state predicates) or grammatically conditioned (with transitory predicates through the use of imperfective *máa-n̄*). Second, wherever a generic construal is illicit, an indefinite construal is licit. Third, definite construals are discourse-linked.

Regarding specificity, it is shown that Yorùbá overtly marks specificity on NPs with the element *kan*. Regarding salience, it is shown that definite DPs are morphologically marked as salient (by virtue of being unique, in an identity relation or additive) through the use of *náà*.

Finally, regarding plural marking, it is shown that Yorùbá uses three different strategies: contextually, semantically, or morphologically determined plurality. It is proposed that the deployment of the PLURAL feature is determined by feature percolation or feature matching.

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ACKNOWLEDGEMENT

Bí a kò bá tètè kú, a ó jẹran tó tẹ́rin

The longer we live, the more we achieve

There are a lot of people that I have to acknowledge for the role they play either severally or jointly in the course of pursuing the studies that produce this dissertation. I am lucky to have Rose-Marie Déchaine as my supervisor for so many reasons. First, she was instrumental to my coming to UBC. Second, she paid my flight ticket to UBC and provided me accommodation for the first two weeks of my arrival. Third, her deep knowledge of Yorùbá language and my cultural background has been very helpful in putting me on the right track throughout my years of study at UBC. This dissertation stems from the first conference paper that I had in 2001 under her auspices. She has given me every support that I need to do thorough research: time, insightful and provocative thoughts and ideas, books and journals, computers for use at home and on campus. She also sponsored me to conferences where parts of this dissertation were presented and a linguistic field trip to Nigeria in 2003. Above all, she knows how to make me feel less insecure about my ideas while challenging me to make them better even if it is going to take extra time and pain. I am also grateful for benefiting from the following research grants from Social Sciences and Humanities Research Council (SSHRC) as her Research Assistant from 1999-2005: (i) #412-03-1003 (Principal Investigator: A.M. DiSciullo; Co-investigator: R-M. Déchaine) (ii) #412-97-0016 (Principal Investigator: A.M. DiSciullo; Co-investigator: R.M. Déchaine) (iii) #410-2000-1234 (Principal Investigator: R-M. Déchaine); (iv) #12R57105.

I am equally grateful to Douglas Pulleyblank who is both my teacher and a member of my committee. Since the day I met him, he has been very helpful emotionally and academically. His many years of study of the Yorùbá language are valuable assets to me. I benefited immensely from his criticisms, suggestions, and comments on every part of this dissertation, most especially the phonological aspects. I acknowledge the financial support from his research grant (#410-2002-0041). Thanks to Anne-Marie, his wife, who provided me with some cooking utensils and a sleeping blanket when I first came. Finally, I also feel honoured by their occasional visits to me.

The fact that Rose-Marie and Douglas are icons in the field of the Yorùbá language who are to play significant roles in this study was anticipated in the following extracts from Awóbùlúyì's referee report to the department of Linguistics UBC in 1999. "Mr. Ajiboye holds a Master's degree in Yoruba language, which to us here is proof that he is capable of

successfully undertaking studies and original doctoral degree. We had hoped that he would do that here in this department. Now, this is not to say that we begrudge him his desire to do it in your department. Indeed, he has our very best wishes, as we know that he will be in good hands there.” Truly, I have been in good hands as I have had a soft-landing into Doug and Rose-Marie’s hands.

I thank Martina Wiltschko for her valuable contributions as a member of my dissertation committee. She honoured all meetings that I requested; read every draft of the dissertation in the shortest possible time and gave me feedback both in written form and oral discussion. I also thank her for sponsoring me to the 2005 BLS conference where I presented chapter four of this dissertation.

I am short of adequate words to convey my deepest appreciation to Victor Manfredi a.k.a Fẹmuwẹ, because of the many roles he played in my doctoral program. First, he was also instrumental to my coming to Canada after his visit to Ilorin in 1997 on a Fulbright Scholarship. On this significant role, I say:

Bí ònko ò kọ, kí lòn gbìn ó gbìn. Bí òn gbìn ò gbìn, kí lòn ká ó kà á.

‘No planting without harrowing, and no harvest without planting’.

Second, I thank him for moral and financial support. Third, I am grateful for the supply of a lot of relevant academic materials even at short notice and for making his library in Boston available to me each time I visited him. Finally, I thank him for his immense contribution in form of comments, criticisms and suggestions to the upcoming of this dissertation. Though some of his suggestions could not make it into this final draft, they form a strong basis for future research.

I say thanks to ògá Yíwọlá Awóyalé, for recommending me to Rose-Marie to come and study at UBC.

I am indebted to my instructors: Pat Shaw, Uyi Stewart, Laura Downing, Douglas Pulleyblank, Henry Davis, Rose-Marie Déchaine, Felicia Lee, Bryan Gick, Lisa Matthewson who all helped to shape my linguistic perspective and other faculty members: Joe Stemberger, Eric Baetson, Gunnar Hannson, Guy Carden, Hotze Rullmann, who have shared their knowledge with me either on personal grounds or by their comments at various presentations of my work in the department of linguistics seminar series. Uyi deserves a special thank you. His charge to me that I should always do one thing at a time is a guiding principle that helps me whenever I am overwhelmed by many deadlines at the same time. I also thank Bryan for allowing me unofficially to use his lab as my working place throughout the entire period of writing this dissertation.

I would like to thank my Nigeria friends at UBC: Gloria and her husband Robert, Pius

Adésanmí, Chidi Oguamanam, Rashidat Àyínlá, Olúmidé Ìbíkúnlé, Lánre Aríkèḗbí, Báýò Bāñjò, Báýò Arégbèṣolá, and Chinedu. Outside the UBC community my thanks go to Kéhìndé and Victoria Ajíbíkèḗ, Lukman and Mary Bámigbádé, Victor and Fatima Ènísànláyèyè, Níkèḗ and Josiah Akínsanmí, Wálé and Bùkólá Èniadé, Fọ́lášadé Dáramólá, Brando Adésuyan, Babátúndé and Fúnnkẹ́ Balógun and Moṣọpẹ́ Fágbohùngbẹ́ for making me less homesick.

I owe my wife, Modúpẹ́ special thanks for her moral and emotional support while both of us were here. I am grateful to my children Ọláòníbòji, Jẹnrólá, Ọmọ́lẹ and Ọdúnìtàn for their good behaviour during my six-year-absence from home. I am also grateful to Motúnráyọ for being an excellent foster mother for those years. I extend my appreciation to Mojírólá and Títílayọ, my college son Ìdòwú Shittu, my junior sister, Ìyábòdé, my senior sister Oyèláràn, my aunt, madam Èbẹ́ Atólágbé, my dear brother Amos Fábíyì, my good friends Samson Ọlájídé, Jíbólá Abíòdún, Ìdòwú Awóṣẹjọ, and Ládípọ́ Ọdẹyemí, my mother in-law madam Lucia Òní for their moral support and constant visits to the children that I left behind. I was never bored by mails from brother Wálé Jóláyemí and calls from Anífowóṣe Atólágbé asking of my welfare and progress in my studies. For this, I say thanks to the duo. I thank the èjirẹ́: Táyèwò Àánúolúwa Paul and Ọmọ́kẹ́hìndégbẹ́gbọ́n Ifẹ́oluwa Peter here in Canada for being patient with me especially when pressure from work sometime make me react negatively to their rightful demands. They are an additional feather to my cap. *A jagun, a kẹ́rú, a kẹ́rù, Ọgá ọ̀go ló bá wa ẹ́.* ‘We fought a war, we won and we had booties because the Almighty God was on our side’.

I would like to express special thanks to my classmates for their support, Leora Bar-el, Carrie Gillon, Masaru Kiyota, Gessiane Picanco, Sungunya Ruangjaroon, Naomi Sawai, Scott Shank, Kayono Shiobara, Linda Watt, Ian Wilson, and Rachel Wojdak and the following fellow graduate students for their friendship, Solveiga Armoskaite, Leszek Barzek, Clare Cook, Suzanne Gessner, Susie Jones, Eun-shook Kim, Karstin Koch, Jeff Mühlbauer, Sunyoung Oh, Jeremy Perkins,

I owe Jeff Mühlbauer and Clare Cook special thanks for proofreading part of the early drafts of this dissertation and for sharing with me some of the data on Algonquian languages (Plains Cree and Blackfoot) from their fieldwork. Thanks to Sahffiq for technical support at the Interdisciplinary Speech Laboratory.

Apart from being a native speaker of Yorùbá, I conducted some fieldwork, therefore my deepest thanks go out to Ọláníkèḗ Ọ̀la-Orie, Olúṣeyẹ́ Adéṣolá, Rashidat Àyínlá, Lánre Aríkèḗbí Oyèkànmí Nash and Modúpẹ́ Ajíbóyè who shared their knowledge of Yorùbá

language with me by acting as consultants on some of the data that I use in this dissertation.

I gratefully acknowledge the following sources of financial supports: (i) International Partial Tuition Scholarship (1999-2005), (ii) Alma Mater Society Student Aid Bursary (2000), (iii) Student Aid Bursary for Graduate Students (2005), (iv) Emergency fund for developing country students (financial aid from Canadian Bureau for International Education), (v) Stipends for Teaching Assistantship in the department of Linguistics (2001-2005), (vi) Salary as a Yorùbá language Consultant to the 2003/2004 UBC linguistics field methods class.

Finally, I give the Almighty God all the glory. Without his approval, it would have been impossible for me to come to UBC. Without his support and assistance, it would have been impossible for me to sail through the storms that I journeyed during the course of this study. The totality of what God has done for me is found in the following Yorùbá saying:

A şòro ó şe b'óhun t'Ólúwa ò fẹ́

A dùn ún şe b'óhun t'Ólúwa ti şe tán

Ayé ẹ́ má tu wò

Işẹ́ Olúwa ni (Sunny Ade 1983)

When God says yes, nobody can say no

When God says no, nobody can say yes

You dare not inquire

It is God's work

Dedication

This dissertation is dedicated to my late parents

Pa James Ajíbóyè and

Mrs. Abigail Àyánpónmilé Ajíbóyè

ABBREVIATIONS

ACC	accusative
Agr	agreement
ARG	argument
Asp	aspect
AspP	aspect phrase
BN	bare noun
C	complementizer
CP	complementizer phrase
DEF	definite
Dem	demonstrative
DET	determiner
DP	determiner phrase
Emph	emphasis
ERG	ergative
Fut	future
GEN	generic
Gen	genitive
HTS	high tone syllable
I(NFL)	inflection
IMP	imperfective
Indef	indefinite
IP	inflectional phrase
Loc	locative
MB	Mòbà
MTS	mid tone syllable
Neg	negation
NOM	nominative
Nom	nominalizer
Num	numeral

O	object
OP	operator
PL	plural
Poss'r	possessor
Poss'm	possessum
Prog	progressive
P-state	permanent state
Q	quantifier
RP	resumptive pronoun
SAL	Salience
SG	singular
SLP	Stage Level Predicate
Spec	specifier
SPF	specificity
S	subject
SY	Standard Yorùbá
T-state	Temporary state
V-event	event verb

CHAPTER ONE: INTRODUCTION

1.1 Purpose and organization

This dissertation investigates selected topics on Yorùbá nominal expressions and makes a number of proposals that enable us understand the internal and the external structure of the Yorùbá DP. Although the internal structure of Yorùbá nominals has been extensively described (Awóyalé 1974; Awóbùlúyí 1978; Bámgbóṣé 1966, 1967, 1990; Yusuf 1995), there remains the question of whether more recent theories of syntax such as the ‘DP hypothesis’ (Abney 1987; Aboh 1999, 2004; Cinque 1994, 2004, 2005; Kayne 1994; Longobardi 1994, 2000, 2003, 2004) can provide insight into the syntax, pragmatics and semantics of Yorùbá nominals.

The dissertation deals with four related topics on nominal expressions, which are as follows: the expression of the possessive relation (chapters 2-3), how bare nouns are construed (chapters 4), how specificity and salience are marked (chapter 5), and plural marking strategies (chapter 6).

1.1.1 The expression of the possessive relation

Chapters 2 and 3 examine how the possessive relation (henceforth R) is expressed in nominal and verbal environments. The first part of chapter 2 discusses the semantics of the R relation, which forms the basis for possessive constructions. The second part deals with the syntax of the R relation, proposing that the Possessor-Possessum relation is best analyzed as a co-argument relation. I also show that there is a parallel between verbal possessor constructions such as (1a) and their nominal counterparts in (1b). I propose that both (1a) and (1b) derive from the same base structure.

- (1) a. Túndé ní ilé *Possessor verb Possessum*
 T. have house
 ‘Tunde has a house’

- b. ilé e Túndé *Possessum MTS Possessor*
 house MTS T.
 'Tunde's house'

Observe that the linear order of the possessor and the possessum in genitive constructions is the mirror image of what is obtained in verbal possessives. The other concern of chapter 2 is to account for the phonological content of the mid tone genitive morpheme, which shows up between arguments that are in a genitive relation as in (2a), but is sometimes absent as shown in (2b).

- (2) a. Mo dé [ilé e Túndé] *possessum MTS possessor*
 1sg reach house MTS T.
 'I got to Tunde's house.'
- b. Gómínà pàşẹ kí wọn ri *possessum MTS possessor*
 governor give-order C 3pl erect
 [èrẹ Awólówò] sí oríta Başòrun
 statue A. Loc junction B.
 'The Governor ordered that the Awolowo's statue be erected at Basorun junction.'

An extensive account that aims at establishing the phonological content of the M-tone syllable as well as its syntactic and semantic functions is undertaken.

Chapter 3 continues the analysis of genitive constructions with more complex structures, looking at the occurrence of possessum NPs with *ti*-phrases. The example in (3a) indicates that it is possible for the M tone *ti*-element to occur between the possessum and the possessor. The example in (3b) shows the co-occurrence of the MTS and the *ti*-element.

- (3) a. Tolú fẹ [èrẹ ti Awólówò] *possessum C possessor*
 T. want statue C A.
 'Tolu wants the Awolowo's statue.'
- b. Mo gba [owó o ti Bùnmi] *possessum MTS C possessor*
 1sg get money MTS C B.
 'I got Bunmi's money.'

I propose that nominal genitives of the type shown in (2) are to be analyzed as plain genitive DPs and that D, which is occupied by the MTS, takes a small clause (vP) as its complement. In the same way, I propose that the genitive plus *ti*-construction in (3) is to be analyzed as a

DP with its overt D taking a reduced relative clause (CP) as its complement.

1.1.2 Discourse related interpretation

Chapters 4 and 5 examine some discourse related interpretive properties of nominals in Yorùbá based on whether they are new, familiar, specific or salient in the discourse.

1.1.2.1 Interpreting bare nouns

Chapter 4 establishes three different ways by which bare nouns can be construed: generic (4a), indefinite (4b), and definite (4c).

- | | | | | |
|-----|----|-------------------------|-------------------|-------------------------------|
| (4) | a. | Tayé fẹ̀ràn ajá | <i>generic</i> | |
| | | T. like dog | | |
| | | 'Taye likes dogs.' | | |
| | b. | Tayé rí ajá | <i>indefinite</i> | |
| | | T. see dog | | |
| | | 'Taye saw a dog.' | | |
| | c. | Tayé gbé ajá | <i>definite</i> | (in proper discourse context) |
| | | T. carry dog | | |
| | | 'Taye carried the dog.' | | |

I demonstrate that these construals are determined by the syntactic position of the bare noun (subject versus object), the predicate type (permanent state versus temporary state/event) as well as discourse linking.

For a generic construal, this work shows that there are two possible ways by which this can be obtained: (i) lexically conditioned generics that are bound by a null generic (GEN) operator, and (ii), grammatically conditioned genericity that is introduced by the imperfective aspectual marker *máa-ní*

Lexically conditioned generic construals are found with permanent state predicates whereas grammatically conditioned generic construals are found with transitory (temporary

state and event) predicates.

As for indefinite construals, I show that they are possible wherever a generic construal is not otherwise available. Thus, I demonstrate that a bare noun is generic if there is a GEN operator, and that elsewhere it is indefinite. Lastly, I show that in Yorùbá, any bare noun can be definite in the proper discourse context.

1.1.2.2 Marking nouns for specificity and salience

Chapter 5 focuses on another discourse related interpretation. I show that nouns in Yorùbá can be morphologically marked for specificity and salience. When a noun is unfamiliar and new (i.e. indefinite) it can be overtly marked for specificity with *kan* (5a). On the other hand, when a noun is familiar (i.e. definite) it can be overtly marked for salience with *náà* (5b).

- (5) a. Tayé rí ajá **kan** *specific*
T. see dog specific
'Taye saw a CERTAIN dog.'
- b. Tayé rí ajá **náà** *salience*
T. see dog salient
'Taye saw the VERY dog.'

I argue that the facts reported above for Yorùbá contrast in interesting ways with a language like English. For example, in environments where English would require overt marking of definite or indefinite, Yorùbá has null (\emptyset) marking; i.e. bare nouns. In environments where English does not have obligatory marking for specificity and saliency, Yorùbá does, and so we get *kan* (specificity) and *náà* (salience).

1.1.3 Plural strategies

Chapter 6 discusses various strategies that Yorùbá adopts to mark plural. The first thing that this work shows is that plural marking is not obligatory. However, I demonstrate that there

are three different ways by which plural marking is carried out. One way is through contextually determined plurality. These are the cases where there is no overt plural marking as such and a noun can be interpreted as singular or plural:

- (6) Táyé ní ajá
 T. have dog
 = 'Taye has a dog.'
 = 'Taye has dogs'

Another way is a semantically determined plurality. These are the cases where nouns take quantifiers and numerals that have an abstract [PLURAL] feature. Such nouns are unambiguously interpreted as plural. In (7a), there is the quantifier *díè* 'few' co-occurring with *ajá* 'dog' and in (7b) the numeral *méje* 'seven' co-occurs with the same noun and in both cases, the noun is interpreted as plural.

- (7) a. Táyé ra [ajá díè]
 T. buy dog few
 'Taye bought few dogs.'
- b. Táyé ra [ajá méje]
 T. buy dog seven
 'Taye bought seven dogs.'

The third category is the morphologically determined plurality. These are the cases when nouns are overtly marked by plural words. I show that there are two syntactic positions for morphologically determined plurality: the noun and a modifying element in a nominal expression. A noun is marked for plural by the use of the plural word *àwọn* as shown in (8).

- (8) Mo ra [àwọn ìwé] ní Kánádà
 1sg buy PL book Loc Place
 'I bought books in Canada.'

For plural marking on modifiers, this is realized through the COPY of a modifier, *gíga* 'tall', as in (9).

- (9) [Ilé gíga gíga] wà ní Fànkúfà
 house COPY tall be LOC Vancouver
 'There are high-rises in Vancouver.'

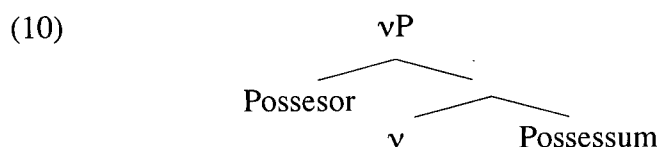
The example in (9) contradicts claims that have been made in the literature to the effect that Yorùbá has only one plural word: *àwọn* (cf. Dryer 1989, Rowlands 1969). I moreover demonstrate that the multiple strategies of plural marking attested in Yorùbá are semantically driven.

1.2 Clause structure

This section introduces the type of clause structure that is assumed for the analysis of Yorùbá genitive constructions: the small clause structure (§1.2.1) and the relative clause structure (§1.2.2). I then introduce Yorùbá DP structure (§1.2.3), and consider its relation to demonstratives (§1.2.4) and modification (§1.2.5).

1.2.1 Small clause¹

I propose a small clause (vP) along the lines of Stowell (1981) and subsequent works to account for “plain” nominal and verbal genitives. In the proposed structure, the possessor argument occupies the specifier of this functional projection, vP taking the possessum argument as its complement (cf. Bowers 1993, Svenonius 1994), as in (10). Within this approach, I further propose that *v* is covert in the nominal genitive constructions and it is represented as [\emptyset]. However, in verbal possessives, *v* is overt and realized as a possessive verb *ní* ‘have’.

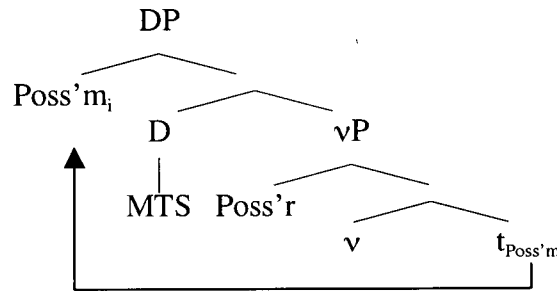


As I show, this vP introduces a DP layer, and the possessum NP moves to Spec DP where D is overtly realized as the genitive morpheme (the M-tone syllable) that relates the possessum

¹ Some of the ideas of small clause developed here are taken from “Introduction to Layers in DP” (Zamparelli 1995).

and the possessor together in the surface syntax.²

(11)

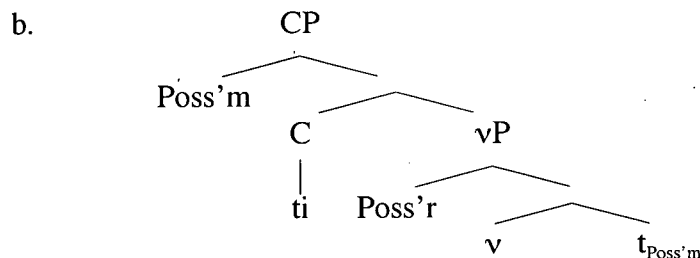


Syntactically, I argue that the relation (R) between the possessor and the possessum arguments must be mediated by a functional element. When this functional element is covert its complement semantically has to move to a “stronger” layer (Zamparelli 1995), i.e. the DP, where it is pronounced as a genitive DP. But when the functional element is overt the complement need not move.

1.2.2 Relative clause

The relative clause analysis adopted in this dissertation accounts for genitive plus *ti* constructions. *Ti* constructions found within genitive DPs are analyzed as reduced relative clauses that lack an IP layer and where C is headed by a M-tone *ti*. This reduced CP is introduced above the small clause, as in (12).

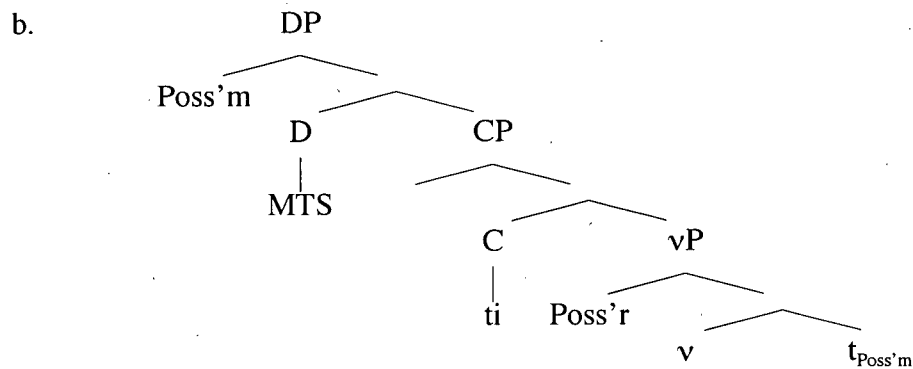
- (12) a. ère ti Kúnlé
statue C K.
'statue of Kunle'



² See Stowell (1981) for the adjunction analysis of arguments within a small clause.

In a genitive DP where the MTS and *ti* are both overt, there are three layers of phrases comprising the DP, the CP and the vP.

- (13) a. owó o ti Kúnlé
 money MTS C K.
 'Kunle's money'



1.2.3 The Internal Structure of Yorùbá DP

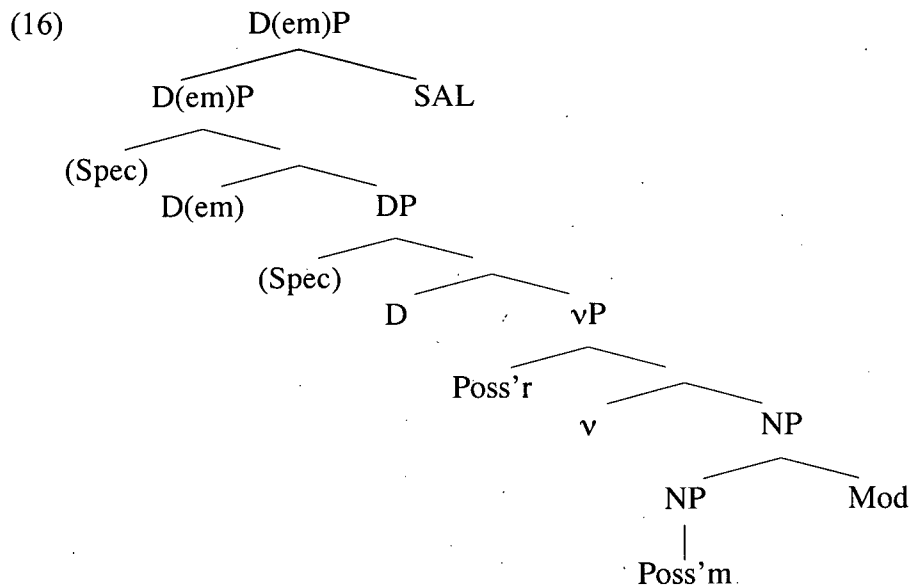
The first thing to observe is that Yorùbá surface ordering is usually head-initial, (14).

- (14) a. V DP jẹ iṣu
 'eat yam'
- b. P DP sí Fànkúfà
 'to Vancouver'
- c. I VP yóò jẹ iṣu
 'will eat yam'
- d. C IP pé mo jẹ iṣu
 that I eat yam'

However, nominal expressions show mixed properties. Some nominals have head-initial ordering as in (15a), while others have a head-final ordering as in (15b).

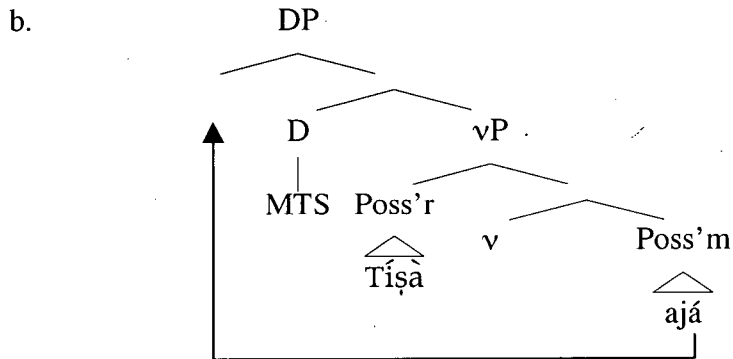
- (15) a. **Q** NP gbogbo ọmọ
 all child
 'all of the children'
- b. NP **Dem** ọmọ yíí
 child this
 'this child'

I propose that despite appearances, Yorùbá is consistently head-initial. This accords with Kayne's (1994) proposal that all languages have a Specifier-Head-Complement order (S-H-C). I propose that in Yorùbá, any departure from the Specifier-Head-Complement order arises from movement to a higher specifier. I give the full structure in (16). In (16), *Sal* refers to *salience* marker and is analyzed as an adjunct to D(em)P. See chapter 5.



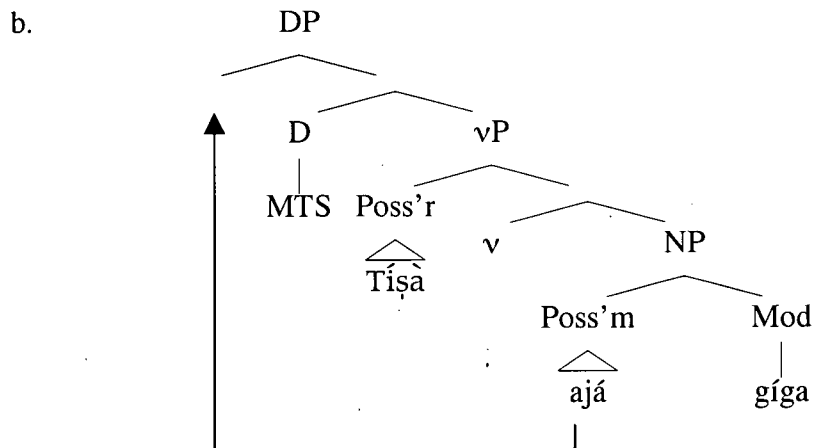
In the proposed structure, the highest nominal projection is D(em)P, which dominates DP. Thus, when we have a demonstrative within a nominal expression, the DP is the complement of Dem. The DP in turn dominates a small clause (vP), which contain the possessive phrase. As for modifiers, they are right adjoined to NP. What follows is a break down of this D(em)P structure. In (17a), the genitive DP contains only the Possessor and the Possessum with the intervening genitive marker. I propose that the Possessum moves to Spec DP in order to obtain the surface linear order of Possessum-Possessor, as in (17b).

- (17) a. ajá a Tíṣà
 dog MTS teacher
 'the teacher's dog'



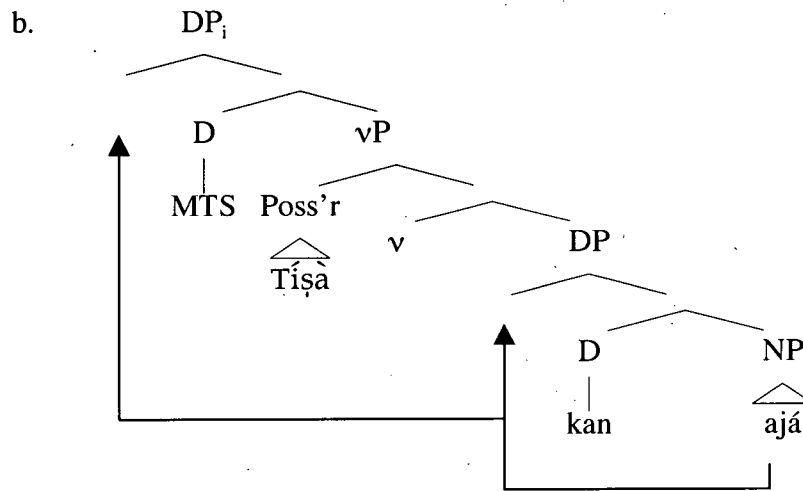
(18a) is a genitive DP whose Possessum takes a modifier. This modifier follows the Possessor in the surface syntax. But the modifier actually modifies the Possessum. The occurrence of the modifier after the Possessor is due to movement of the Possessum to Spec DP, as in (18b).

- (18) a. ajá a Tíṣà gíga
 dog MTS teacher tall
 'the teacher's tall dog'



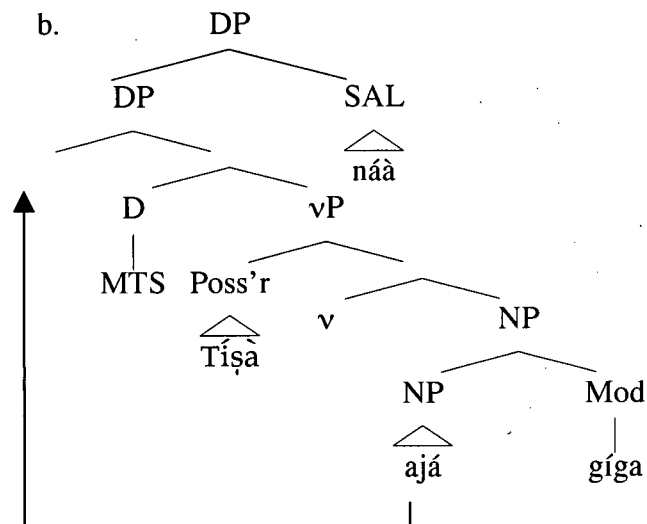
The genitive DP in (19a) has the specificity marker *kan* which modifies the possessum. In this case, the Possessum first moves to the Spec of its DP and further moves to Spec of the higher DP to derive the surface linear order where the specificity marker directly follows the Possessor, as in (19b).

- (19) a. *ajá a Tíṣà kan*
 dog MTS teacherSPF
 'the teacher's certain dog (a certain dog of the teacher)'



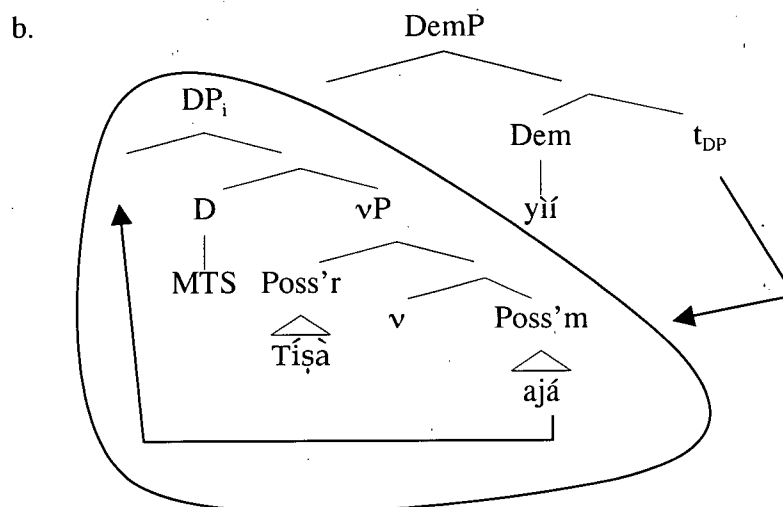
The genitive DP in (20) has a modifier *gíga* 'tall' and the salience marker *náà*. I treat both as adjuncts. The modifier modifies the Possessum. Assuming that the salience marker is in C-commanding relation to both the possessor and the possessum, I argue that it may mark either DP as salient, hence (20a) is ambiguous between 'the VERY dog' or 'the VERY teacher'.

- (20) a. [*ajá a Tíṣà gíga náà*]
 dog MTS teachertall SAL
 (i) = 'the VERY tall dog of the teacher'
 (ii) = 'the tall dog of the VERY teacher'



Finally, in (21) is a DemP that contains a genitive DP. I treat the demonstrative as a functional head and propose that the whole genitive DP moves to Spec DemP. Observe that there is also a movement that is internal to the genitive DP, namely movement of the Possessum from the complement position of *v* to Spec DP.

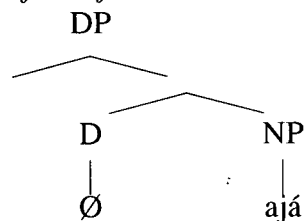
- (21) a. ajá a Tíṣà yìí
 dog MTS teacherDem
 'this teacher's dog'



1.2.3.1 DP and the D position

Yorùbá nouns can be bare in the sense that they need not have overt determiners. Yorùbá bare nouns may be construed as generic, indefinite, or definite. I propose that bare nouns that are construed as definite have a (null) discourse-linked determiner as in (22), in which case they may have the structure of a DP with a null D, which takes the NP as its complement (cf. Abney 1997, Longobardi 1994, and subsequent works).

- (22) *Structure for definite construal of bare N*



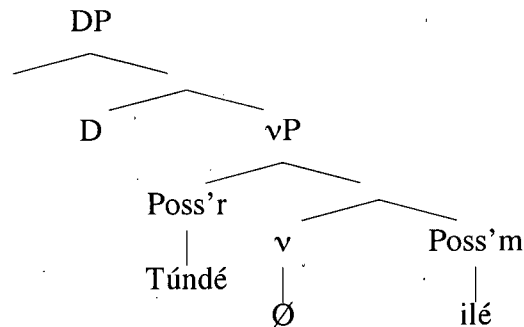
1.2.3.2 Genitive structure in DP

Yorùbá nominal genitive constructions are post-nominal in the sense that the possessor follows the possessum. In this case the possessors are marked for Genitive case by a mid tone vowel, henceforth referred to as MTS, which I analyze as the genitive marker.

- (23) a. ilé e Túndé
 house MTS T.
 'Tunde's house'
- b. ilé e rẹ̀
 house MTS 3sg
 'his house'

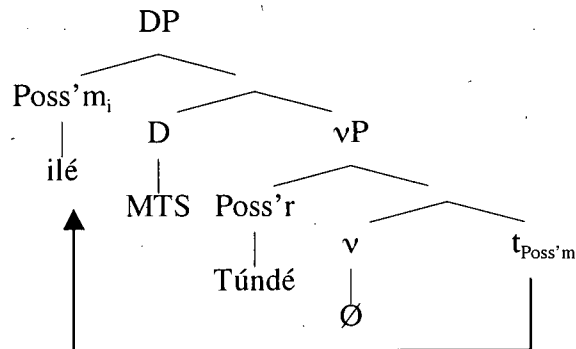
I claim that a genitive phrase has the structure of a DP whose D takes the small clause as its complement. The MTS occupies this D position.

- (24) Yorùbá Nominal Genitive DP



Observe that in the proposed structure, the possessor precedes the possessum in the vP. However in the surface syntax, the possessum precedes the possessor. To account for that linear order, I propose a raising analysis, which raises the possessum to Spec DP.

(25) Yorùbá Nominal Genitive DP



1.2.4 D(emonstrative) and NP

Two types of elements fill the demonstrative position in Yorùbá. The first type, which I call basic demonstratives are *yíí* ‘this’ and *yẹn* ‘that’. They can be marked for number by the prefix plural morpheme *wòn* (see chapter 6).

- (26) a. ọmọ yẹn
 child Dem
 ‘that child’
- b. ọmọ wònyẹn
 child Dem
 ‘those children’

The other type of element that occupies this position is the deictic element *kan* which marks nouns for specificity.

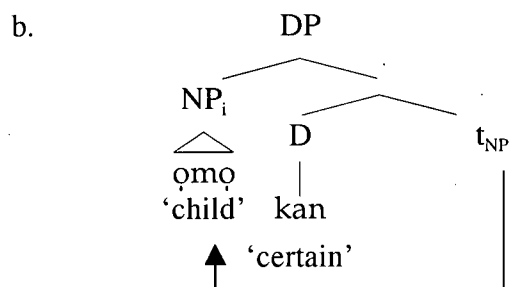
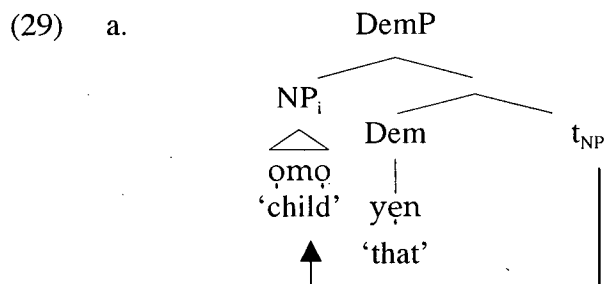
- (27) ilé kan
 house certain
 ‘a certain house’

I analyze *kan* as a deictic D glosses as SPF in (28). This proposal has support from the distribution of these elements: demonstratives and *kan* are in complementary distribution.

- (28) a. *ilé yíí kan
 house Dem SPF

- b. *ilé kan yíí
 house SPF Dem

Assuming Yorùbá is Head initial for all phrases, I propose that movement of the NP to Spec DemP derives the surface ordering of demonstratives relative to the NP.



1.2.5 Modification

Here, I gave a fairly detailed account of modifiers. This is because in the body of the dissertation, there is no separate discussion of this category other than in chapter 6 where they are treated as a class of plural word. Yorùbá modifiers³ appear after the noun that they modify:

- (30) a. [Ajá **dúdí**] jẹ egungun [NP Mod]
 dog black eat bone
 'The black dog ate the bone.'
- b. [Igi **ńlá**] wà ní igbó orò [NP Mod]
 tree big be Loc forest sacred
 'There are big trees in the sacred forest.'

³ Modifiers as used in this dissertation are the adjectives (cf. Bámgbóṣé 1967; Awóbùlúyì 1978; Hawkins 1983; Aboh 1999, 2000; Cinque 2004; Dixon 2004; Lindsey and Scancarelli 1985). On the division of this category into open class versus closed class see Cinque (2004, 2005).

These modifiers fall into four distinct semantic classes (31).

- (31) a. Colour Modifiers: {*dúdú* 'black', *funfun* 'white', *pupa* 'red' }
 b. Dimension Modifiers: {*kékeré*, 'small' *kúkúró*, 'short', *nlá*, 'big'}
 c. Quality Modifiers: {*burúkú* 'bad', *dára-dára* 'good', *lile* 'hard', *rere* 'good' *pàtākì* 'important', *tuntun* 'new'}
 d. Quantity Modifiers: {*díẹ* 'few', *púpọ* 'many', + NUMERALS}

They show the ordering restrictions in (32).⁴

- (32) [*Colour* > *Dimension* > *Quality* > *Quantity*]

The following examples illustrate these co-occurrence restrictions. When there is more than one modifier, in an NP such that colour is among them, the colour modifier must precede any of the other modifiers, with dimension in (33a), quality (34a), and quantity, (35a).

- (33) a. *Colour* > *Dimension*
 Mo ra ajá [dúdú kékeré]
 1sg buy dog black small
 'I bought a small black dog.'
- b. **Dimension* > *Colour*
 *ajá [kékeré dúdú]
- (34) a. *Colour* > *Quality*
 Olú kò fẹ ọmọbìnrin [dúdú burúkú] yẹn
 PN neg marry girl black bad Dem
 'Olu did not marry that nasty dark-in-complexion girl.'
- b. **Quality* > *Colour*
 *ajá [burúkú dodo]
- (35) a. *Colour* > *Quantity*
 Ìyá oníso-ẹran ní ajá [dúdú púpọ]
 mother animal-trader have dog black many
 'The woman who trades in domestic animals has many black dogs.'
- b. **Quantity* > *Colour*
 *ajá [púpọ dúdú]

⁴ However there is some variation in these restrictions as some of the starred orders are acceptable to some speakers of Yorùbá.

With dimension, quality, and quantity modifiers, dimension must precede both quality (36a) and quantity (37a).

- (36) a. *Dimension > Quality*
 N kò fẹ́ ajá [kékeré burúkú] yíí
 1sg neg want dog small bad Dem
 'I do not want this ugly small dog.'

- b. **Quality > Dimension*
 *ajá [burúkú kékeré]

- (37) a. *Dimension > Quantity*
 Mo ra iṣu [ńlá díẹ̀]
 1sg buy yam big few
 'I bought few big yams.'

- b. *Quantity > Dimension*
 *iṣu [díẹ̀ ńlá]

Further, when quality and quantity both modify an NP, the quality modifier must precede the quantity modifier.

- (38) a. *Quality > Quantity*
 Ajá [burúkú méje] wà ní ìlú yíí
 dog bad seven be Loc town Dem
 'There are seven terrible dogs in this city.'

- b. *ajá méje burúkú

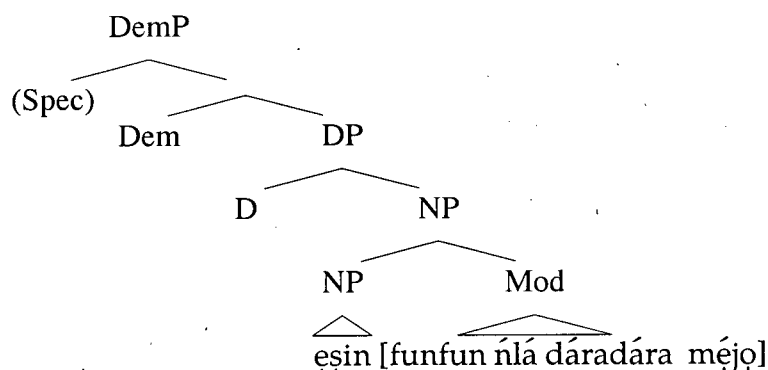
Finally, a combination of colour, dimension and quality with an NP shows the co-occurrence order in (39a); colour must precede dimension, which in turn must precede quality. Finally, when all the modifiers combine with an NP, the ordering restriction that must be followed is illustrated in (39b).

- (39) a. *Colour > Dimension > Quality*
 Ọwọ́ tẹ olùkọ́ [dúdú kékeréburúkú] yẹn
 hand reach teacher black small bad Dem
 'That nasty small dark-in-complexion teacher is in trouble.'

- b. *Colour > Dimension > Quality > Quantity*
 Ọba á fún Gómìnà ní
 king HTS give governor P
 ẹ̀ṣin [funfun nílá dárádára méjọ]
 horse white big nice eight
 'The king gave the governor eight nice big white horses.'

I put forward two possible analyses of modifiers. They can either be analyzed as base-generated adjuncts or as functional heads. If modifiers are adjuncts, then this gives the structure in (40) assuming right adjunction (cf. Cinque 1993). The entire DP raises to Spec DemP.)

- (40) hypothesis 1: *modifiers as base-generated adjuncts* (cf. Déchaine 1993)



The implications of modifier stacking for adjunct analysis is that one needs to stipulate a Yorùbá-specific modifier sequence: *Colour > Dimension > Quality > Quantity*; which is the mirror image of English modifier sequences.

- (41) a. Yorùbá modifier sequence: [*Colour > Dimension > Quality > Quantity*]
 b. English modifier sequence: [*Quantity > Quality > Dimension > Colour*]

The examples in (42) and (43) illustrate the sequences in Yorùbá and English.

- (42) *Yorùbá*
 Ọbá ra ẹ̀ṣin [funfun nílá dárádára méjọ]
 king buy horse **white** **big** **nice** **eight**
 fún ààrẹ Ọbásanjọ
 P president O.

(43) *English*

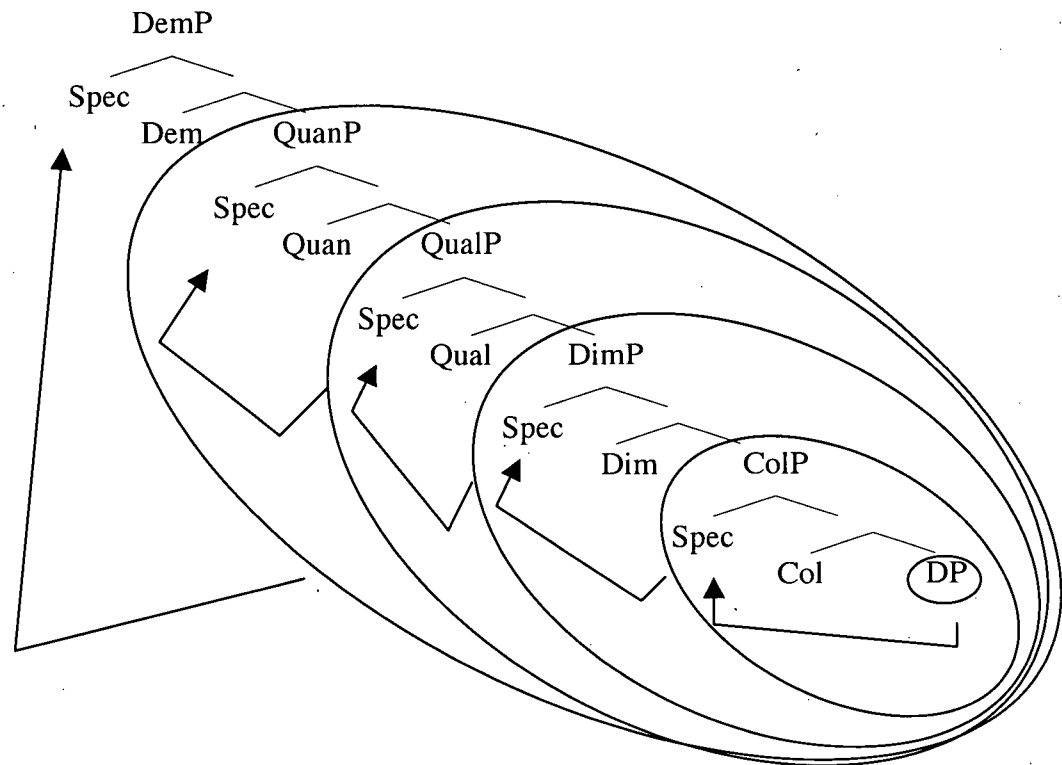
The king bought [**eight nice big white**] horses for President Obasanjo.

The mirror image ordering could be taken as evidence that syntactic movement has applied in Yorùbá. And if that is the case, it is a good case to make for an analysis that treats modifiers as functional heads, which introduce a DP complement.⁵ The analysis proceeds as follows. First the DP moves to Spec ModP and second, the ModP raises to Spec DemP. This corresponds to “snowball” movement (Aboh 1999).

Snowballing as developed in Aboh (1999, 2004) is a syntactic mechanism that allows pied-piping of a maximal projection. In particular, it involves leftward movement of an NP to the specifier position of a higher phrase, call it YP, and the whole YP which now harbors the NP and its complement moves to the specifier position of yet another higher phrase, call it XP. Depending on the number of intervening functional heads, snowballing continues until it gets to the Spec of the highest phrase. This contrasts with cyclic movement, which involves movement of a given phrase to higher specifier positions in a successive manner without having to be accompanied by the intervening host at the intermediate landing sites. For details, see Aboh (1999, 2004). The tree structure in (44) illustrates how the snowball movement derives the Yorùbá data above.

⁵ Consistent with the idea that modifiers are functional heads is the fact they form a closed class in Yorùbá (Abraham 1958; Bāmgbóṣé 1967; Welmers 1973; Awóbùlúyì 1978).

(44) a.



- b. ẹ̀ṣin funfun ñlá dára dára méjọ
 horse white big good good eight
 'eight nice big white horses.'

I retain the adjunct-based analysis of modifiers because it is able to account for why plural words/morphemes must adjoin to the lexical items they pluralize (chapter 6).

In summary, this chapter has introduced us to the four related topics on nominal expressions in Yorùbá that I cover in the entire dissertation as well the analyses that account for each of them. In the following chapters, I provide both empirical and theoretical evidence for each proposal.

CHAPTER TWO: YORÙBÁ GENITIVE CONSTRUCTIONS

2 Introduction

This chapter discusses genitive constructions in Yorùbá. It explores four themes. §2.1 accounts for the semantics of the relation between the two arguments that are in a genitive construction, i.e., the R-relation. In §2.2, I present the syntax of the R relation, while the focus of §2.3 is the syntax of Yorùbá nominal genitives. The concern of §2.4 is how the syntax of Yorùbá nominal genitives interacts with phonology. I conclude my findings in §2.5.

2.1 The semantics of the R relation

The terms “genitive” and “possessive” as used in this dissertation refer to constructions where two simple nouns enter into a relation with one another (Storto 2003). I first show in §2.1.1 that the R-relation is either pragmatically determined (via discourse-linking) as in (1) or lexically determined via the inherent meaning of relational nouns and inalienable body-part nouns, as in (2). In this case it is the inherent meaning of the possessum that determines the kind of relation that holds between it and the possessor.

Conflation or incorporation

- (1) ìwé e Túndé *discourse-linking*
 book MTS T.
 ‘Tunde’s book’
- (2) a. bàbá a Túndé *relational noun*
 father MTS T.
 ‘Tunde’s father’
- b. apá a Túndé *inalienable body-part noun*
 arm MTS T.
 ‘Tunde’s arm’

I then address the distinction between the terms “possessive” and “genitive”: while the former describes the semantics of the R-relation (§2.1.1), the latter describes the morphosyntax of the R-relation (§2.1.2). I introduce the terms “Possessor” and “Possessum” and show how they map onto the R-relation (§2.1.3). The section closes with a discussion of the morphosyntactic realization of the R-relation in Yorùbá (§2.1.4).

2.1.1 Three kinds of R-relation

Nouns enter in a relation with each other in one of three ways. First is the kind of R relation that is Discourse-linked. According to Higginbotham (1983), an example such as (3a) is interpreted as in (3b).

- (3) a. $\dot{i}w\acute{e}$ e $T\acute{u}nd\acute{e}$
 book MTS T.
 ‘Tunde’s book’
- b. $\exists x [\dot{i}w\acute{e}(x) \wedge R(T,x)]$
 = there exists x, x is a book and x stands in some relation R to Tunde

The R relation has its value supplied by discourse. This is the sense in which it is said to be Discourse linked (D-linked).

- (4) *Simple N Possession*
 R =
-
- R is pragmatically determined
- $\dot{i}w\acute{e}$ R $T\acute{u}nd\acute{e}$

To say that the R-relation is D-linked means that $\dot{i}w\acute{e} e T\acute{u}nd\acute{e}$ ‘Tunde’s book’ needs a discourse context for the relation to be understood. For example, depending on the context, the book in question could be ‘the book that Tunde read’, ‘the book that Tunde drew a picture of’, ‘the book that Tunde sang a song about’, ‘the book that Tunde owns’, or even ‘the book that Tunde threw into the ocean when he was fishing’.

With the pragmatically determined R relation, genitive constructions fall into three subtypes: genitives of possession, of depiction and of modification. While the genitive of possession in (5a) corresponds to the semantic notion of possession, the genitive of depiction in (5b) is ambiguous between possession and depiction. As for the genitive of modification in (5c), it is never construed as a possessive relation (cf. Partee and Borschev 1999: 174).

- (5) a. ilé e Túndé *genitive of possession*
 house MTS T.
 'Tunde's house'
- b. àwòrán an Túndé *genitive of depiction*
 picture MTS T.
 'John's picture'
- c. ògbóntagì oníròyìn *genitive of modification*
 gem journalist
 'a gem of a Journalist'

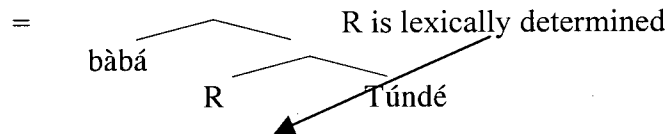
These three subtypes of genitive construction are all instances of the relation R. I concentrate mainly on the genitive of possession and the genitive of depiction in this dissertation.

In addition to these pragmatically determined R-relations, another R relation is found with relational nouns like *bàbá* 'father', where the relation is supplied by the meaning of the noun itself. Thus, R is lexically determined. In (5), under its most salient reading, *bàbá* means 'someone who stands in the father-of relation'. 'Tunde's father' doesn't need a discourse context for the relation to be understood: the person in question is unambiguously understood to be the one who stands in the father-of relation to Tunde (cf. Déchaine 1993: 127).

- (6) a. bàbá a Túndé
 father MTS T.
 'Tunde's father'
- b. $\exists x [bàbá(x) \wedge bàbá(x,T)]$
 = There exists x, x is bàbá 'a father' such that x is the father of Tunde

When we say that R is lexically determined, the idea is that for relational nouns such as *bàbá* ‘father’, it is the noun itself that supplies the relation R, as in (7).¹

(7) *Relational Nouns*



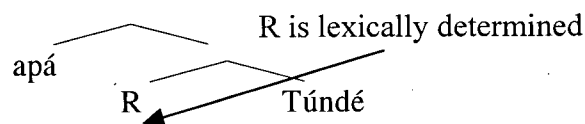
The third type of R relation is found with inalienable nouns, which include body-part nouns such as *apá* ‘arm’ (8) (cf. Vergnaud and Zubizarreta 1992; Mühlbauer 2004).

- (8) a. *apá a Tundé*
 arm MTS T.
 ‘Tunde’s arm’

- b. $\exists x [apá(x) \wedge apá(x, T)]$
 = There exists x, x is *apá* ‘an arm’ such that x is the arm of Tunde

Such inalienable nouns have a special part-of relation (Déchaine 1993: 127-133; Mühlbauer 2004a,b; 2005; Partee and Borschev 1999). Observe that the inalienable R relation is not discourse linked. Thus, as with relational nouns, the inalienable R relation is also lexically determined as in (9). In *apá a Tundé* ‘Tunde’s arm’, this means the arm that is a part of Tunde. It’s a component of his body, under its most salient reading.²

(9) *Inalienable Nouns*



To summarize, simple N possession has an open semantic relation R whose content is provided by the context (i.e. pragmatically determined). For the other two types of genitives,

¹However, discourse linking is also possible with relational nouns in an appropriate context. Imagine the following scenario. “Every member of a community centre’s ‘Father’s Group’ was assigned a counselor. Counselor Tunde’s father was very enthusiastic about the centre’s program but Counselor Titi’s father had no real interest in the group at all.” In this context, discourse linking would take precedence over the kinship interpretation. However, such forced contexts are not considered here.

² See Burton (1995) for a discussion of the less salient readings of inalienable nouns.

namely relational nouns and inalienable body part nouns, the R relation is lexically determined.

2.1.2 “Possessive” versus “Genitive”

Attempts have been made to draw a distinction between “possessive” and “genitive” in the literature. For example, in semantics (Borer 2004), this kind of phrase is referred to as possessive because the focus is on meaning. Once possessive is mentioned, semantic consideration necessarily comes in, whereas “genitive” denotes a morphosyntactic (not semantic) relationship between a nominal and some other item (be it noun or verb). Following standard practice, I analyze genitive in terms of Case³ (Lindauer 1998).

Following from what is said above, one might conclude that the terms “genitive” and “possessive” are different names for the same kind of nominal expression.

Observe that just as the nominal R relation is compatible with a wide range of pragmatically conditioned interpretations, as in (10a), so too is the verbal R relation, as in (10b).

- (10) a. nominal R-relation (possessor/genitive)
 ìwé e Túndé
 book MTS T.
 (i) ‘the book that Tunde owns’
 (ii) ‘the book that Tunde wrote’
 (iii) ‘the book about Tunde’
- b. verbal R-relation (possessor/genitive)
 Túndé ní ìwé
 T. have book
 (i) ‘Tunde owns a book’
 (ii) ‘Tunde wrote a book’
 (iii) ‘Someone wrote a book about Tunde’

³There is even a trend to decompose possession syntactically into location, BE and HAVE. See Benveniste (1971); Freeze (1992); Harley (1995); Partee and Borschev (2002).

Furthermore, just as lexical properties of nouns determine the R-relation, so too do lexical properties of arguments determine the relation expressed by a light verb.⁴ For example, in (11a) the R-relation is pragmatically determined by discourse-linking while in (11b-c) the R-relation is determined by the lexical properties of the relation and inalienable noun respectively.

- (11) a. **bàtà** a Túndé *discourse-linking*
 shoe MTS T.
 'Tunde's shoes'
- b. **ègbón** ọn Túndé *relational*
 elder MTS T.
 'Tunde's brother'
- c. **apá** a Túndé *inalienable*
 arm MTS T.
 'Tunde's arm'

Similarly, in (12) it is the inherent lexical properties of the object argument that determine how light verb *jẹ* 'eat, ingest' is interpreted. In (12a), *jẹ iṣu* translates to 'eat yam'; in (12b) *jẹ gbèsè* translates literally as 'eat debt', i.e. to be in debt; in (12c) *jẹ egba* 'eat cane' translates as 'to be caned'. Thus, just as the co-argument relation between [ARG1 v ARG2] is determined by the lexical properties of [ARG2] in the Possessive/genitive constructions of (11), so too is the co-argument relation between [ARG1 jẹ ARG2] determined by the lexical properties of [ARG2] in (12).

- (12) a. Bólú jẹ **iṣu** *agent-theme*
 B. eat yam
 'Bolu ate yams.'
- b. Bólú jẹ **gbèsè** *experiencer-theme*
 B. eat debt
 'Bolu is in debt.'

⁴I define light verbs as verbs whose meaning and valence are determined exclusively by nouns with which they combine.

- c. Bólú jẹ ẹgba *experiencer-theme*
 B. eat cane
 'Bolu received some strokes of cane.'

In Yorùbá, it is possible to have a genitive relation without possession. Conversely all cases of nominal possession show some kind of genitive relation. In (13a), *àpò* 'a bag' cannot be possessed by *bàtà* 'shoes' in any obvious way, although the shoes stand in a relation to the bag, e.g. by occupying the bag in spatial terms. But even though possession as such is not found in (13a) it is no less genitive than (13b) which can have a clearly possessive construal along the lines of 'the money that Tunde has'.

- (13) a. [àpò o bàtà]
 bag MTS shoe
 'a bag of shoes'
- b. [owó o Túndé]
 Money MTS T.
 'Tunde's money'

Based on (13), the conclusion must be that the notion of possession comes is slightly different from that of genitive.

Another case to consider is shown in (14). In (14a), both nouns are animate. In that case *Túndé* does not possess his boss, but instead the genitive simply allows for the satisfaction of the R relation, since if you are a boss, you must be somebody's boss. Further, there are cases like (14b) where *apá* 'arm' contextually means 'sleeve'; metaphorically the gown can be thought to possess the sleeve just as I possess my own arm via the part-whole relation (cf. Mühlbauer 2004; Partee and Borschev 1999).

- (14) a. [ògá a Túndé]
 master MTS T.
 'Tunde's master'
- b. [apá (a) agbádá]
 arm MTS garment
 'a garment's sleeve'

What is reported of the genitive and possessive parallels the case of nominative Case and the external theta-role of the verb is. While many arguments with nominative Case are also agents, and many agents bear nominative Case, the correlation is not on one-to-one basis. For example, in (15a), *Jenrola* is agent, in (15b) the same *Jenrola* is the experiencer, whereas in (15c) *Jenrola* is the possessor. In all three examples, *Jenrola* is assigned Nominative Case.

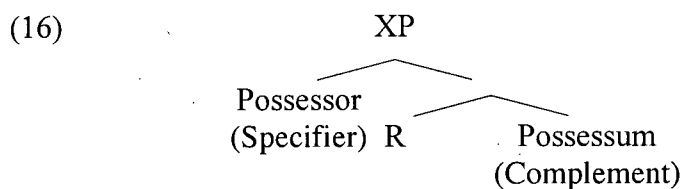
- (15) a. Jẹ̀nrọ́lá jẹ àkàrà
 J. eat bean cake
 ‘Jenrola ate the bean cake’
 Θ: Agent
 Case: Nominative
- b. Jẹ̀nrọ́lá fẹ̀ràn àkàrà
 Jenrola likes bean cake
 ‘Jenrola likes bean cakes.’
 Θ: Experiencer
 Case: Nominative
- c. Jẹ̀nrọ́lá ní àkàrà
 J. have bean cake
 ‘Jenrola has a bean cake.’
 Θ: Possessor
 Case: Nominative

Delsing (1998: 93-94) observes that though “the relation between possessor and possessum is semantically different from the relation between the subject and the verb, it seems to be morphosyntactically the same relation.” On that view, genitive may be defined in terms of structural Case.

2.1.3 Possessor and Possessum

The other two terms that I will frequently use are Possessor and Possessum. A possessum NP does not necessarily mean an item possessed by X. Neither is it the case that a possessor NP always refers to the one who possesses X. Rather, they simply represent the two arguments that are in a genitive relation.

In the structure that I propose, which for now I call XP, the Possessor occupies the Specifier position in the base structure whereas the Possessum is in the complement position.



I claim that this Possessor-Possessum structure is the basis of all genitive constructions in Yorùbá.

2.1.4 The three types of genitive constructions in Yorùbá

There are three kinds of genitive constructions in Yorùbá:

- (17)
- a. Nominal genitive
 - b. Verbal genitive
 - c. Nominal plus *ti* construction

The examples in (18) illustrate these three types. In (18a) the possessum and the possessor are separated by a mid tone mora (μ) herein referred to as the genitive marker (henceforth mid tone syllable (MTS)). The example in (18b) is the sentential counterpart of (18a). It is the kind of possessive that is assigned by the verb *ní* 'have'. Similarly, the example in (18c) parallels the example in (18a) in the sense that the possessum and the possessor are also separated by a mid tone element, here *ti*.

- (18)
- a. *Nominal genitive*

ilé	e	Túndé	<i>possessum</i>	<i>MTS</i>	<i>possessor</i>
house	MTS	T.			
‘Tunde’s house’					
 - b. *Verbal genitive*

Túndé	ní	ilé	<i>possessor</i>	<i>verb</i>	<i>possessum</i>
T.	have	house			
‘Tunde has a house.’					

- c. *Nominal plus ti construction*
 ẹran ti Túndé possessum C possessor
 animal of T.
 'Tunde's animal'

In what follows, I sketch out a syntactic analysis of the R relation. After that, I proceed to account for the first two types of genitive constructions shown in (18a-b), namely nominal genitives and verbal genitives. The third type of genitive construction, namely the nominal *plus ti* construction, is treated in chapter 3.

2.2 The syntax of the R relation

A genitive construction establishes a relation R between two nouns: the possessor and the possessum. The syntax of the Possessor-Possessum relation is treated in one of two ways in the literature. On one view, the Possessor-Possessum relation corresponds to a co-argument structure in the syntax (Kayne 1993, 1994; Cinque 2003 among others). On another view, the Possessor-Possessum relation corresponds to a Head-Complement structure in the syntax (Jakendoff 1977). I discuss both proposals and adopt the co-argument analysis for Yorùbá.

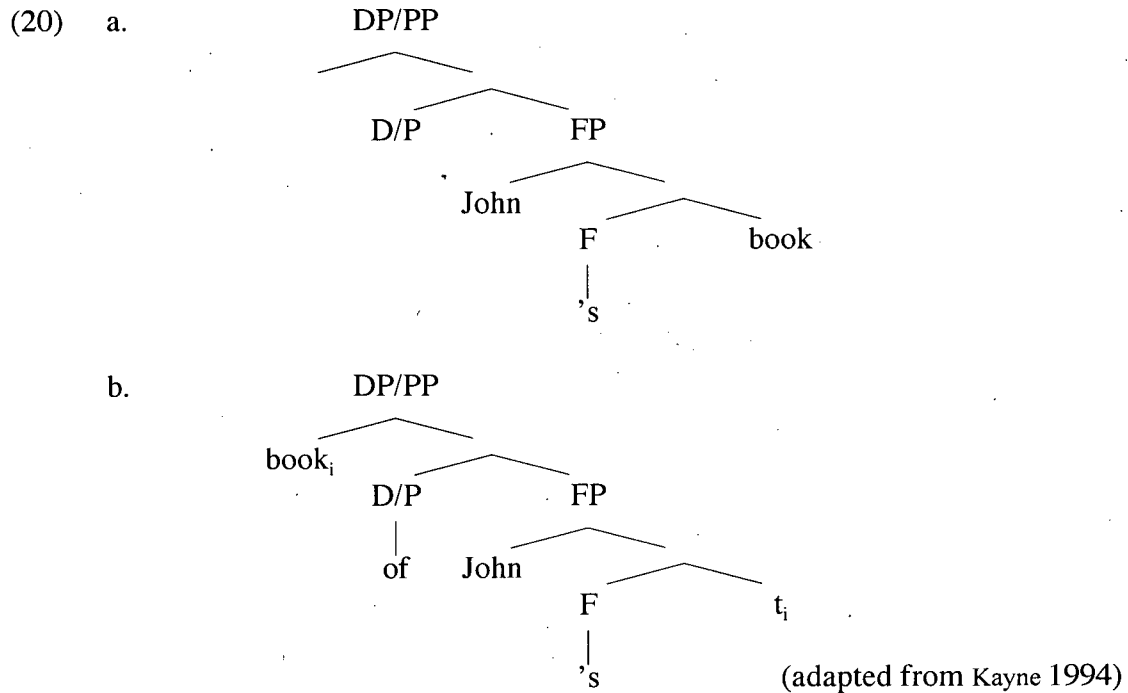
2.2.1 Possessor-Possessum as a co-argument relation

The co-argument relation analysis that I adopt is found in Kayne (1994). In this approach an abstract head mediates the relationship between the two arguments. Motivating a unified analysis for genitive constructions, Kayne (1994) argues that both pre-nominal and post-nominal genitives derive from one source.⁵ The examples in (19) with the corresponding structures in (20) illustrate this.

⁵ In the Linear Correspondence Axiom (LCA), Kayne (1994) claims that "Heads must always precede their associated complement position...specifier positions must invariably appear to the left of their associated head never to the right" (Kayne 1994: xiii). This proposal makes the claim that the universal ordering between a head and its dependents is Specifier-Head-Complement (S-H-C), as in (i).

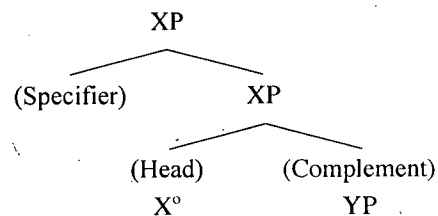
- (19) a. John's book: [_{DP}...D° [John ['s book]]]
 b. book of John: [_{DP}...book_i [_D of [John ['s t_i]]]]

The structure in (20a) base generates the prenominal genitive that is marked by the Saxon genitive 's. To derive the post-nominal genitive, Kayne assumes that a D/P layer is introduced and the possessum moves to Spec DP/PP while 'of' occupies D/P; as in (20b).



In this dissertation, following Kayne's proposal, I assume that all Yorùbá genitives originate from the same base phrase structure. This phrase structure consists of the possessor and the possessum, which stand in a co-argument relation.

(i) *Kayne's 1994 LCA*

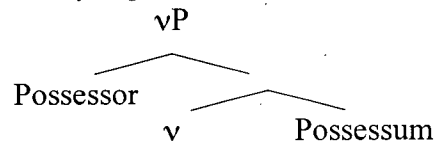


YP, 'the complement of X° is a sister to this Head and is dominated by the XP. This implies that the kind of linear order that one would expect assuming this structure will be such that a complement must always follow its associated head and that specifier always precedes the phrase it is sister to thus giving S-H-C linear order.

2.2.1.1 Base structure for Yorùbá genitives

I propose a small clause vP as the base structure for all genitive phrases in Yorùbá along the lines of Stowell (1981, 1983), Chomsky (1981), Haegeman (1991), Déchaine (1993), and Radford (1997) among others. First, I define a ‘Small Clause’ as a defective nominal or verbal clause containing two arguments and a relational head that may but need not be pronounced (cf. Stowell 1981, 1983, Chomsky 1981).⁶ On this assumption, the possessor, which is one of the arguments, occupies Spec vP and the possessum, which is the other argument, is the complement of this relational Head (v), as in (21). Observe that this structure parallels the relational structure above. Thus v is the syntactic counterpart of the semantic R relation.

(21) *Base Structure for genitive constructions*



There are two things that need to be pointed out. First, the same structure can account for both nominal and verbal possessives. Second, the relational head can be an abstract v in which case it is covert, i.e. a null relational verb (cf. Radford 1997: 201). It can also be a lexical head in that case it is overt (cf. Freeze 1992, Kayne 1993 and Harley 1995). Precisely, when the vP is a defective nominal clause, I propose that v is null, as in (22).⁷

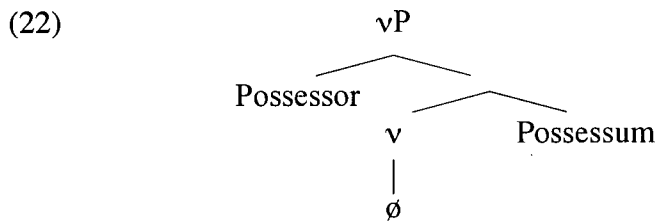
⁶ In the cited works, the phrases in brackets in (i) are arguably small clauses, with the subject argument in boldface.

- (i) a. I consider [**John** a friend]
 b. I expected [**Serena** to win the tournament]

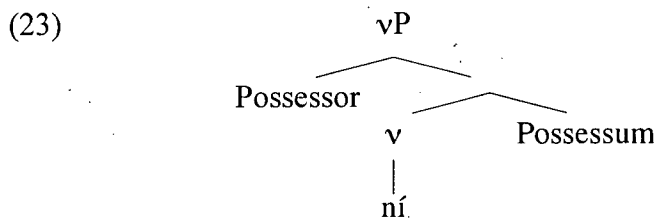
The other type of small clause according to Stowell (1978), Couquaux (1982), and Burzio (1986) consists of copular sentences, which have their base as small-clauses under “be” in IP. The example in (ii) illustrates this. The idea is that (ii-a) originates as a small clause in (ii-b), and that the argument raises to [Spec IP] to satisfy the Extended Projection Principle and get Case ii-c).

- (ii) a. John is the best man in town.
 b. [IP is [SC [John] [the best man in town]]]
 c. [[John]_i is [SC *t_i* [the best man in town]]] (Zamparelli 1995).

⁷ Assuming that the R-relation corresponds to a head, we expect that in compounding of the type *bookstore* such a head is present as well. Possible evidence for such a head might come from German where in many of such compound we find an interfix *Hahn-en-fuss* (rooster leg) (Wiltchko personal communication).



On the other hand when vP is a verbal clause, v is pronounced as a possessive verb, as in (23).



The split between overt v (*ní*) and covert v (\emptyset) in Yorùbá has empirical support from language-internal evidence. It reflects a general parallelism that occurs between N and V. Further, as I demonstrate, the fact that v is null in a defective nominal clause leads to the obligatory raising of the possessum from the complement position to a higher position from where it can receive Case.

The “ vP ” label taken at surface value may seem to be misleading since not all genitives can be described as verbal predicates. However, in this dissertation I use it as a cover term that refers to the base structure for nominal or verbal possessives. I could as well propose a different label like nP for the defective nominal clause, but I choose not to for the sake of capturing the generalization. With one base structure I have been able to show that there is the same relation (R) between two arguments in both nominal and verbal possessives. Thus, the head v is the syntactic equivalent of the R that relates the possessor to the possessum in semantics (cf. Hertz 1997: 513).

Note that the specific label used for genitive constructions is not of any serious concern or problem to linguists, as reflected by the fact that there is no uniform label in the literature. For example, in many of the articles that appear in Alexiadou and Wilder (1998), which treats possessive constructions across languages, this phrase is mostly referred to as “Possessive”, with “Poss” as the head, (24a). In Abney (1987), and Siloni (1997), the same construction is called a DP, and the Saxon genitive ‘s is treated as D, a functional element,

which introduces another argument, (24b). In Hertz (1997) it is simply called an NP, (24c). Yet it is possible to label a genitive phrase simply an FP where “F” is an unspecified functional morpheme, (24d) (cf. Fukui 1986). Lastly, the same phrase has been referred to as an AgrP (Kayne (1994) where the possessor occupies the Spec AgrP and the possessum serves as the complement of the Agr, (24e). The aim of labeling a possessive phrase an AgrP is to show that there is some kind of agreement between the functional element and the NP in its Spec. Such proposal is unquestionable in languages that show agreement. The present proposal identifies R with a null *v* in nominal contexts, (24f).

- | | | | | |
|------|----|--|-----------|-------------------------|
| (24) | a. | [_{POSSP} Poss'r [_{POSS}] | [Poss'm] | Alexiadou & Wilder 1998 |
| | b. | [_{DP} Poss'r [_D 's] | [Poss'm]] | Abney 1987, Siloni 1997 |
| | c. | [_{NP} Poss'r [] | [Poss'm]] | Hertz 1997 |
| | d. | [_{FP} Poss'r [_F 's] | [Poss'm]] | Fukui 1986 |
| | e. | [_{AgrP} Poss'r [_{Agr} 's] | [Poss'm]] | Kayne 1994 |
| | f. | [_{vP} Poss'r [_v ∅] | [Poss'm]] | present proposal |

The other question that may arise is why can't we have a simple structure such as (25) where the possessor and possessum are simply sisters to each other?

- (25)
- $$\begin{array}{c}
 \diagup \quad \diagdown \\
 \text{Poss'r} \quad \text{Poss'm}
 \end{array}$$

First, the small clause analysis proposed here accounts for both nominal and verbal genitives with the same structure. The structure in (25) has no place for verbs. I have argued that a genitive phrase involves a relation (R) between two arguments (possessum and possessor) mediated by an intervening head, which may be overt or covert. The binary structure in (25) does not show such a relation. In syntax, the relationship between two non-identical entities such as the one under review is best expressed through the use of an intervening head, which projects its own phrase. In my view, the structure in (25) is tenable when the two nouns refer to one entity such that one is saturating the other, as in the case of

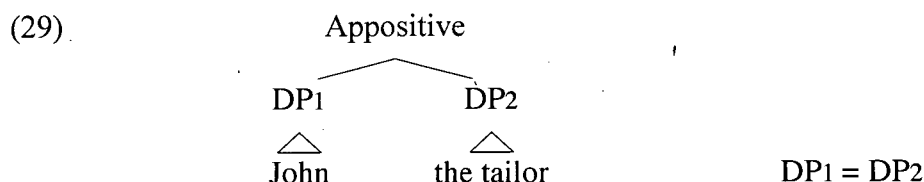
appositives in the English examples in (26); or with identificational statements such as (27) and (28) from Blackfoot and Cree respectively.

- (26) a. [John the tailor] is here.
b. I saw [my friend Jeff].

- (27) Anná Jeff Blackfoot (Algonquian)
this J.
'That is Jeff.' (Mühlbauer, personal communication)

- (28) Minôs awa Cree (Algonquian)
cat this
'This is a cat.' (Mühlbauer, personal communication)

The corresponding structure for the English example in (26a) is given as (29).



However, genitive constructions are quite different from appositives, as there is a non-identity condition in the sense that the nouns that stand in the R relation are two distinct entities: one the possessor, the other the possessum. Thus in *Jeff's dog*, "Jeff" can be represented as "y" while "dog" can be represented as "x" in which case, "y ≠ x".

In nominal genitives, Yorùbá has a genitive marker in the form of a Mid Tone Syllable (MTS) that shows up between the two arguments.⁸ The presence of the MTS correlates with the fact that an R-relation holds between the nouns even though the MTS is

⁸Note that it is not in every language that the genitive marker shows up between the possessor and the possessum. In Hungarian the genitive *-ja* marker comes after the possessum.

- (i) a. a te kalap-**ja**-i-d
the you hat-POSS-PL-eSG
b. (a) Mari kalap-**ja**-i-Ø
the Mary hat-POSS-PL-3SG
'Mary's hats' (Alexiadou and Wilder 1998: 3, ex.3)

not pronounced in “v”, the syntactic head for the two arguments. Evidence for this claim comes from “v” which is pronounced as *ní* in verbal genitives.

- (30) a. ìwé e Túndé
 book MTS T.
 ‘Tunde’s book’
- b. bàbá a Túndé
 father MTS T.
 ‘Tunde’s father’
- c. apá a Túndé
 arm MTS T.
 ‘Tunde’s arm’

There is language-internal evidence in support of the type of structure that I propose. In verbal possessives, the two arguments are related by the intervening verb, which I claim is the spell-out of the relational *v*.

- (31) a. Túndé ní ìwé
 T. have book
 ‘Tunde has a book.’
- b. Túndé ní bàbá
 T. have father
 ‘Tunde has a father.’
- c. Túndé ní apá
 T. have arm
 ‘Tunde has an arm.’

The fact that in verbal possessives *v* is pronounced is evidence that the possessor and possessum are in a co-argument relation. In the corresponding nominal possessives there is an abstract head linking the two nouns. The reason that a simple binary structure is inadequate as an analysis of genitive constructions therefore is that it consistently involves the presence of two referentially dependent nouns.

2.2.1.2 Other languages with overt genitive morphemes

There is also cross-linguistic evidence in support of the small clause structure as there are a lot of languages that have overt morphemes for the genitive marker, e.g. Hebrew, Turkish, Japanese, Blackfoot and Cree among others. In (32a), the Hebrew Construct state is marked by *šel*. In (32b), the Japanese genitive marker is *no*. The same genitive marker is realized as *-m* and *-im* in Blackfoot (32c) and Cree (32d) respectively.

- | | | | | | |
|------|----|--|--------------------------------|----------------------|--|
| (32) | a. | ha-bayit
the-house
'the woman's house' | <i>šel</i>
of | ha-‘iša
the-woman | Hebrew

(Siloni 1997: 24 ex.10c) |
| | b. | masaru- no
masaru-Gen
'Masaru's book' | hon
book | | Japanese

(Kiyota, personal communication) |
| | c. | nisapikitsox
my
'my ring' | tsàatsi- m
ring-poss | | Blackfoot

(Mühlbauer, personal communication) |
| | d. | o-minô s-im -a
3sg-cat-poss-obv
'his/her cat' | | | Cree

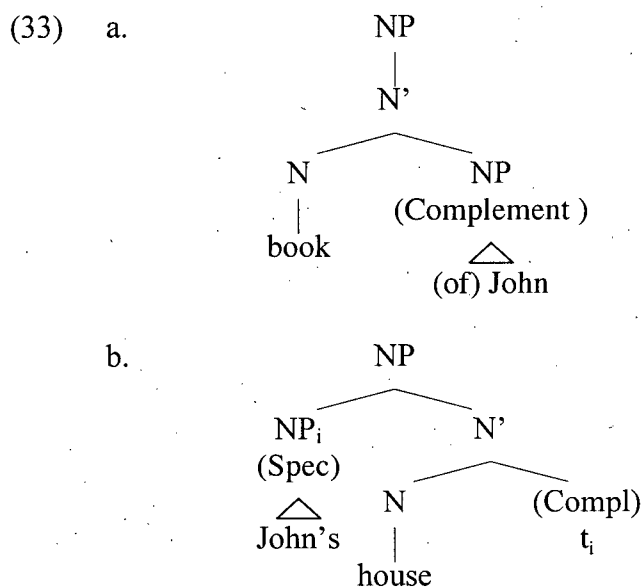
(Mühlbauer, personal communication) |

In all of the languages above, each genitive phrase consists of two nominal arguments that are in relation as shown by the presence of the genitive marker. It follows then that an adequate structure must reflect such a relation and represent all the constituents (in this case, the two arguments and the genitive marker/verbal element). This is readily available in the small clause analysis that I propose.

Observe that in the present analysis, the relational head *v* may be null. Regarding the examples in (32), there remains the question of whether the genitive marker (Hebrew *šel*, Japanese *-no*, Blackfoot *-m*, Cree *-im*) spells out the *v* position, or a higher D position. As we shall see for Yorùbá, there are reasons to think that these genitive morphemes spell out an F-head, i.e., D. Relevant to the co-argument analysis is the fact that the relation between the possessor and possessum is transparently represented in the syntax.

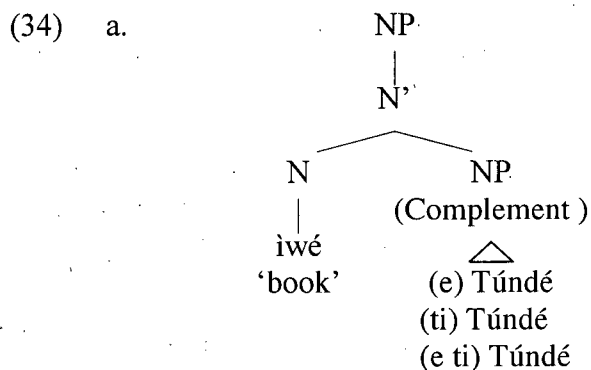
2.2.2 Possessor-Possessum as a Head-Complement relation

Under X-bar theory (cf. Jakendoff 1977) the possessum and the possessor are standardly analyzed in terms of the Head-Complement relation. In this analysis, the possessum, which is the head, introduces the possessor as its complement. In this account, there is no separate node for the genitive marker even when the NP is preposed. In (33a), the complement NP (John) remains in its base position yielding a post-nominal genitive marked by 'of'. In (33b), the complement NP raises to Spec NP, yielding a prenominal genitive phrase marked by the Saxon genitive 's.



(cf. Jakendoff 1977)

Both the preposition 'of' and the Saxon 's in English are treated as part of the possessor NP. Applying this to Yorùbá would mean treating both the MTS and *ti* as part of the possessor, as in (34).



Second, it would represent the possessor as the complement, and third it would mean merging the head, in this case D/C (in the form of the MTS and/or *ti*) with the complement.

2.2.3 Parallels between V-syntax and N-syntax

This section discusses parallels that exist between V-syntax and N-syntax as regards the R relation. In (35a), there is a verb that separates the possessor and the possessum. In (35b), there is a M-tone mora (μ), which I analyze as the genitive marker henceforth (MTS). This marker separates the possessum and the possessor.

- (35) a. Lálúpon ní oníbodè *Possessor* *verb* *Possessum*
 L. have gate-man
 ‘Lalupon has a gateman.’
- b. oníbodè e Lálúpon *Possessum* *MTS* *Possessor*
 house MTS L.
 ‘Lalupon’s gateman’

(35a) is a *verbal genitive*, while (35b) is a *nominal genitive*. On conceptual grounds we expect these parallels between N and V structures inasmuch as both express the co-argument relation that holds between a Possessor and a Possessum. I argue that the difference in linear order in the surface syntax between the V-syntax (where the possessor precedes the possessum) and N-syntax (where the possessum precedes the possessor) can be accounted for via a raising analysis. See chapter 3 for an account of Case assignment.

2.2.3.1 Parallels between the verbal possessive and the nominal genitive

Languages have certain sentences that express possession. Such expressions of possession are in the sense of owner *HAVE* ownee relation (Kayne 1993, Harley 1995: 107, Manfredi 1994).⁹ This translates to *possessor R possessum* in the present analysis. In this way, nominal possessives can be viewed as equivalent to verbal possessives. Thus, *John’s book* is parallel

to 'John has a book' (Freeze 1992, Partee and Borschev 1999).

The parallel between V-possessive and N-genitive is also contained in the works of Szabolcsi's (1983) on Hungarian and Freeze (1992), Kayne's (1993, 1994) and Alexiadou and Wilder's (1998) work on English. In their analyses, the claim is that the possessive DP (36a) and the possessive clause (36b) are related as in (37). In the possessive DP, the possessor moves to Spec AgrP (37a). In the verbal possessive, the possessor first moves to Spec AgrP and then moves to Spec IP, (37b),

- (36) a. John's three books (are on the table). (A & W 1998: 6, 8a)
 b. John has three books. (A & W 1998: 6, 8b)
- (37) a. [_{DP} D° [John Agr° [_{QP/NP} three books]]] (A & W 1998: 6, 9a)
 b. [_{IP} John_j has [_{DP} D° [_{t_j} Agr° [_{QP/NP} three book]]]] (A & W 1998: 6, 9b)

In my analysis, I propose that the possessor raises to Spec, DP rather than Spec AgrP.

Observe that Yorùbá verbal possessives are of two types: the canonical *ní* HAVE¹⁰ construction in (38a), and the possessive dative *jẹ́ ti* ('be to') in (38b).

- (38) a. Túndé ní ilé
 T. HAVE house
 'Tunde has a house.'
- b. Ilé jẹ́ ti Túndé¹¹
 house be of T.
 'The house belongs to Tunde.'

With nominal possessives, we observe a Possessum Possessor order, (39).

- (39) ilé e Túndé
 house MTS T.
 'Tunde's house'

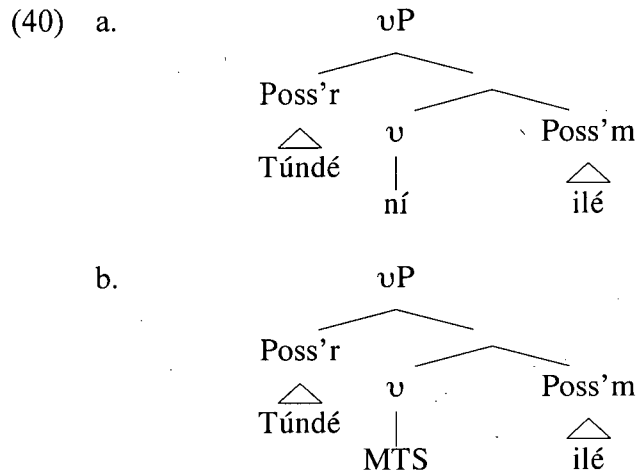
⁹ The predicate element HAVE is interpreted in various ways in the literature: as auxiliary or verb (Kayne 1993), existential (Partee 2004, Szabolcsi 1994), locative or possessive (Freeze 1992)

¹⁰ There is another verbal possessive *ní*. It is used in restricted context of 'his body' shown in (i).

(i) Èbùn ún ní ara a rẹ
 E. HTS own body MTS 3sg
 'Ebum owns her body.'

¹¹ This example is not discussed in this chapter because of its internal structure, especially the presence of the *t_i*-element. See chapter 3 for an account of *t_i*-genitives.

If the parallelism between verbal and nominal genitives holds, one expects that verbal HAVE possessives will have the same structure as their nominal counterparts, as in (40).



While the structure in (40a) is what is actually obtained in the surface syntax, (40b) is not attested, i.e. the MTS does not spell-out the relational *v*. As I show in the next section, although I still claim that both verbal and nominal genitives make use of the same base structure, *v* is not pronounced in nominal genitives in Yorùbá, and the MTS spells out a higher functional head (namely D) but I am assuming that whenever we have a genitive DP the *v* is there even though it is not pronounced.¹²

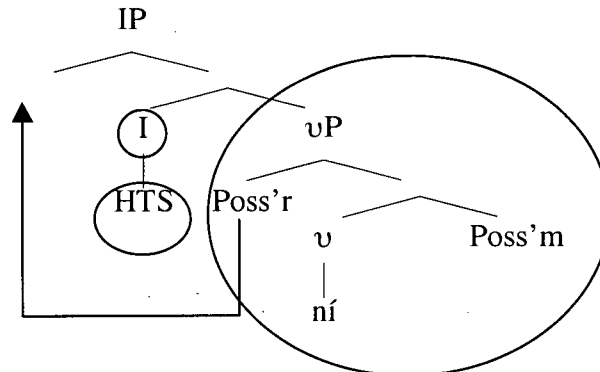
For verbal possessives, I adopt the base structure *vP* in (40a). I argue, based on the data presented, that the verb *ní* occupies *v* and takes the possessum *ilé* as its complement. On the other hand, *Túndé*, the possessor, occupies Spec *vP* (cf. Szabolsci 1983, Alexiadou and Wilder 1998). One final point that I want to make about the account of verbal possessives is that the **possessor NP** can raise out of Spec *vP*. In that case, there will be an IP layer above the base structure. In the nominal genitives, it is the **possessum NP** that raises out of the *vP*. This is a core difference between nominal and verbal genitives.

¹² The relation between D, *v* and R therefore is that at the semantic level, R is the head of the possession phrase. At the syntactic level, R is pronounced in *v* in verbal genitives whereas in nominal genitives, R is pronounced in D.

2.2.3.2 Parallels between IP-syntax and DP-syntax

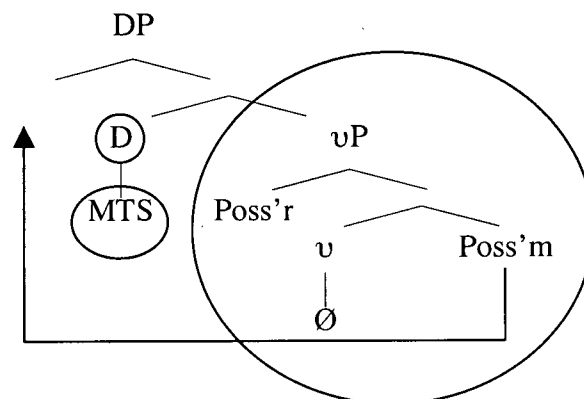
In this section, I present language-internal evidence in support of the proposed base structure based on the parallelism between IP-syntax and DP-syntax. This evidence comes from the grammatical particles that mark the two constructions. Recall that both the IP and the DP share the same base structure. In the IP domain, the head I(nfl) which is spelt out as HTS takes this ν P base structure as its complement. Similarly, in the DP the head D, which is spelt out as MTS element takes the same ν P base structure as its complement. One point that I want to emphasize about the account of verbal possessives is that the possessor raises out of the Spec ν P to Spec IP to receive the NOM case, (41a). In nominal genitives, it is the possessum that raises to Spec DP to receive NOM/ACC Case depending on its syntactic position (41b). See chapter 3 for details.

- (41) a. *IP-syntactic structure*



- b. Gbàdà á ní ilé
 G. HTS have house.
 'Gbada has a house.'

- 42 a. *DP-syntactic structure*



- b. ilé e Gbàdà
 house MTS G.
 ‘Gbada’s house’

I claim that the MTS is a syntactically conditioned phonological spell out of an F-head within the nominal phrase, (DP). On the other hand, the HTS in “I” is a syntactically conditioned phonological spell out of an F-head within the sentential phrase (IP) (cf. Déchaine 1993 among others).¹³

I have established the existence of parallels between the verbal possessive and the nominal genitive. Languages have certain sentences that express possession in the sense of owner *HAVE* ownee relation, and this translates to *possessor R possessum*. I have equally established another parallel between IP-syntax and DP-syntax in support of the proposed base structure with evidence from the grammatical particles that mark the two constructions i.e., just as the head I(nfl) is spelt out as HTS and it takes this *vP* base structure as its complement, the head D, which is spelt out as MTS element, takes the same *vP* base structure as its complement.

2.3 The Yorùbá nominal genitive: syntax

In this section, I present a detailed syntactic account of Yorùbá nominal genitive constructions. First, I show that genitive constructions in this language involve a co-argument relation, §2.3.1. The analysis that I propose shows that the possessum NP must raise; §2.3.2. §2.3.3 gives various accounts of what determines movement of N or NP. The focus of §2.3.4

¹³ When the HTS occurs after the subject DP, it marks a non-future tense, (i). This contrasts with the presence of *yóò*, which marks the future tense, (ii). See Barczak (2004) for detailed discussion.

- (i) Èbùn **ún** sùn
 E. HTS sleep
 = (a) ‘Ebun is sleeping (+ present).’
 = (b) ‘Ebun slept.’
 (ii) Èbùn yóò sùn
 E. FUT sleep
 ‘Ebun will sleep.’

This is the more reason why the two grammatical particles cannot co-occur, (iii).

- (iii) a. *Èbùn **ún** yóò sùn
 b. *Èbùn yóò **ún** sùn

is to show the parallels between N-syntax and V-syntax. The discussion in this section comes to an end in §2.3.5 with the account of genitive pronouns.

2.3.1 Yorùbá genitive constructions involve a co-argument relation

My goal is to extend Kayne's co-argument analysis to Yorùbá genitive constructions involving the M tone mora, the verbal element, the M tone *tí*, and relate the last to the H tone *tí*. I argue that these morphemes are all functional heads, each of which takes a complement. I further show that Yorùbá supports an additional step that is not found in Kayne's analysis of English: movement of the possessum NP from Spec CP to Spec DP in a reduced relative clause. The latter is discussed in chapter 3.

2.3.2 Possessum raising in Yorùbá genitive constructions

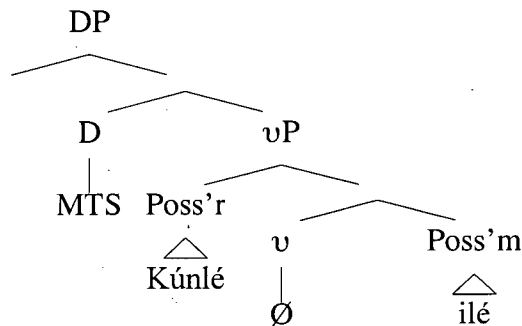
The base structure adopted for the account of genitive constructions would imply that the possessor NP precedes the possessum NP. However in the surface syntax (43), the possessum NP actually precedes the possessor NP.

- (43) a. òjé e Túndé
 trick MTS T.
 'Tunde's tricks'
- b. pátá a Bùnmi
 pants MTS B.
 'Bunmi's pants.'
- c. ọkọ ọ Tọ̀nà
 vehicle MTS T.
 'Tona's vehicle'
- d. apá a Kúnlé
 arm MTS K.
 'Kúnlé's arm'

I take this to indicate that the possessum NP raises to the specifier of another phrase higher. Thus we require the presence of a DP layer above the base *vP* structure as in (44). I further

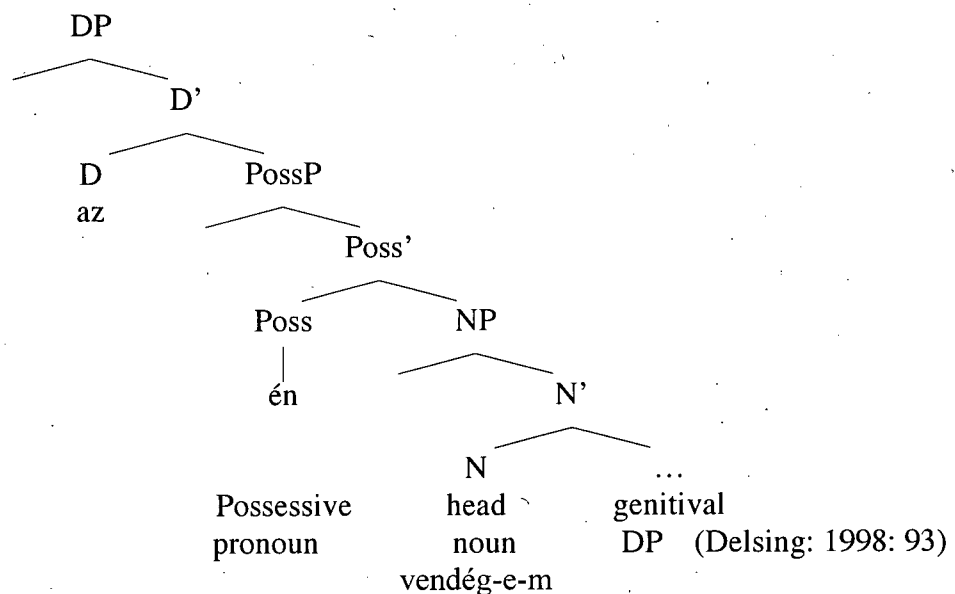
propose that the Genitive marker in the form of the MTS occupies D. The structure illustrates that the possessor NP and the possessum NP are located below D.

(44) *Nominal genitive structure*



The idea of having an additional layer above the base structure is consistent with what is observed in other languages. For example, in Hungarian, (Szabolsci 1983, 1994, Kayne 1994: 85-86, Delsing 1998) an additional functional head between D and N is suggested. Thus the Possessor morpheme is located below D in the extended projection. In that proposal there is a structural subject position below D in Spec PossP, as in (45a). This makes D parallel to C rather than I. The structure in (45a) accounts for the example in (45b): the determiner *az* sits in D, the possessum pronoun *én* sits in Poss and the possessum is contained within the NP.

(45) a.

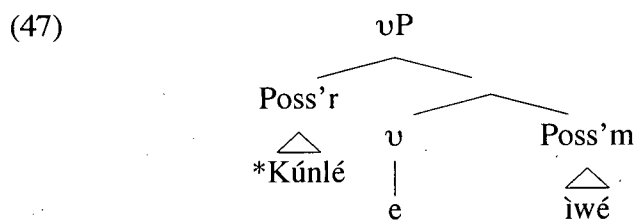


- b. az én vendég-e-m
 the I guest-POSS-1SG
 ‘my guest’ (Delsing 1998: 93)

The structure in (44) predicts two possible outputs: it allows either the possessor or the possessum to raise to Spec, DP. However in Yorùbá, with nominal possessives, only one of the two possibilities is attested. Precisely, only the possessum raises to Spec DP, thus giving the possessum-possessor linear order in the surface syntax. (46b) where the Possessor precedes the Possessum is ungrammatical.

- (46) a. ilé e Kúnlé
 house MTS K.
 ‘Kunle’s house’
- b. *Kúnlé e ilé
 K. MTS house

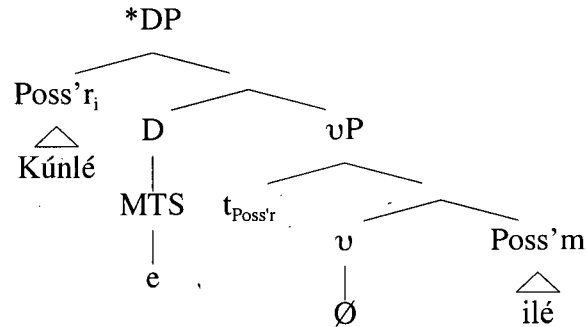
The ill-formed surface string will be compatible with two analyses. The MTS is not in *v* because then we get the wrong word order. I illustrate this in (47).



Another way of deriving the ill-formed (46b) would be to raise the possessor to Spec DP, as in (48b). But such possessor raising is not possible in nominal context in Yorùbá. The question is: why? I return to this question in chapter 3.

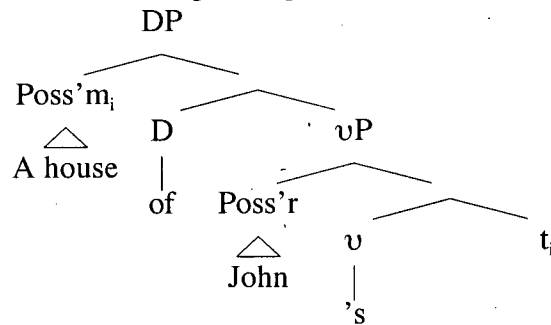
(48) a. *Kúnlé e ilé

b. *Nominal Possessor Raising

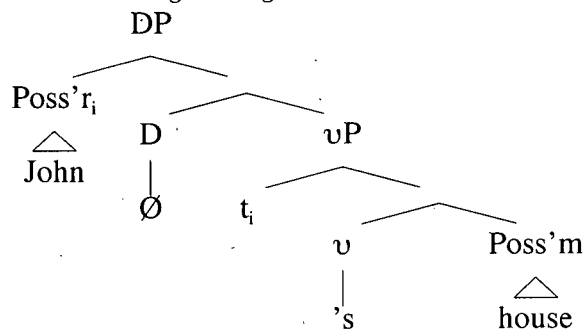


For a language like English, observe that it is possible for either the possessum (49a) or the possessor (49b) to raise to Spec DP.¹⁴

(49) a. Possessum raising in English



b. Possessor raising in English



The implication of this analysis is that the Relational *v* position is pronounced in English as 's while the D position is realized as *of*. Thus, these two functional elements can co-occur in English. In Yorùbá only the D position is pronounced (as the MTS).

¹⁴ Indeed, the possessor need not raise. The proposed structure also predicts that we should be able to have *John of 's house*, since both D and *v* are pronounced in English.

On the question of why ‘of’ is analyzed as D in English, this follows from the structure. If there are only two functional positions that must be filled and it is the case that ‘of’ precedes the Saxon ’s in the surface syntax, the only position that ‘of’ can occupy is D. See Kayne (1994) who proposes that the relevant head can be D⁰ or P⁰¹⁵.¹⁶

The table in (50) summarizes the discussion on the functional elements within the genitive DP in English and Yorùbá. *v* and D are both pronounced in English, whereas in Yorùbá only D is pronounced.

(50) 2 *Internal structure of Genitive construction*

	<i>v</i>	D
Yorùbá	Ø	MTS
English	’s	of

2.3.3 What moves: N or NP?

Although the structure proposed predicts phrasal movement, so far, we have only seen the movement of simple phrases that contain only the possessum noun. There is nothing that shows that what actually moves is the possessum noun rather than the whole phrase. In the next three subsections, I present three pieces of evidence that show that what moves is NP (rather than N).

¹⁵ This proposal contrasts with Alexiadou and Wilder’s (1998). In their proposal, the Possessor Phrase is base generated. Assuming their proposal the possessor will remain in Spec,*v*P. While that will account for English examples such as ‘John’s house’, such approach yields a wrong output at least for the Yorùbá data where the Possessum NP always precedes the Possessor NP.

¹⁶ Another question that arises is this: why can only the possessum move out of *v*P in Yorùbá and why is it possible to move both the possessor and the possessum out of *v*P in a language like English? A comparison of *a house of John’s* where the possessum moves with *John’s house* shows that the former has a kind of “mild” topic reading (Mühlbauer, personal communication). The Yorùbá counterpart *ilé e ti Tundé* has the same reading. This claim is left to further research.

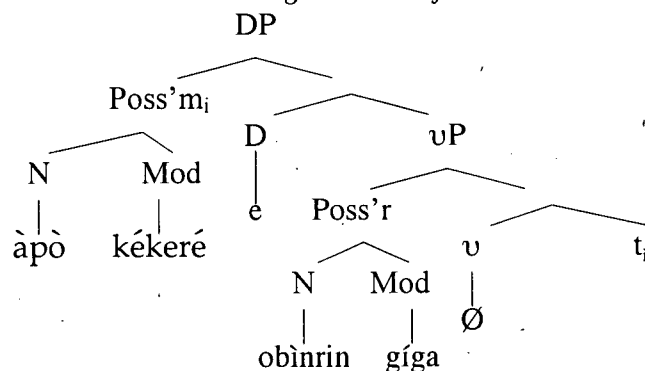
2.3.3.1 Evidence from modifier placement

The first piece of evidence comes from NPs that contain a noun and a modifier. The following examples show that whenever an NP raises, the modifier may raise with it. In (51a), the modifier *kékeré* 'small' modifies the possessum noun *àpò* 'bag'. In (51b), the modifier *gíga* 'tall' modifies the possessor noun *obìnrin* 'woman'. Finally, in (51c), while the possessum noun *àpò* 'bag' is modified by *kékeré* 'small', the possessor noun *obìnrin* 'woman' is modified by *gíga* 'tall'.

- (51) a. [Àpò kékeré e obìnrin] wù mí
 bag small MTS woman please me
 'I admire the woman's small bag.'
- b. [Àpò o obìnrínígá] wù mí
 bag MTS womantall please me
 'I admire the tall woman's bag.'
- c. [Àpò kékeré e obìnrínígá] wù mí
 bag small MTS womantall please me
 'I admire the tall woman's small bag.'

I use (51c) as an illustration. Whenever the possessum NP raises, the modifier may raise with it. The possessum NP consists of the noun *àpò* 'bag' and the modifier *kékeré* 'small', both of which move to Spec DP.

- (52) a. *Possessum raising with modifier*



In this account, modifiers are treated as adjuncts.¹⁷ What this shows is that whenever an entity is adjoined to a phrase, and there is movement of that phrase, the adjunct can move with the phrase.

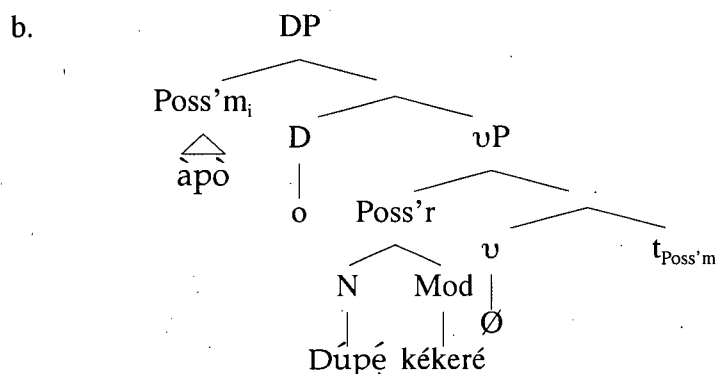
2.3.3.2 Evidence from structural ambiguity

So far, we have seen cases of modifiers moving along with the nouns that they modify. There is, however, a situation that is yet to be reported, namely cases of structural ambiguity. When there is only one modifier within a genitive construction in certain contexts, the modifier can modify either the Possessor or the Possessum. For example, in (53) *kékeré* ‘small’ may modify the Possessor *Dúpé*, (53a) or the Possessum *àpò* ‘bag’ (53b).

- (53) [Àpò o Dúpé **kékeré**] wù mí
 bag MTS D. small please 1sg
 (a) ‘I admire the junior Dupe’s bag.’
 (b) ‘I admire Dupe’s small bag.’

The claim I make is that it is possible to leave behind an adjoined modifier when the NP that it is adjoined to moves. Thus, the surface string in (53) arises in one of two ways. First the Possessum can be posited to occur by itself with the modifier attached to the Possessor, as in (54).

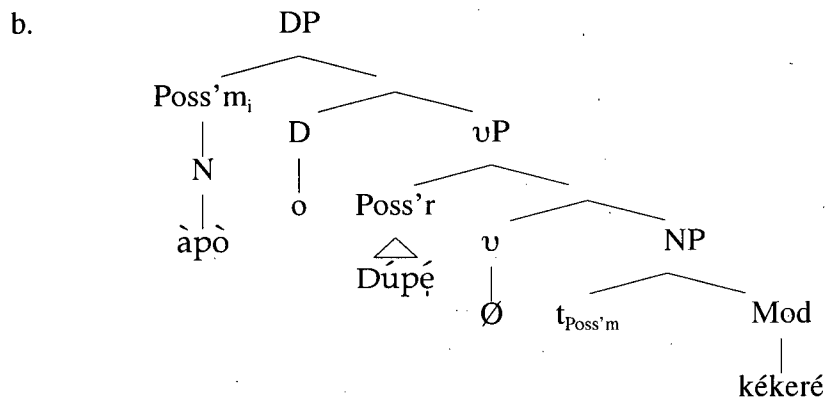
- (54) a. [NP_{POSS'M} àpò]_i o [NP_{POSS'R} Dúpé kékeré] [t_i]
 bag Poss'r small



¹⁷ See chapter 6.

Second, the modifier can attach to the Possessum, but not raise along with it, as in (55). Even though the modifier is adjacent to the possessor in the surface syntax, it is construed as a Possessum modifier.

- (55) a. [àpò]_{Poss'm} o [Dúpé]_[NP t_{Poss'm} kékeré]
 bag MTS D. small
 'Dupe's small bag'



Based on these data, one can conclude that Yorùbá permits modifier stranding. And when this happens, the stranded modifier still modifies the moved Possessum argument.¹⁸

2.3.3.3 Evidence from selectional restrictions

I showed in the preceding section that a modifier occurring next to a possessor NP could modify the possessor or the possessum. However, there are certain modifiers occurring in the same position, which could only be construed as modifying only the possessum. For instance the modifier *nílá* 'big' in (56a), and *pẹlẹbẹ* 'flat' in (56b), can only modify the Possessum

¹⁸ An alternative approach is to adjoin the modifier outside the small clause as in (i).

(i) [kékeré [_{vP} [_{Poss'r} Dupé v [_{Poss'm} àpò]]]]

In this account there is going to be a successive raising of *àpò* around *Dupé* (attracted to the Spec of *o*) and raising (with pied piping) of [*àpò o Dupé*] around *kékeré*, (ii)-(iii).

(ii) [kékeré [_{DP_{Poss'm}} àpò o [_{vP} [_{Poss'r} Dupé v [_{t_i}]]]]]

(iii) [XP [_{DP_{Poss'm}} àpò o [_{vP} [_{Poss'r} Dupé v [_{t_i} kékeré [_{t_i}]]]]]]]

For details on pied piping of adjectives, see Cinque (2005a&b).

rather than the Possessor.

- (56) a. [Àpótíi Dúpé nlá] wà níbí
 box MTS D. big be here
 (i) 'Dupe's big box(es) is here.'
 (ii) '*Big Dupe's box is here'
- b. Àpò o Dúpé pẹ̀lẹ̀ṣonù
 box MTS D. flat loss
 (i) 'Dupe's flat bag is missing.'
 (ii) '*Flat Dupe's bag is missing.'

The fact that the modifiers *nlá* 'big' and *pẹ̀lẹ̀ṣe* 'flat' cannot modify the possessor is accounted for via selectional restrictions. These modifiers can only modify [-human] rather than [+human] nouns.¹⁹ Thus, the examples in (57) are illformed

- (57) a. *Dúpé nlá
 D. big
- b. *Dúpé pẹ̀lẹ̀ṣe
 D. big

This contrasts with modifiers such as *kékeré*, which means both 'small' and 'junior', or *gíga* 'tall', which can modify both human and non-human nouns.

- (58) a. [àpótí i Dúpé kékeré]
 box MTS D. small
 (i) 'Dupe's small box(es)'
 (ii) 'Dupe (junior)'s box'

¹⁹ There is an exception to this rule. Consider (i) where there are two possible interpretations. In (b), the use of *omọ nlá* is idiomatic meaning 'a terrible child' rather than 'a big boy'.

- (i) [àpótí i omọ nlá]
 box MTS child large
 (a) 'the child's big box'
 (b) 'the terrible child's box'

The apparent exception to the rule could be due to the fact that in (ib) *nlá* is actually a pejorative use of the adjective (similar to the pejorative suffixes of other languages), in which case one could expect the co-occurrence of *nlá* with 'small' (box of the child terrible small, or box of the small terrible child, meaning the terrible small child's box).

- b. [àpótí i Dúpẹ́ gíga]
 box MTS D. tall
 (i) 'Dupe's tall box(es)'
 (ii) 'tall Dupe's box' (the box of Dupe who is tall)

In this latter case, the modifier can modify either the possessum or the possessor.

2.3.4 Genitive pronouns

Looking back at all of the data so far presented, discussed, and analyzed, the possessor has always been a personal name. Yet given the right context, pronouns can replace nouns as possessors. In (59b), the clitic pronoun possessor takes the position of the personal name *Kúnlé*.

- (59) a. ilé e Kúnlé
 house MTS K.
 'Kúnlé's house'
- b. ilé e rẹ̀
 house MTS 3sg-Gen
 'his/her house'

There are two facts that I bring to the attention of readers on pronouns: they divide into three classes weak (clitic), strong and reflexive pronouns,²⁰ (cf. Cardinaletti 1998 on Italian and Spanish, and Schoorlemmer 1998 on Dutch), and they can feature in genitive constructions.

As background information, I provide a data set to show the pronoun paradigm when they enter into genitive constructions.²¹

²⁰ The terms *weak* and *strong* as used in the Yorùbá literature is based on certain common properties that members of each group share which others do not share. Two of such properties is that the strong pronoun behaves like proper noun in the sense that it can be modified and it can be focused whereas the weak pronoun can neither be modified nor focused. For details, see Bámgbóṣẹ (1967, 1990) Awóbùlúyì (1978) Pulleyblank (1986), Déchaine (1993) among others.

²¹ The tonal alternation on the mid tone genitive marker in (60) is not discussed in this dissertation due to space. Readers are referred to Akinlabí and Liberman (2000).

(60) *Weak Possessor pronouns*

- a. Títí fẹ́ [ìwé è mi]
T. want book MTS 1sg
'Titi wants my book.'
- b. Títí fẹ́ [ìwé è rẹ́]
T. want book MTS 2sg
'Titi wants your book.'
- c. Títí fẹ́ [ìwé e rẹ́]
T. want book MTS 3sg
'Titi wants her book.'
- d. Títí fẹ́ [ìwé e wa]
T. want book MTS 1pl
'Titi wants our book.'
- e. Títí fẹ́ [ìwé e yín]
T. want book MTS 2pl
'Titi wants your book.'
- f. Títí fẹ́ [ìwé e wọn]
T. want book MTS 3pl
'Titi wants their book.'

Observe that in Yorùbá, as in many other languages, whenever a pronoun functions as a possessor, it takes a different form from when it functions as subject or object NP. To illustrate this consider the 3sg clitic pronoun. In the subject position (61a), it is /ó/, in the object position (61b), it is /i/.²² But when it functions as a possessor (61c) it takes the form /rẹ́/.

- (61) a. [Ó] rí mi
3sg.NOM see 1sg.Acc
'S/he saw me.'

²² Note that in Yorùbá, the object pronouns take different forms depending on their syntactic position. For example, the 3sg clitic is invariably "ó" when in subject position whereas its shape in the object position is determined by the shape of the final vowel of the verb.

- (i) a. Adé gb[é e]
Ade carried it
b. Adé t[à á]
Ade sold it

- b. Mo rí [i]
 1sg.NOM see 3sg.ACC
 'I saw him/her.'
- c. Mo rí [ìwé e [rè]
 1sg. NOM see book MTS 3sg.Gen
 'I saw his/her book.'

Comparing the personal name-as-possessor with pronoun-as-possessor raises one crucial question. Is the form a pronoun takes due to Case assignment? My answer is in the affirmative. Observe that like most languages²³, Yorùbá pronouns have different forms depending on their syntactic position and function. I therefore propose that when a pronoun functions as a possessor, it must take the genitive form. This is why only (62a), and neither (62b) nor (62c), is well formed.

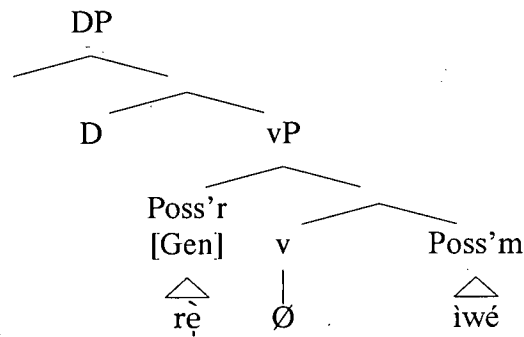
- (62) a. ìwé e rẹ̀
 book MTS 3sg.Gen
 'his/her book'
- b. *ìwé e ó
 book MTS 3sg. NOM
- c. *ìwé e e
 book MTS 3sg.ACC

Just as possessors appear in the genitive Case, so too do subjects and objects take specific Case forms. Take for instance, the difference in form between the 3sg in subject and object position in (61). In the subject position where it receives NOM Case, its form is *ó* (61a), whereas when it is in the object position where it receives ACC Case, the form it takes is *i*, (61b).

The base structure in (63) illustrates the account of possessive pronoun, which is not in any way different from the one I already showed for possessors that are personal names.

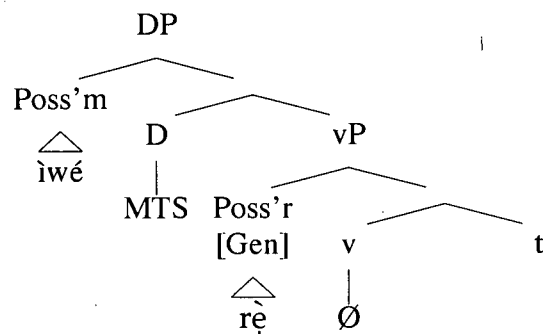
²³Take for example the English 3sg masculine pronoun. When in the subject position, it takes the form *he* which is synonymous with NOM Case. When in object position, the same pronoun is realized as *him*. This is also synonymous with ACC Case. Finally, when the same pronoun functions as a genitive pronoun it is realized as *his*. This again is synonymous to Gen.

(63)



Again, the possessum NP moves to Spec DP as shown in (64).²⁴

(64)



I now turn to the phonological account of the genitive marker that shows up in Yorùbá genitive construction, namely the mid tone syllable.

2.4 The Yorùbá nominal genitive: syntax-phonology interaction

The discussion has so far concentrated on the semantic and syntactic basis of the Yorùbá genitive construction. In this section, I turn to the question of what conditions the phonological shape of the genitive construction, focusing on the status of the MTS that appears between the possessor and the possessum which for now is represented as a mora μ .

²⁴ For details on Yorùbá pronouns, see Adéşolá (2001); Ajíbóyè (2005a); Akinlabí and Liberman (2001); Awóbùlúyì (1978, 1995); Bámgbósé (1966, 1967, 1990); Déchaine (1993); Déchaine and Wiltschko (2002a,b); Manfredi (1987, 1995) and Pulleyblank (1983).

- (65) a. Poss'r Poss'm
 V1] μ [V2
- b. ilé e Òjó
 house MTS O.
 'Ojo's house'

After considering how the syntactic structure of genitive constructions maps onto phonological forms cross-linguistically (§2.4.1), I review the phonological distribution of the MTS (§2.4.2). Following my analysis of the MTS as a functional element, and the claim that it occupies a D position, I argue that its presence is regulated by syntax but its overt realization is phonologically determined. This means though it is found in the environment of a nominal phrase its pronunciation is determined by certain phonological rules. It also implies that while syntax determines where we get the MTS, phonology determines when and how it is to be pronounced.²⁵ I consider two different accounts of the MTS. One analysis claims that the morphosyntax inserts a genitive formative in the appropriate place. This is the analysis that I pursue here (§2.4.3). Another analysis treats the MTS as part of the word/lexical item (§2.4.4). In that account, the MTS is analyzed as a prosthetic vowel that is used to restructure non-canonical nouns in Yorùbá (Awóbùlúyì 2004). I argue that the Standard Yorùbá (SY) and Mòbà data are consistent with the first analysis though there is some variation. The second analysis is rejected as it accounts for neither the SY data nor the Mòbà data²⁶. This section closes with a discussion of the relationship between MTS and L-deletion (§2.4.5).

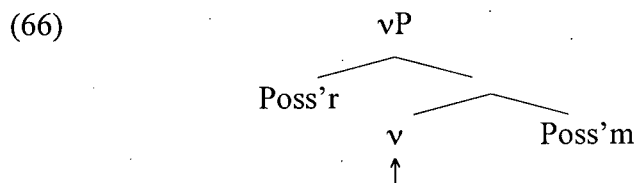
2.4.1 Spelling out the genitive: cross-linguistic evidence

Most languages have morphemes that are used to indicate the genitive relation between two

²⁵ This is in line with the view that phonological content implies the presence of a Functional head, but the absence of such content does not imply the absence of a Functional head (Déchaine 1993: 84).

²⁶ Another alternative analysis, which I do not consider in this dissertation, treats it as a syntactically conditioned copy that marks the R relation between the possessor and the entity that is possessed. This view has been implicitly expressed in Bámgbóṣé (1990), Akinlabí and Liberman (2000) and explicitly in the work of Déchaine (2001) and Ajíbóyè (2004b). For details on copying analysis, see also Postma (1995), Mortenson 2003 Déchaine & Ajíbóyè (2004).

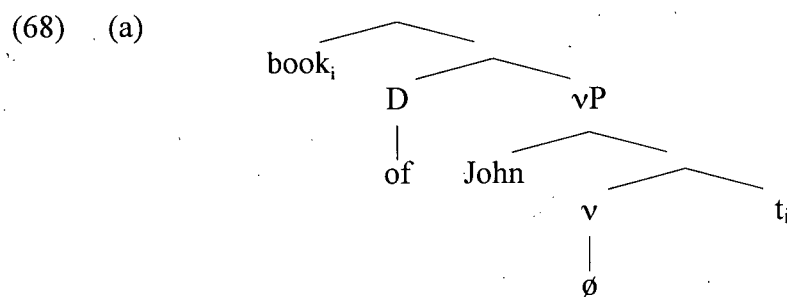
arguments, although the phonological representation of these morphemes may vary. Observe that in the genitive base structure (66), there is only one position available for this morpheme in the base structure namely, the v .

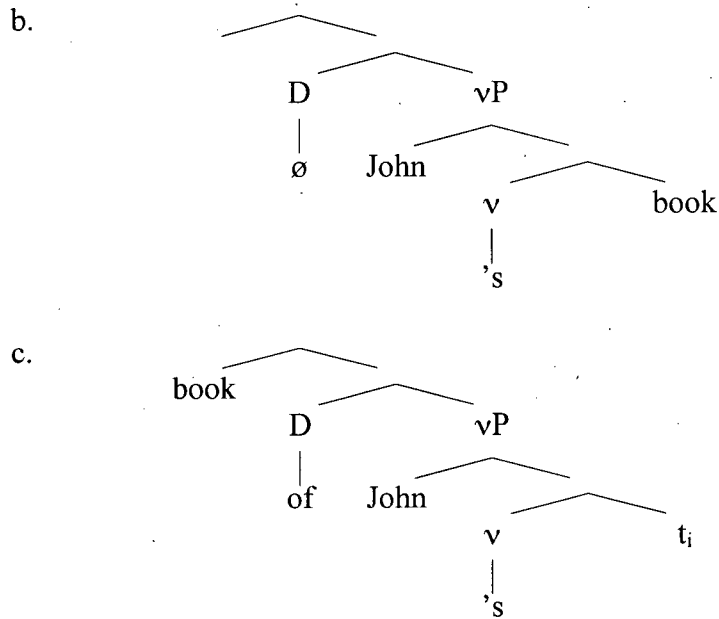


However it may be pronounced as D in the surface syntax. In particular, English pronounces both D (of) and v ('s), (67). The Saxon morpheme has three allomorphic variants (Chomsky and Halle 1968, Russell 1997, Şótilóyè 1999): [z], [s] and [əz]. After a voiceless consonant, it is realized as [s]. After a voiced consonant, it is [z]. After a fricative or an affricate, it is [əz].

- (67)
- | | | | |
|----|----------------|------------------|-----------------------------|
| a. | book of John | | <i>N of N</i> |
| b. | (i) | /dʒan + z buk/ | 'John's book' <i>N 's N</i> |
| | (ii) | /pop + s buk/ | 'Pope's book' |
| | (iii) | /dʒʌdʒ + əz buk/ | 'Judge's book' |
| c. | book of John's | | <i>N of N's</i> |

The relevant structures are given in (68).



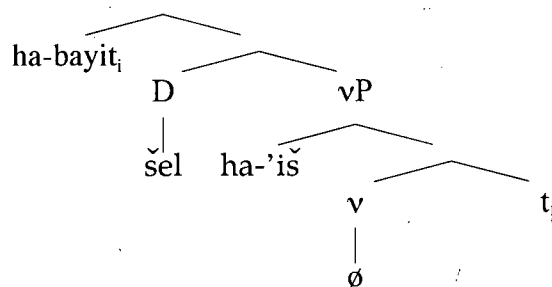


In Hebrew there is a distinction between the 'free state' and the 'construct state' genitive.

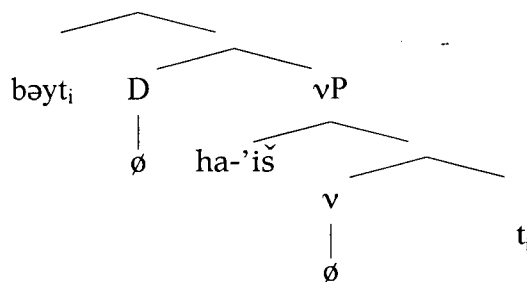
- (69) a. ha-bayit sel ha-'iš *free state*
 the-house of the-man
 'the man's house'
- b. bəyt ha-'iš *construct state*
 house the-man
 'the man's house' (Siloni 1997: 21)

Phonologically, Hebrew marks its construct genitive on the head noun. When the head noun is stressed, it bears a full vowel. But when there is a shift of stress from the head noun to the genitive noun phrase, other phonological processes such as vowel reduction usually follow (Siloni 1997). Thus comparing (69a) and (69b), one can see that the head noun *bayit* 'house' in (68a) takes the full vowel because it is stressed in free state genitives. On the other hand, when the stress is lost on the possessum (69b), the vowel of the head noun reduces to a schwa. Siloni (1997) concludes that the shift in stress on the possessum is an indication that an abstract genitive Case is assigned by the head noun in construct state NPs. In my own account it appears that only the D position is pronounced in Hebrew. The relevant structures are given in (70).

(70) a.



b.



In (70a), the possessum (*ha-bayit* ‘the house’) raises to Spec DP, and D is occupied by *šsel* ‘of’. In (70b), the possessum (*bəyt* ‘house’) again raises to Spec DP; this time, however, D has no phonological content. This empty D correlates with de-stressing of the possessum noun in the so-called construct state.

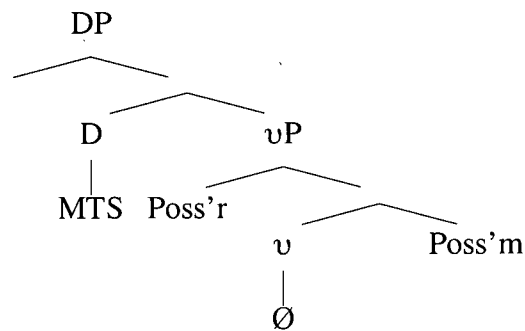
Turning now to Yorùbá, we observe that there are two grammatical elements that mark the genitive. There is MTS (71a), and *ti* ‘of’ (71b). Each of these occurs between the possessum and the possessor.

(71) a. epo o Dòtun
 oil MTS T.
 ‘Dotun’s oil’

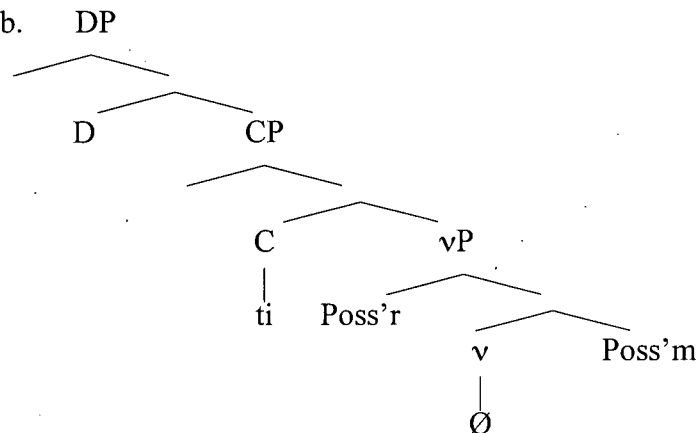
b. epo ti Dòtun
 oil of T.
 ‘oil of Dotun’

Though I treat both examples as genitive DPs, I propose different structures for each of them. I analyze the MTS as D, which takes a small clause as its complement, as in (72a). I analyze the *ti* element as C, which takes a small clause as its complement, as in (72b).

(72) a.



b.



We have already seen the motivation for (72a). Readers are referred to chapter 3 for the motivation and discussion of the structure in (72b).

2.4.2 The phonological distribution of the Mid Tone Syllable

I propose that though the MTS has a syntactic function, its spell-out is phonologically conditioned. This is consistent with the claim that the MTS is a functional head that is overtly represented unless a phonological rule prevents it. The phonological rule that determines when the MTS is to be pronounced is the focus of this section.

The examples in (73) show that the MTS is obligatory before consonant-initial nouns. Moreover, observe that the vocalic content of the MTS is always identical to the vowel that precedes it. In particular, the examples given in (73) show that V1 can instantiate all of the possible oral vowels in Yorùbá: {i, u, e, o, ɛ, ɔ, a}.²⁷

²⁷ This is also true of the nasal vowels: {in, un, ɔn, an} as the examples in (i) illustrate.

(73) *obligatory presence of MTS*

- | | | | | | |
|----|-------------------|---|-------|---------|------------|
| a. | orí | i | Kúnlé | H] M [H | *orí Kúnlé |
| | 'Kúnlé's head' | | | | |
| b. | ojú | u | Kúnlé | H] M [H | *ojú Kúnlé |
| | 'Kúnlé's eye(s)' | | | | |
| c. | ètè | e | Kúnlé | L] M [H | *ètè Kúnlé |
| | 'Kúnlé's lips' | | | | |
| d. | owó | o | Kúnlé | H] M [H | *owó Kúnlé |
| | 'Kúnlé's money' | | | | |
| e. | iṣẹ | ẹ | Kúnlé | H] M [H | *iṣẹ Kúnlé |
| | 'Kúnlé's work' | | | | |
| f. | ọkọ | ọ | Kúnlé | L] M [H | *ọkọ Kúnlé |
| | 'Kúnlé's vehicle' | | | | |
| g. | ajá | a | Kúnlé | H] M [H | *ajá Kúnlé |
| | 'Kúnlé's dog(s)' | | | | |

Before vowel-initial nouns, MTS is optional, as in (74). Again, observe that when the MTS is present its vocalic content is identical to the vowel that precedes it.²⁸

-
- | | | | | |
|-----|----|-----------------------|-----|-------|
| (i) | a. | orín | in | Túndé |
| | | chewing stick | MTS | T. |
| | | 'Tunde's tooth brush' | | |
| | b. | ogún | un | Túndé |
| | | inheritance | MTS | T. |
| | | 'Tunde's inheritance' | | |
| | c. | ọpon | on | Túndé |
| | | tray | MTS | T. |
| | | 'Tunde's tray' | | |
| | d. | àdán | an | Túndé |
| | | bat | MTS | T. |
| | | 'Tunde's bat' | | |

²⁸ Some Yorùbá linguists (e.g. Awóbùlúyì 2004) report that the MTS is never present in vowel-initial nouns. There are two reasons for this opposing view. One is dialectal variation. As pointed out in Awóbùlúyì (2004), there are some dialects of Yorùbá where this segment is not pronounced before vowel-initial words. However, the fact that this segment is pronounced in Standard Yorùbá calls for further research into other dialects. If it turns out that there are more dialects that support its absence, then we can conclude that it is an innovation in Standard Yorùbá. The other reason is some phonological rule, which might rule out the sequence of three vowels in an NP. Awóbùlúyì however admits that this mora can be realized when one hesitates. This is why he concludes that the presence of this mora neither has any syntactic nor semantic function. The data reported here reflect what has been established in the literature (Báṁgbòṣé 1990; Akinlabí and Liberman 2000) as well as the writer's judgment, namely that at normal speech rate, the MTS is usually absent before V-initial nouns, but at slower rates, the MTS is present.

(74) *optional presence of MTS*

- | | | | | |
|----|--------------------|-----|----------|---------|
| a. | orí | (i) | Adé | H] M [M |
| | 'Ade's head' | | | |
| b. | ojú | (u) | Èbùn | H] M [L |
| | 'Ebun's eye(s)' | | | |
| c. | ètè | (e) | Olú | L] M [M |
| | 'Olu's lips' | | | |
| d. | owó | (o) | Òjó | H] M [L |
| | 'Ojo's money' | | | |
| e. | iṣẹ | (ẹ) | Eléyìnmi | H] M [M |
| | 'Eleyinmi's work' | | | |
| f. | ọkọ | (ọ) | ọgá | L] M [L |
| | 'master's vehicle' | | | |
| g. | apá | (a) | Ìsíkálù | H] M [L |
| | 'Isikalu's arm(s)' | | | |

In what follows, I account for how the MTS comes to be realized. I consider two analyses: one claims MTS is an underlying mora μ (§2.4.3); the other claims MTS is a phonologically conditioned segment (§2.4.4).

2.4.3 Analysis I: the Mid Tone Syllable is an underlying mora μ

The genitive marker always takes the exact shape of the final vowel of the possessum, (75a), or that of the modifier if present, (75b).

- (75) a. ilé e Títí
house MTS T.
'Titi's house'
- b. ilé nlá a Títí
house big MTS T.
'Titi's big house'

The question that I address is how the genitive marker comes to assume the segmental shape

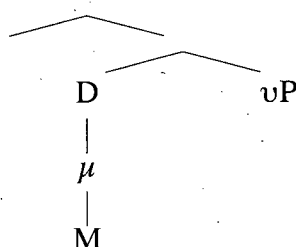
of the preceding vowel without inheriting its tone. For example, in (75a), [e] is the segmental component of the H tone [é]. This excludes the H-tone. In accounting for this, I compare data from Standard Yorùbá with Mòbà and claim that the difference between the two varieties is due to the way they represent this genitive marker in the phonology. I propose that it is the morphosyntax that inserts a genitive formative in the possessum-possessor boundary. The underlying phonological form of this formative is stated as (76).

(76) Phonological representation:

The genitive marker is a mid tone mora μ with no vocalic specification.

This proposal states that the genitive marker is underlyingly a mid tone mora that has no segmental features of its own and occurs in the structure in (77).²⁹

(77)



On this view, in SY, this mora undergoes assimilation of the segmental features of the preceding vowel, (78). This is Contrary to Akinlabi (1985); Akinlabi and Liberman (2000); Pulleyblank (1986, 2004) and Ajíbóyè et al (2004) which claim that such moral is underlyingly without a tone of its own and therefore must be assigned the default M tone.³⁰

²⁹ Déchaine (2001:101) claims that 'Genitive K shows up in the form of a M-tone mora or timing unit' (cf. Bittner and Hale (1995).

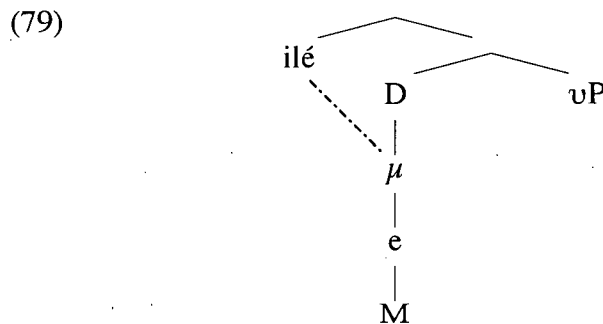
³⁰ There is an alternative analysis that treats MTS as an underlying /i/ in Standard Yorùbá. On that view, the claim is that assimilation processes that involves this vowel shows that it is the weakest in Yorùbá and as such it is susceptible to assimilating features of other adjacent segment. Thus, in (i-a), where /i/ is the first of the two contiguous vowels at word boundary, it assimilates the segmental features of the second vowel, /o/. In (i-b) where /i/ is the second vowel, it still assimilates the feature of the preceding vowel, /a/ (cf. Awóbùlúyì 1982).

- (i) a. ní òórùn > lóòórùn
 HAVE incense
 'have incense'
 b. arā ìmòḍe > arāàmòḍe
 person
 'an Imode person'

Note that such assimilation only targets segmental features. This is consistent with the observation that in genitive constructions, assimilation does not target the tone of the segment that is copied.

- (78) a. ilé μ Túndé > ilé e Túndé
 house T. MTS
 'Tunde's house'
- b. owó μ Túndé > owó o Túndé
 money T. MTS
 'Tunde's money'

The mora μ undergoes regressive assimilation:



Observe that there are cases when the MTS may be unpronounced, as in (80).

- (80) a. filà μ ògá > filà ògá
 cap \emptyset master
 'master's cap'
- b. ẹwà μ Òjò > ẹwà Òjò
 money \emptyset O.
 'Ojo's beans'

For speakers who do not pronounce the MTS in this context, situation is that although the mora is there, the assimilation rule does not apply. In order to capture the case where it is pronounced as in (78) and the case where it is not pronounced, as in (80), I argue that the rules of the phonology of the language cause deletion in appropriate contexts and

On independent grounds, we also know that the relation between an unspecified mora in Standard Yorùbá and /i/ is close (Pulleyblank 1988 and Awóbùlúyì 1982, 1997). It would therefore not be surprising to find such a correspondence here. If there was an underlying /i/ in SY and if assimilation was applicable or obligatory, then the surface effect would be exactly as we observe it and undistinguishable from having an underlying /mora/ that is not specified for any feature. However the current proposal is much simpler since it does not require a stipulation of a segmental representation of this morpheme underlyingly.

assimilation in appropriate contexts. In (81a), before Consonant initial possessors, it is obligatory for the rule of assimilation to apply to the genitive mora. In (81b), before Vowel initial possessors, for speakers who pronounce the MTS, the same rules of phonology applicable to Consonant initial possessors also apply. Whereas for speakers who do not pronounce the MTS before Vowel initial possessors, the rule of regressive assimilation fails to apply.

- (81) a. $\text{filà } \mu \text{ Kúnlé} > \text{filà a Kúnlé}$
 cap K. MTS
 ‘Kúnlé’s cap’
- b. $\text{filà } \mu \text{ Òjó} > \text{filà (a) Òjó}$
 cap O. MTS
 ‘Ojo’s cap’

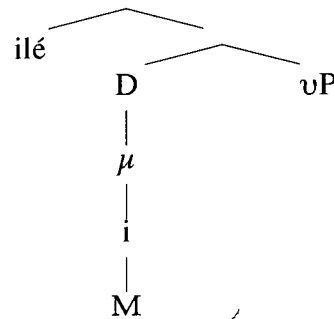
A comparison of Standard Yorùbá with the Mòbà dialect shows that the phonetic representation of the MTS in the two speech forms is not the same. I claim that this is due to the way the rules of phonology apply in the two varieties. First, consider the following data.³¹ In Mòbà, before consonant-initial nouns the vocalic content of the MTS is the vowel /i/.

(82)	Mòbà	Standard Yorùbá	Gloss
a.	erí i Kúnlé	orí i Kúnlé	'Kúnlé's head'
b.	ojú i Kúnlé	ojú u Kúnlé	'Kúnlé's eye(s)'
c.	ètè i Kúnlé	ètè e Kúnlé	'Kúnlé's lips'
d.	eó i Kúnlé	owó o Kúnlé	'Kúnlé's money'
e.	usẹ i Kúnlé	işẹ ẹ Kúnlé	'Kúnlé's work'
f.	ọkọ i Kúnlé	ọkọ ọ Kúnlé	'Kúnlé's vehicle'
g.	apá i Kúnlé	apá a Kúnlé	'Kúnlé's arm(s)'

³¹ The difference between the two dialects in lexical items such as 'head', 'money' and 'work' is not crucial to the discussion here.

I propose that despite the differences in the surface form, the MTS in Mòbà is also underlyingly a mid tone mora just as in SY. When the possessor is consonant initial, I claim that this mora undergoes default feature assignment and surfaces as /i/ (cf. Pulleyblank 1983, 1988 and Akinlabí 1985).

(83) The μ undergoes default feature assignment



However, when the possessor is vowel initial, the mora is not assigned any default feature, so it has to delete since it is unpronounced in the surface syntax.

- (84) a. filà μ Kúnlé > filà i Kúnlé
 cap \emptyset K.
 'Kúnlé's cap'
- b. filà μ Òjó > filà Òjó
 cap \emptyset O.
 'Ojo's cap'

This is why we do not have examples such as (85) in Mòbà.

- (85) a. *filà i ògá
 cap MTS master
- b. *ẹ̀wà i Òjó
 money MTS O.

There is one vital point to note with respect to the MTS in Mòbà and Standard Yorùbá. The point is that while the MTS is optionally pronounced in Standard Yorùbá when the possessor is vowel initial, in Mòbà, it must not be pronounced.

To recap, I have presented the facts of both the Standard Yorùbá and Mòbà data. The morphosyntax makes the genitive formative available in the appropriate place (i.e. in the Possessum-Possessor domain). The underlying phonological form of this formative is a mora μ without vocalic or tonal specifications. I have also shown that it is the rules of the phonology that cause the different surface forms in Standard Yorùbá and Mòbà. In Standard Yorùbá, the rules of assimilation and deletion apply in appropriate cases, i.e. obligatory regressive assimilation whenever the possessor is Consonant-initial and optional deletion whenever the possessor is Vowel-initial. In Mòbà the rules of default feature assignment and deletion apply in appropriate contexts, i.e. default feature assignment whenever the possessor is Consonant-initial and obligatory deletion whenever the possessor is Vowel-initial. This account derives all the observed facts in a simple fashion.³²

2.4.4 Analysis II: the Mid Tone Syllable as phonologically conditioned segment

This section examines an alternative proposal by Awóbùlúyì (2004). There are three points that are relevant here. First, Awóbùlúyì challenges the claim that the MTS is a genitive marker, §2.4.4.1. Second, he claims that the MTS is a prosthetic vowel, §2.4.4.2. Third, he treats the MTS as a hesitation marker, §2.4.4.3. I examine each point briefly.

2.4.4.1 The Mid Tone Syllable is not a genitive morpheme

In reaction to Ajíbóyè (2004b), which is the same view that I pursue further here, Awóbùlúyì (2004) claims that there is no genitive morpheme that exists between the Possessor and the Possessum in Yorùbá. According to him, the MTS that shows up in genitive constructions has neither syntactic nor semantic content. On this view, he contends that the:

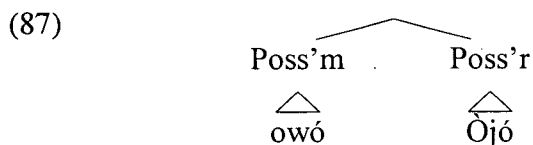
³² While evidence that comes from different dialects is desirable and should be pursued in helping us to know more about what operates in SY (Bámgbóṣé 1986; Awóbùlúyì 1988), such evidence (especially from a few dialects) is not absolute. There is a need for study of other dialects to see whether the story is the same. Observe that there are cases where the standard form of a language does something that is completely different from what its dialects do. One case in point is the occurrence of /u/ and nasal vowels word initial of certain nouns in some dialects; in particular Mòbà but not in Standard Yorùbá (Ajíbóyè 1991).

possession is expressed in Standard Yorùbá with noun phrases formed by simply juxtaposing either two noun phrases or a noun phrase and an appropriate possessive pronoun in that order. (Awóbùlúyì 2004:1)

Consider the examples in (86) taken from the cited work.

- (86) a. Owó Òjó
money (of) Ojo
'Ojo's money'
- b. Owó rẹ̀
money his/her/its
'his/her/ money; money for it' (Awóbùlúyì 2004:2)

Under Awóbùlúyì's account, the examples in (86) will have the structure in (87) as the genitive phrase.³³



According to that analysis there is nothing like a genitive marker in Yorùbá.

The first thing one observes about the examples in (86) and the representation in (87) is that they do not show any relation between the possessor and the possessum. I have demonstrated that there exists a relation between the possessor and the possessum in Yorùbá as in many other languages. I have also argued that the appearance of the MTS between these two arguments is symptomatic of this relation. The claim is that when it is covert, this is due to phonological rules that prevent the MTS from being pronounced. Thus, the absence of

³³ The example in (86b) is not attested in Standard Yorùbá as the correct form obligatorily takes the MTS.

(i) owó o rẹ̀
money MTS 3sg
'his/her money'

The form reported in (86b) is only allowed in the orthography by convention. Nevertheless, in some dialects of Yorùbá especially in Mòbà, there is also a parallel form to (i), which shows the absence of the MTS, (ii).

(ii) eó ø rin (Mòbà dialect)
money 3sg

phonological content is still interpreted as being associated with relational meaning. In other words, the phonologically empty category is licensed syntactically.

More revealing are the numerous examples that have been previously cited which show contexts where the presence of the MTS is obligatory. As a reminder, I give one such example below.

- (88) a. ilé e Kúnlé
 house MTS K.
 'Kunle's house'
- b *ilé Kúnlé
 house K.

The ill-formedness of (88b) is due to the absence of the MTS. Awóbùlúyì's proposal represents the possessor and the possessum as sisters. On the justification for why the genitive construction in Yorùbá does not have a genitive marker, he has this to say:

whether a given NP1 NP2 construction signifies possession or mere apposition in the language is actually a function either of the context or of the meanings or semantic classes of the individual lexical items involved (Awóbùlúyì 2004: 6).

Recall from above that the R relation may be contextually or lexically determined. In this respect the present analysis accords with Awóbùlúyì's general claim. However, while Awóbùlúyì treats the Possessum-Possessor relation as a special case of apposition, the present analysis distinguishes the two as discussed above.

2.4.4.2 The Mid Tone Syllable as a prosthetic vowel

Awóbùlúyì argues that appearance of the MTS in genitive constructions is a purely phonological phenomenon. Taking evidence from many dialects of Yorùbá such as Mòbà, Èkìtì, Ìkàré and Ọ̀wọ̀, he asserts that the MTS is a prosthetic vowel that is used to

restructure non-canonical nouns in Yorùbá.³⁴ Canonical nouns are defined as follows: (i) they are non-derived; (ii) they are not borrowed; and (iii) they have V-CV structure. Some representative examples are given in (89).

- (89)
- a. iké
‘hunch back’
 - b. omi
‘water’
 - c. epo
‘oil’
 - d. ẹfọ
‘vegetable’
 - e. oja
‘market’

Now consider the examples in (90), which are either borrowed as in the case of (a-c), or derived through a deletion process as in (d-e).

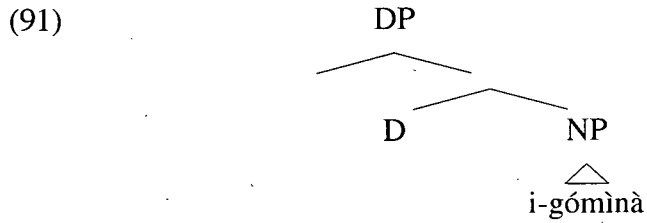
(90)	Mòbà ³⁵	Standard Yorùbá	Gloss
a.	i-gómìnà	gómìnà	‘governor’
b.	i-télò	télò	‘tailor’
c.	i-bíríkì	bíríkì	‘brick’
d.	i-délé	Délé	Yorùbá name
e.	i-kúnlé	Kúnlé	Yorùbá name

(Awóbùlúyì 2004: 9-10)

³⁴ In earlier work (Ajíbóyè 1991), it has been established that most nouns that begin with a consonant in Standard Yorùbá are pronounced with vowel /i/ preceding such consonants in Mòbà. In fact, in the cited work, I mentioned that cases where there is deletion of a syllable or two in personal names before the output produce C-initial nouns, such nouns must obey the epenthetic rule that enforces /i/ to be inserted. Thus, *idélé* could be a reduced form of *Awódélé*, *Ògúndélé*, *Olúdéle* etc. Readers are referred to that work for more data and full explanation.

³⁵ In the original work, Awóbùlúyì simply puts ‘Dialects’ in the place where I put Mòbà. I make this change to be more precise. Mòbà is one of the dialects that has the so-called prosthetic vowel.

For examples such as those in (90), Awóbùlúyì's proposal will yield the structure in (91), where the so-called prosthetic vowel is part of the NP.

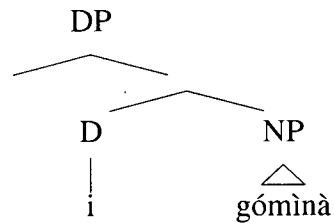


According to Awóbùlúyì, whenever consonant initial nouns enter into a genitive construction, it is the same prosthetic vowel that shows up. Some illustrative examples are given in (92).

- (92) Mòbà.
- a. ulé i- gómìnà
house governor
'Governor's house'
 - b. asọ i-télò
cloth tailor
'the tailor's dress'
 - c. eó i-bíríkìlà
money bricklayer
'bricklayer's money'
 - d. ata i-délé
pepper D.
'Dele's pepper'
 - e. òwú i-kúnlé
cotton K.
'Kunle's cotton'

In Ajíbóyè (2004a,b) and also in this present work, I treat the so-called prosthetic vowel as a functional element that occupies the D position, as in (93).

(93)



One other argument that Awóbùlúyì puts forward in support of the claim that the MTS is a prosthetic element is with respect to the tonal melody it bears. On why the MTS bears M tone, he asserts that:

MTS cannot but bear mid tone, as it is a mere surface manifestation of a prosthetic vowel *i* with mid tone that is required to restructure otherwise phonologically deviant or noncanonic nouns when used at least NP-internally in all varieties of Yorùbá (p. 17).

As already discussed, Awóbùlúyì's account of MTS is at variance with mine. The first problem is the constraint that restricts the prosthetic segment to NP internal positions. The immediate question that follows is why the NP internal condition? If indeed this is a prosthetic vowel then we should be able to have it in word initial position in Standard Yorùbá. This is not the case as shown by the unattested form in (93b).

- (94) a. Mo rí orí i-gómìnà *Standard Yorùbá*
1sg see head MTS-governor
'I saw the governor's head.'
- b. *Igómìnà rí mi.
governor see 1sg

Even in Mòbà, which is famous for the use of vowel /i/ in consonant initial nouns, the occurrence of /i/ in sentence initial position is optional.

- (95) a. I-kúnlé rí mi *Mòbà*
see 1sg
'Ikunle saw me.'
- b. Kúnlé rí mi
see 1sg
'kunle saw me.'

- (96) a. I-gbéíngá yá á Mòbà
 Question-tag come
 'Did Igbenga come?'
- b. Gbéíngá yá á
 Question-tag come
 'Did Gbenga come?'

Moreover, the optionality of Moba /i/ is completely general. While the examples in (95) and (96) show the optionality of /i/ for nouns in subject position, (97) show that /i/ continues to be optional when the noun is in object position.

- (97) a. Mì ín pe Ikúnlé Mòbà
 1sg HTS call
 'I called Ikunle.'
- b. Mì ín pe Kúnlé
 1sg HTS call
 'I called Kunle.'

However, in genitive constructions mid tone *i* is obligatory before consonant initial nouns in Mòbà.

- (98) a. Ìwé i-kúnlé rè é Mòbà
 book MTS-T. COP Dem
 'This is kunle's book'
- b. *Ìwé Kúnlé rè é

In conclusion, in Mòbà M-tone *i* is optional with ordinary nouns but it is obligatory in genitive constructions (except if the possessor is V.-initial). This syntactic contrast is not captured by Awóbùlúyì's analysis.

2.4.4.3 The Mid Tone Syllable as a mark of hesitation

The last claim contained in Awóbùlúyì (2004) is that whenever the MTS is found in genitive

constructions involving vowel initial possessors, it signals hesitation. As earlier mentioned about the speech of this researcher and as also found in the literature (Bámgbóṣé 1990, Akinlabí and Liberman 2000), the presence of the MTS in genitive constructions is not a way of expressing hesitation. Akinlabí and Liberman's observation, which supports my analysis, is contained in the following excerpt:

A Mid tone vowel occurs pervasively (though usually optionally) in the middle of such genitive constructions. It assimilates in quality to the vowel that precedes. This vowel is obligatory only when the possessor (the noun in second position) is consonant-initial. When the second noun is vowel-initial (the normal situation), then the vowel is optional. In the case of a vowel-initial possessor, it is natural to think of this extra vowel as an optional possessive morpheme. In the case of a consonant-initial possessor, we are tempted to think of it as an empty prefix. (Akinlabí and Liberman 2000: 17)

As mentioned before however, the presence of the MTS is optional before vowel-initial nouns and this optionality is sensitive to speech rate. Thus, in (99) at fast speech rate the MTS is not pronounced, at slow speech, it is.

- (99) a. ilé (e) òjọ
 house MTS O.
 'Ojo's house'
- b. ọmọ (ọ) akin
 child MTS A.
 'Akin's child'
- c. ọkọ (ọ) òjọ
 vehicle MTS O.
 'Ojo's vehicle' (Akinlabí and Liberman 2000: 18)

In conclusion, I have discussed two different analyses of the MTS: (i) as a syntactically conditioned mora μ ; (ii) as a phonologically conditioned segment. I have established that the data from both Standard Yorùbá and Mòbà is consistent with analysis (i). In view of the above, I reject analysis (ii) as it accounts for neither the Standard Yorùbá data nor the Mòbà data.

2.4.5 Relating the Mid Tone Syllable to L-deletion

There is yet another indirect piece of evidence that supports the presence of a genitive marker in genitive constructions. This evidence comes from the loss of a low tone on the final segment of the possessum phrase. Although this is a phonological process, it nevertheless has syntactic implications. Bámgbóṣé (1967, 1990) and Déchaine (2001) have discussed the deletion of the final low tone of a possessum noun.

My goal is to find answers to the following questions:

- (i) Is it sufficient that the possessum end with a segment bearing an L tone or do we need to look beyond the last segment of the possessum for L deletion to apply?
- (ii) Just as the final L tone of the possessum NP can be deleted, is it also possible to delete the final H tone of the possessum NP?
- (iii) Is tone deletion of the possessum NP sensitive to syntactic structure; in particular, does a [Possessum-Possessor] sequence behave the same as a [Possessum-Modifier] sequence?

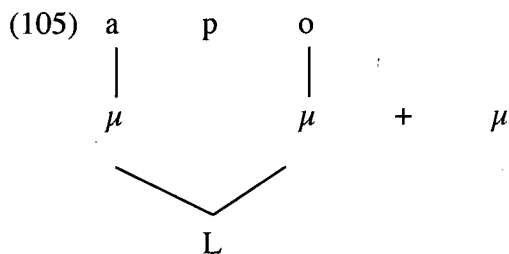
Addressing the above questions not only corroborates previous analyses, it also accomplishes three additional things. First, in the course of attempting to answer these questions, I consider a broader range of data than has been previously examined. Second, I demonstrate that in order for L-deletion to apply, all the segments within the possessum must bear L-tone. Third and most important, the deletion of L tone and its replacement with M tone is shown to correlate with genitive marking.³⁶ Consider the following data:

- (100) a. àṣà a Dúdú
 custom MTS African
 ‘African customs’
- b. àṣa Dúdú
 custom African
- (101) a. èwù u Délé
 dress MTS D.
 ‘Dele’s dress’

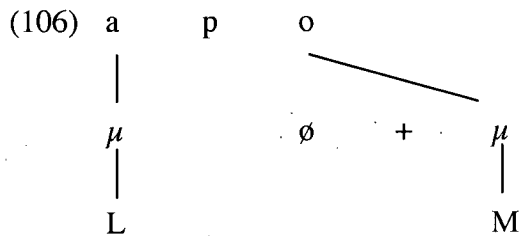
³⁶ Again, this claim is subject to an instrumental phonetic study examining the timing and duration of the mid-tone bearing genitive mora and the option of contracting it with the final syllable of the head noun. The relevance of such an experiment is to show that the contracted form is significantly shorter than the full form. It will also enable us to map the relative timing of the tonal and segmental events (i.e. whether the L to M transition happens differently if the M is a result of elision), or if it is a ‘lexical’ M (Ajíbóyè et al 2004).

- b. èwu Délé
 dress D.
- (102) a. ìrù u kìnìhún
 tail MTS lion
 'lion's tail'
- b. ìru kìnìhún
 tail lion
- (103) a. ìgò o bíà
 bottle MTS beer
 'bottle of beer'
- b. ìgo bíà
 bottle beer
- (104) a. àpò o ti wa
 bag MTS C our
 'our own bag'
- b. àpo ti wa
 bag C our
 'our own bag' (cf. Bámgbóṣé 1990)

The examples in (100)-(104) split into two: the presence of the MTS in all the (a) examples and its absence in all the (b) examples. There is one other vital point to make with respect to the (b) examples: the replacement of the L tone on the final syllable of the first noun with M tone. The surface forms in the (b) examples in (100)-(104) are accounted for as follows. As a starting point, since the environment for L deletion is where all the vowels of the possessum bear L tone, I assume that the vowels in this environment are associated with one L underlyingly (cf. Leben 1973 among others).



When the L tone of the final vowel in the possessum NP deletes, we are left with two morae that have no segmental features. The mora of the final vowel of the possessum also deletes and the vowel is associated with the mora of the genitive marker. Finally this vowel is assigned the default M tone.



My goal here is to account for why there is L-tone deletion of the final vowel of the possessum. I also account for why the L-tone that is deleted is being replaced with M-tone. Lastly, I show the reason for the absence of M-tone genitive marker when the final L-tone of the possessum NP deletes.

Déchaine's (2001) observation is that the genitive L-deletion is optional before a Consonant initial possessor. If the L tone does not delete then the genitive marker must be pronounced, otherwise it yields a wrong output.

- (107) a. ìlu bàtá
 drum
 'the bata type of drum'
- b. ìlù u bàtá
 drum MTS b.
 'the bata type of drum'
- c. *ìlù bàtá

Before a V-initial possessor, Déchaine contends that genitive L-deletion is obligatory, as long as the initial vowel of the second noun (the Possessor) does not bear L, (108).

- (108) c. pàtàki ɛmu
 importance palm wine

- b. *pàtàkì ẹmu
 importance palmwine
 'the importance of palm wine'
- c. *pàtàkì i ẹmu
 importance MTS palmwine (adapted from Déchaine 2001: 102)

Déchaine further observes that if an initial vowel of the possessor bears L tone, then Genitive L-deletion doesn't apply (109a), nor does the MTS surface, (109b). In this case, the possessum surfaces with its lexical L tone throughout, (109c).

- (109) a. *ìlu ọ̀gá
 b. *ìlù u ọ̀gá
 c. ìlù ọ̀gá
 'master's drum'

Observe that all the nouns discussed so far that undergo L-deletion have L tone throughout. Now consider nouns, which have only a final L-tone.

- (110) a. pákò HL
 'chewing stick'
- b. ọ̀kọ ML
 'motor'
- c. onílù MHL
 'drummer'
- d. ìwàkiwà LLML
 'bad character'
- e. alápatà MHML
 'butcher'

When such nouns are put into genitive constructions where they function as possessums, L-deletion is not possible, (111). In (112), when L-deletion is enforced on the possessum, the output is ungrammatical.

- (111) a. pákò o Kúnlé
'Kúnlé's chewing stick'
- b. ọkọ ọ Kúnlé
'Kúnlé's motor'
- c. onílù u Kúnlé
'Kúnlé's drummer'
- d. ìwàkiwà a Kúnlé
'Kúnlé's bad character'
- e. alápatà a Kúnlé
'Kúnlé's butcher'
- (112) a. *páko Kúnlé *HL > HM
- b. *ọkọ Kúnlé *ML > MM
- c. *onílu Kúnlé *MHL > MHM
- d. *ìwàkiwa Kúnlé *LLML > LLMM
- e. *alápatà Kúnlé *MHML > MHMM

The fact the final L in all the possessums cannot delete indicates the L-tone of the possessum does not freely delete.

There is one more thing to test even with a possessum that allows L deletion: this is whether the size of the possessum NP is in any way a crucial factor in determining L deletion. This I test with examples in (113-115) where the possessum consists of two, three and five syllables respectively. As the output reflects, each of them triggers L deletion. This suggests that the size of the possessum is not a conditioning factor for L deletion.

- (113) a. àşà a Kúnlé
customMTS K.
'Kúnlé's habit'
- b. àşà Kúnlé
customK.

- (114) a. ògèdè ẹ Kúnlé
 banana MTS K.
 'Kúnlé's banana'
- b. ògèdè Kúnlé
 banana K.
- (115) a. àgbààgbà a Bèyíòṣe
 elder MTS
 'Bèyíòṣe's elders'
- b. àgbààgbà Bèyíòṣe
 elder B.

I now turn to the syntactic contexts of L deletion. Following Déchaine (1993, 1997, 2001), I propose that just as L deletion of a monosyllabic verb is syntactically determined, L deletion in genitive constructions is also syntactically conditioned. Nominal L deletion is restricted to genitive constructions; thus, if the second entity is not a possessor there cannot be L deletion. One context that we test is when possessum nouns take a modifier. As the following examples show, the final L tone of the nouns is obligatorily retained.

- (116) *NP + Modifier*
- a. àṣà burúkú *àṣa burúkú
 custom bad
 'bad customs'
- b. ẹ̀wù funfun *ẹ̀wu funfun
 garment white
 'white garment'
- c. ìrù gígùn *ìru gígùn
 tail long
 'long tail'
- d. ìgò kékeré *ìgo kékeré
 bottle small
 'small bottle'
- e. àpò peḷeḷe *àpo peḷeḷe
 bag flat
 'flat bag'

This contrasts with (117) where the modifier is replaced with a possessor. Note that both the modifiers in (116) and the possessors in (117) begin with a consonant. Thus while the L tone of the base is retained in (116), it deletes in (117) and consequently a default M tone is assigned.

(117) *Possessum NP + Possessor NP*

	Input	Output
a.	àṣà μ Kúnlé 'Kunle's habits'	àṣa Kúnlé
b.	èwù μ Kúnlé 'Kunle's garment'	èwu Kúnlé
c.	ìrù μ Kúnlé 'Kunle's tail'	ìru Kúnlé
d.	ìgò μ Kúnlé 'Kunle's bottle'	ìgo Kúnlé
e.	àpò μ Kúnlé 'Kunle's bag'	àpo Kúnlé

If any of these modifiers changes its category from modifier (118a) to noun (118b), then, L deletion becomes possible.

(118) a	ìgò dúdú bottle black 'black bottle'	= dúdú is a modifier
b.	ìgo Dúdú bottle D. 'the bottle of Mr. Dudu	= dúdú is a noun ⁴²

Finally, L deletion within the Possessum NP is not restricted to the Possessum. If the Possessum takes a modifier that bears L tone throughout as in (119), we observe that the L-deletion rule still applies to the final vowel of the modifier, (120).

⁴² See Awóbùlúyì (2004) for relevant discussion.

- (119) a. [Àpò gùdùgbẹ ẹ Kúnlé] jábọ
 bag bulge MTS K. fall-off
 'Kunle's bulging bag fell off'
- b. [Ìgbà àìmọ ọ̀n wà] ní Ọlórún fojúfòdá
 time ignorant MTS 1pl FOC God overlook
 'Our time of ignorance has been overlooked by God'
- c. Àkọ pàlàbà a Gbàdà sọ̀nù
 sheath flat MTS K. miss
 'Gbada's flat sheath is missing.'
- (120) a. [Àpò gùdùgbẹ Kúnlé] jábọ
 bag bulge K. fall-off
 'Kunle's bulging bag fell off'
- b. [Ìgbà àìmọ wà] ní Ọlórún fojúfòdá
 time ignorant 1pl FOC God overlook
 'Our time of ignorance has been overlooked by God'
- c. Àkọ pàlàbà Gbàdà sọ̀nù
 sheath flat K. miss
 'Gbada's flat sheath is missing.'

I have established that the L deletion that takes place in genitive constructions corresponds to genitive marking in Yorùbá. In such cases, the segment whose inherent L tone deletes is assigned default M-tone. This is another piece of evidence in support of Déchaine's (2001) claim that there is a high degree of interdependency between phonology and syntax in Yorùbá such that the knowledge of one greatly helps the understanding of what goes on in the other. L-deletion is a morphosyntactic phenomenon that is phonologically conditioned. This is because deletion itself is, by its very nature, phonological. But the process is conditioned by syntax; it takes place in a genitive construction. The problem that I address next shows that L-deletion and MTS are in fact two sides of the same coin.

2.4.5.1 The necessary and sufficient conditions for L-deletion

Recall the three questions that I set out to address regarding L-deletion. First is to find out if the possessum ending with a segment bearing L tone suffices for L deletion or do we look

beyond the last segment of the possessum. Second is to test if it is possible to delete the final H tone of the possessum NP. Third is to establish how crucial is the element that follows the possessum (possessor versus modifier) as a determining factor for L-deletion to take place. My finding shows that before L deletion can take place, the possessum NP or the modifier to the possessum NP must bear L tone throughout. I also established that when a possessum or its modifier ends in H tone, it couldn't delete for purposes of marking the genitive construction. And finally we saw that for L deletion to take place in a Yorùbá DP, the targeted element must be (part of) a possessum NP in a genitive construction.

2.4.5.2 MTS and L-deletion are in complementary distribution

I have argued that the MTS is a genitive marker that occurs between the possessum and the possessor. The final issue to discuss is the relation between the occurrence of the MTS and this L-deletion. My claim is that the substitution of the default M-tone for the deleted L tone is formally equivalent to the MTS. In particular, I will show that L tone deletion occurs whenever the MTS is not pronounced.

- (121) a. If MTS is pronounced, then no L deletion
 b. If MTS is not pronounced, then L deletes

First, I present data that show that whenever the MTS is pronounced, L-deletion cannot take place (122)-(124).

- (122) a. àṣà a Kúnlé
 'Kunle's habit'
 b. *àṣa a Kúnlé
- (123) a. ògèdè ẹ Kúnlé
 'Kunle's banana'
 b. *ògèdè ẹ Kúnlé

- (124) a. àgbààgbà a Béyíòṣe
 ‘elders of Beyiose’
- b. *àgbààgbà a Béyíòṣe

Second, I present data that show that whenever the MTS is not pronounced, L deletion must take place (125)-(127). This is irrespective of the number of the syllables of the possessum NP. Cases where the MTS is absent and we fail to delete the final L tone as shown in the (b) examples are unattested.

- (125) a. àṣa Kúnlé
 ‘Kunle’s habit’
- b. *àṣa Kúnlé
- (126) a. ògèdẹ Kúnlé
 ‘Kunle’s banana’
- b. *ògèdẹ Kúnlé
- (127) a. àgbààgbà Béyíòṣe
 ‘Kunle’s banana’
- b. *àgbààgbà Béyíòṣe

In summary, I have argued that the overt realization of MTS and L-deletion of the final vowel of the possessum NP are two sides of the same coin.

2.5 Conclusion

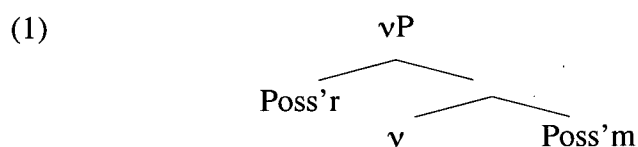
I have discussed four major themes relating to genitive constructions in Yorùbá. The first two themes dealt with the semantics and the syntax of genitive constructions. First, I proposed that at the semantic level, there is an R relation between the two arguments in a genitive construction. I made the same claim at the syntactic level by claiming that *v* is the (morphosyntactic) realization of the (semantic) R relation. I argued that the relational head *v*

may be null (in nominal genitives) or it may be pronounced (in verbal genitives). Still on the syntax of Yorùbá genitives, I demonstrated that both nominal and verbal possessive constructions derive from the same base structure: a ν P shell. The surface structure of both involves movement: while the possessum moves to Spec DP in nominal genitive constructions, it is the possessor that moves to Spec IP in verbal possessive constructions. I also claimed that the MTS that appears between the possessum and the possessor in the nominal genitive occupies D. Evidence for the raising analysis is found in the account of the phonological content of the genitive marker, which takes the form of the mid tone syllable. My account revealed that the MTS can be analyzed as a syntactically conditioned mora. This implies that while syntax determines where we get the morpheme, phonology determines its form and when it is to be pronounced.

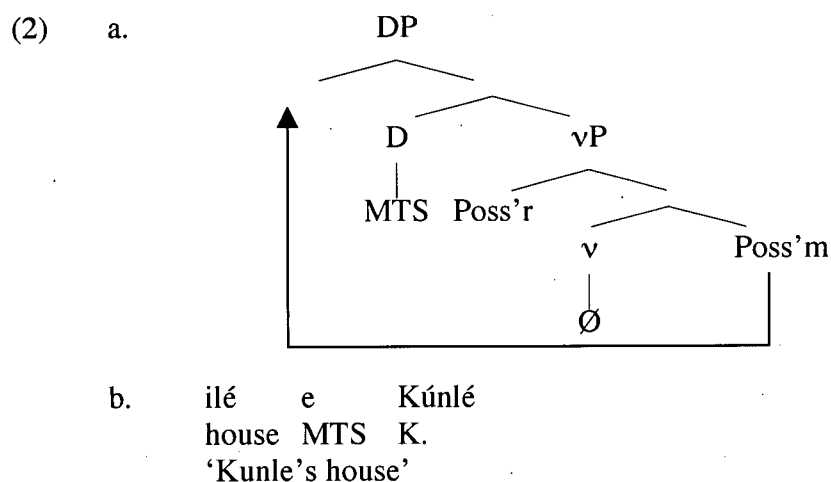
CHAPTER THREE: *ti*-GENITIVES AS REDUCED RELATIVE CLAUSES

3 Introduction

Chapter 2 established that there is a parallel between the semantic and syntactic structures of the two arguments that are in a genitive relation (R). Thus in (1), the possessor and the possessum are linked together by *v* (which instantiates the R relation). The possessor occupies the Specifier position of the *v*P shell whereas the possessum is the complement of *v*.

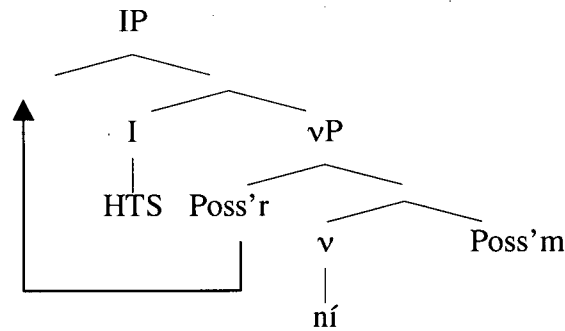


In the surface syntax of Yorùbá genitives I argued that the nominal genitive and the verbal possessive both derive from the base structure in (1). In the nominal genitive there is a DP superstructure, which hosts the MTS in D as in (2a). The example in (2b) illustrates this.



Similarly, in the verbal genitive, there is an IP superstructure that hosts the HTS in I(NFL) as in (3a) with the example in (3b) as an illustration.

(3) a.



- b. Òkè é ní ilé
 O. HTS have house
 'Oke has a house.'

With nominal genitives the possessum raises to Spec DP whereas with verbal possessives, it is the possessor that raises to Spec IP. And while the *v* position is null in genitive DPs, in the verbal possessives, the verb *ní* 'have' occupies *v*.

In this chapter, I extend the analysis to genitive constructions that contain the element *ti*. Four such constructions will be discussed. First, I establish a relation between the genitive M-tone *ti* construction (4a) and the H-tone *tí* relative clauses (4b).

- (4) a. ère ti Kúnlé N ti N
 statue C K.
 'statue of Kunle'
- b. ère tí Kúnlé ni N tí N VP
 statue C K. own
 'The statue that Kunle owns'

Second, I discuss the relationship between the *ti*-genitive and the MTS. In particular, in addition to the MTS and *ti* occurring by themselves, as in (5a-b), they may also co-occur as in (5c).

- (5) a. ère e Kúnlé N MTS N
 statue MTS K.
 'Kunle's statue'
- b. ère ti Kúnlé N ti N
 statue C K.
 'statue of Kunle'

- c. ère e ti Kúnlé N MTS ti N
 statue MTS C K.
 'statue of Kunle'

Third, I consider the co-occurrence of *ti* with the verb *jé* in verbal possessor constructions.

- (6) Owó jé ti Kúnlé N jé ti N
 money is C K.
 'The money is to Kunle.'

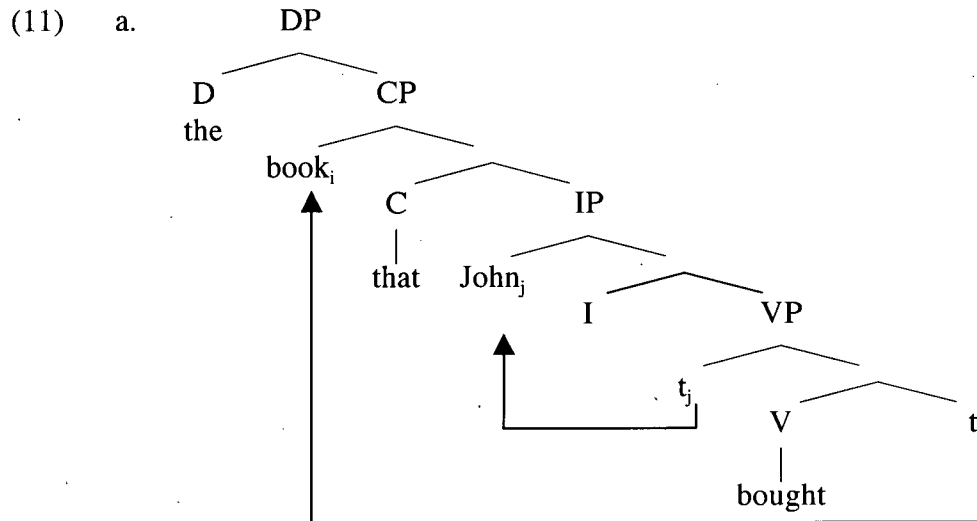
Fourth, I compare the M-tone *ti* found in genitive environments and the M-tone *ti* found in non-genitive environments e.g. the M-tone *ti* that functions as a P with preverbal locatives (7a) and the M-tone *ti* that functions as a P in post-verbal locatives (7b).

- (7) a. Mo [ti ibè] dé ní àárò ti N V
 1sg P place arrive P morning
 'I got back from there in the morning.'
- b. Mo dé [látí Kánádà] V ti N
 1sg arrive P Canada
 'I arrived from Canada.'

My proposal is two-fold. I argue that there are instances where M-tone *ti* behaves like a complementizer and instances where it behaves like a preposition. I propose that the *ti* in genitive constructions is to be analyzed as C, the head of a reduced relative clause. Second, the *ti* in non-genitive constructions is to be analyzed as P, the head of a prepositional phrase. What all these constructions have in common is the presence of the *ti* element. The chapter is organized as follows. In §3.1, I discuss the parallel between *ti* genitives and *tí* relative clauses. §3.2 discusses the co-occurrence of the Mid Tone Syllable with genitive *ti* in relation to Case assignment. In §3.3, I give an account of the co-occurrence of the copula *jé* with genitive *ti*. §3.4 deals with the prepositional use of *ti*. §3.5 concludes.

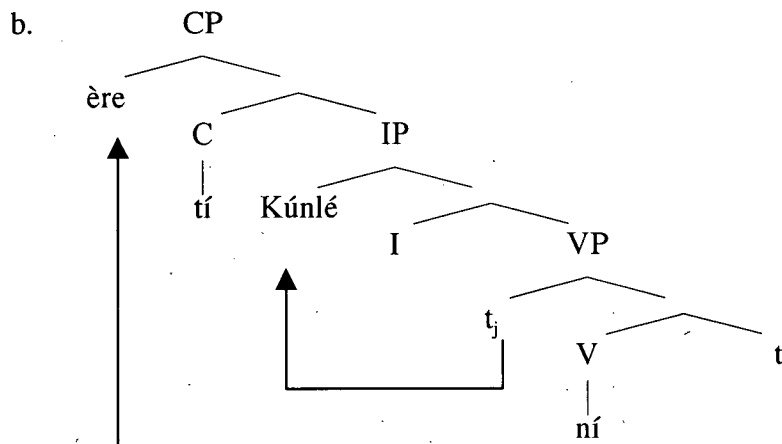
3.1.1.1 Relative clauses as complements to D

In the complementation analysis of Vergnaud (1976) and Kayne (1994), a relative clause (CP) is treated as a complement to D and the nominal head (NP) is generated inside the relative clause itself. In English, for example, the relativized argument moves from a vP-internal position to Spec CP, in as in (11).



Applying the same analysis to Yorùbá let us examine cases involving movement of object NPs. Consider (12a). As shown in (12b), the possessum *ère* 'statue' raises to Spec CP.

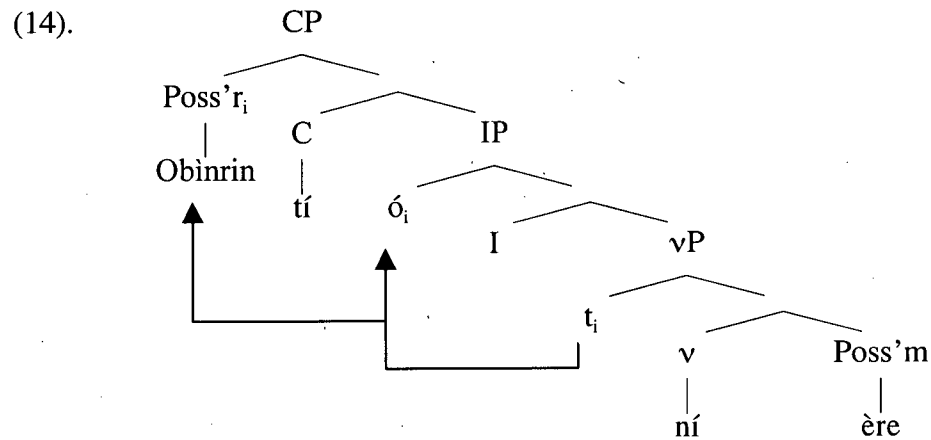
- (12) a. *ère tí Kúnlé ní* _
 statue C K. own
 'the statue that Kunle owns'



It is equally possible for the subject NP to raise as in (13). When this happens in Yorùbá, there is a resumptive pronoun at the extraction site (cf. Carstens 1986, 2003, Takahashi and Yuksek 2004, Aboh 2005).

- (13) a. obìnrin_i tí ó_i ní ère
 woman C RP have statue
 ‘the woman that has a statue’
- b. ọ̀kùnrin_i tí ó_i ní ilé
 man C RP own house
 ‘the man that owns a house’
- c. ọ̀mọ́_i tí ó_i jogún ọ̀pẹ́
 child C RP inherit palm tree
 ‘the child that inherited a palm tree’
- d. ìyàwó tí ó_i ní agídí
 wife C RP have stubborn
 ‘the wife that is stubborn’

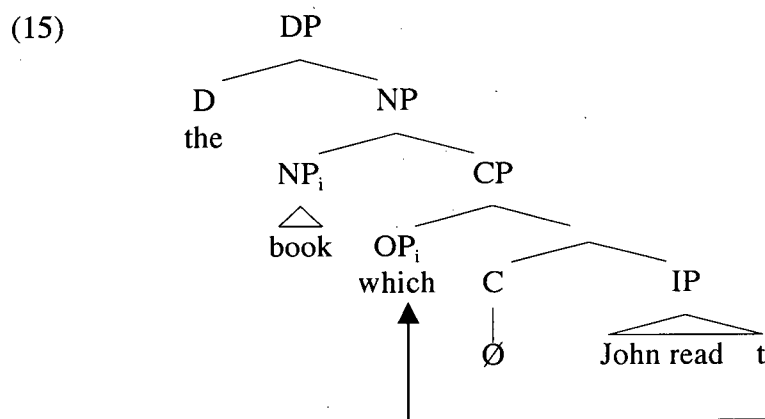
I illustrate this with example (13a) as (14). The raised subject NP moves from Spec vP to Spec CP. The resumptive pronoun is spelled out in Spec, IP.



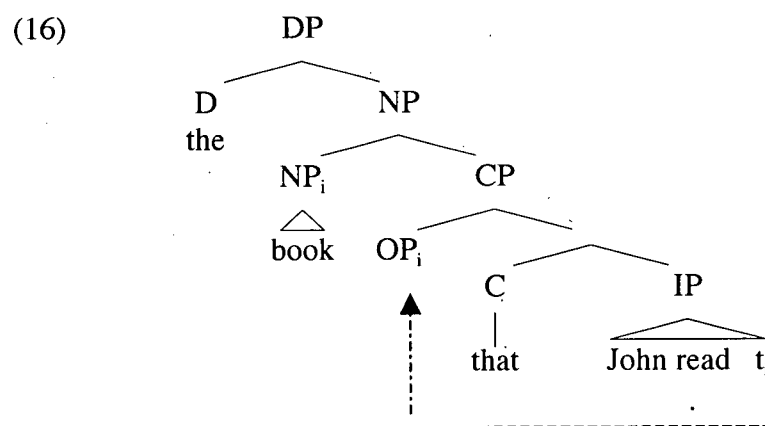
I turn to the second type of analysis that has been proposed in the literature, namely relative clauses as adjuncts to NP.

3.1.1.2 Relative clauses as adjuncts to NP

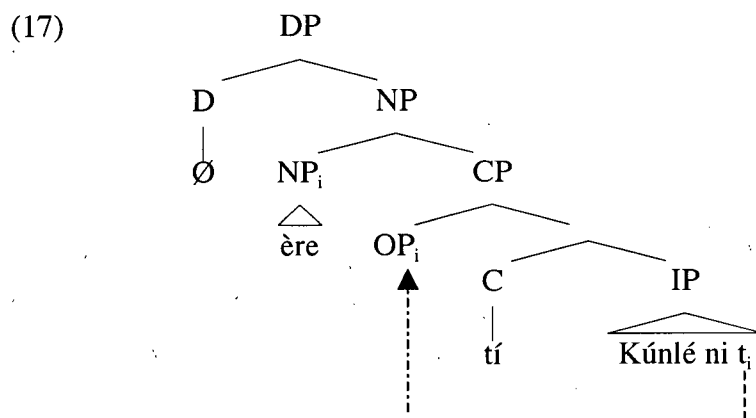
In what has become the standard account (cf. Carnie 2002 among others), relative clauses are treated as adjuncts. In that approach, a relative clause is adjoined to the head NP and the Head of the relative clause is generated outside the relative clause. The WH-pronoun that appears in these relative clauses is treated as an operator (OP). The operator is base-generated in the object position and raises to Spec CP; this movement is internal to CP.



Observe also that the Wh-operator, *which* is co-indexed with the head of the relative clause *book*. The co-indexation is to show that “book” and “which” are the same. In the case under review, movement of the operator is overt. Even, when there is no overt operator, it is still assumed that there is covert movement of the operator from the object position to CP, (16).



Using the same approach for Yorùbá yields (17): the head noun *ère* 'statue' is generated outside the CP, and this CP is adjoined to the NP. The null operator covertly moves to the Spec CP from its object position and is co-indexed with the head noun.



Analyzing Yorùbá data using the adjunct clause analysis makes no distinction between a relative clause that has a complementizer and one that has a relative pronoun because there is no overt OP in this context. In Yorùbá, only the C position is pronounced. The kind of Wh-elements that would function as operators in Yorùbá do not appear in relative clauses. This is what I show in (18) and (19) where only the (a) examples are grammatical in the sense that the presence of *èwo* 'which', (18a) and *ta* 'who', (19a) is allowed in Wh-constructions and not in relative clauses as the ungrammaticality of the (b) examples show.

- | | | | |
|------|----|-------------------------------------|------------------------|
| (18) | a. | Ìwé èwo ni o rà | <i>wh-question</i> |
| | | book which Foc 2sg buy | |
| | | Which book did you buy? | |
| | b. | *Ìwé èwo o rà | <i>relative clause</i> |
| | | book which 2sg buy | |
| (19) | a. | Ajá a ta ni o rí | <i>wh-question</i> |
| | | dog MTS whose Foc 2sg see | |
| | | 'Whose dog did you see?' | |
| | b. | *Ajá a ta o rí | <i>relative clause</i> |
| | | dog MTS who 2sg see | |
| | | [the dog of who that you saw] | |

This tells us that unlike English, Yorùbá has no relative pronouns, as such the Spec CP will always be null and movement of OP will always be covert. Next, I turn to the account that establishes that genitive *ti* and complementizer *tí* spell out C.

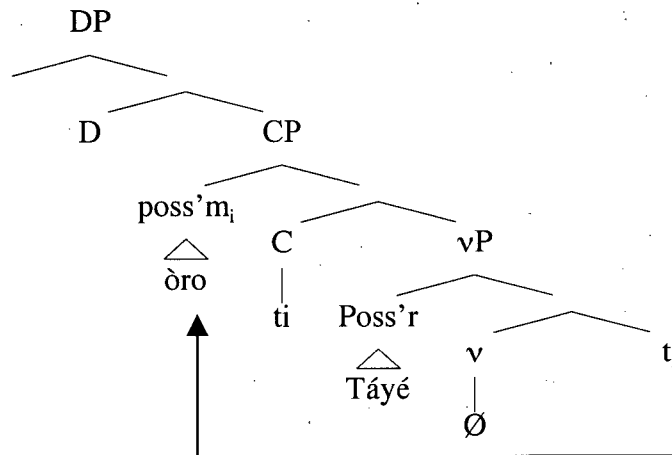
3.1.2 *ti* genitives are reduced relative clauses

I argue that *ti* genitives are reduced relative clauses and the head of this reduced relative clause takes a *vP* clause as its complement. First, observe that the *ti*-genitives shown in (20) have the surface structure of “N *ti* N”. As with any other type of genitive DPs, N-*ti*-N expressions occur in the range of argument positions e.g. in subject position (20a) and object position (20b).

- (20) a. [Òro *ti* Táyé] dùn *subject*
 mango of T. sweet
 ‘The mango of Taye is sweet.’
- b. Mo fọ [àgbọn *ti* Jẹnrọlá] *object*
 1sg break coconut of J.
 ‘I broke the coconut of Jenrola.’

How are the N-*ti*-N expressions analyzed as reduced relative clauses? Starting with the proposal of a single base-structure for all genitives in Yorùbá, a CP layer is introduced above the base structure as in (21). The *ti* element, like a true complementizer, occupies C and it takes the *vP* as its complement. The possessum NP (*òro*, ‘mango’) moves from the *vP*-internal complement position to Spec CP.

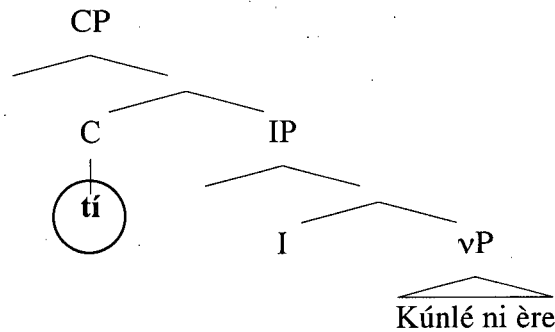
(21)



One consequence of this proposal is that it brings to light the relationship between the M-tone *ti* genitive marker and the H-tone *tí* relative marker. In particular, in the proposed analysis, they both spell out C. The contrast between the two is further illustrated in (22) where H-tone *tí* heads a full relative clause and in (23) where M-tone *ti* heads a reduced relative clause.

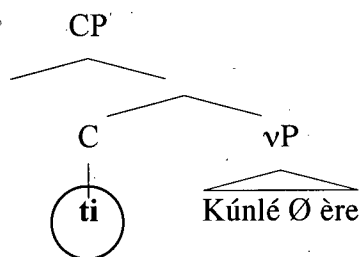
- (22) a. ère tí Kúnlé ni —
 statue C K. own
 'the statue that Kunle owns'

- b. *full relative clause*: H-tone *tí*



- (23) a. ère ti Kúnlé Ø —
 statue C K.
 'statue of Kunle'

- b. *reduced relative clause*: M-tone *ti*



Further, while the M-tone *ti* found in a reduced CP can only take a small vP shell as its complement, the H-tone *tí* found in a full CP can only take an IP as its complement.

Compared to a full relative clause, the reduced relative clause is deficient in two ways. First, a full CP has an IP (22a), which is lacking in the reduced relative clause, (23b). The reduced relative clause can only take a small vP as its complement.

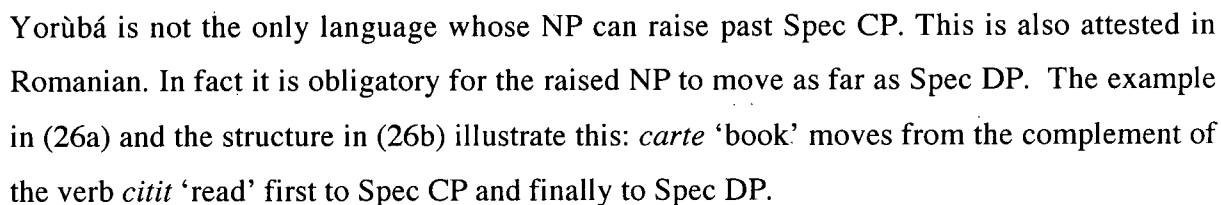
The second deficiency of a reduced CP is that M-tone *ti* contrasts with the H-tone *tí* of a full relative clause with respect to the tone. Observe that it is a general property of Yorùbá complementizers that they require H-tone (Déchaine 1993). I show this with H-tone *kí* in (24a), H-tone *pé* (24b) and a combination of *pé* and *kí*, both of which bear H tone (24c). As already shown, the C of a reduced relative clause bears M tone.

- (24) a. Mo gbà kí Adé wá
 1sg admit C A. come
 'I admitted that Ade should come.'
- b. Mo gbà pé Adé wá
 1sg admit C A. came
 'I admitted that Ade came.'
- c. Mo gbà pé kí Adé wá
 1sg accept C C A. came
 'I accepted that Ade should come.'

Despite these deficiencies, the claim that M-tone *ti* in a reduced relative clause is a C still holds in the sense that it takes a clause (vP) as its complement.

Apart from the fact that H-tone *tí* and M-tone *ti* are analyzed as complementizers, the issue of the landing site for the moved NP is also very significant. In the full relative clause, the raised NP lands at Spec, CP. However, in a *ti* genitive construction, it is possible for the NP to raise to Spec CP as in (21) above or out of Spec CP to Spec DP when D is pronounced.

(25) a. [DP ìwé [D e [CP [C ti [VP Tùndé [v Ø [t_i]]]]]
book MTS T.
'Tunde's book'



b.

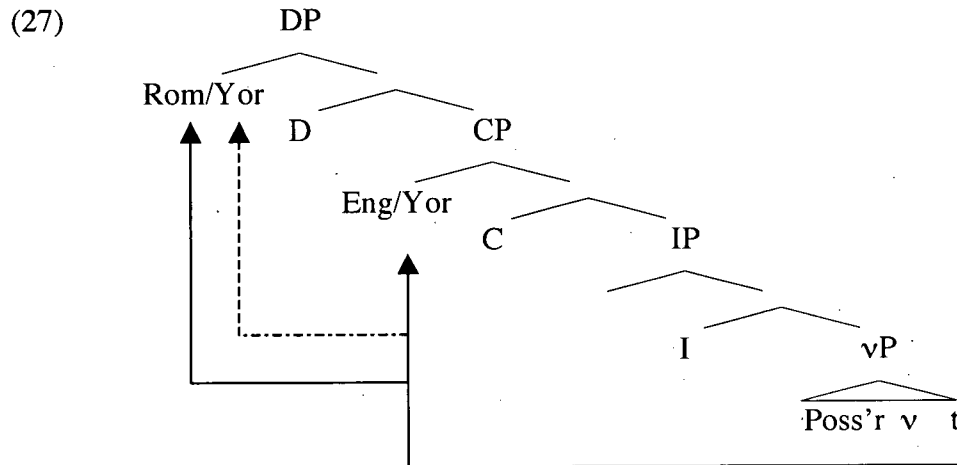
The syntax tree for the Romanian sentence "Cartea pe care o cititi este interesantă." is as follows:

- DP (Determiner Phrase) branches into:
 - carte- (card)
 - CP (Complementizer Phrase) branches into:
 - D (Determiner) branches into: a (the)
 - t_i (trace)
- CP branches into:
 - C (Complementizer) branches into: pe care (with which)
 - IP (Inflection Phrase) branches into:
 - am (I have)
 - citit- (read)
 - o (the)

An arrow points from the trace t_i to the word "carte-", indicating movement.

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While English NP must not raise past Spec CP, Romanian obligatorily raises to Spec DP. Yorùbá NP on the other hand can either raise to Spec CP and stop, or it can raise to Spec DP if D is pronounced.



The factor that determines how far an NP can raise in Yorùbá therefore is the presence or the absence of the MTS. The generalization is this. One, when D is not pronounced, Yorùbá NP remains in Spec CP, as in (28a). This is the case with full relative clauses and reduced relative clause that lack overt D. Two, when D is pronounced, Yorùbá behaves like Romanian in the sense that the object NP must raise to Spec DP, as in (28b). This accounts for the co-occurrence of MTS with M-tone *ti*.

- (28) a. $[_{CP} \text{ìwé}_i [C \text{ tí}] [_{IP} \text{Túndé ni } t_i]$
 book that T. own
 'the book that Tunde owns'
- b. $[_{DP} \text{owó} [D \text{ o}] [_{CP} t_i [C \text{ ti} \text{ Túndé } \emptyset \text{ } t_i]$
 money MTS of T.
 'money of Tunde'

The table in (29) below captures the case of raising in the three languages discussed here.

(29) *Raising within the genitive construction in Yorùbá, Romanian and English*

	Yorùbá	Romanian	English
movement to Spec CP	✓	X	✓
movement to Spec DP	✓	✓	X

Finally, there is one major difference between a relative clause and a *ti*-genitive that I need to point out. Apart from the possibility of raising the possessum/object, (30a) it is also possible for the possessor/subject to raise in a full relative clause, (30b).

(30) *full relative clause*

- a. $[_{CP} \text{ìwé}_i [C \text{ tí } [_{IP} \text{òmò} \text{ rà } t_i]]]$ *obj/poss'm raising*
 book that child buy
 'the book that the child bought'
- b. $[_{CP} \text{òmò}_i [C \text{ tí } [_{IP} \text{ó}_i \text{ ra } \text{ìwé}]]]$ *subj/poss'r raising*
 child that RP buy book
 'the child that bought the book'

However, possessor raising does not take place in a *ti*-genitive, as seen by the contrast between (31a) and (31b).¹ The ungrammaticality of (31b) is because it is the subject/possessor that is raised. The failure of possessor raising in nominal genitive is due to the linear order restriction.

(31) *genitive DP with ti-construction*

- a. $[_{CP} \text{òrò}_i [C \text{ tí } [_{VP} \text{Kúnlé } [_{\emptyset} t_i]]]$ *obj/poss'm raising*
 mango of K.
 'the mango of Kunle'
- b. $*[_{CP} \text{Kúnlé}_i [C \text{ tí } [_{VP} t_i [_{\emptyset} \text{òrò}]]]$ *subj/poss'r raising*
 K. of

The disparity in raising might relate to another diagnostic measure for reduced and full relative clauses. Reduced relative clauses are found only in genitive constructions whereas full relative clauses are not restricted; as such, they can be found in genitive or non-genitive constructions. To allow the subject to raise in reduced relative clauses is to derive an unattested output. These differences are summarized in (32).

¹ A subject NP in a full relative clause = a possessor NP in a reduced relative clause. Similarly, an object NP in a full relative clause = a possessum NP in a reduced relative clause.

(32) *Distinction between full CP and reduced CP*

	H-tone <i>tí</i> = full relative clause	M-tone <i>ti</i> = reduced relative clause
Object/possessum raising	✓	✓
Subject/possessor raising	✓	X

The main claim so far is that the M-tone *ti* constructions involve a reduced relative clause whereas the H-tone *tí* constructions involve a full relative clause. The next task is to show that the proposal is independently motivated. I will demonstrate that H-tone *tí* is consistent with Spec-Head agreement² in C, and that this occurs in the extended verbal domain. Similarly, I will show that M-tone *ti* is consistent with Spec-Head agreement in C and that this occurs in the extended nominal domain. I will support this parallel with other parallels between HTS in I(nfl) and MTS in D, and H-tone *ní* and M-tone *ni*. These parallels between H-tone and M-tone elements are summarized in (33).

(33) *Parallels between H-tone and M-tone elements in Yorùbá*

	H-tone <i>tí</i>	H-tone <i>ní</i>	HTS	M-tone <i>ti</i>	M-tone <i>ni</i>	MTS
Nominal	X	X	X	✓	✓	✓
Verbal	✓	✓	✓	X	X	X

The discussion in the four subsections is organized as follows. In §3.1.2.1, I establish the parallel between M-tone *ti* and H-tone *tí* in terms of agreement. The discussion in §3.1.2.2 focuses on the similarity between the MTS that occupies D and HTS that occupies I(nfl). In §3.1.2.3 I show that the same parallel exists between the M-tone *ni* that introduces nominal predicates and the H-tone *ní* that introduces verbal predicates. §3.1.2.4 summarizes the significance of H-tone/M-tone alternations.

3.1.2.1 M-tone *ti* and H-tone *tí*

There are two considerations that support the claims that the M-tone *ti* construction involves a reduced relative clause whereas the H-tone *tí* construction involves a full relative clause: theory internal and language internal (i.e., empirical) evidence. On the latter, I argue that the

² cf. Déchaine 1993's "default agreement".

H-tone *tí* is an Agreeing Complementizer marking Spec-Head agreement in the extended verbal domain, whereas the M-tone *ti* is an Agreeing Complementizer that shows up in the extended nominal domain³.

There is some indication that agreement as the head of the subject relative clause is associated with a resumptive pronoun, which may or may not agree with its antecedent.⁴ The fact that there is some form of agreement is an indirect evidence in support of my claim that H-tone *tí* shows Spec-Head agreement in Yorùbá. For example, a 1st or 2nd person antecedent may be associated with a resumptive pronoun, which agrees in person and number, or the resumptive pronoun may surface in the 3rd person form. This is shown for 1st person (singular and plural) as well as 2nd person (singular and plural) in examples (34)-(37).

(34) a. Èmi tí **mo** ní ère tà á
1sg C 1sg have statue sell 3sg
'I that own a statue sold it.'

b. Èmi tí **ó** ní ère tà á
1sg C 3sg have statue sell 3sg
'I that own a statue sold it.'

(35) a. Ìwọ tí **o** ní ère tà á
2sg C 2sg have statue sell 3sg
'You that own a statue sold it.'

b. Ìwọ tí **ó** ní ère tà á
2sg C 3sg have statue sell 3sg
'You that own a statue sold it.'

(36) a. Àwa tí **a** ní ère tà á
1pl C 3pl have statue sell 3sg
'We that own a statue sold it.'

b. Àwa tí **ó** ní ère tà á
1pl C 3sg have statue sell 3sg
'We that own a statue sold it.'

(37) a. Èyin tí **e** ní ère tà á
2pl C 2pl have statue sell 3sg
'You that own a statue sold it.'

³ Cf. *quelqui* alternation as a form of agreement in French.

⁴ See Déchaine (1993) for a treatment of the 3rd person singular form in Yorùbá as default agreement.

- b. Èyin tí ó ní ère tà á
 2pl C 3sg have statue sell 3sg
 'You that own a statue sold it.'

As for the 3rd person forms, with 3sg there is no alternation between the agreeing form and the non-agreeing form of the resumptive pronoun since the resumptive pronoun is itself 3sg, (38).

- (38) a. Òun tí ó ní ère tà á
 3sg C 3sg have statue sell 3sg
 'S/he that owns a statue sold it.'
- b. Ọkùnrin tí ó ní ère tà á
 man C 3sg have statue sell 3sg
 'The man that owns a statue sold it.'

Finally, a 3rd person plural pronoun (39) or common noun (40) antecedent may be associated with a resumptive pronoun, which agrees in person and number, as in the (a) examples or the resumptive pronoun may surface as 3sg, as in the (b) examples.

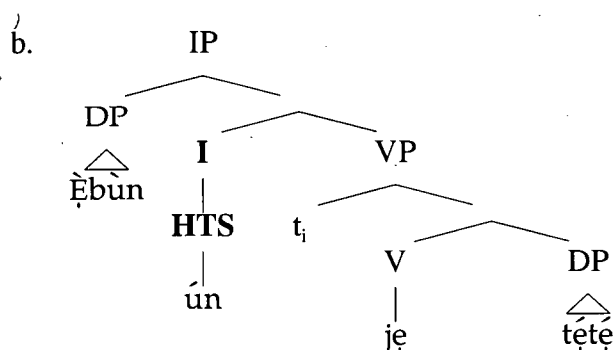
- (39) a. Àwọn tí wọn ní ère tà á
 1pl C 3pl have statue sell 3sg
 'They that own a statue sold it.'
- b. Àwọn tí ó ní ère tà á
 1pl C 3sg have statue sell 3sg
 'They that own a statue sold it.'
- (40) a. Ọkùnrin méjì tí wọn ní ère tà á
 man two C 3pl have statue sell 3sg
 'The two men that own a statue sold it.'
- b. Ọkùnrin méjì tí ó ní ère tà á
 man two C 3sg have statue sell 3sg
 'The two men that own a statue sold it.'

I conclude that the agreement that optionally shows up between the head of subject relative clause and its resumptive supports the assumption that H tone *tí* is an indication of agreement in a relative clause.

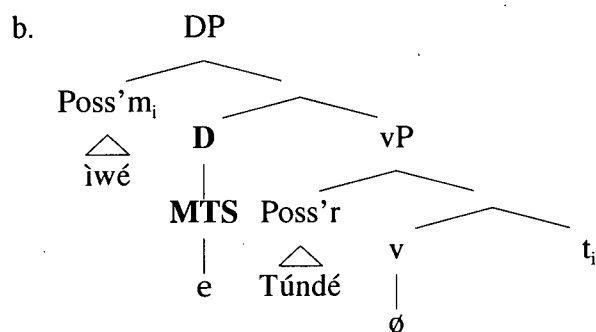
3.1.2.2 MTS and HTS

Another parallel between H-tone *tí* and M-tone *tí* relates to the HTS found in I(infl) in the verbal domain and the MTS found in D in the nominal domain. In Yorùbá, HTS is obligatory between a full DP subject and a bare verb (Déchaine 1993: 457). While the HTS instantiates Spec, Head agreement in IP (41), MTS spells out Spec, Head agreement in DP, (42).

- (41) a. Èbùn ún je tètè
 E. HTS eat lottery
 'Ebun won a lottery.'



- (42) a. ìwé e Túndé
 book MTS T.
 'Tunde's book'



I suggest that just as HTS in the verbal domain parallels MTS in the nominal domain, so too does the H-tone *tí* of full relative clauses parallel the M-tone *tí* of the reduced relative clauses. Moreover, just as HTS occurs in the verbal domain so does H-tone *tí*. And just as MTS occurs in the nominal domain, so does M-tone *tí*.

3.1.2.3 H-tone *ní* and M-tone *ni*

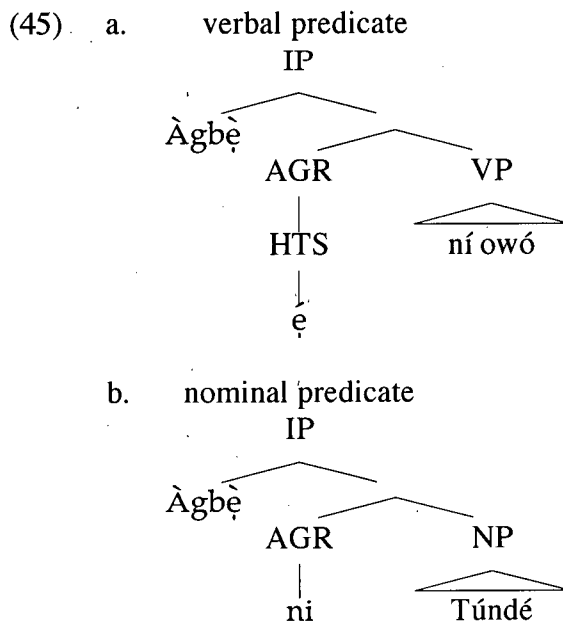
I will now show that the contrast between H-tone *ní* and M-tone *ni* provides another indirect support for the claim that H-tone *tí* spells out Spec-Head agreement when CP dominates IP, while M-tone *tí* spells out Spec-Head agreement when CP dominates a defective nominal clause. The occurrence of the H-tone *ní* in a clause shows a verbal predicate 'have'. That this *ní* is a verb is confirmed by the presence of the HTS, (43a). The ungrammaticality of (43b) shows that whenever verbal H tone *ní* is present, it is obligatory for the HTS to be present.

- (43) a. Àgbè é ní owó
farmer HTS have money
'A farmer has money.'
- b. *Àgbè Ø ní Túndé
farmer have T

The behaviour of H-tone *ní* contrasts with M-tone focus/copular *ni*, which is never preceded by HTS. This is because, as observed in Abraham (1958:435), M-tone *ni* is not a true verb as shown by the ungrammaticality of (44b). The absence of HTS with copula *ni* may be symptomatic of the fact that this copula only introduces nominal predicates. Thus, when we make it behave like a true verb, which requires a HTS as in (44b) then the output is ungrammatical.

- (44) a. Àgbè ní Túndé
farmer be T.
'Tunde is a farmer.'
- b. *Àgbè é ní Túndé
farmer HTS be T.

The contrast between H-tone *ní* and M-tone *ni* is illustrated with the structures in (45).



In summary, I have shown that H-tone *tí* and M-tone *ti* have certain things in common that makes it appropriate to analyze them as C: they both take a clause as their complement. I have shown supporting language internal evidence that M-tone *ti* is to be analyzed as the head of a reduced relative clause in nominal domain. Such evidence includes the MTS that occupies D and M tone *ni* in nominal predicates. The final thing that I do is to show the significance of these findings.

3.1.2.4 The significance of H-tone/M-tone alternations

To summarize, this section has established that both *tí* and *ti* are Agreeing complementizers in Yorùbá. The generalization that emerges is that every occurrence of H-tone mora shows agreement in the verbal or extended verbal domain whereas every occurrence of M-tone mora shows agreement in the nominal domain. This holds of H-tone *tí* versus M-tone *ti*, of HTS versus MTS, and of H-tone *ní* versus M-tone *ni*.

3.1.3 The *ti* N construction

I extend the account of genitive DPs as reduced relative clauses to another type of construction in which *ti* appears but which is at least in one respect different from the ones we have so far seen. It contains just the *ti*-element and a possessor NP as opposed to the genitive DPs in reduced relative clauses, which contain Possessum *ti* Possessor. This type of construction has been referred to as 'Possessive noun phrases with no Possessee' (Hertz (1997: 517), i.e. a genitive DP that lacks an overt possessum NP since the object that is possessed is phonologically null. Because such genitives lack an overt possessum, the latter must be discourse linked.

- (46) a. Context: Imagine books belonging to *Kúnlé*, *Olú* and *Adé* are missing and somebody asked if I see any of the books, then I replied with (46b).

- b. Mo rí [ti Kúnlé]
 lsg see of K.
 'I saw Kunle's.'⁵

The idea of interpreting (46) as a genitive construction raises a number of questions. First is the question of whether there is any semantic and or syntactic relationship between this construction and the type that has an overt possessum NP, compare (47a) that has an overt possessum NP with (47b), which lacks an overt possessum NP.

- (47) a. Mo rí [oko ti Òjó]
 lsg see farm C O.
 'I saw the farm of Ojo.'
- b. Mo rí [*pro* ti Túndé]
 lsg see C T.
 'I saw Tunde's.'

The similarity in meaning between (47a) and (47b) is not in doubt. Again, the only difference is that (47b) cannot be rendered in the out-of-the-blue but it can follow (47a) in discourse. The same is applicable in (48). In an appropriate context, the possessum of *ti Túndé* is

⁵ Note that though *ti túndé* translates to English Saxon 's: Kunle's, it has a different structure.

recoverable. Since in the context of (48), it has the same interpretation as *aşo ti Kúnlé*, we expect that the syntax will be the same on the basis of the parity in meaning. Note that the occurrence of *aşo* ‘cloth’ in the first genitive DP in (48b) makes its occurrence in the second DP “awkward”.

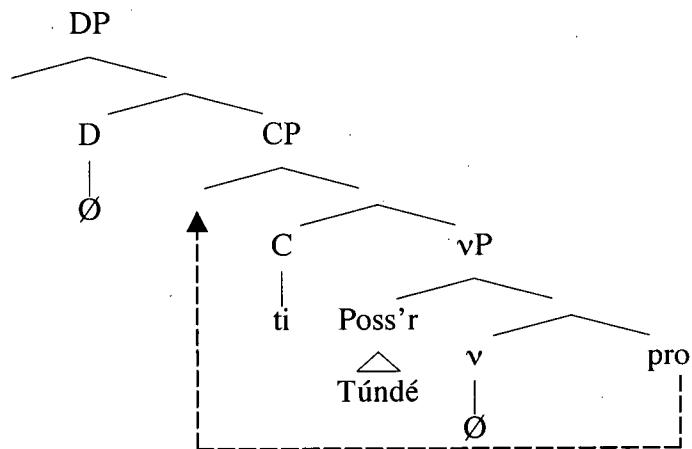
- (48) a. Mo rí [*aşo* *ti* Òjó],
 Isg see cloth of O.
 şugbón n kò rí [*pro* *ti* Túndé]
 but 1sg NEG see of T.
 ‘I saw the dress of Ojo but I didn’t see Tunde’s own.’
- b. Mo rí [*aşo* *ti* Òjó],
 Isg see cloth of O.
 şugbón n kò rí #[*aşo* *ti* Túndé]
 but 1sg NEG see cloth of T.
 ‘I saw the dress of Ojo but I didn’t see the dress of Tunde.’

There are two accounts for *ti* N constructions. One claims that *ti* is a complementizer (herein) while the other claims it is a noun (Awóbùlúyì 2004).

3.1.3.1 *ti* as Complementizer analysis

We can account for *ti*-constructions that lack a possessum NP the same way we account for *ti*-constructions with an overt possessum NP. As such, I propose that this *ti* element is the same as the one we find in *ti*-genitives, so it must be analyzed as a complementizer. I propose in line with the current analysis that the *ti*-N construction should be analyzed as a full DP and its possessum NP be represented as a null pronominal (*pro*). In this case, it is the *pro* possessum that covertly moves to Spec CP.

(49) a.



This movement is independently motivated. In cases with an overt possessum, it is obligatory that the possessum raises to Spec CP. As we saw in the earlier account with overt possessums, the *pro* cannot raise beyond Spec CP if the D position is null, otherwise we derive a wrong output, at least in Mòbà (50), where the genitive MTS is invariant /i/.

(50) *i ti Òjó
 MTS C O.

There is a sharp contrast when we try to compare Yorùbá '*ti* N' and English '*of* N'. For example, the phrases in (51) are not well formed since those PPs cannot exist independently in English.

(51) a. *of John
 b. *of Mary

In English, the possessum NP must be pronounced in *of*-constructions.

(52) a. book of John
 b. house of Mary

What accounts for this difference is not presently known. However, the examples in (51) actually have counterparts in so-called Saxon genitive constructions that are well formed (Fukui 1986, Siloni 1997, Hertz 1997).

- (53) a. John's
b. Mary's

Observe that Saxon ('s) genitives can take 'own' as gap filler for the missing possessum, (54) whereas *of*-genitives cannot, (55).

- (54) a. John's own
b. Mary's own

- (55) a. *own of John
b. *own of Mary

Finally, the difference between the Saxon 's genitive and the 'of' genitive is the reason why it is possible to drop 'own' in the former but not in the latter.

As for the Yorùbá MTS genitives, they do not allow the elision of the possessum NP as shown by the ungrammaticality of (56b).

- (56) a. ilé e Kúnlé
house MTS K.
b. *e Kúnlé

To summarize, under the present account the *ti* in 'N *ti* N' and the *ti* in '*ti* N' are both analyzed as a functional element that occupies C. The data poses a challenge to an alternative analysis, which treats *ti* as an NP. I discuss this other analysis in what follows.

3.1.3.2 *ti* as N analysis: Awóbùlúyì (2004)

Awóbùlúyì (2004) argues that the *ti*-element found in nominal environments as discussed in the previous sections is itself a noun, which by implication must have the distribution of a DP. According to Awóbùlúyì:

the element *tì* must be some kind of nominal...and, therefore, have the feature [+N], since it requires to have the prosthetic vowel *i* attached to its left margin within noun phrases... Pointing in this same direction is the further fact that the element readily enters into construction with the possessive qualifier *rẹ̀* 'his/her/its' and, together with the latter, functions as subject or object (Awóbùlúyì 2004: 14).

The examples below are used to support this claim. In particular is (57b) where the MTS, which undergoes assimilation attaches to *ti*.

- (57) a. ajá ti Kúnlé
 dog that-of Kunle
 'Kunle's dog'
- b. ajá a-ti Kúnlé
 dog MTS-that-of K.
 'Kunle's dog'
- (58) a. Ti rẹ̀ pupa
 that-of his/her/its be-red/brown
 'His/Hers?its is red or brown.'
- b. Mo rí ti rẹ̀
 I saw that-of his/her/its
 'I saw his/hers.' (Awóbùlúyì 2004: 14-15)

However, the claim made by Awóbùlúyì that *ti* is a kind of noun makes incorrect predictions regarding morphology, semantics, and syntax of *ti*.

First, the morphological shape of all canonical nouns in Yorùbá is minimally VCV. Some representative examples are given in (59).

- (59) a. owó
 'money'
- b. ìlú
 'town'
- c. edé
 'shrimps'
- d. àpò
 'bag'
- e. ẹja
 'fish'

As for *ti*, it is just a CV. Based on this morphological criterion *ti* does not qualify as a noun. It requires at least a prosthetic vowel to make it conform to the shape expected of most

nouns. Though adding /i/ to *ti* as Awóbùlúyì's work suggests, satisfies the morphological requirement, it creates another problem namely, that no such word as **iti* exists in any of the Yorùbá dialects (not even in Mòbà which is famous for its use of vowel /i/ in consonant initial nouns) as the following examples illustrate.⁶

(60) Mòbà

- a. i-pákó
'plank'
- b. i-koríko
'grass'
- c. i-fèrè
'whistle/horn'
- d. i-dàda
'personal name'
- e. i-bàtá
'a kind of drum'

And for consonant initial nouns that allow the i-prefix, such nouns must be at least two syllables: CV-CV not one CV as in the case of *ti*. In (61), each example has two forms. The first begins with a consonant the second begins with the prosthetic vowel. They all consist of two syllables (CV-CV)

(61) Standard Yorùbá/ Mòbà

- a. yanrìn i-yanrìn
'sand'
- b. būsùn i-būsùn
'sleeping place'
- c. būsò i-būsò
'mileage'
- d. lẹ̀kùn i-lẹ̀kùn
'door'

⁶ Observe that in Standard Yorùbá, these examples are without this prosthetic vowel. See Ajíbóyè (1991) for relevant data and discussion.

The second problem is semantics. Either in citation or in context, the meaning of *ti* as a noun is not transparent. While the whole sentence is interpretable in (62a) because each word has its meaning, the sentence in (62b), is not. I trace this to *ti*, which lacks its own meaning because it is a functional element.

- (62) a. Adé rí ìwé
 A. see book
 'Ade saw a book.'
- b. *Adé rí ti

Another piece of evidence is the contrast between *ti* and *bí*. The latter has been treated as a defective noun⁷ because it can assign genitive Case (Déchaine 1993, 2001). According to those accounts, this lexical item *bí* can be analyzed as the nominal head of a relative clause, roughly meaning '[the] way [in/by which]'. Déchaine gave five pieces of evidence to show that *bí* is a noun. One that is relevant to our discussion assuming that truly *bí* is a noun is that 'as N, *bí* licenses Genitive Case' (Déchaine (1993: 95).

- (63) a. ...kí á ɕìṣé [DP bí i ẹ́rú]
 thàt 1pl work way Gen slave
 '...that we work in the manner of a slave'
- b. Jímò ọ wí ẹ́jọ bí i awẹ́wa
 like Agr say case way Gen grumbler
 'Jimo complains [in] the way of a grumbler' (Déchaine 1993: 95)

In contrast, *ti* cannot occur with MTS.

- (64) a. *Mo rí ti i rẹ̀
 1sg see of MTS 3sg
- b. *Mo rí ti i wa⁸
 1sg see of MTS 1pl

⁷ In my own view, *bí* is defective as noun for the same morphological reason as *ti* is: they both consist of CV only, nouns must be minimally be V-CV. For this reason, I do not consider *bí* a noun as well.

⁸ For more on the treatment of *bí* as a noun, see also Abraham (1958), Awóbùlúyì (1978), Oyèláràn (1982) and Déchaine (2001).

Another piece of evidence that supports the claim that *ti* is not a noun is the use of the MTS as a diagnostic tool. Only when a true possessum NP appears with the possessor must we have the MTS:

- (65) a. iwé *(e) [Túndé] pupa
book MTS T. red
'Tunde's book is red.'
- b. ti (*e) [Túndé] pupa
of MTS T. red
- (66) a. iwé *(e) [rè] pupa
book MTS his/her/its red
'His/Her book is red.'
- b. ti (*e) [rè] pupa
of MTS his/her/its red

Further, if 'the element *ti* must be some kind of nominal' as Awóbùlúyì claims, then, we must be able to replace *ti* with a possessum noun. The example in (67b) shows that we cannot replace *ti* 'of' with iwé 'book', as the output is not well formed.

- (67) a. **Ti** rè pupa
that-of his/her/its be-red/brown
'His/Hers/Its is red.' (Awóbùlúyì 2004: 14-15)
- b. ***Iwé** rè pupa
book his/her/its be-red/brown
- c. **Iwé** e rè pupa
book MTS his/her/its be-red/brown
'His/Her book is red.'

Observe that in (67a) where *ti* is present, the MTS is absent simply because *ti* is not a possessum. The *pro* does not trigger MTS because it has no phonological content. However, in (67c) where an overt possessum is present, it requires the presence of the MTS. The absence of the MTS yields a wrong output. This is another evidence that shows that *ti* is not a possessum noun.

Further evidence that supports the claim that *ti* is not a possessum noun comes from

the fact that it can co-occur with a possessum like *ìwé*, as in (68). Thus, *ìwé* is neither sitting in the same position as *tí* nor is it referring to the same entity *ìwé*.

- (68) *Ìwé e tí rẹ pupa*
 book MTS of his/her/its be-red/brown
 'His/Her book is red.'

The final piece of evidence comes from what constitutes a genitive phrase. In a possessive phrase, there is usually one possessor and one possessum. In (68), it is indisputable that *ìwé* and *rẹ* are the only two nominals. There *ìwé* is the possessum and *rẹ* is the possessor. For this reason *tí* and *ìwé* cannot both be possessums. In this case, *tí* is not a constituent independent of the noun it follows. Further, the complement of *tí* i.e., the possessor cannot be stranded. This is illustrated with the example in (69c).

- (69) a. *Mo rí [tí Adé]*
 1sg see C A.
 'I saw Ade's.'
- b. *[Tí Adé_i] ní mo rí [t_i]*
 of A. FOC 1sg see
 'It is Ade's that I saw.'
- c. **Adé ní mo rí [tí _]*
 A. FOC 1sg see of

Since Yorùbá permits movement of the possessor, if this possessor has to move, it must satisfy the stranding condition, (70).

(70) Stranding Condition

When a Possessor moves, a resumptive pronoun that agrees in number and person is obligatorily inserted at the base position of the moved possessor DP

I show this with the example in (71) and (72). The violation of this stranding condition, as in the (b) examples, leads to ungrammaticality.

- (71) a. [Ti Adé_i] ni mo rí [t_i]
 of A. FOC 1sg see of
 'It is Ade own that I saw.'
- b. [Adé_i] ni mo rí [ti rẹ_i]
 A. FOC 1sg see of 3sg
 'It is Ade, whose "x" I saw.'
- c. *Adé_i ni mo rí [ti t_i]
 A. FOC 1sg see of
- (72) a. [Ti Adé àti Olú_i] ni mo rí [t_i]
 of A. and O. FOC 1sg see
 'It is Ade and Olu's own that I saw.'
- b. [Adé àti Olú_i] ni mo rí [ti wọ̀n_i]
 A. and O. FOC 1sg see of 3pl
 'It is Ade and Olu, whose "x" I saw.'
- c. *[Adé àti Olú_i] ni mo rí [ti t_i]
 A. and O. FOC 1sg see of

With all the evidence and arguments above, I conclude that *ti* is not a noun in Yorùbá. Rather, *ti* is a functional head (C). And whenever the possessor moves, *ti* must also move or else there is a resumptive pronoun in place of the moved possessor (cf. Awóyalé 1985).

3.1.4 Assigning genitive case to the possessor

There are two things to remind readers about the discussion on the genitive DPs so far. First, in the surface syntax, the two arguments within this phrase are related by the MTS, (73a) or by *ti* in the genitive plus *ti*-construction, (73b).

- (73) a. owó o Kúnlé
 money MTS K.
 'Kunle's money'

- b. ère ti Kùnlé
statue of K.
'the statue of Kunle'

Second, both the MTS and the *ti*-element can co-occur, (74).

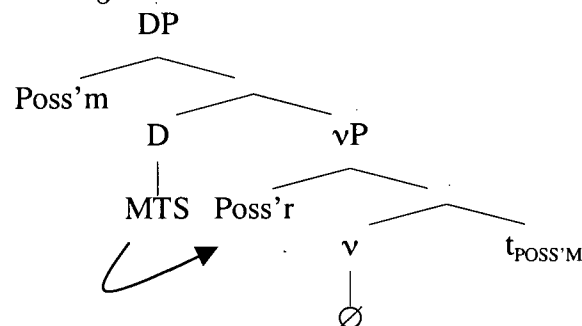
- (74) a. ajá a ti Bùnmi
dog MTS of B.
'dog of Bunmi (as opposed to someone else's dog)'
- b. ilé e ti Dàda
house MTS of D.
'house of Dada' (as opposed to someone else's house)'

Having established the status of MTS and M-tone *ti* as functional heads (D & C respectively), in what follows, I discuss the function that they perform. I argue that these two elements are genitive Case assigners. In the next two subsections, I present two analyses of genitive Case assignment that is internal to genitive DPs, namely the raising analysis (Kayne 1994, Borsley 1997, 2004 and Bianchi 2000) and the traditional complementation analysis (Déchaine 2001).

3.1.4.1 The co-argument analysis: exceptional Case marking

I propose that the assignment of genitive Case to the possessor in Yorùbá involves a kind of Exceptional Case Marking (cf. Haegemann 1994, Lee 1995) where the MTS in D assigns Genitive case to the possessor argument in Spec vP, as in (75).

- (75) *Exceptional Case marking*



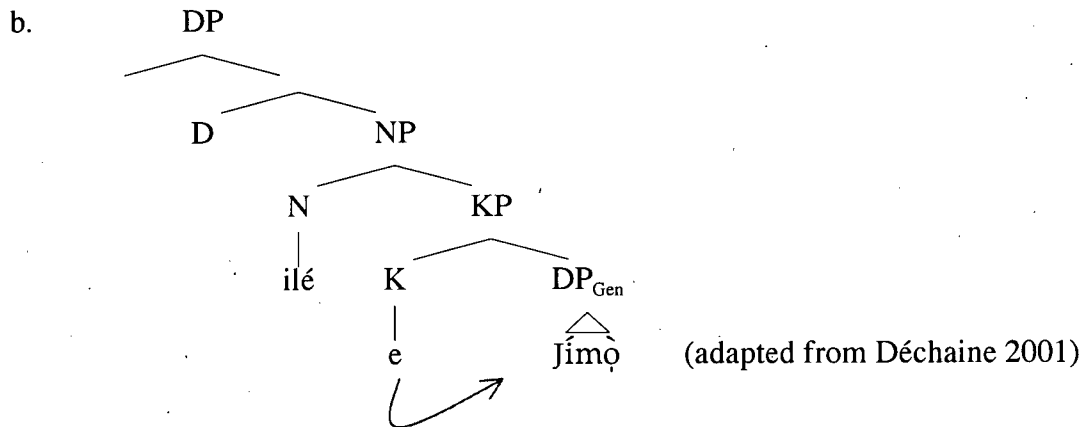
This configuration is an instance of Exceptional Case Marking since it is exceptional for an argument to be assigned Case by an element outside of the projection that contains the argument (here vP).

Observe that in (75) and elsewhere, within the genitive DP, the possessum NP must raise to either Spec CP or Spec DP. There is a question of what motivates movement of the possessum out of the complement position to Spec DP/CP. One reason for possessum raising is to receive non-genitive Case.

3.1.4.2 The Head-Complement analysis: Case under government

In the complementation analysis, where the possessum is the head noun and the possessor is the complement, genitive case is locally assigned to the DP. In this instance, the genitive Case assigner is P or K(ase) (Déchaine 2001). This is what (76) illustrates.

- (76) a. ilé e Jímò
 house MTS J.
 'Jimo's house'



In the current analysis genitive Case is not assigned locally since D, which is the Case assigner occupies D and D in my proposal is introduced in the layer above the vP shell, the Spec of which the Possessor occupies.

3.1.5 Assigning structural case to the raised possessum

I address three things in the following subsections: the problem of raising in relation to Case assignment (§3.1.5.1); how the raised possessum is assigned the NOM Case if in the subject position, (§3.1.5.2); and ACC Case if in object position, (§3.1.5.3).

3.1.5.1 The problem

The problem of Case assignment in the raising analysis is not peculiar to Yorùbá. Similar problems have been observed for English (Kayne 1994; Borsley 1997) and Polish (Borsley 1997). Let's consider the English example in (77), where 'picture' has moved from its object position to Spec CP.

- (77) a. $[_{DP} \text{the } [_{CP} \uparrow [_{IP} \text{Bill liked } \underline{\text{which picture}}]]]$
- b. $[_{DP} \text{the } [_{CP} \uparrow [_{DP} \text{which picture}] [_{IP} \text{Bill liked } t_{DP}]]]$
- c. $[_{DP} \text{the } [_{NP} \text{picture } [_{CP} [_{DP} \text{which } t_{NP}] [_{IP} \text{Bill liked}]]]]]$

The explanation offered by Kayne as to why the NP 'picture' moves is faulted by Borsley, who notes that the problem of raising has nothing to do with Case assignment. Borsley notes that *picture* has been assigned Case by *which* that occupies D position ever before it raises. Note that pronouns are regarded as D in Kayne's analysis. This is because, ever before movement, *which* a D element, governs the NP: *picture*.

The other problem noted by Borsley is that while Kayne claims that the NP receives Case from a higher D, this same NP receives Case from its trace. This, according to Borsley, leads to Case conflict since this amounts to duplication of Case assignment.⁹ What Borsley considers a problem is not so in the current analysis as such duplication will be regarded as an instance of Case stacking.

⁹ Cf. free relatives in German (Wiltschko personal communication).

A similar problem arises for Polish, where an NP and its relative pronoun are assigned different Case because of movement of the NP. In (78), the NP *pana* ‘man’ receives Accusative Case while the relative pronoun *kióry* receives Nominative Case. The problem is why should the NP and the relative pronoun receive a different Case.

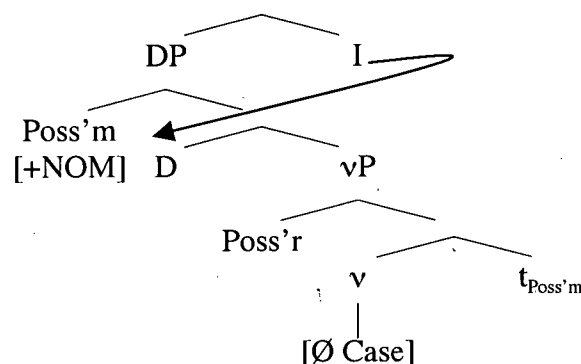
- (78) Widzialem tego pana, kióry zbil ci szybe7
 saw-1SG the-ACC man-ACC who-NOM broke your-SG glass-ACC
 ‘I saw the man who broke your glass.’ (Borsley 1997: 638).

Again, in the current proposal, Polish case is another instance of Case stacking. The following two subsections show how both nominative Case and accusative Case are assigned to nominals within genitive constructions in Yorùbá.

3.1.5.2 Assigning Structural case to the raised possessum I: Nominative

The problem I aim at addressing here is which of the two arguments within a given genitive DP receives which Case. I propose that when a DP is in the subject position, Nominative Case is assigned to the Possessum. On this view, Possessum raising is necessitated by the need to receive NOM Case.

- (79) *Assigning nominative Case to Genitive DP*



There is one instance of grammatical Case assignment in Yorùbá. In subject position the entire DP is qualified for nominative Case assignment. Observe that Nominative Case is assigned by the HTS in I(nfl). In (80), this Nominative case assigner shows up as a H-tone

syllable, here ‘á’ (whose vocalic content is determined by assimilating the vocalic features of the immediately preceding vowel). Note the similarity between the MTS that assigns Gen Case and the HTS that assigns Nominative Case: they both take the segmental copy of the preceding vowel. The difference lies in tone. MTS is found in nominal environments, whereas HTS is found in verbal environments.

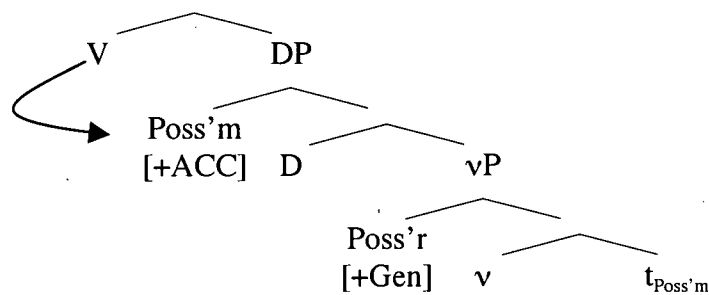
- (80) [Ilé e Gbàdà] á jóná
house MTS.Gen G. HTS.NOM burn
‘Gbada’s house got burnt.’

The NOM Case assigned to possessums is another instance of Exceptional Case Marking. The same is true of assigning ACC Case to the possessum, which I consider next.

3.1.5.3 Assigning Structural case to the raised possessum II: Accusative

If in the object position, the entire DP is disposed to receive accusative Case. The ACC Case assigned to the possessum NP within the genitive DP is another instance of Exceptional Case Marking. I show this in (81), where even though the whole DP is assigned the ACC Case, the possessum is the recipient as shown by the arrow.

- (81) Genitive DP in object position



In (82) the L-tone verb *rà* ‘buy’ assigns Accusative Case to *òkò ọ Tàfá* ‘Tafa’s vehicle’. There is a syntactically conditioned phonological processes described as Yorùbá L-raising (Ajíbóyè et al 2004) which raises the L-tone of the verb to M.¹⁰

¹⁰ This case has been analyzed as L tone drops in Déchaine (2001). According to that approach, this ‘L-drop’ is a kind of Accusative Case marking.

(82) *Accusative Case*

Jímò ra [òkò ọ Tàfá]
J. buy+ACC yam MTS+Gen T.
'Jimo bought Tafa's vehicle.'

This ends the discussion on the external Case assignment. I turn to Case assignment that is internal to the genitive construction.

3.2 Genitive Case assignment and co-occurrence of the MTS with genitive *ti*

I have shown that it is possible for the MTS and *ti* to co-occur in a genitive DP in which case both D and C positions are pronounced. What I intend to discuss here is the function they perform when the MTS and *ti* occur separately as well as when they co-occur. I argue that each of them can assign Genitive Case.¹¹ When each of them independently assigns Genitive Case, this is an instance of Case alternation (§3.2.1). I also show that they can jointly assign Genitive Case, this is what I refer to as Case stacking (§3.2.2).

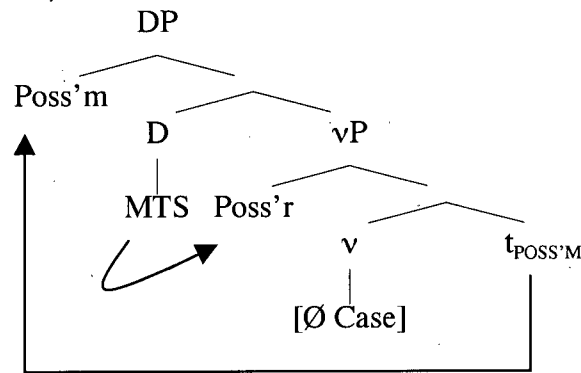
3.2.1 Case alternation: Mid Tone Syllable or *ti*

The assignment of genitive Case can be carried out either by the MTS or the M-tone *ti*-element. The factor that determines which of them will assign Case depends on the landing site of the raised possessum. When the possessum NP raises to Spec DP, it is this MTS that assigns Genitive Case. This is illustrated in (83b) where the MTS assigns Genitive Case.

- (83) a. ìwé e Kúnlé
book MTS K.
'Tunde's book'

¹¹ There is an alternative analysis that will treat *ti* and MTS as inherently morphologized Case elements rather than Case assigners. Such alternative is not considered in this study.

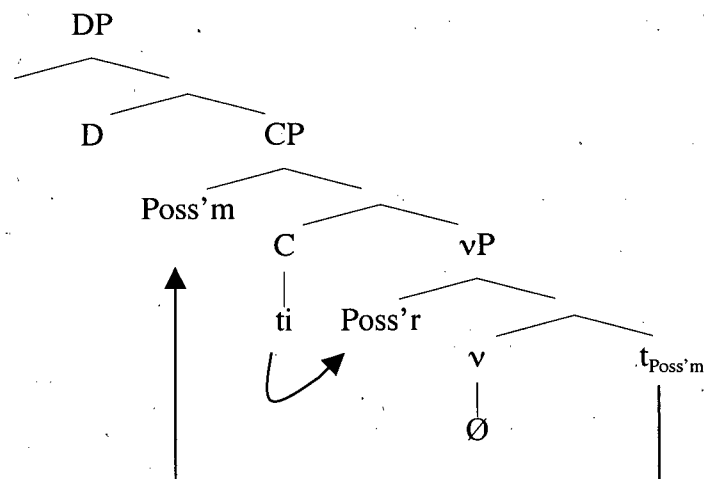
b.



The claim made for the MTS with respect to Case assignment is also applicable to *ti*, namely when it is the only functional element present in genitive phrase, it assigns Gen Case to the possessor. This implies that when the possessum raises to Spec CP, the *ti*-element, which occupies C is the only functional element that is available and as such, it assigns Gen Case to the possessor. This is what the structure in (84b) illustrates.¹²

- (84) a. òbẹ ti Èbùn
 knife C E.
 'knife of Ebun'

b.



In summary, I have shown that each of the two functional heads can independently assign genitive Case to the possessor NP. The next thing I consider is how genitive Case is

¹² One consequence of this analysis is that we expect the H-tone *ti* to be able to assign Case in relative clauses. For example, in English, (i), *for* is assumed to be a complementizer which assigns Case.

(i) I want **for** Serena to leave.
 This is going to be one focus for future research.

assigned when both elements co-occur.

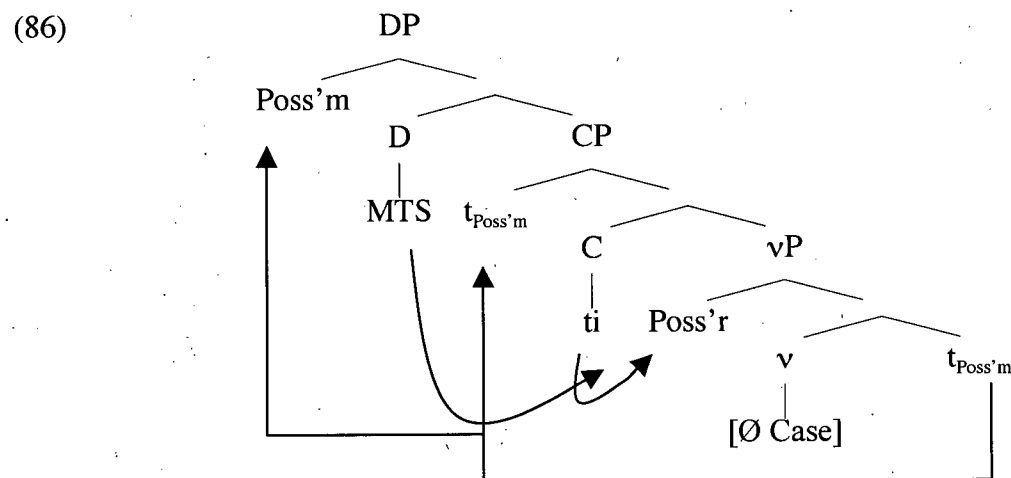
3.2.2 Case stacking: Mid Tone Syllable and *ti*

We have seen that either the MTS or M-tone *ti* may intervene between the possessum and the possessor. In addition, it is possible for the MTS and *ti* to co-occur as in (85).

- (85) a. Mo rí [ilé e ti Túndé]
 1sg see house MTS C T.
 ‘I saw the house of Tunde.’
- b. [Ilé e ti Túndé] ga
 house MTS C T. be-tall
 ‘The house of Tunde is tall.’

I propose that the co-occurrence of these two functional heads (MTS as D, and *ti* as C) is an instance of Case stacking. I show that Yorùbá Case stacking has an interpretive effect and results in emphasis on the possessor.

First, I define Case assigner stacking in Yorùbá as the phenomenon whereby a DP is associated with two Case assigners. Rather than claiming that each argument is assigned genitive Case by each Case assigner, I propose that both the MTS and the *ti*-element multiply assign genitive Case to the possessor.



The Yorùbá type of Case stacking contrasts with the kind of Case stacking reported in

3.2.3 Interpretive effects of Case stacking

Yorùbá Genitive Case stacking has a semantic effect: a possessor that is multiply assigned Genitive Case has an emphatic interpretation. Following Bámgbóṣé (1966), an emphatic genitive DP involves emphasis on the possessor. This kind of genitive is marked by both the MTS and *ti*. To test this claim, consider the examples in (89) and (90). (90b) is more emphatic than (89b) as it indicates that the statue being referred to is only that of Awolowo.

- (89) a. Context: I went to Bodija and saw Awolowo's statue. When I got back home, I say (89b) to my wife.

b. Mo rí [ère e Awólówò] ní Bódìjà
 1sg see statue MTS A. Loc B.
 'I saw the statue of Awolowo at Bodija.'

- (90) a. Context: I was told that there are many statues of Nigeria leaders erected at different locations in Bodja but I only saw Awolowo's. When my wife asked whose statue did I see, I say (91b).

b. Mo rí [ère e ti Awólówò] ní Bódìjà
 1sg see statue MTS C A. Loc B.
 'I saw the statue of Awolowo at Bodija.'
 (as opposed to say statue of Murtala Mohammed)

This emphatic force of multiply Case-marked genitives is further exemplified in (91), where there is a comparison between Kúnlé and Túndé's statues. The presence of *ti* in *ère e ti Túndé* makes it more emphatic and explains the reason why it is Ade's preference.¹⁴

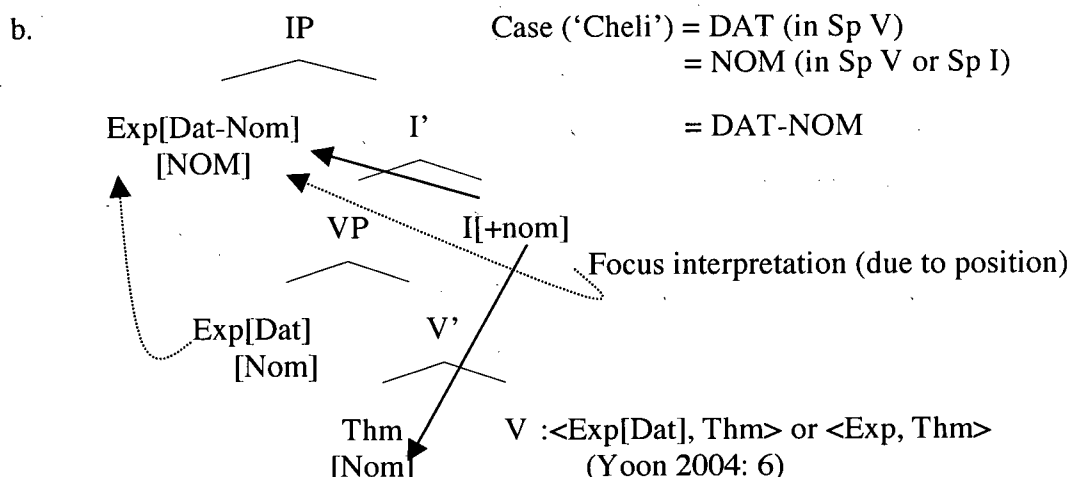
- (91) [Ère e Kúnlé] dára ṣùgbón [ère e ti Túndé] ni Adé fẹ́
 statue MTS K. nice but status MTS of T. FOC A. want
 'Kúnlé's statue is fine but it is the statue of TUNDE that Ade wants.'

¹⁴ Recall that MTS is optional when the possessum is M-tone final.

- (i) a. ìgò o ti Túndé L MTS
 bottle MTS C T.
 'the bottle of Tunde'
 b. ère (e) ti Túndé M (MTS)
 statue MTS C T.
 'the statue of Tunde'
 c. owó o ti Túndé H MTS
 statue MTS C T.
 'the money of Tunde'

The claim being made for Yorùbá has support in the literature. In Korean, Yoon (2004: 6) claims that Case stacking also gives rise to a focus-like interpretation in non-nominative subjects.¹⁵ In (92), a Dative-marked nominal that is an underlying Object ‘advances’ to become a surface Subject which in turn means it can be marked with NOM Case. This leads Yoon to conclude that *Cheli* has a focus interpretation.

- (92) a. Cheli-eykey-ka ton-i manh-ta
 Cheli-DAT-NOM money-NOM a.lot-DECL
 ‘Cheli has a lot of money.’



Thus the structural position of *Cheli* as a non-nominative subject earns it a focus interpretation.

Notice that the kind of Korean Case stacking is applicable to different Cases, whereas the one discussed for Yorùbá involves multiple assignment of the same Case by two different Case assigners.

Recall that when there is one Case assignment, there is one movement. This is witnessed if either the MTS (83), or M-tone *ti* (84) is the Case assigner; the Possessum moves once. However when there is Case stacking there is multiple movement of the Possessum, (86). In other words, Yorùbá Case-stacking is a diagnostic for multiple movement of NP. Similarly, in Korean, such multiple movement of NP has the same effect.

¹⁵ See Schütze (1996, 2001) for arguments against the view that Case Stacking involves focus.

Relating multiple movements to Case, the claim is that multiple movements of the Possessum induce a focus effect.

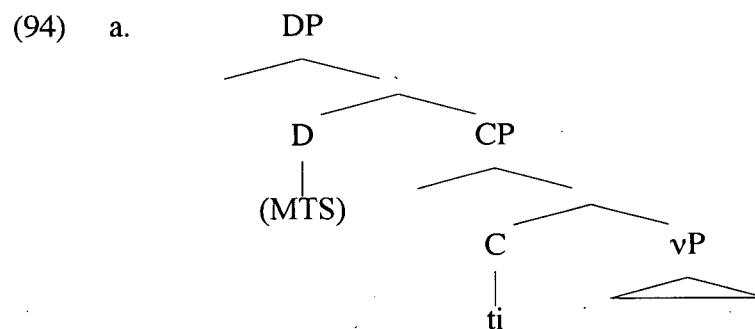
To conclude, I have shown that Case assignment can be carried out by the MTS or *ti*. I treat this as an instance of Case alternation. And when the two jointly assign genitive Case to the possessor, I call this an instance of Case stacking. In this latter case, in addition to being Case marked, the possessor is made prominent by way of emphasis.

3.3 The co-occurrence of the copula *jẹ* with genitive *ti*

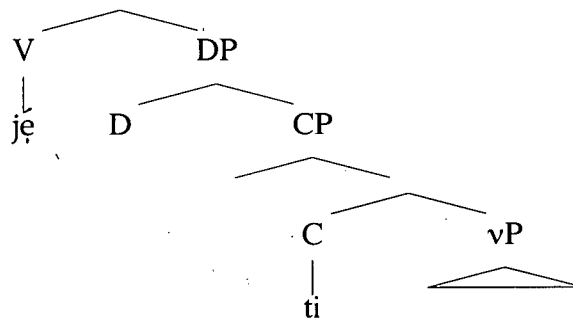
I extend my analysis to yet another kind of construction where the *ti* element is found, namely in a verbal construction involving the verb *jẹ*. Some examples are given in (93).

- (93) a. Ilé yíi jẹ ti Kúnlé
house Dem is C K.
'This house is to Kúnlé = This house is Kunle's.'
- b. Owó náà jẹ ti Bùnmi
money spf is C B.
='That very money is to Bunmi.'
='The very money is Bunmi's.'
- c. Ilẹ̀ yẹn jẹ ti bàbá à mi
land Dem is C father MTS 1sg
'That land is to my father.' = That land belongs to my father.'

Like the *ti*-construction, the *jẹ ti* construction involves a Possessum-Possessor co-argument relation. I propose that in both contexts, *ti* heads a defective CP, as in (94).



b.



The verb *jẹ* is also found in equative constructions where two nominals refer to the same person or object. In (95a), *àgbẹ̀* ‘farmer’ and *ọ̀ba* ‘king’ are equated with each other. Similarly, in (95b) *Bọ̀sẹ̀* and *ọ̀mọ rere* ‘nice girl’ refer to the same person.¹⁶

- (95) a. *Àgbẹ̀ jẹ ọ̀ba* *Subject Predicate*
 farmer is king
 ‘Farmers are king.’
- b. *Bọ̀sẹ̀ jẹ ọ̀mọ rere*
 B. is child nice
 ‘Bose is a nice girl.’

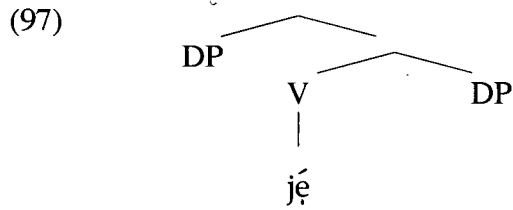
In addition to the *jẹ* copula, Yorùbá has another copula, *ni*. The *jẹ* copula contrasts with the *ni* copula in the following way: while (95) has a Subject-Predicate order (96) has a Predicate-Subject order. Thus, in (95a) with *jẹ*, the first nominal, *àgbẹ̀* ‘farmer’ is the Subject, and the second nominal, *ọ̀ba* ‘king’ is the Predicate. However, in (96a), with *ni*, the first nominal, *ọ̀ba* ‘king’ is the Predicate, and the second nominal, *àgbẹ̀* ‘farmer’ is the Subject.¹⁷

- (96) a. *Ọ̀ba ni àgbẹ̀ (jẹ)* *Predicate Subject*
 king FOC farmer is
 ‘Farmers are king.’
- b. *Ọ̀mọ rere ni Bọ̀sẹ̀ (jẹ)*
 child nice FOC B. is
 ‘Bose is a nice girl.’

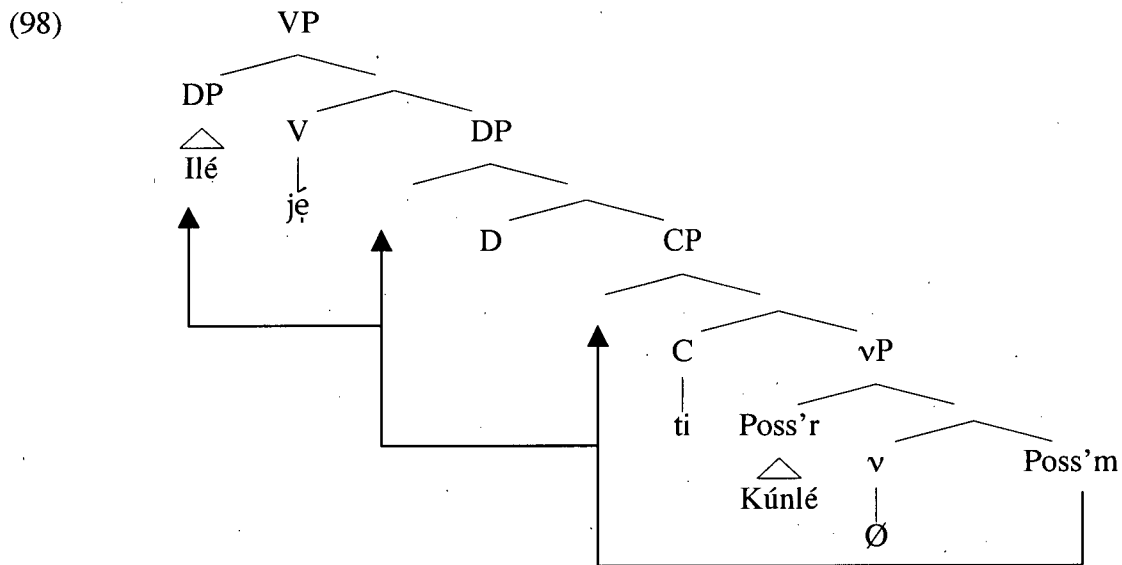
¹⁶ cf. predicate inversion (Moro 1995)

¹⁷ For discussion of the [Subject-Predicate] versus [Predicate-Subject] order, see Manfredi (1994).

This much establishes that *jě* introduces two nominals, a Subject and a Predicate, as in (97).¹⁸



Now consider what happens when *jě* combines with *ti*. On independent grounds, I have proposed that *ti* heads a reduced relative clause. Its appearance with equative *jě* follows automatically: The *jě* introduces a DP complement, which, as before, hosts a *ti*-clause. This is illustrated in (98).



In order to derive the surface linear order, there are three steps in the movement of the possessum: first, it moves to Spec CP and from there to Spec DP; finally, it moves to Spec VP.

¹⁸ Note that only the possessum but not the possessor can move to Spec, IP in this type of construction.

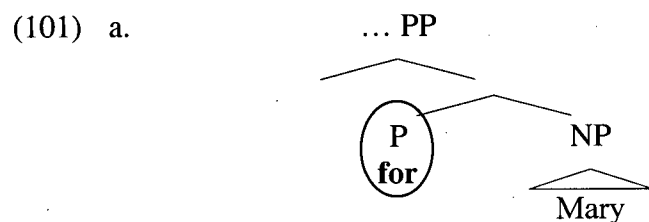
3.4 Other syntactic contexts for the R-relation: prepositional uses of *ti*

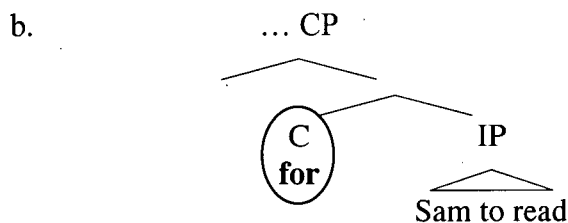
So far, I have shown two environments where we see reduced relatives, namely with genitive DPs and the *jé ti* construction. In those cases M-tone *ti* is the head of a reduced relative clause. In this section, I consider yet other contexts where we see the *ti* element, namely non-genitive environments. I show that in these constructions *ti* has the status of a preposition. There are three types of *ti*-elements that qualify to be analyzed as prepositions: the prepositional preverb *ti*, the post-verbal preposition, *látí* and the *ti* that is a marker of locative adjunct extraction.

The relation between C and P is discussed by Emonds (1985: 291ff) and Schulte (2001); certain prepositions behave sometimes also behave like complementizers. English *for* is an example of such a preposition. Compare (99) where *for* behaves like a true preposition that takes an NP as its complement with (100) where *for* has the status of a complementizer.

- (99) a. Bake a cake [**for** Mary]
 b. I bought this shirt [**for** Peter and Paul]
 c. The musician performed [**for** the guests]
- (100) a. They arranged [**for** a friend to deliver the package]
 b. We bought some books [**for** Sam to read]
 c. He was anxious [**for** the tools to be bought.] (Emonds 1985:291)

The structure in (101a) illustrates the prepositional status of *for*. The structure in (101b) illustrates the complementizer status of *for*.





I analyze Yorùbá *ti* in the following section as an element that functions as a preposition.

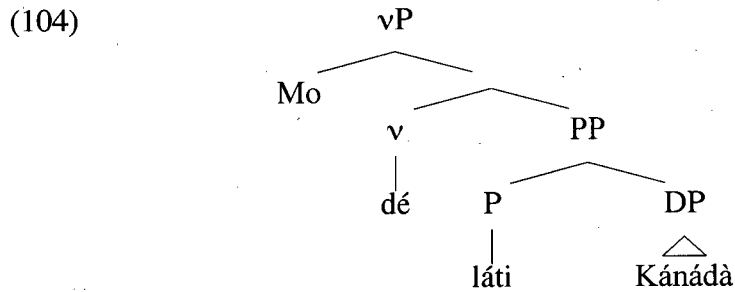
3.4.1 *lāti* as a locative P at the right edge of vP

This section establishes that prepositional *ti* occurs in post-verbal PP in the form of *lāti*¹⁹ as illustrated in (102) and (103). The examples (102b-c) and (103b-c) show that *lāti* cannot occur pre-verbally.

- (102) a. Mo dé [lāti Kánádà] ní àárò
 1sg arrive P Canada P morning
 'I arrived from Canada in the morning.'
- b. *Mo [lāti Kánádà] dé ní àárò
 1sg P Canada arrive P morning
- c. *Mo ní àárò [lāti Kánádà] dé
 1sg P morning P Canada arrive
- (103) a. Mo fò lāti Èkó ní àárò
 1sg fly P Lagos P morning
 'I airlifted from Lagos in the morning.'
- b. *Mo lāti Èkó fò ní àárò
 1sg P Lagos fly P morning
- c. *Mo lāti Èkó ní àárò fò
 1sg P Lagos P morning fly

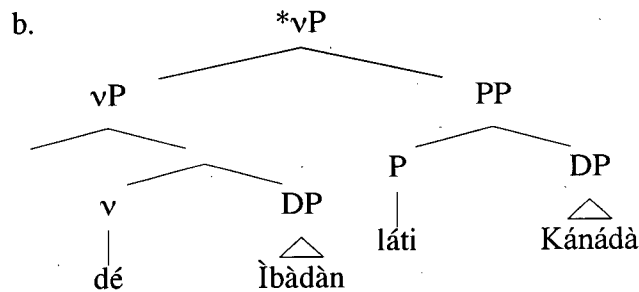
¹⁹ It appears *lāti* is derived. It may be possible to decompose it to *ní* 'locative' and *àti* 'and' but there is no semantic relationship between these two components and the whole to support such a suggestion. As to this, I treat this element as a compound P.

I propose that *láti* PPs are introduced as complement to *v*, as in (104).



The structure in (104) predicts that the PP cannot be an adjunct to *vP*. This is why (105a) is bad; as such, we cannot have the structure in (105b) where the PP is adjoined to the *vP*.

- (105) a. *Mo dé Ìbàdàn láti Kánádà
 1sg arrive I. from Canada



This section has established two points about *láti* phrase: it occurs post-verbally and it can only be a complement of *v*.

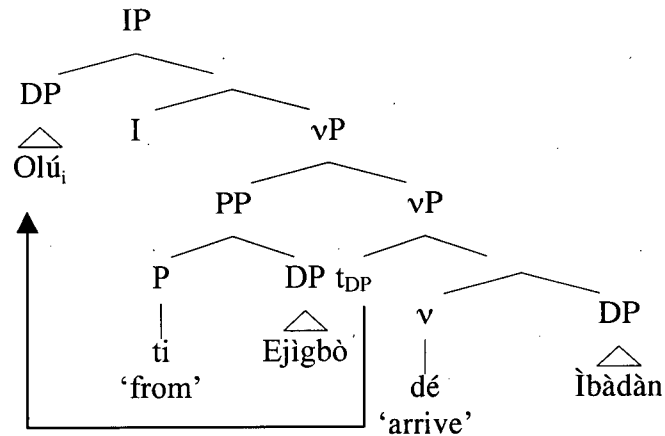
3.4.2 *ti* as a locative P at the left edge of the *vP*

As a preposition, *ti* also introduces expressions of location (Awóbùlúyì 1978: 98). One other thing to add to this is the structural position of the *ti*-phrase relative to the verb: the PP that *ti* heads precedes the verb. This is shown by the (a) examples in (106)-(109). In the (b) examples of (106)-(109), the *ti*-phrase immediately follows the verb, and in the (c) examples, the *ti*-phrase is sentence final; such outputs are ungrammatical. This establishes that the PP headed by locative *ti* is pre-verbal and must also follow the subject DP.

- (106) a. Mo [ti ibè] dé ní àárò
1sg P place arrive P morning
'I got back from there in the morning.'
- b. *Mo dé [ti ibè] ní àárò
1sg arrive P place P morning
- c. *Mo dé ní àárò [ti ibè]
1sg arrive P morning P place
- (107) a. Ó [ti ilé] bèrè ìsekúṣe ní àárò
3sg P house start bad-beahviour P morning
'He began behaving badly from home in the morning.'
- b. *Ó bèrè ìsekúṣe [ti ilé] ní àárò
3sg start bad-beahviour P house P morning
- c. *Ó bèrè ìsekúṣe ní àárò [ti ilé]
3sg start bad-beahviour P morning P morning
- (108) a. Mo [ti Èkó] fò lọ sí Kánádà ní àárò
1sg P Lagos fly go P Canada P morning
'I took a morning flight from Lagos to Canada.'
- b. *Mo fò lọ sí Kánádà [ti Èkó] ní àárò
1sg fly go P Canada P Lagos P morning
- c. *Mo fò lọ sí Kánádà ní àárò [ti Èkó]
1sg fly go P Canada P morning P Lagos
- (109) a. Olú [ti Ejìgbò] dé Ìbàdàn ní àárò
O. P E. arrive I. P morning
'Olu arrived in Ibadan via Ejigbo in the morning.'
- b. *Olú dé Ìbàdàn [ti Ejìgbò] ní àárò
O. arrive I. P E. P morning
- c. *Olú dé Ìbàdàn ní àárò [ti Ejìgbò]
O. arrive I. P morning P E.

I propose that the preverbal *ti*-phrase is a left adjoined PP as in (110). There is one movement that is involved in the derivation, namely the subject DP moves from Spec *v*P to Spec IP.

(110)



One important thing to note is the contrast between post-verbal *lāti* whose PP is treated as a complement to *v* and the pre-verbal *ti* whose PP is analyzed as an adjunct.

3.4.3 *ti* as a marker of adjunct extraction

There is another kind of *ti* that I want to talk about. This is the one that is found at an adjunct extraction site. Cook (2004) claims that the *ti*-element found in WH constructions in Yorùbá is a mark of locative extraction and proposes that *ti* be treated as a locative head. The (a) examples in (111)-(112) show constructions that depict location of certain events. When a locative expression is questioned, a locative Wh-word appears in sentence-initial position, and locative *ti* appears in preverbal position, as in the (b) example of (111-112). The absence of *ti* in those contexts leads to ungrammaticality, as in the (c) examples of (111-112).

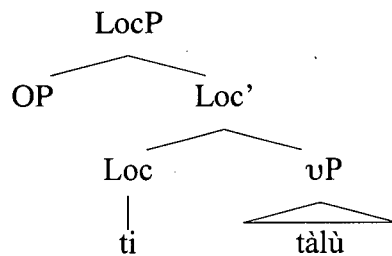
- (111) a. Adé jẹ òrò ní ojà
 A. eat mango P market
 'Ade ate mangoes at market.'
- b. Níbo ni Adé ti jòro ____
 where FOC A Loc eat-mango
 'Where did Ade eat mangoes?'
- c. *Níbo ni Adé jòro ____
- (112) Adé ta ìlù ní ojà
 A. sell drum P market
 'Ade sold drums at market.'

- b. Níbo ni Adé ti tàlù ____
 where FOC A Loc see-drum
 'Where did Ade sell drums?'

- c. *Níbo ni Adé tàlù ____

Cook proposes a LocP for the *ti*-phrases found in WH-constructions where the Loc takes a *v*P as its complement, as in (113). She argues that the overt realization of this Loc is in complementary distribution with the OP in Spec LocP. Thus if the Spec is pronounced Loc is null and vice versa.

(113) *Yorùbá locative P in Wh- extraction*



(Cook 2004: 34)

To recap, this section has examined the kind of *ti* that is found in locative expressions claiming that its presence is an indication that extraction has taken place.

3.5 Conclusion

This chapter has discussed two types of *ti*-constructions, namely the type found in genitives and the one found in non-nominal environments. I have established that *ti*-constructions in genitive environments are reduced relative clauses and the M-tone *ti*-element was analyzed as a C. I proposed that, as a functional element, *ti* assigns genitive Case to the possessor when it is the only Case assigner available, but when it co-occurs with the MTS they both co-assign genitive Case. I treated this as an instance of Case stacking. I also argued that *ti*-constructions in non-genitive environments are prepositional phrases, some of which are preverbal while others are post-verbal.

CHAPTER FOUR: INTERPRETING YORÙBÁ BARE NOUNS

4 Introduction

Yorùbá lacks obligatory determiners (contra Bámgbóṣé 1967, 1990, 2001; Awóbùlúyì 1978), and so makes extensive use of bare nouns (BNs). These bare nouns¹ can be construed in at least one of these three ways²: generic (1a), indefinite (1b), or definite (1c).

- (1) a. Òyìnbó gbádùn sìgá. *generic*
European enjoy cigarette
'Europeans enjoy cigarettes.'
- b. Mo rí ajá. *indefinite*
1sg see dog
'I saw a dog.'
- c. Ajá gbó mi. *definite (in discourse context)*
dog bark 1sg
'The dog barked at me.'

English does not permit the occurrence of bare nouns in the context of Yorùbá examples in (1). The parallel examples in (2) illustrate this.

- (2) a. *I saw **dog**.
b. ***Dog** barked at me.

For the latter, nouns require overt determiners as shown in (3)³.

- (3) a. I saw **a** dog.
b. **A** dog barked at me.

¹The bare nouns discussed in this dissertation focus mainly on count nouns partly because mass nouns are not clearly distinguished from count nouns in Yorùbá. See chapter 6 for more discussion.

² It is worth noting one obvious distinction between an *indefinite* and a *definite* noun namely that when an indefinite reading is obtained there is usually a question like *which dog?* or *'where?'* In (1b) for instance, there may arise the need for either of the questions to be asked by the listener. By contrast, when a *definite* reading is obtained, it does not attract such questions. This is because in the latter case, there is usually a prior knowledge about the object that is being referred to.

³ The example in (i) shows a context where English allows the absence of an overt determiner, namely with so-called 'bare plural nouns'.

(i) Birds lay eggs.

As discussed in the literature, Yorùbá is not the only language whose nouns lack overt determiners. The examples in (4) also show that Japanese nouns can be bare.⁴

- (4) a. John -ga hon -o yonda
 -Nom book -Acc read
 ‘John read a book.’
- b. John -ga ronbun-o kai-ta
 -Nom article wrote
 ‘John wrote an article.’
- c. inu -ga heya-ni haitte-kita
 dog Nom room-to in came
 ‘The dog entered the room.’

(adapted from Fukui 1995: 105)

This chapter examines the distribution and interpretational variability of bare nouns in Yorùbá. There are four basic questions that I address. What are the determinants for interpreting Yorùbá bare nouns? (§4.1) What conditions the generic construal of bare nouns? (§4.2) What conditions the indefinite construal of Yorùbá bare nouns? (§4.3) What conditions the definite construal of Yorùbá bare nouns? (§4.4) The focus of §4.5 is the consequences of this analysis. §4.6 concludes.

4.1 The determinants for interpreting Yorùbá bare nouns

Three factors determine how bare nouns are construed in Yorùbá: (i) the verb type; (ii) syntactic position; and (iii) discourse linking.

4.1.1 Verb classes

The kind of verbs that a bare noun occurs with plays a crucial role in determining how these nouns are to be construed (Carlson 1977; Déchaine 1993; Chierchia 1995; Déprez 2004

⁴ The suffix on bare nouns in Japanese is an instance of case marking.

among others). In this section, I examine three types of verbs in relation to the distribution and construal of Yorùbá bare nouns: (i) permanent states, (ii) temporary states, and (iii) dynamic events. I conclude that the construal of Yorùbá bare nouns is sensitive to these distinctions (cf. Déchaine 1993: 437).

4.1.1.1 Permanent states (P-state)

Permanent states are verbs that express a permanent state of the individual. They do not denote actions that take place, as they involve no activity (van Voorst 1992:81). Permanent state verbs usually refer to a state or condition which is not changing or likely to change over time; they only have atemporal and abstract qualities (Bach 1981: 71; Carlson, 1979). They denote the kinds of states that people or things can be “in” for a long time. This can be a state of love, hate, wisdom, tallness etc. In fact, Dowty (1979: 126) claims that these verbs are somehow simpler or more limited in their interpretations than other kinds of verbs. If transitive, permanent state verbs encode a relation between an experiencer (subject) and the theme (object).

- (5) a. Mo fẹ̀ràn Títí *transitive P-state*
 1sg love T.
 ‘I love Titi.’
- b. Adé kórirá mi
 A. hate 1sg
 ‘Ade hates me.’

If intransitive, permanent state verbs attribute a property to their subject:

- (6) a. Mo gò *intransitive P-state*
 1sg be-stupid
 ‘I am stupid.’
- b. Dúpẹ̀ gbọ̀n
 D. be-wise
 ‘Dupe is wise.’

- c. Şehun ún ga
 S. HTS be-tall
 'Sehun is tall.'

4.1.1.2 Temporary states (T-state)

I define temporary states as verbs that express behaviours that last for a short time. These verbs are transitory since they express the state that does not last for a long time and they can be transitive, as in (7).

- (7) a. Títí bínú (bí inú) *transitive T-state*
 T. be-annoy provoke stomach
 'Titi was annoyed.'
- b. Mo -yarí
 1sg refuse (ya orí)
 ? head
 'I refused.'
- d. Mo pebi sùn (pa ebi)
 1sg be-hungry sleep beat hunger
 'I went to bed without food.'
- e. Ó rẹ mí
 it be-tired 1sg
 'I am tired.'

One thing about the transitivity of temporary state verbs is the problem of transparency. Consider, *bínú* 'be annoy' in (7a), which can be split into *bí inú*, 'provoke stomach' where the verb is the monosyllabic word *bí* (Abraham 1958:103) and the object *inú*, the meaning of each lexical item has little in common with the compound form. In other words, the meaning of the verb cannot be fully realized in isolation. This is why such verbs are said to have an idiomatic use (Oyèláràn 1982).

4.1.1.3 Events

I define events as verbs that involve a dynamic situation which changes over time, and whose duration is limited. If transitive, they encode a relation between an agent (subject) and the theme (object). Thus, each of the verbs in (8) can take two arguments: a subject and an object.

- (8) a. Motún **rí** mi *transitive event*
 M. see 1sg
 'Motun saw me.'
- b. Òkété **gbẹ** ihò
 rodent dig hole
 'A rodent dug a hole.'
- c. Òkété **hú** èbù
 rodent uproot yam-seed
 'A rodent uprooted a yam-seed.'
- d. Ọdẹ **ẹ** pa ògìdán
 hunter HTS kill leopard
 'The hunter killed a leopard.'
- e. Olú **jẹ** iṣu
 O. eat yam
 'Olu ate yams.'

Intransitive events include but are not limited to, examples in (9).

- (9) a. Mo **rìn** *intransitive event*
 1sg walk
 'I walked.'
- b. Ẹyẹ **ẹ** bà
 bird HTS perch
 'The bird perched.'
- c. Olú **jòkó**
 O. sit-down
 'Olu sat down.'

- d. Táyé dide
T. stand-up
'Taye stood up.'

These verbs do not encode any relation since there is usually one argument. These verbs however have one thing in common they depict activities that can only last for a short time. Note also that some intransitive events are monosyllabic (9a-b) while some are disyllabic (9c-d).

4.1.1.4 Distinguishing "events/temporary-states" and "permanent-states"

There is one property that both events and temporary-states have in common, which distinguish them from permanent-states, namely they are transitory. The discussion in this section explores this distinction. I briefly examine three ways of distinguishing between "event/temporary-states" from "permanent-states". One is that the distinction between permanent-states and events/temporary-states involves a [\pm dynamic] contrast. A *dynamic* verb is one that can be used in the progressive (continuous) aspect, indicating an unfinished action. Going by this definition, event/temporary state verbs are dynamic. In Yorùbá, the aspectual particle *ń* meaning progressive is only compatible with event/temporary-state verbs (10).

- (10) a. Mo ń je iṣu S ń V-event O
 lsg prog eat yam
 'I am eating yam.'
- b. Mo ń bínú S ń T-state
 lsg prog angry
 'I am annoyed.'

In contrast, permanent-state verbs cannot take the progressive marker, (11).

- (11) a. *Mo ń fẹràn iṣu *S ń P-state O
 lsg prog like yam
- b. *Mo ń gò *S ń P-state
 lsg prog stupid

Another way by which event/temporary state and permanent-state verbs is that event/temporary-state verbs can either be construed as past or present perfect, (12).

- (12) Mo jẹ iṣu
 1sg eat yam
 (a) 'I ate yams.' *past*
 (b) 'I have eaten yams.' *present perfect*

When the example in (12) serves as an answer to the question in (13) then, the tense in relation to the time of utterance can be that of simple past or past perfect.

- (13) Njẹ o jẹ iṣu
 Q-tag 2sg eat yam
 'Did you eat yam?'

In contrast, permanent-state verbs in Yorùbá usually convey a non-past meaning, (14).

- (14) a Mo fẹràn ijó *non-past*
 1sg like dance
 'I like dancing.'
- b. Mo gò *non-past*
 1sg stupid
 'I am stupid.'

Lastly, the interpretation of bare nouns is sensitive to the permanent-state and event /temporary-state distinction. The contrast between the interpretation of *ológbò* as 'a cat' (15a), and 'cats in general' (15b), is attributable to the difference in the verb it combines with. The verb *pa* 'kill' in (15a) is eventive whereas *kórirá* 'hate' in (15b) is stative.

- (15) a. Mo **pa** ológbò
 1sg kill cat
 'I killed a cat.'
- b. Mo **kórirá** ológbò
 1sg hate cat
 'I hate cats.'

This establishes that the construal of bare nouns is sensitive to the particular verbs they occur with. This is treated in greater detail in §4.2. I turn to another factor that is crucial to the construal of bare nouns, namely the syntactic position of bare nouns. The two positions controlled for are subject versus object.

4.1.2 Subject versus object position

Another crucial factor in understanding how a given bare noun is to be construed is its syntactic position (cf. Rullmann 2003: 3). At first, it appears Yorùbá manifests an unrestricted distribution of bare nouns in argument positions in the sense that they can occur in subject as well as object position.⁵

- (16) a. **Ajá** *rí* *mi*
 dog see 1sg
 ‘A dog saw me.’
- b. *Mo* *rí* **ajá**
 1sg see dog
 ‘I saw a dog.’

Thus, there is sometimes a symmetrical relation between the subject and object in the sense that they can be interpreted the same way as shown in (16). In some other cases there is an asymmetrical relation. For example, while it is possible to interpret a bare noun as generic when in object position, such interpretation is not available if the same bare noun is in subject position as in (17). I discuss this in §4.2.

- (17) a. **Ajá** *fẹ́ran* *mi*
 dog like 1sg
 ≠ ‘Dogs like me.’
- b. *Mo* *fẹ́ran* **ajá**
 1sg like dog
 ‘I like dogs.’

⁵The fact reported here agrees with English but contrasts with Romance. In the latter, “bare nouns are confined to complement positions and excluded from pre-verbal subject positions” (Longobardi 2004: 582).

4.1.3 Discourse-linking

The term discourse linking refers to a situation where the construal of a bare noun is supplied by the discourse. I define a discourse span as a group of sentences that focus on a topic (Wolfart 1972). Discourse-linked nominals are nouns that are either new or familiar referents in such a string of sentences. When a noun is mentioned at the beginning of a discourse, it is said to be a new referent. When it comes up in subsequent discussion, it becomes a familiar referent.⁶ The impact of discourse context on how Yorùbá bare nouns are to be construed is enormous. In Yorùbá, as I show later in the chapter, a bare noun can only be construed as definite in a proper discourse context. Since Yorùbá lacks overt determiners, it is not easy to identify discourse-linked utterances. In contrast, in English, which has overt determiners, the definite determiner links the noun it modifies to a noun that occurs earlier in the discourse, as illustrated in (18).⁷

(18) Yesterday, **a snake** entered my room. I was afraid to kill **the snake**.

In (18), *the snake* in the second sentence is linked to *a snake* in the first sentence. The Yorùbá parallel example to (18) is given in (19). It is not possible to have a definite construal of *ejò* 'snake' in (19b) as we do in English example in (18).

- (19) a. Ní ànà ejò ó wọ inú ilé mi.
 P yesteray **snake** HTS enter inside house 1sg
 'Yesterday, a snake entered into my house.'
- b. Èrù ú bà mi láti pa ejò
 fear HTS catch 1sg to kill **snake**
 # 'I was afraid to kill the snake.'

For reasons not quite understood, Yorùbá equivalent of (18) shown in (19) is odd. Pronoun is preferred instead, (20).

⁶ For details concerning discourse linking, see Stalnaker (1978); Pesetsky (1987); Enç (1991); Déchaine (1993); López (2000); Doherty (2005); Kiss (2005) among others.

- (20) a. Ní àná ejò ó wọ inú ilé mi.
 P yesterday snake HTS enter inside house 1sg
 'Yesterday, a snake entered into my house.'
- b. Èrù ú bà mí látí pa á
 fear HTS catch 1sg to kill it
 'I was afraid to kill it.'

As mentioned above, the reason for this is that Yorùbá lacks overt determiners like English 'a/an' and 'the' that can link the first and the second *ejò* 'snake' in (19). This supports Kíss's (2005: 132) claim that discourse linking is much easier to obtain in a language with overt determiners.

The other alternative to the use of pronoun is to mark *ejò* 'snake' as salient by adding the salient marker *náà* to it, as in (21), otherwise a proper discourse context must be set.⁸

- (21) a. Ní àná ejò ó wọ inú ilé mi.
 P yesterday snake HTS enter inside house 1sg
 'Yesterday, a snake entered into my house.'
- b. Èrù ú bà mí látí pa ejò náà
 fear HTS catch 1sg to kill snake Sal
 'I was afraid to kill the very snake.'

The account of how salience is marked in Yorùbá is given in chapter 5.⁹

⁷ However, this is not always the case. For example in 'The sun shines.' or 'The world is round', the noun that is being modified by the determiner *the* is unique and cannot be linked to a noun that occurs earlier in the discourse.

(i) a. I told my friend that a snake and a spider entered my house yesterday. He asked me what I did to them and I said I killed the spider. He went further to ask of the snake then I said (i-b).
 b. Èrù ú bà mí látí pa ejò
 fear HTS catch 1sg to kill snake
 'I was afraid to kill the snake.'

See §4.4 for details on discourse linking.

⁹ This is not to say that object nouns cannot be construed as definite without being marked for salience. As we shall see, definiteness of objects is obtained in contrastive construction or when the entity is physically present.

4.2 What conditions the generic construal of bare nouns?

Following Chierchia (1995) and Greenberg (1998), I define generic sentences as those with bare nouns, which express “non-accidental, law-like generalizations”. According to Carlson (1977, 1980) and Cohen (2004), the semantics of generic nouns show that they have a “quasi-universal flavor”. As I show herein, Yorùbá generic bare nouns entail *kind referring expressions* (cf. Déchaine & Manfredi 1998; Chierchia 1995, 1998; Longobardi 2003 and Müller 2003: 72).

I propose that Yorùbá bare nouns can be construed as generic in one of two sets of contexts: in one set of contexts, a bare noun is construed as generic based on verb type.¹⁰ This relates to the distinction between permanent-state and transitory (event/temporary-state). This is discussed as an instance of lexically conditioned genericity (§4.2.1). In the other set of contexts a bare noun can be generic in the presence of a characterizing (habitual) aspect (cf. Delfitto 2002; Longobardi 2002). I call this grammatically conditioned genericity, which in Yorùbá requires the presence of imperfective *máa-ń* (§4.2.2).

4.2.1 P(ermanent)-states have a lexical GEN operator

Yorùbá bare nouns can be construed as generic if one of two conditions holds, as in (22).

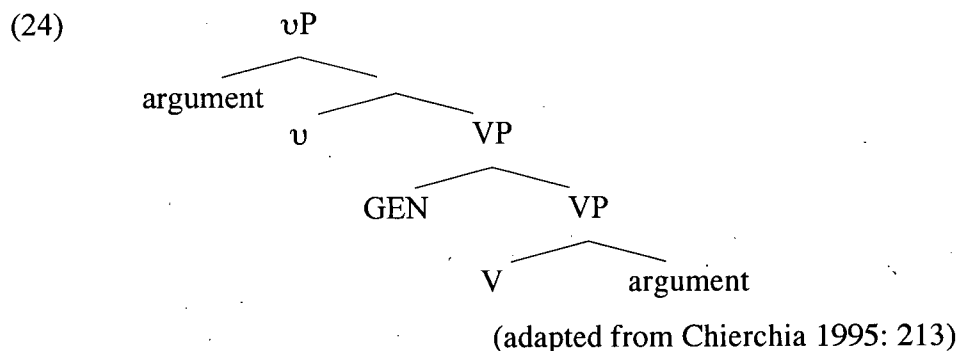
- (22) Lexically conditioned GEN requires permanent-state verbs.
Grammatically conditioned GEN requires imperfective *máa-ń*.

Lexically conditioned genericity is when the construal of a bare noun as generic is dependent on the verb type. A lexically conditioned generic construal does not require any special marking as genericity appears to be encoded in the verb (Chierchia 1995: 219). Descriptively, there are three contexts for the lexically conditioned generic construal of Yorùbá bare nouns:

¹⁰Chierchia (1995) and Carlson and Pelletier (1995) claim that nouns occurring as subject of Individual Level Predicates (ILP) can be construed as generic in English.

- (23) First generalization about genericity of Yorùbá bare nouns (lexically conditioned genericity):
 A Yorùbá bare noun can be construed as generic when it occurs as:
 (i) the object of a transitive permanent-state,
 (ii) the subject of an intransitive permanent-state or
 (iii) the subject of a transitive permanent-state verbs, but only if the object is also a bare noun.

In view of the above, I propose that lexically conditioned genericity is encoded in permanent-state verbs in Yorùbá and as such, in the appropriate syntactic position, a bare noun occurring with a permanent-state verb can be construed as generic. However, as observed by Chierchia (1995:202), the idea that certain verbs “are somehow inherently generic cannot be straightforwardly implemented in strict lexicalist terms. They need to be operated on by GEN”. Along this line, I further propose that Yorùbá permanent-state verbs are associated with a null generic operator (henceforth GEN) that binds any bare noun in its scope (Déchaine 1993: 495).¹¹ It is this GEN operator that licenses bare nouns as generic subject to certain other conditions that are discussed below. I adopt the structure in (24) following Chierchia (1995). Observe that GEN is base generated as an adjunct to VP.



¹¹ Déchaine (1993) claims that operators divide into two classes according to whether they take scope over a predicate or an argument. The relevant part of the construal condition is shown in (i).

(i) *construal condition*

For X to be construed with an operator, X must be in the domain of the operator.

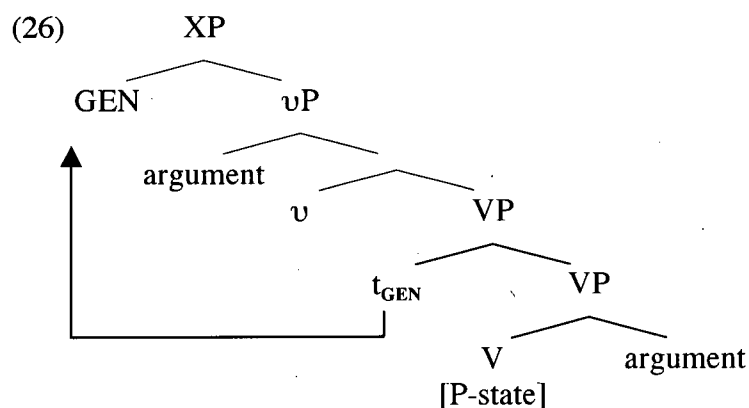
Given the proposal that GEN is adjoined to VP, it means that GEN can only scope over object bare nouns.¹² As we shall see, this has consequences for how subject BNs are to be construed as generic.

An operator scopes over an argument that it c-commands. In the case under discussion, only the object bare noun, and not the subject bare noun, is in c-command relation with GEN:

(25) Absence of scope over subject of permanent-states

- a. If bare N is OBJ, then GEN
- b. If bare N is SUBJ, then *GEN

However, we shall see that the Yorùbá data show that it is sometimes possible for GEN to move to a position where it can scope over the subject BN. I propose that GEN in certain syntactic contexts, undergoes Q-raising from where it can scope over both subject and object BNs (cf. Diesing 1992; Szabolcsi 2000).



I split my discussion to three parts. In §4.2.1.1, I discuss genericity of object bare nouns of transitive permanent-states. In §4.2.1.2, I account for genericity of subject bare nouns of transitive permanent-states where I claim that for a subject bare noun of transitive

¹² The scope of an operator “is the domain within which it has the ability to affect the interpretation of other expressions.” (Szabolcsi 2000:607)

permanent-states to be construed as generic, it must obey certain constraints. The focus of §4.2.1.3 is the account of genericity of subject bare nouns of intransitive permanent-states.

4.2.1.1 Bare noun object of transitive P-states

When a bare noun functions as an object of a permanent-state verb, it can be construed as generic. (27a) describes a situation when I like dogs in general. Similarly, in (27b), it is the case that Moji hates cats in general.

- (27) a. Mo fẹ̀ràn ajá *object of P-state*
 1sg like dog
 'I like dogs.'
- b. Mojí kórira ológbò *object of P-state*
 M. hate cat
 'Moji hates cats.'

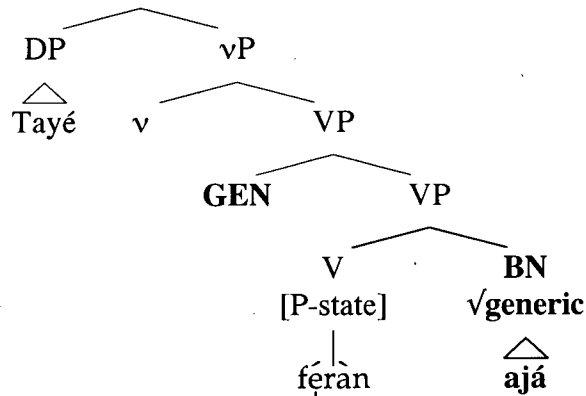
By contrast, objects of permanent-state verbs are construed as indefinite when marked for specificity, as in (28), or as definite (in proper discourse contexts), as in (29b).

- (28) a. Mo fẹ̀ràn ajá kan *indefinite construal of object of P-state*
 1sg like dog Spf
 'I like a certain dog.'
- b. Mojí kórira ológbò kan¹³
 M. hate cat Spf
 'Moji hates a particular cat.'
- (29) a. Felicitous Context: My wife is shocked to hear that I like Tunde's dog even though he is not friendly with us. When she asked if what she heard is true; I said (29b).
- b. Òótọ̀ ni, mo fẹ̀ràn ajá *definite construal of object of P-state*
 true copula 1sg like dog
 'It is true, I like the dog.'

¹³ See chapter 5 for an account of how *kan* marks indefinite nouns as specific.

Consequently, I propose that an object bare noun of a permanent-state verb is generic when it is in the domain of a lexical generic operator, which licenses it. This is illustrated in (30). By hypothesis, permanent-state verbs are associated with a GEN OP in the lower VP; this GEN OP c-commands the object position.

(30) *Lexical GEN with permanent-state verbs: BN in O position*



This much establishes the claim that when a bare noun functions as an object of a permanent state verb, it can be construed as generic.

4.2.1.2 Bare noun subject of transitive P-states

The focus of this section is what conditions the construal of subject bare nouns as generic. First, consider the examples in (31). *Ajá* ‘dog’ (31a) and *ológbò* ‘cat’ (31b) are construed as generic in the sense that it is the case that the former, i.e., *ajá* ‘dogs’ generally like bones and the latter, i.e., *ológbò* ‘cat’ generally hate *àkàrà* ‘bean-cake’.

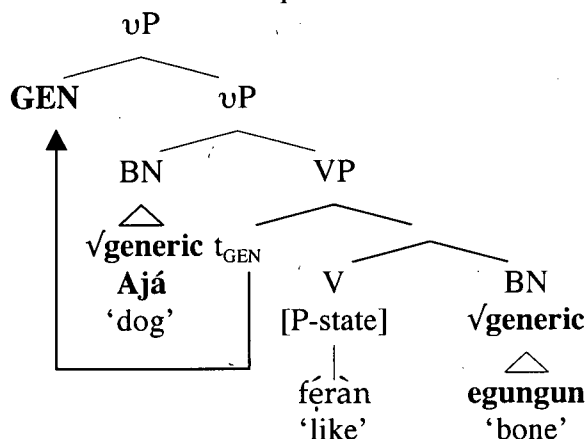
- (31) a. **Ajá** fẹràn egungun *subject of transitive P-state (1)*
 dog like bone
 ‘Dogs like bones.’
- b. **Ológbò** kórirà àkàrà
 Cats hate bean-cake
 ‘Cats hate bean-cakes.’

In contrast to the examples in (31) are those in (32) where the same bare nouns occurring as subject of the same permanent-state verbs cannot be construed as generic.¹⁴ The example in (32a) cannot mean that it is generally the case that dogs like me. Similarly, in (32b) too, it is not generally the case that cats hate Moji.

- (32) a. **Ajá** fẹ̀ràn Táyé *subject of transitive P-state (2)*
 dog like T.
 *‘Dogs like Taye.’
- b. **Ológbò** kórira Mojí
 cat hate M.
 *‘Cats hate Moji.’

This raises the question of what brings about this distinction. I first account for the case where both the subject and object are bare nouns. Here we observe object dependency, i.e., the genericity of the subject depends on the genericity of the object. In the two examples in (31), both subject and object are bare nouns. It follows that like object bare nouns, it appears that a subject bare noun can also be generic. Based on this fact, I propose the structure in (33), where GEN moves to a position where it can scope over both the subject and the object bare nouns.

- (33) *Lexical GEN with permanent-state verbs: BN in S & O position*

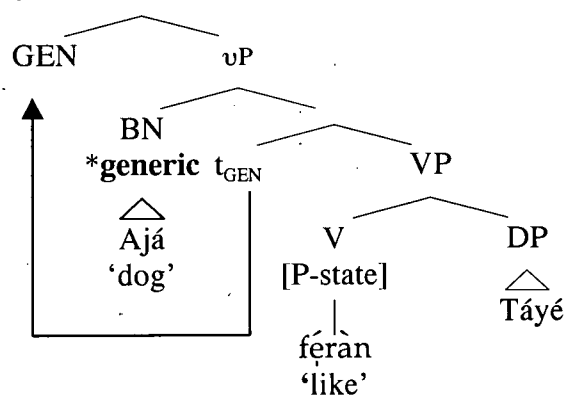


¹⁴ Note also that an indefinite construal of these bare nouns requires the presence of the specificity marker while their construal as definite requires a proper discourse context.

As the structure in (33) shows, two crucial conditions are needed for subject bare nouns to be construed as generic. First, the object must be a bare noun. Second, there is abstract movement of GEN from its adjoined VP position to a position where it can scope over the subject.

We are left with the account of the examples in (32) where subject bare nouns occur with transitive permanent-state verbs whose objects are not bare (i.e., *Taye*, a 1sg object pronoun (32a) and *Moji*, a personal name, (32b)). I illustrate this in (34). Observe that abstract movement of GEN to a position where it could c-command the subject bare noun should make a generic construal possible, yet this is precisely the interpretation that is unavailable.

(34) *Non-genericity with permanent-state verbs: BN in S position*



The question that this analysis raises is why is it not possible for any subject bare noun of a permanent state verb to be construed as generic? The genericity of a subject bare noun seems to depend on the genericity of an object noun. This means in order for a subject bare noun of a P-state to be construed as generic, the object must also be bare; this is an instance of object dependency. Even when GEN raises to a position where it can scope over the bare noun subject, it is still not possible for the bare noun to be construed as generic. This establishes another point namely, though the issue of scope is very crucial, it is not the only determining factor. As we shall see, for examples such as (32), a generic construal is possible only if imperfective *máa-n* is present (see §4.2.3).

I conclude that genericity is made available to bare nouns in both subject and object positions but with a constraint on those in subject position. Thus, generic construal of Yorùbá bare nouns is both structurally constrained and lexically determined.

4.2.1.3 Bare noun subject of intransitive Permanent-states

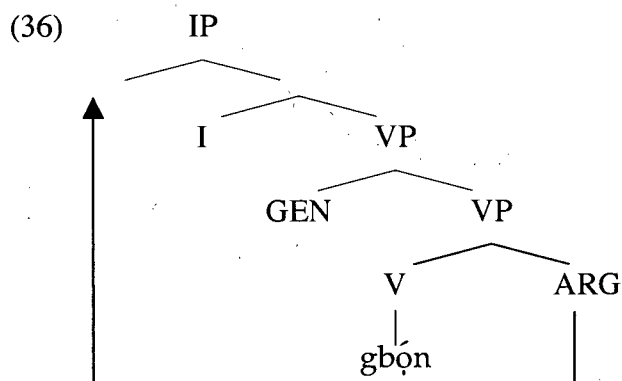
A bare noun of an intransitive permanent-state is construed as generic. In (35a), it is the case that elephants are generally considered big animals.¹⁵ Similarly, tortoises are generally considered wise, (35b).

- (35) a. **Erin** tóbi *subject of intransitive P-state*
 elephant be-big
 ‘Elephants are big.’
- b. **Ìjápá** gbón *subject of intransitive P-state*
 tortoise be-wise
 ‘Tortoises are wise.’

The question is how do we account for the genericity of a subject bare noun of an intransitive permanent-state? The account is as follows. I propose that intransitive permanent-states are unaccusative (Chomsky 1991; Lasnik 2000; MacDonald 2004). As such, the internal argument receives its generic construal in the (underlying) object position and raises to the (surface) subject position for Case. This claim is in line with the observation that objects of permanent-states can be generic. In the current analysis, the only way to explain why a subject bare noun of an intransitive permanent-state is generic is to assume that it starts out as an internal argument, as in (36).

¹⁵ In Yorùbá mythology, elephants are held in high esteem. They are described as splendid such as contained in this *oríkì* ‘praise song’.

- (i) a. Kíkú erin a dà bí ilé o
 GER-die elephant it be like house emph
 ‘When an elephant lies down dead it has the size of a house.’
- b. À-ì-kú erin a dà bí òkè o...
 Nom-Neg-die elephant it be like mountain emph
 ‘When an elephant is alive, it has the size of a mountain.’



This implies that intransitive P-state verbs are unaccusative and that their object must raise in the overt syntax to receive Case.¹⁶

4.2.2 T(emporary)-states require a grammatical GEN operator

This section accounts for the grammatically conditioned generic construal of bare nouns. I claim that this occurs with transitory verbs (temporary-states and events). I start my discussion with the second generalization about genericity of Yorùbá bare nouns:

- (37) Second generalization of genericity of Yorùbá BNs
 (grammatically conditioned genericity)
 A Yorùbá BN can be construed as generic if:
 it is an argument of a T(emporary)-state verb marked by imperfective *máa-ń*¹⁷

¹⁶Note that the corresponding permanent state predicates in Italian are not unaccusative (Cinque 1990). However, the sentences corresponding to (35) are also bad in Italian with bare nouns. For details see the cited work.

¹⁷ Barczak (2004) treats *máa-ń* as grammatical particles that can jointly mark a habitual sentence. In this analysis, I treat them as imperfective. There remains the question of whether compositionality plays any role in the fusion of the two particles for the purpose of marking the imperfective. The specific questions that one may ask are the following: (a) how is a bare noun interpreted when each of the particles occurs by itself? (b) Does [*máa-ń*] ever occur in a sentence, which is imperfective without being habitual or vice versa? To answer the first question, consider the following sentences.

- (i) a. Ajá *máa* rí mi. 'A dog will see me.'
 b. Ajá *ń* rí mi. 'A dog is seeing me/Dogs see me.'
 c. Ajá *máa* fẹràn mi. 'A dog will like me.'
 d. Ajá *ń* fẹràn mi. '*A dog is liking me/#Dogs like me.'

The examples in (i- a & c) show that when *máa* occurs by itself, a bare noun can only be interpreted as indefinite and the sentence can only reflect future tense. On the other hand, when *ń* occurs by itself, the interpretation of a bare noun depends on the kind of verb. With an event verb, a bare noun can be interpreted as

The discussion here focuses on three different contexts where bare nouns can occur with temporary-states. In §4.2.2.1, I discuss the genericity of bare noun objects of transitive T-states. In §4.2.2.2, I discuss the genericity of bare noun subjects of transitive T-states. Finally, in §4.2.2.3, I discuss the genericity of bare noun subjects of intransitive T-states.

4.2.2.1 Bare noun object of transitive T-state

Observe that Yorùbá transitive temporary-state verbs translate into English as intransitive adjectives, which are accompanied by copula verbs. The example in (38a) is an occurrence of *ajá* ‘dog’ in object position without the imperfective and it can only be interpreted as indefinite. However, with the presence of imperfective *máa-ń* in (38b), the interpretation of *ajá* ‘dog’ is generic, thus it is the case that in circumstances, dogs are always hungry.

- (38) a. Ebí pa ajá sùn *object of transitive T-state*
 hunger-HTS seizes dog sleep
 ‘A dog slept without food.’
- b. Ebí *máa-ń* pa ajá sùn
 hunger-IMP seizes dog sleep
 ‘Dogs go to sleep without food.’

4.2.2.2 Bare noun subject of transitive Temporary-state

The discussion in this section is about the occurrence of bare noun subjects of transitive T-state verbs. Again, such bare nouns continue to be non-generic without the presence of imperfective *máa-ń*. This is shown by the contrast between (39a), where imperfective is absence and (39b) where it is present. Only in the latter is the generic construal possible.

indefinite when the action is progressive or generic. But with a state verb (i- d), the indefinite reading is not obtained because the sentence cannot be interpreted as progressive. Similarly, it is not felicitous to interpret the bare noun as generic. As shown in all the examples so far, we do not have the problem of interpretation of bare nouns as generic with the combination of the two particles. This explains why I decide to treat *máa-ń* as imperfective in this dissertation.

- (39) a. **Ajá** pa ebi sùn *subject of transitive T-state*
 dog seizes hunger sleep
 'A dog slept without food.'
- b. **Ajá maa-n** pa ebi sùn
 dog IMP seizes hunger sleep
 'Dogs sleep without food.'

Similarly, when the bare noun *èkúté* 'mouse' occurs with the existential verb *wà* 'be' in (40), it only shows a temporary presence of *èkúté* 'mouse' in that particular location, and not that mice are always in the house. Again, only when imperfective *maa-n* appears as in (40b), is the genericity of this bare noun is obtained.

- (40) a. **Èkúté** wà nínú ilé *subject of transitive T-state*
 mouse be inside house
 (i) ≠ 'Mice are in the house.' (*generic)
 (ii) = 'There is a mouse in the house/There are mice in the house.'
- b. **Èkúté maa-n** wà nínú ilé
 mouse IMP be inside house
 'Mice are found in the house.'

4.2.2.3 On the absence of intransitive T-state in Yorùbá

This section shows that there are no intransitive temporary state verbs in Yorùbá. This is a lexical gap when Yorùbá is compared to other languages. In order to establish this claim I compare Yorùbá with English. The examples in (41) are all adjectival intransitive verbs. As such, they do not take object nouns.

- (41) a. John is tired.
 b. John is angry.
 c. John is happy.
 d. John is sad.

However, the Yorùbá parallel examples in (42) show that these verbs are transitive and therefore require object nouns.¹⁸ Also worthy of note is the fact that the subject can be an expletive pronoun as in (42a).

- (42). a. Ó rẹ Túndé
 it sick T.
 'Tunde is tired.'
- b. Túndé bí inú
 T. provoke stomach
 'Tunde was angry.'
- c. Túndé ní ayò
 T. have joy
 'Tunde is happy.'
- d. Túndé ba inú jẹ¹⁹
 T. spoil stomach
 'Tunde is sad.'

In conclusion, the data presented in §4.2.2.1-§4.2.2.3 establish the point that all temporary-state verbs in Yorùbá are transitive. I now turn to a presentation of the data of event verbs.

4.2.3 Events require a grammatical GEN operator

I will show here that like temporary-states, event verbs also require a grammatical GEN operator in order a for bare noun to be construed as generic:

- (43) Third generalization of genericity of Yorùbá BNs
 (grammatically conditioned genericity)
 A Yorùbá BN can be construed as generic if:
 it is an argument of an event verb marked by imperfective *máa-n*;

The following three subsections look at three different contexts where bare nouns can occur with eventive verbs. §4.2.2 discusses the genericity of bare noun objects of transitive events.

¹⁸ In most cases, the object forms part of their meaning.

4.2.3.1 Bare noun object of transitive event

(44) a. Mo $\text{j}\epsilon$ **egungun** *object of transitive event*
 1sg eat bone
 (i) \neq 'I ate bones.'
 (ii) = 'I ate a bone.'

 b. Mo **máa-n** $\text{j}\epsilon$ **egungun**
 1sg IMP eat bone
 'I eat bones.'

The same can be said of bare noun subjects of transitive events. (45a) shows *ajá* ‘dog’ as the subject of the verb *rí* ‘see’; it is construed as indefinite. On the other hand, in (45b), where imperfective *máa-ní* is introduced, it can be that each time I jump over the fence of a building a dog will see me.

- (45) a. **Ajá** rí mi *subject of transitive event*
 dog see 1sg
 (i) ≠ 'Dogs see me.'
 (ii) = 'A dog saw me.'
- b. **Ajá maa-n** rí mi
 dog IMP see 1sg
 'Dogs see me.'

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Lastly, in (46), we see *ajá* ‘dog’ and *egungun* ‘bone’ as subject and object of *rí* ‘see’ respectively. None of them has a generic construal. With the introduction of imperfective *máa-ní*, as in (46b), a generic construal of these bare nouns is obtained. Thus, in (46b) dogs in general eat any kind of bone.

- (46) a. **Ajá** **jẹ** **egungun** *subject & object of event*
 dog eat bone
 (i) ≠ 'Dogs eat bones.'
 (ii) = 'A dog ate a bone.'
- b. **Ajá** **máa-ń** **jẹ** **egungun**
 dog IMP eat bone
 'Dogs eat bones.'

4.2.3.3 Bare noun subject of intransitive event

This section briefly examines cases relating to the occurrence of bare nouns subjects of intransitive event verbs and establishes that like other transitory verbs, these verbs require the presence of imperfective *máa-n* before such bare nouns can be construed as generic. The example in (47a) contrasts with (47b) in one respect the absence of imperfective in (47a) and its presence in (47b). This contrast in turn brings about a difference in interpretation. Thus, (47a) can only mean that there is a dog that is asleep whereas (47b) indicates that it is the case that dogs sleep under certain conditions.

- (47) a. **Ajá** sùn *subject of intransitive event*
 dog sleep
 'A dog is asleep.'
- b. **Ajá** **máa-n** sùn
 dog IMP sleep
 'Dogs sleep.'

In summary, I have examined different contexts where grammatically conditioned genericity is realized. Contrasts are made between contexts that permit generic construal with contexts that do not. The conclusion that I reach is that genericity of bare nouns in all of these

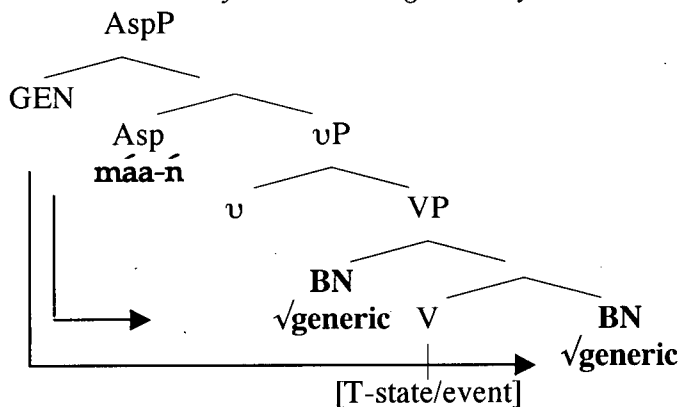
contexts is possible with T-states and events only if imperfective *máa-ń* is introduced. What remains to be resolved is how to capture this generalization. Based on this fact, I propose that this imperfective marker carries a quantificational feature that forces the presence of GEN in its local environment, as suggested by Chierchia (1995: 202).

4.2.4 Analysis of grammatically conditioned genericity

The analysis of grammatically conditioned genericity of bare nouns that I propose draws largely from the work of Kamp and Reyle (1993: 569); Chierchia (1995) and Kiss (1998). In their aspectual operator-based analysis, Kamp and Reyle treat “progressive” and “perfect” as aspectual operators (Asp OP). According to them, these operators transform the meaning of the underlying non-progressive or non-perfect verb, verb phrase or sentence into that of its progressive or perfect counterpart respectively.

Adapting their operator-based analysis, I propose that imperfective *máa-ń* is associated with a vP-external aspectual operator, as in (48). This makes available the generic construal of bare nouns in either subject or object position.

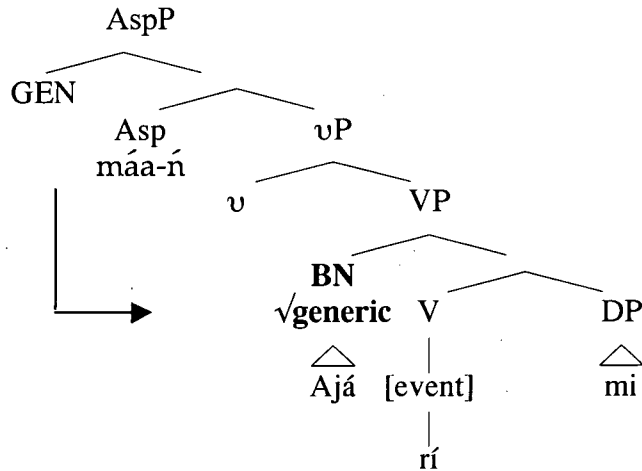
(48) *Grammatically conditioned genericity with T-state/event*



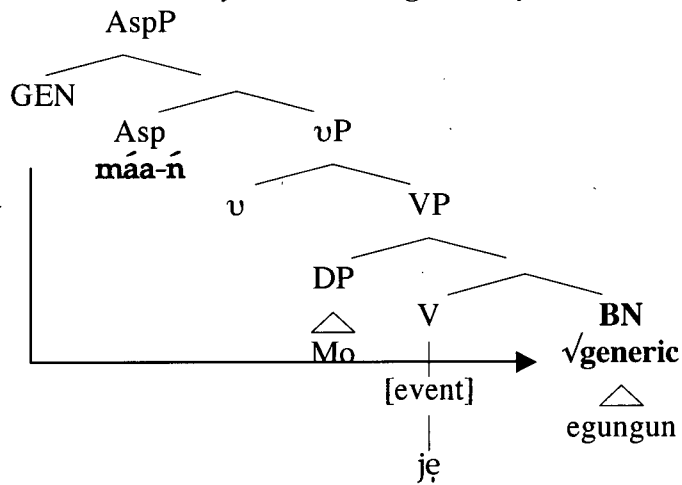
Specifically, I propose that imperfective *máa-ń* is associated with a GEN operator, which is introduced in Spec AspP. The location of the imperfective above VP is supported by the fact that in Yorùbá, the position of Aux is higher than VP (Déchaine 1993; Oyèlárán 1989; Barczak 2004). The structures in (49-51), which are representative samples of the data

presented above, illustrate how the combination of imperfective marker with GEN derives the generic construals of bare nouns in all argument positions with event verbs.

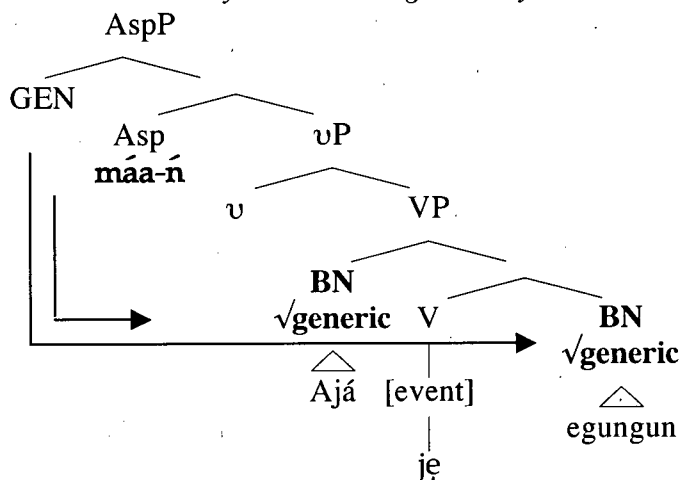
- (49) *Grammatically conditioned genericity with events: BN in S position*



- (50) *Grammatically conditioned genericity with events: BN in O position*

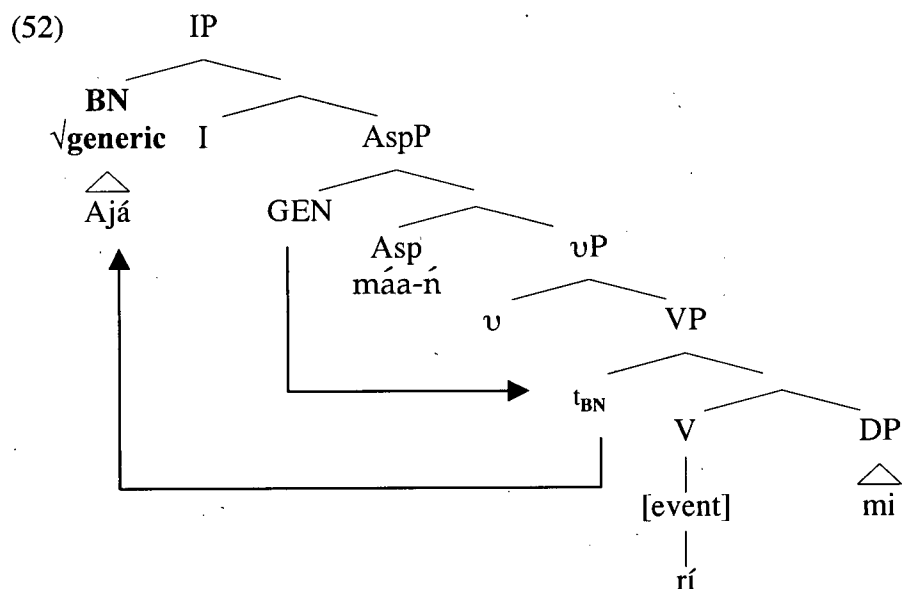


- (51) *Grammatically conditioned genericity with events: BN in S & O*



The introduction of the imperfective aspectual marker *máa-ñ* in conjunction with the GEN operator accounts for the generic construal of bare nouns with transitory verb constructions. I extend this analysis to cases involving permanent state verbs.

Finally, note that in the surface syntax, the subject NP precedes the imperfective. Once the subject bare noun receives its generic reading, it moves to Spec IP where it receives nominative case from I(nfl).



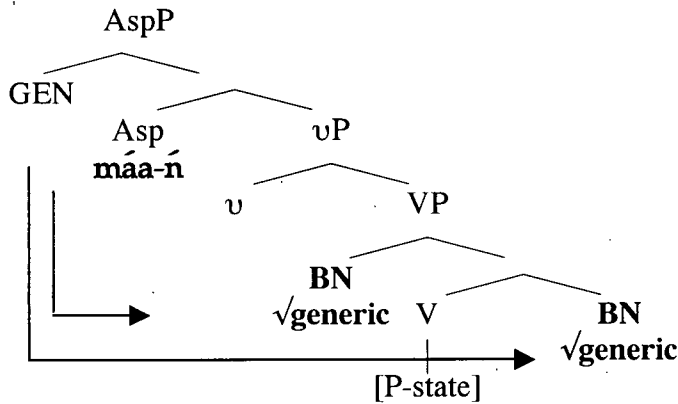
4.2.5 Extending grammatically conditioned genericity to Permanent State verbs

Recall that a bare noun cannot be construed as generic when it occurs as the subject of a transitive permanent-state verb whose object is not bare. Here, the presence of imperfective *máa-n̄* is required for a generic construal. In (53a), it is the case that generally anywhere I go, and dogs see me, they always play with me. In (54a), it is the case that for certain behaviour of Ade, generally, teachers hate him. In the (b) examples in (53)-(54) where the imperfective marker is absent, a generic construal is not possible.

- (53) a. Ajá **máa-n̄** fẹ̀ràn mi
 dog IMP like me
 'Dogs like me.'
- b. Ajá fẹ̀ràn mi
 dog like 1sg
 (i) ≠ 'Dogs like me.'
 (ii) = 'A dog likes me.'
- (54) a. Olùkọ́ **máa-n̄** kórira Adé
 teacher IMP hate A.
 'Teachers hate Ade.'
- b. Olùkọ́ kórira Adé
 teacher hate A.
 (i) ≠ 'Teachers hate Ade.'
 (ii) = 'A teacher hates Ade.'

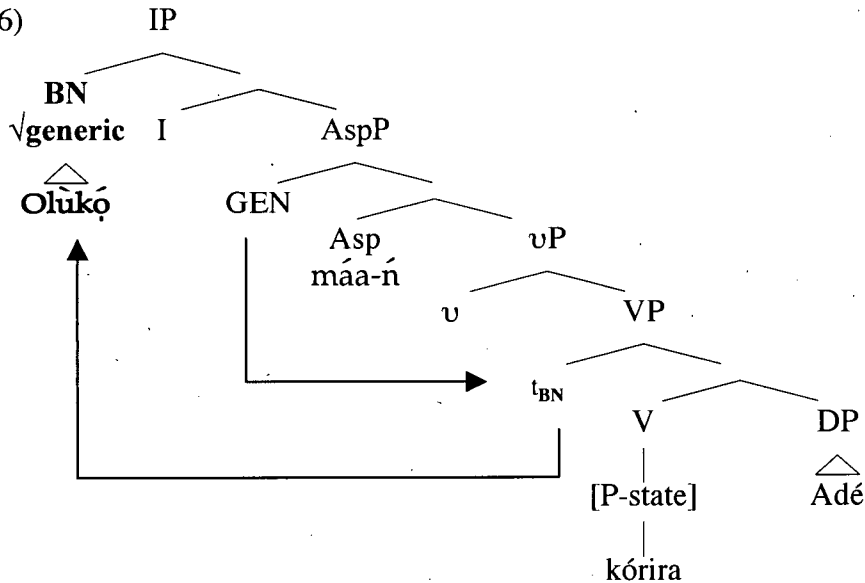
The structure in (55) represents all the cases discussed above since there is no constraint other than the presence of imperfective marker and the positioning of GEN in a place where it can scope over these bare nouns.

(55) *Grammatically conditioned genericity with P-state*



Note that in the surface syntax, the subject NP precedes imperfective. By hypothesis, this is because the subject moves to Spec IP where it receives nominative Case from I(nfl).

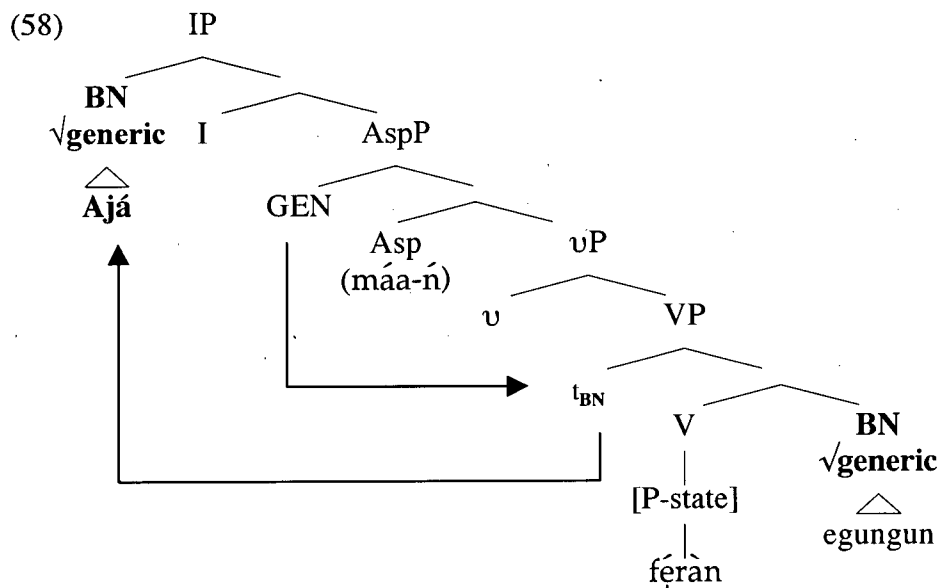
(56)



The last environment to consider is where bare nouns are construed as generic without the presence of the imperfective. Predictably, this environment optionally permits the presence of imperfective *máa-ń* to mark genericity. In (57a), the bare noun *ajá* ‘dog’ occurs as the object of the permanent-state verb *fẹràn* ‘like’ with an optional imperfective *máa-ń*. With or without the imperfective marker, the bare noun is construed as generic. Similarly in (57b) where both subject and object bare nouns of the same verb occur with the imperfective marker, which is optional, both bare nouns are construed as generic.

- (57) a. Mo (máa-ń) fẹràn ajá *object of state*
 1sg IMP like dog
 'I like dogs.'
- b. Ajá (máa-ń) fẹràn egungun *subject and object of state*
 dog IMP like bone
 'Dogs like bones.'

I illustrate this with the structure in (58). The optionality of the imperfective marker is reflected by the parentheses.



I summarize the findings of genericity of bare nouns in Yorùbá as (59).

(59) *generic construal of Yorùbá bare nouns.*

	PERMANENT STATE VERBS			TEMPORARY-STATE & EVENT VERBS		
	S & O	O	S	S	O	S & O
Bare noun	√	√	X	X	X	X
Imperfective: máa-ń	(√)	(√)	√	√	√	√

In conclusion, I have provided a unified analysis of generic construal of bare nouns claiming that any bare noun can be construed as generic if grammatically conditioned. There

remains the question of whether the account of Yorùbá genericity can be applied to other languages.

4.2.6 Contrast between English and Yorùbá genericity: evidence for default aspect

Extending the analysis of Yorùbá bare nouns to English, I propose that imperfective *máa-n* always introduces a GEN operator. While Yorùbá has an overt imperfective, English has a covert imperfective.

First, observe that English bare nouns (i.e. nouns without overt determiners) can be construed as generic with permanent-state verbs, (60a). The same interpretive effect holds of Yorùbá, (60b).²⁰

- (60) a. **Dogs like bones** *P-state*
 GENx GENy [dog(x), bone(y), like(x,y)]
- b. **Ajá fẹ̀ràn egungun** *P-state*
 dog like bone
 'Dogs like bones.'

However, with events, Yorùbá contrasts with English in how bare nouns are construed. While English bare nouns can be construed as generic, Yorùbá bare nouns cannot be.

- (61) a. **Dogs eat bones** *Event*
 GENx GENy [dog(x), bone(y), like(x,y)]
- b. **Ajá jẹ egungun** *Event*
 dog eat bone
 (i) ≠ 'Dogs eat bones.'
 (ii) = 'A dog ate a bone.'

Generic construal of a bare plural noun (subject and object) is possible with both permanent-state and event verbs in English. In Yorùbá, only permanent-state verbs permit generic bare nouns.

²⁰ Further, in English, when the object of an event verb is not a bare noun, genericity still holds:

(i) Dogs like me.

(62) *Contrast between Yorùbá and English generic construals*

	Yorùbá	English
Event/T-state & GEN	X	✓
P-State & GEN	✓	✓

The generalization that emerges when English is compared to Yorùbá is the following: in English generic construal is available with events/temporary whereas in Yorùbá, it is not. The question that arises is why should this be so.

First, recall that Yorùbá obtains generic readings with event verbs via grammatically conditioned genericity.

- (63) Ajá mǎa-ń jẹ egungun *generic*
 dog IMP eat bone

In the corresponding English example in (64), a generic reading is possible without any overt marking of imperfectivity.

- (64) Dogs eat bones *generic*
 GENx GENy [dog(x), bone(y), like(x,y)]

I would like to suggest that the imperfective is the source of genericity with event verbs in both languages. Note however, that in the English examples there is no overt imperfective marker present. The question that arises is how then do we harmonize the facts of Yorùbá (which has an overt imperfective) and the facts of English (where there is no overt imperfective).

Observe that in Yorùbá, the default aspect/tense value is the perfective/past, (65). In English, the default aspect/tense value is the imperfective/present, (66).

- (65) Jímò jẹ iṣu'
 a. Jimo ate yam PAST
 b. Jimo has eaten yam (Present) PERFECTIVE
 c. *Jimo is eating yam *PROG
 d. *Jimo eats yams *IMP

- (66) Jimmy eats yam
 a. habitual and imperfective
 b. historical present²¹

²¹ This is in the context of story telling when a series of successive events is encoded.

The generalization that emerges is the following. The unmarked verb form in English is the Imperfective whereas the unmarked verb form in Yorùbá is the Perfective. Assuming that the generic construal is closely linked to imperfective, this means that the generic construal is conditioned by the imperfective in both Yorùbá and English. The imperfective in Yorùbá is overtly realized through the use of *máa-ní*, whereas in English the imperfective is covert.

- | | | | |
|------|----|----------------------------------|---------------------------|
| (67) | a. | Jímò [IMP <i>máa-ní</i>] jẹ ịsù | <i>Yorùbá genericity</i> |
| | b. | John [IMP Ø] eats yam | <i>English genericity</i> |

What remains for further study is whether or not this claim holds in other languages.

4.3 What conditions the indefinite construal of Yorùbá bare nouns

I have shown that there are two ways that a bare noun can be construed as generic, via lexically conditioned genericity or via grammatically conditioned genericity. In this section, I account for the indefinite construals of these bare nouns.

4.3.1 Defining indefiniteness

My interpretation of Yorùbá bare nouns as indefinites follows Heim (1982), Enç (1991) and Matthewson (1998). According to Enç's Familiarity and Heim's Novelty Conditions:

All indefinites in a sentence must be novel, in the sense that they must introduce into the domain of discourse referents that were not previously in the discourse. All definites must be familiar, in the sense that the discourse referents they are mapped onto must have been previously introduced into the discourse. In other words, indefinites cannot have antecedents in the discourse, whereas, definites must. (Enç 1991:7)

We can infer from Enç's idea that a bare noun is indefinite if it is novel at the current stage of the conversation (cf. Heim's 1982, 1988, 2002 *Novelty Condition*). In this case, a bare noun is considered indefinite if it refers to a new discourse referent since it has not been previously

mentioned. The notion of novel is illustrated in (68). In particular, it will be wrong to have (68b) at the beginning of a conversation.

(68) *Novel context*

- a. I met [*a* man] today.
- b. *I met [*the* man] today. (Matthewson 1998: 32)

Replicating this in Yorùbá, we see that the bare noun *obìnrin* 'woman' occurs in both indefinite and definite contexts:

- (69) a. Ní ojú àlá mi mo rí **obìnrin**.
 In face dream 1sg 1sg saw woman
 'In my dream, I saw a woman.'
- b. **Obìnrin** tí mo rí jẹ ìyá à mi
 woman C 1sg saw COP mother GEN 1sg
 'The woman that I saw was my mother.'

4.3.2 Generic and indefinite construals are in complementary distribution

There are two generalizations that hold for the interpretation of bare nouns as indefinite or generic in Yorùbá:

- (70) a. Whenever indefinite is possible, generic is illicit
 b. Whenever indefinite is illicit, generic is required

I already gave examples that illustrate the contexts in which the generic construal of bare nouns is possible. What follows is the data that show contexts where indefinite construal of bare nouns is obtained. The examples in (71) show that when a bare noun occurs either as the subject of a transitive event verb (71a), or as the subject of an intransitive event verb (71b), it can be construed as indefinite.

- (71) a. **Ajá** rí mi *subject of transitive event*
 dog see me
 = (i) 'A dog saw me.'
 ≠ (ii) 'Dogs see me.'

- b. **Ajá** sùn *subject of intransitive event*
 dog sleep
 = (i) 'A dog is asleep.'
 ≠ (ii) 'Dogs are asleep.'

Similarly, a bare noun in the object position of a transitive event verb (72a) is also obligatorily construed as indefinite. Further, (72b) shows that when bare nouns occur as both the subject and the object of a transitive verb, they are also obligatorily construed as indefinite.

- (72) a. Mo rí **ajá** *object of transitive event*
 1sg see dog
 = (i) 'I saw a dog.'
 ≠ (ii) 'I see dogs.'
- b. **Ajá** rí **egungun** *subject & object of transitive event*
 dog see bone
 = (i) 'A dog saw a bone.'
 ≠ (ii) 'Dogs see bones.'

On the other hand, the examples in (73) and (74) illustrate the occurrence of bare nouns with state verbs. First, when a bare noun occurs in the subject position of a transitive permanent-state (73a), or the subject of an intransitive temporary-state (73b), it can be construed as indefinite.

- (73) a. **Ajá** fẹ̀ràn mi *Subject of transitive P-state*
 dog like 1sg
 = (i) 'A dog likes me.'
 ≠ (ii) 'Dogs like me.'
- b. **Erin** ín bínú *Subject of intransitive T-state*
 elephant HTS be-angry
 = (i) 'An elephant is angry.'
 ≠ (ii) 'Elephants are (always) angry.'

By contrast, in (74a) where a bare noun occurs in the object position of a transitive permanent-state an indefinite construal is not possible.²² And when both subject and object are bare nouns, an indefinite is not possible.

- (74) a. Mo fẹràn ajá *Object of transitive P-state*
 1sg like dog
 ≠ (i) 'I like a dog.'
 = (ii) 'I like dogs.'
- b. Ajá fẹràn egungun *Subject & object of transitive P-state*
 dog like bone
 ≠ (i) 'A dog likes a bone.'
 = (ii) 'Dogs like bones.'

Note that the examples in (74), which do not have indefinite construal are cases where bare nouns are obligatorily construed as generic. Thus, generic and indefinite construals are in complementary distribution.

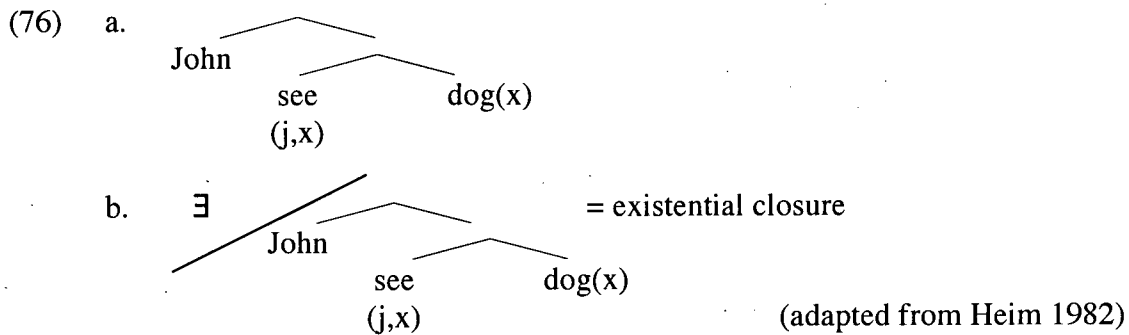
4.3.3 Elsewhere case: indefinite bare nouns are bound by existential operator

I argue that the construal of bare nouns as indefinite is a last resort i.e. whenever the generic construal is not available then the indefinite construal is obtained as a last resort. In this case, such bare nouns are treated as existentials. The theory of existentiality that I adopt dates back to Heim (1982) and subsequent works. This theory claims that an indefinite noun may be existentially bound. Thus in (75), 'a dog' is considered indefinite in the semantic realm.

- (75) a. John sees a dog
 b. $\exists x \text{ dog}(x) \wedge \text{see}(J, x)$

Heim's idea is that a sentence such as shown in (76a) is interpretable only if the indefinite noun is existentially bound (76b). This is what is referred to as existential closure.

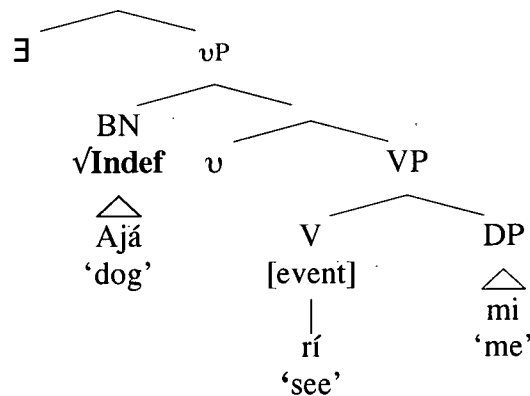
²² See chapter 5 for the account of how indefinite construal of (74) can be obtained. There I argue that an object bare noun of a state verb has to be marked for specificity.



With this background, I propose that in the absence of the abstract lexical GEN operator, a default existential operator (\exists) is introduced. I claim that the indefiniteness of bare nouns in Yorùbá induces the presence of an existential operator (\exists). Bare nouns in Yorùbá can therefore be analyzed as containing (free) variables, assuming that the operator binding bare nouns (variables) saturates the expression (cf. Heim 1982, 1988; Borer 2004: 8).

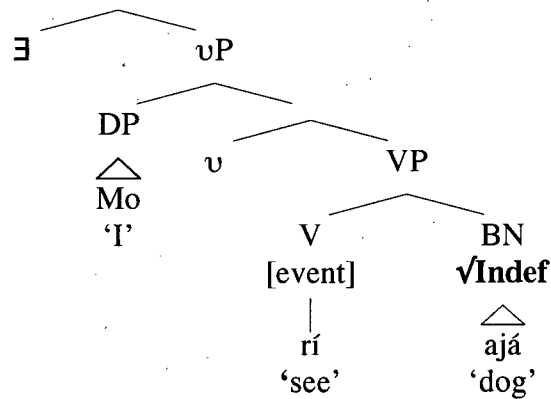
Linking this proposal with the earlier proposal for genericity predicts that \exists will be in complementary distribution with the generic construal. This in fact is the case. In (77), where the bare noun *ajá* 'dog' occurs as the subject of *rí* 'see', an event verb, the generic construal is not available.

(77) *Default existential with event verbs: BN in S position*



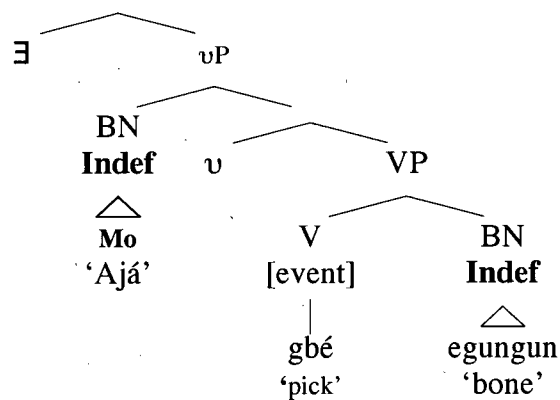
The case of an object bare noun with a event verb is shown in (78). A generic construal is ruled out because the lexical GEN is not compatible with temporary-state and event verbs; the existential operator is introduced as the last resort. Consequently, the object BN noun is interpreted as indefinite.

(78) *Default existential with event verbs: BN in O position*

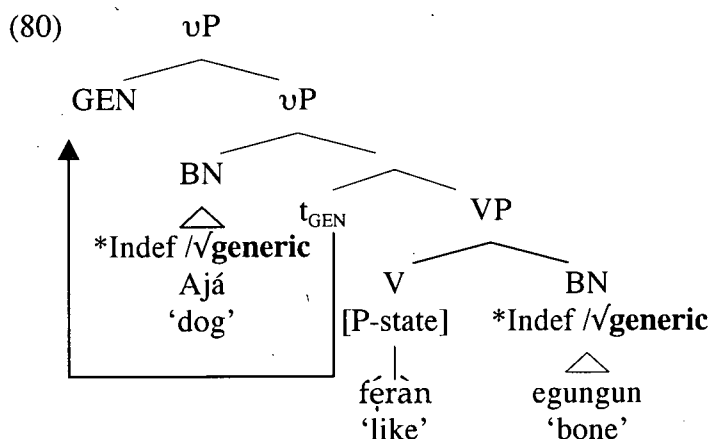


The last case illustrated in (79) involves the occurrence of bare nouns as both the subject and the object of event verbs. They continue to be construed as indefinite because of the same reason: event verbs are not compatible with the lexical GEN operator.

(79) *Default existential with event verbs: BN in S & O position*



On the other hand, whenever a generic construal is required, an indefinite construal is not available. This fact is illustrated in (80), where an indefinite reading is unavailable for the bare nouns since the lexically conditioned generic operator is present. In particular, the introduction of an existential operator is not an option since lexical GEN operator is obligatory.



The summary of these findings is given in (81). In particular, note the complementarity between indefinite and generic construals of bare nouns.

(81) *complementarity of indefinite and generic construal of Yorùbá bare nouns*

	PERMANENT STATE VERBS			TEMPORARY STATE & EVENT VERBS		
	S & O	O	S	S	O	S & O
Indef Bare noun	√	√	√	√	X	X
GEN Bare noun	X	X	X	X	√	√

4.4 What conditions the definite construal of Yorùbá bare nouns

This section is concerned with identifying the factors that determine whether bare nouns can be construed as definite. In §4.4.1, I define the term “definiteness”. §4.4.2 discusses contexts where a definite construal is not possible. In §4.4.3, I show that a definite construal of bare nouns arises from Discourse linking.

4.4.1 Defining Definiteness

In fashioning out a definition of “definiteness”, I combine Heim’s (1982, 1988) and Matthewson’s (1998) definitions. The issue of a definite noun being familiar is expressed in

the *Familiarity Condition*. According to Heim and Matthewson, a noun is definite if it is familiar at the current stage of the conversation. In order to obtain a definite reading the discourse referent that the noun is mapped onto must have been introduced earlier into the discourse. The examples in (82) are used to illustrate this concept.²³

- (82) a. I bought [a car] yesterday. Context = \emptyset
 b. [The car] is a Toyota brand. Context = 82a

'Car' in (82a) is unfamiliar since the hearer does not know about it prior to the time it was first mentioned. If (82b) follows (82a), then it means the hearer knows about the car already, giving rise to a definite construal. So the difference in the construal of 'car' as definite or indefinite hinges on the principle of familiarity.

Further, there is an additional term that links familiarity and discourse together, namely the notion of *common ground* (Stalnaker 1974, Strawson 1952 and Matthewson 1998). A definite noun is familiar to the common ground of the discourse, which usually holds between the speaker and the hearer.²⁴

4.4.2 Definite construal is unavailable in out-of-the-blue contexts

With the right verb, a Yorùbá bare noun can be construed as indefinite in out-of-the-blue contexts. However, in out-of-the-blue contexts, no bare noun can be construed as definite.

- (83) a. Mo rí ajá
 1sg see dog
 = (i) 'I saw a dog.'
 ≠ (ii) 'I saw the dog.'
- b. Ajá rí mi
 dog see 1sg
 = (i) A dog saw me.'
 ≠ (ii) 'The dog saw me.'

²³ See Matthewson (1998: 32) for exceptions to the claim that definite descriptions must always be familiar to the common ground of the discourse.

This much establishes the desirability of discourse context for a definite construal of Yorùbá bare nouns.

4.4.3 Definite construal arises from Discourse linking

In appropriate discourse contexts, any bare noun can be construed as definite. The examples in (84)-(86) reflect definite bare nouns occurring with event verbs. Each of the boldfaced bare nouns is linked to a discourse context. The mention of *ajá* 'dog' when in subject position (84c), or in object position (85c), shows that it is a familiar referent having being mentioned in the discourse contexts, (84a) and (85a) respectively. As such, it is construed as definite. However, in out of the blue contexts, it will be infelicitous to say either of (84c) or (85c).

- (84) BN V O (BN in S position)
- a. Felicitous Context: My wife asked if the security guard saw me as I was jumping over the fence to pluck some mangoes in Kunle's orchard to which I answered no. She then asked about his dog and I replied with (84c).
- b. Infelicitous Context: I walked into my house and said (84c) to my wife.
- c. Ajá rí mi
dog see 1sg
'The dog saw me.'
- (85) S V BN (BN in O position)
- a. Felicitous Context: My wife asked if I saw my friend at the park yesterday to which I answered no. She then asked about my friend's dog and I replied with (85c).
- b. Infelicitous Context: I walked into my house and said (85c) to my wife.
- c. Mo rí ajá
1sg see dog
'I saw the dog.'

²⁴ For more on definitions of definiteness see Enç (1991); Borer (2004) and the references therein.

Similarly, *ajá* 'dog' and *egungun* 'bone' in (86c) are properly linked to the discourse context in (86a). This is why they are both interpreted as definite. On the other hand saying (86c) in out-of-the-blue context is infelicitous.

- (86) BN V BN (BN in S and O position)
- a. Felicitous Context: My brother's dog was not with him when he was eating, so he dropped a piece of bone at one corner of the room for the dog and went to the kitchen to wash his hands. By the time he came back, the bone had disappeared. Even though he did not see the dog, he said (86c) to his friend.
- b. Infelicitous Context: I walk into my house and say (86c) to my friend:
- c. **Ajá je egungun**
 dog eat bone
 'The dog ate the bone.'

The next set of examples in (87)-(88) shows bare nouns occurring with permanent state verbs. Again, the BN in the (c) examples can be construed as definite in an appropriate context, as in the (a) examples. But in out-of-the-blue contexts, a definite construal of these bare nouns is not felicitous.

- (87) BN V O (BN in S position)
- a. Felicitous Context: My wife wants to know why Taye always gives Tunde's dog. In reply I say (87c).
- b. Infelicitous Context: I just entered the room and said (87c) to my brother.
- c. **Ajá fẹràn Táyé**
 dog like T.
 'The dog likes Taye.'
- (88) S V BN (BN in O position)
- a. Felicitous Context: Taye has a dog and a cat. Each time he feeds them he spends more time with the dog than the cat so his friend wants to know why and the father says (26c).
- b. Infelicitous Context: I just walked in to my wife and said (88c).
- c. **Táyé fẹràn ajá**
 T. like dog
 'Taye likes the dog.'

- (89) BN V BN (BN in S and O position)
- a. Felicitous Context: My dog has just finished eating the bones that I served it. It stretched its legs, wagged its tail and rubbed its body against mine. I said (89c) to my friend who was watching with interest:
- b. Infelicitous Context: Without any bone around, I said (89c) to my friend who was playing with my dog.
- c. **Ajá** gbádùn **egungun**
 dog enjoy bone
 'The dog enjoyed the bones.'

The generalization that emerges for the definite construal of a bare noun is straightforward: Yorùbá bare nouns can be interpreted as definite if they are discourse-linked. On the other hand, in an out-of-the-blue context, no bare noun is construed as definite in Yorùbá. These findings are summarized as (90).

(90) *Definite construal of Yorùbá bare nouns*

	TEMPORARY STATE & EVENT VERBS			PERMANENT STATE VERBS		
	S & O	Obj	S	S	Obj	S & O
Out-of-the-blue	X	X	X	X	X	X
Discourse-linked	✓	✓	✓	✓	✓	✓

Finally, the table in (91) brings to light the three construals of bare nouns discussed in the preceding sections.

(91) *GENERIC, INDEFINITE AND DEFINITE construals of Yorùbá bare nouns*

	PERMANENT STATE VERBS			TEMPORARY STATE & EVENT VERBS		
	S&O	O	S	S&O	O	S
GENERIC	✓	✓	x	x	x	x
INDEFINITE	x	x	✓	✓	✓	✓
DEFINITE	✓	✓	✓	✓	✓	✓

In what follows, I present some consequences of my analysis.

4.5 Consequences of the analysis

Yorùbá bare nouns can be construed in one of three ways: generic, indefinite or definite. What remains to be addressed are the consequences of my analysis. In §4.5.1, I discuss the structural ambiguity of bare nouns, while §4.5.2 looks at how the BN analysis plays out in Yorùbá genitive constructions.

4.5.1 Bare nouns are structurally ambiguous

Observe that in some languages whose bare nouns have been analyzed, the interpretation of bare nouns is structurally constrained (Longobardi 1994, Déchaine & Manfredi 1998). This section looks at the internal structure of Yorùbá bare nouns. Based on the facts established in the preceding sections, I claim that there are two structural representations for all bare nouns in the language. On the one hand are bare nouns that do not require contexts for their interpretation. These are the bare nouns that are interpreted as generic or existential. On the other hand are the bare nouns whose interpretation is contextually determined. These are the bare nouns that are interpreted as definite. In principle, there are two possible syntactic structures for bare nouns; they are either analyzed as NPs or as DPs (with a null D). This raises the question of which of the two structures we should adopt for Yorùbá. There are three hypotheses:

- (92) a. H 1. Bare nouns are always “bare NPs”
 b. H 2. Bare nouns are always “DPs”
 c. H 3. Bare nouns are structurally ambiguous between NP and DP.

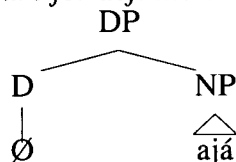
I argue in the following section that Yorùbá supports the third hypothesis.

4.5.1.1 Bare nouns can be NP or DP

I propose that Yorùbá bare nouns that are construed as definite have a (null) discourse-linked determiner, in which case they may have the structure of a DP, as in (93). On this view, not

all bare nouns are bare in structure at the abstract level (cf. Cheng & Sybesma's 1999: 518 discussion of Chinese bare nouns).

(93) *Structure for definite construal of bare N*



On the other hand, I propose that both indefinite and generic bare nouns, which have been shown to be in complementary distribution, have an NP structure (94).²⁵

(94) *Structure for indefinite/generic construal of bare N*

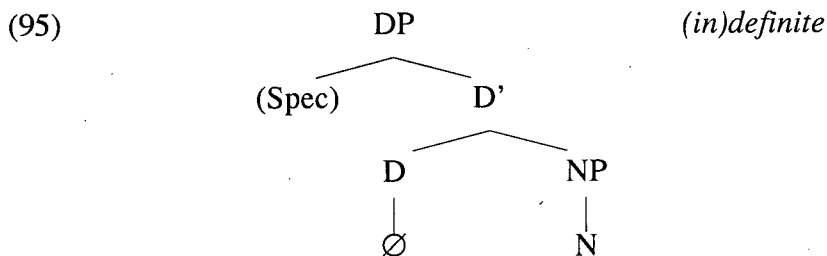


There seems to be no motivation for claiming that indefinite bare nouns have a different structure (DP) from generic bare nouns (NP) in the current analysis. As I have shown generic and existential construals of bare nouns in Yorùbá are in complementary distribution. As such, they should have the same syntactic structure.

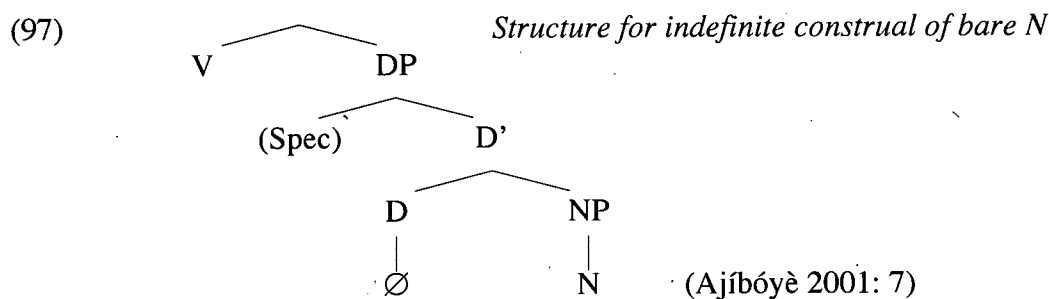
4.5.1.2 Critique of previous analysis (Ajíbóyè 2001)

Ajíbóyè (2001) claims that Yorùbá bare nouns with (in)definite construals are DPs, (95); whereas bare Ns with generic construals are NPs, (94) (cf. Déchaine & Manfredi 1998). One major difference between this previous proposal and the current proposal Ajíbóyè (2001) is the issue of government.

²⁵ This is contrary to Müller (2003: 72) where it is claimed that 'genericity may be expressed by the Determiner Phrase (DP)'.

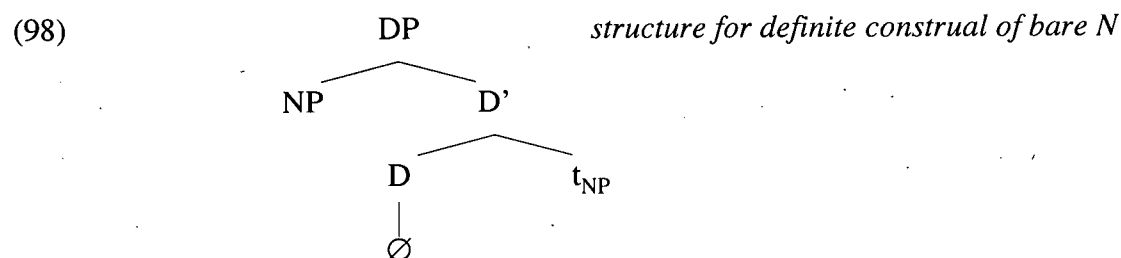


Ajíbóyè (2001) further distinguishes definite and indefinite DPs, following Longobardi (1994), who claimed that null D is indefinite (i.e. existential) but only if governed. In that analysis, null D was possible only if DP was governed by the verb.



So, for the structure of indefinite bare nouns in object position, the DP is base generated with the NP occurring as the complement of the null D.

On the other hand, a subject DP is said to be ungoverned, so subject null D is (correctly) predicted to not be indefinite in Yorùbá. On what accounts for the definite construal of bare noun subjects, following Longobardi (1994), Ajíbóyè (2001) proposed that bare Ns are interpreted as definite if NP moves to Spec DP (98). One thing to note is that this movement is not detectable, as D is always null.



The table in (99) below summarizes the findings in (Ajíbóyè 2001).

(99) *summary of bare noun construals in Yorùbá (Ajíbóyè 2001)*

<i>construal of bare noun</i>	Subject	Object	<i>Structure</i>
Indefinite	*	✓	DP with governed null D
Definite	✓	✓	DP with movement of NP to Spec, DP
Generic	✓	✓	NP

The analysis is faced with the open question: what permits movement of NP to Spec, DP for definite bare nouns? Why should both definite and indefinite bare nouns have one structure and yet allow generic bare nouns to have a different structure?

In the present account, I have shown that both generic and indefinite bare nouns pattern the same way. In light of this I have proposed that they should have the same structure. On the other hand, since definite bare nouns are context sensitive, their interpretation is not sensitive to position. All that is required is that they be discourse-linked. Thus, there is the need to modify the proposal put forward in Ajíbóyè (2001).

4.5.2 Implication for the analysis of genitive constructions

In chapter 2, it was established that the DP inside the genitive construction has an overt D in the form of the MTS.

- (100) Ìwọ̀fún ni [ọ̀kọ ọ Tọ̀nà] *definite*
 optional FOC vehicle MTS T.
 ‘Traveling in Tona’s vehicle is optional.’

The present chapter proposed that bare nouns that are definite have the structure of a DP with a null D. Bringing these two ideas together predicts that Yorùbá genitive DPs should be construed as definite since it has a D position that is occupied by the MTS, which is sometimes null.

However, in certain context, a genitive construction may be construed as indefinite. One context is where the speaker has knowledge of the referent i.e., but it has to be marked

for specificity. This is the situation where by the speaker knows that Tona, a transporter has more than one vehicle and he only saw one of such vehicles, (101).²⁶

- (101) Mo rí [òkò ọ 'Tònà kan] *indefinite*
 1sg see vehicle MTS T. certain
 'I saw a certain vehicle of Tona's.'

The point that is being established here is that the proposal that definite bare nouns have the structure of a DP has support from genitive constructions whose D has no independent morpheme and they are also interpreted as definite.

4.6 Conclusion

I have established that a bare noun that is analyzed as an NP can be construed as generic if lexically conditioned with permanent state verbs or grammatically conditioned through the use of the imperfective *máa-n* in transitory verbs. Otherwise it is existential. On the other hand, a Yorùbá bare noun that has the structure of a DP (in an appropriate discourse context) is construed as definite. This is summarized in (102).

- (102) *Summary: Construals of bare nouns in Yorùbá*

surface form	Structure	interpretation	conditioned by:
N	[_{NP} N]	Generic (GEN)	i) lexical GEN operator (i.e. P-state verb)
			ii) grammatical GEN operator (i.e. imperfective <i>máa-n</i>) (i.e. Event/T-state verb)
N	[_{NP} N]	Indefinite (\exists)	elsewhere condition: if BN \neq GEN, then BN = \exists
N	[_{DP} D \emptyset NP]	definite (Def)	contextually conditioned

I extend this proposal to English and make the generalization that a language can either make use of the imperfective to mark genericity overtly (as in Yorùbá) or covertly (as in English). In chapter 5, I account for another dimension of the interpretation of nominal expressions, namely the conditions under which they are construed as specific or salient.

²⁶ For account of specificity, see chapter 5.

CHAPTER FIVE: SPECIFICITY AND SALIENCE IN YORÙBÁ

5 Introduction

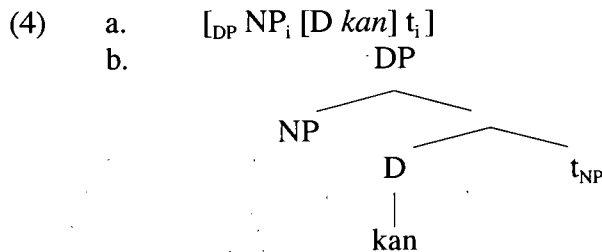
The claim of chapter 4 was that when a bare noun is interpreted as generic or indefinite, it must have the structure of an NP, (1). On the other hand, when a bare noun is interpreted as definite, it must have the structure of a DP, (2).

- (1) a. GEN/∃ = [NP]
- b. Mo kóira [ajá] *generic*
 1sg hate dog
 'I hate dogs.'
- c. Mo rí [ajá] *indefinite*
 1sg see dog
 'I saw a dog.'
- (2) a. DEF = [D_∅ NP]
- b. (in appropriate discourse)
 Mo rí [ajá] *definite*
 1sg see dog
 'I saw the dog.'

The goal of this chapter is to discuss how specificity and salience are realized in Yorùbá nominal expressions. First, when a noun takes *kan* (3a), it has the interpretation of 'a certain N', whereas if the same noun takes *náà*, (3b) it can mean 'the particular N'.

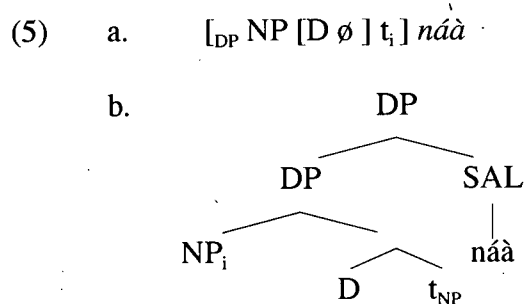
- (3) a. Mo rí ajá **kan** *specificity*
 1sg see dog certain
 'I saw a certain dog.'
- b. Mo rí aja **náà** *salience*
 1sg see dog very
 'I saw the very dog.'

I argue that while indefinite NPs are morphologically marked for specificity¹ with *kan*, definite DPs are morphologically marked for salience with *náà*. I demonstrate that a nominal expression is interpreted as specific if it refers to an entity the speaker has some knowledge about (cf. Aboh 2004: 77). In (3a), the dog must be known to the speaker whereas (3b) indicates that the dog in question must have not only been mentioned before, it must be known to both the speaker and the hearer. I claim that *kan* marks NPs as specific and as such must be a D, (4).



Recall from chapter 4, the null D marks bare nouns as definite. This is a contrast between empty D and overt D in Yorùbá: a null D marks bare nouns as definite whereas an overt D marks bare nouns as specific.

Further, I propose that *náà* as a marker of salience is a modifier and it is to be analyzed as an adjunct to DP with the structure in (5).



The chapter is organized as follows. §5.1 accounts for specificity in Yorùbá. §5.2 discusses salience in Yorùbá. The focus of §5.3 is the syntax of *kan* and *náà* while in §5.4, I give an

¹See Hellan (1981); Fodor and Sag (1982); Enç (1991); Ludlow and Neale (1991); Ioup (1997); and von Heusinger 2002).

account of number interpretation of nominal expressions when combined with *náà*. §5.5 concludes.

5.1 Specificity in Yorùbá: *kan*

This section surveys the way specificity is marked in Yorùbá and three other unrelated languages, namely English, Turkish and Gungbe. I find out that there are different ways by which specificity is marked in these languages. I show that while Yorùbá uses the element *kan*, English optionally marks specificity with adjectives, Turkish does so with accusative and genitive Case markers, and Gungbe with *dé*. First, I start by defining the term “specificity”.²

5.1.1 Defining specificity

One important distinction at the discourse level relates to the speaker’s knowledge of the referent. This is often discussed in terms of specificity, where [+specific] corresponds to a referent known to the speaker and [-specific] corresponds to a referent that is not known to the speaker (Ludlow and Neale 1991; Haspelmath 1997:108-109). Recall that the [±definite] distinction is based on the discourse status of the referent (new/familiar). These two properties interact as follows. First an unfamiliar /new discourse referent, i.e. an indefinite NP, may be known or unknown to the speaker: an indefinite NP may be [+specific] or [-specific]. In contrast, a familiar discourse referent i.e., a definite DP is necessarily known to the speaker: a definite DP must be [+specific]. Thus an indefinite NP can be non-specific or specific, while a definite DP must be specific. The table in (6) summarizes this.

² The notion of specificity as a key concept in the semantics of reference is not novel in the literature (Fodor 1971; Enç 1991; Ludlow and Neale 1991; Haspelmath 1997; Mathewson 1998; Ginnakidou 1998; von Stechow 2002, Aboh 2004 among others).

(6) *specificity versus (in)definiteness* (cf. Enç 1991)

indefinite	definite
-def, -spf	+def, +spf
-def, +spf	

The table in (6) divides nouns into three categories. One category consists of nouns that are indefinite and at the same time non-specific. Another category consists of nouns that are indefinite but they are specific. The third category consists of nouns that are definite and by implication must be specific. With this in mind, I consider how specificity is marked in Yorùbá and three other languages.

5.1.2 Marking specificity

This section investigates ways by which nouns are marked for specificity in Yorùbá, English, Turkish and Gungbe and establishes that the four languages can all overtly mark indefinite nouns for specificity.

5.1.2.1 Yorùbá

In Yorùbá, an indefinite bare noun that is new and unfamiliar by definition can only be interpreted as non-specific. In (7c), *àga* 'chair' is indefinite because Jibola is looking for just any chair to sit on; he has no particular chair in mind.

- (7) a. Background: When Jibola is tired, he sits down on whatever chair is at hand.
- b. Àárẹ̀ mú Jíbọ́lá
fatigue catch J.
Jibola is tired
- c. Ó ń wá àga tí yóò jókòò lé *indefinite non-specific*
3sg Prog look chair C Fut sit on
'He was looking for a chair to sit on.'

- d. Ó rí àwọn àga ní igun yàrá *indefinite non-specific*
 3sg see PL chair Loc corner room
 'He saw **some chairs** at the corner of his room.'
- e. Ó sì jókòó lórí òkan nínú *indefinite non-specific*
 3sg then sit on one among
 àwọn àga tí ó rí
 PL chair C 3sg see
 'He then sat on **one of the chairs** that he saw.'

In (8c), the first, *àga* 'chair' is specific because there is a particular chair Jibola looks for whenever he is tired and unless he finds that chair, he doesn't sit down. And in (8d), *àga* 'chair' has the status of a definite noun.

- (8) a. Background: When Jibola is tired, there is a particular chair in his house that he sits on.
- b. Àárẹ́ mú Jíbọ́lá
 fatigue catch J.
 Jibola is tired
- c. Ó n wá [àga kan] *indefinite specific*
 3sg Prog search chair spec
 tí ó máa n jókòó lé
 C 3sg HAB Prog sit on
 'He is looking for **a certain chair** that he sits on.'
- d. Ó rí [àga tí ó n wá] *definite specific*
 3sg see chair C 3sg Prog search
 ní igun yàrá
 Loc corner room
 'He saw **the chair** he is looking for at the corner of the room.'
- e. Ó sì jókòó lé e
 3sg then sit on 3sg
 'He then sits on it.'

Because Jibola has a particular chair in mind, the chair needs to be marked for specificity. In Yorùbá, to make such nouns specific requires the presence of *kan*³, (8c). Going by the

³ The word *kan* is ambiguous between the numeral 'one' and the specific marker 'certain'.

(i) Mo ra ilé kan
 1sg buy house one

examples in (7) where Jibola is looking for just any chair to sit on and (8) where he has a particular chair in mind, with the latter requiring the element *kan*, one can conclude that this element functions as a specificity marker. Observe that the bare N in (8d) is construed as definite specific because it is the specific chair that he is looking for that he found. This means that while indefinite bare nouns are marked for specificity, Yorùbá definite bare nouns are not overtly marked for specificity.

5.1.2.2 English

In English, an indefinite NP can be interpreted as specific or non-specific. The examples in (9) show that indefinite NPs may be specific without being morphologically marked.

- (9) a. I want a book. *specific/non-specific*
 b. I would like to buy a coat. *specific/non-specific*

In English, it is also possible for adjectives like ‘*certain*’, ‘*particular*’, and ‘*specific*’ to mark indefinite NPs as specific.⁹¹ In this case, specificity is overtly marked (Enç 1991, von Heusinger 2002).

= ‘I bought one house.’

= ‘I bought a certain house.’

The numeral ‘one’ and the specificity marker are different morphemes underlyingly. The numeral has an initial vowel /*ò*-*kan*/, which deletes when it functions as a modifier, whereas the specificity marker is consonant initial, *kan*. In (ii-a) the initial vowel of the numeral one is deleted. This is not unusual in cases where two vowels are juxtaposed across word boundary (Bámgbóṣé 1967, Oyèláràn 1971 among others). In (ii-b), *òkan* ‘one’ appears in sentence-initial position, in which case the initial vowel is retained.

- (ii) a. Mo ra ilé kan
 1sg buy house one
 ‘I bought one house.’
 b. Òkan ni mo rà.
 one FOC 1sg buy
 ‘It is one (X) that I bought.’

In (iii-a), *kan* is the specific marker when linked with (iii-b).

- (iii) a. Mo rí ilé **kan** ní Ìbàdàn
 1sg see house certain P
 ‘I saw a certain house in Ibadan.’
 b. Ilé **náà** ga
 house very tall
 ‘The very house is tall.’

⁹¹ As observed by Enç, there are certain restrictions on how adjectives of specificity work for English. For example, there is a limitation on distribution. See Enç (1991: 4) for details.

- (10) a. I want a **certain** book. *specific*
 b. I like to watch a **particular** movie. *specific*

Comparing English to Yorùbá, there is one striking similarity and difference between the two: marking specificity on indefinite NPs is not optional in Yorùbá as it is in English. On the other hand, both behave the same way with respect to marking definite nouns as specific they require no overt marking.

5.1.2.3 Turkish

According to Enç (1991) and von Heusinger (2002), Turkish marks specificity with overt Case morphology. In this language, both object and subject nouns can be so marked for specificity. First, let us look at how specificity is marked on object NPs.

An NP that lacks accusative case is interpreted as non-specific (11a & 12a) whereas an object that bears the accusative morpheme such as *-yu* and *-i*, in (11b) and (12b) respectively can only be interpreted as specific.

- (11) a. Ali bir **piyano** kiralamak istiyor *non-specific indefinite*
 Ali one piano to rent wants
 'Ali wants to rent **a piano**.'
- b. Ali bir **piyano-yu** kiralamak istiyor *specific indefinite*
 Ali one piano-Acc to rent wants
 'Ali wants to rent **a certain piano**.' (Enç 1991: 4-5)
- (12) a. (ben) **bir kitap** oku-du-m *non-specific indefinite*
 I a book read-past-1sg
 'I read **a book**.'
- b. (ben) **bir kitab-i** oku-du-m *specific indefinite*
 I a book-acc read-past-1sg
 'I read **a certain book**.' (von Heusinger 2002: 255)

The suffixes *-yu*, (11b) and *-i*, (12b) perform a dual role of marking accusative Case and specificity on the object NP they attach to. The distinction between a specific and non-specific NP is easily identified: if [+ACC], then [+specific].

As reported in von Heusinger (2002), the same contrast exists for subject NPs. Specificity is marked on the subject that bears a genitive Case. “An embedded subject with the genitive-case suffix is interpreted as specific and one without the genitive-case suffix as non-specific (p.256).” In (13b), the genitive case *-un* marks *haydut* ‘robber’ as specific.

- (13) a [köy-ü **haydut** bas-ti-in]-i *non-specific indefinite*
 village-acc robber raid-Nom-poss.3sg]-acc
 duy-du-m.
 hear-Past-1sg
 ‘I heard that **robbers** raided the village.
- b. [köy-ü **bir haydut-un** bas-ti-in]-i *specific indefinite*
 village-acc a robber-gen raid-Nom-poss.3sg]-acc
 duy-du-m.
 hear-Past-1sg
 ‘I heard that **a certain robber** raided the village. (von Heusinger 2002: 256)

The contrast between Yorùbá and Turkish is that while specificity is always marked by the same morpheme *kan* in Yorùbá, this is not so in Turkish. The marking of specificity in Turkish depends on its syntactic position: in object position, Accusative *-yu /-i* marks specificity, in subject position, Genitive *-un* marks specificity.

5.1.2.4 Gungbe

Gungbe is part of the Gbe group of languages (a sub-group of the Kwa family) spoken in parts of Benin and Togo in West Africa (Aboh 1999). As reported in Aboh (2004:76-77), when a noun occurs by itself as in (14a), it is construed as non-specific. But when a noun takes *dě* as in (14b), that noun is construed as specific.

- (14) a Kókú m̀n távò, cè bò dẽ
 K. see-perf table 1sg-Poss and say-perf
 émì ná xò **távò**
 3sg Fut buy table
 ‘Koku saw my table and then said he would buy **a table**.’

- b. Kókú m̀n t́vò c̀ b̀ d̀
 K. see-perf table 1sg-Poss and say-perf
 émì ná x̀ t́vò d́
 3sg Fut buy table spf_[-def]
 'Koku saw my table and then said he would buy **a specific table.**'
 (Aboh 2004: 77)

In Gungbe, just as indefinite DPs are overtly marked for specificity, definite DPs are also marked for specificity. In (15a), *d́* is the specific marker for *t́vò* 'table' to make it specific (i.e. an indefinite specific table). In (15b), when *t́vò* 'table' is accompanied by *ĺ* it is construed as definite and specific.

- (15) a. Kókú m̀n t́vò c̀ b̀ d̀ *specific indefinite*
 K. see-perf table 1sg-Poss and say-perf
 émì ná x̀ [t́vò d́]
 3sg Fut buy table spf_[-def]
 'Koku saw my table and then said he would buy **a specific table.**'
- b. Kókú m̀n t́vò c̀ b̀ d̀ *specific definite*
 K. see-perf table 1sg-Poss and say-perf
 émì ná x̀ [t́vò ĺ]
 3sg Fut buy table spf_[+def]
 'Koku saw my table and then said he would buy **that specific table.**'
 (Aboh 2004: 76)

Yorùbá and Gungbe show similarity in the sense that they both have dedicated specificity morphemes, which follow the nouns they so mark. They differ in one respect: while Yorùbá covertly marks definite nouns as specific, Gungbe does so with an overt morpheme.

In (16) is the summary of how indefinite NPs are marked for specificity in these languages discussed here. While both Yorùbá and Gungbe obligatorily mark nouns for specificity with dedicated words: *kan* and *d́* respectively, Turkish indirectly marks specificity through Case. English on the other hand optionally marks specificity with a range of lexical items (usually drawn from the adjective class).

To summarize, I have shown the correlation that exists between specificity and speaker's knowledge of the referent: when the speaker has no knowledge, the referent is non-specific and when he does, the referent is specific.

5.1.4 Testing for specificity II: the subset relation (Enç 1991)

The second test that I consider in my analysis of Yorùbá specificity is from Enç (1991). Enç claims that specificity involves a weak link that of being a subset of or standing in some recoverable relation to a familiar object. In Enç's analysis, if there are two sentences such that the NP in the second sentence is specific, the specific NP picks out a member of the previously introduced NP in the first sentence. On the other hand, a non-specific NP picks out a separate entity, not already under discussion. In that case, such an NP is in a disjoint relation to the first referent. I adopt this subset relation test first to Yorùbá data and extend this to English and Turkish.

5.1.4.1 Yorùbá

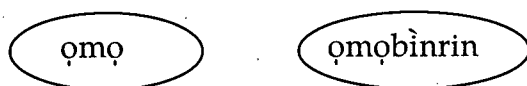
A Yorùbá indefinite non-specific NP behaves as predicted by the Enç test in the sense that it is usually in a disjoint relation with a previously mentioned NP. The only available interpretation of *àwọn ọmọbìnrin* 'girls' in (21) in relation to *àwọn ọmọ* 'children' in (20) is that of disjointness as there is no way to link the non-specific *ọmọbìnrin* 'girl' to *àwọn ọmọ* 'children'.

- (20) [Àwọn ọmọ] n ọ́rẹ́ nínú ọgbà
 PL child prog play inside garden
 'Children are playing in the garden.'

- (21) [Àwọn ọmọbìnrin] gbádùn ara-wọn *non-specific indefinite*
 PL girl enjoy themselves
 'Some girls enjoyed themselves.'

The disjoint relation is illustrated in (22).

(22) *Yorùbá Disjoint relation*



However, a subset relation can also hold between two NPs in one of two ways. First is where the second NP is marked for specificity and is a subset of a definite NP. The examples in (23) and the illustration in (24) show this type. Here *ọmọbìnrin* 'a girl' is marked for specificity by *kan*: *ọmọbìnrin kan* 'a certain girl' is interpreted as a subset of *ọmọ iléìwé* 'school children'.

(23) a. Context: Some students asked Sehun to give them some water. After they had gone, the following dialogue ensued between him and his mother.

b. Mother: Àwọn ta lo bu omi fún
 PL WH Foc-2sg take water for
 'Who are those people you served with water?'

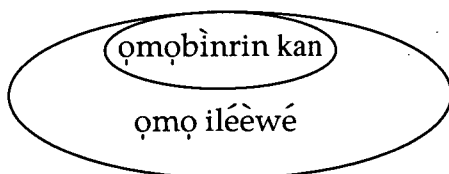
c. Sehun. àwọn ọmọ iléìwé *definite specific*
 PL child school
 'the school children'

d. Mother: Sè o mò wọn
 Q-tag 2sg know 3pl
 'Do you know them?'

e. Sehun Mo mò ọmọbìnrin kan *indefinite specific*
 1sg know girl Spf
 'I know a certain girl (among them).'

This subset relation is shown in the diagram in (24).

(24) *Yorùbá subset relation: specific indefinite*

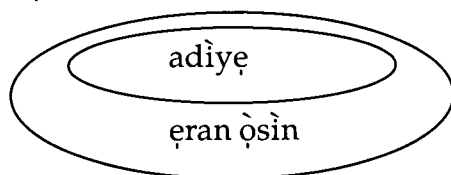


The other case is where the second NP is a definite specific and is a subset of an indefinite non-specific.

- (25) a. Olú ní ẹran ọ̀sìn *indefinite non-specific*
 O. have animal domestic
 'Olu has **some domestic animals**'
- b. Ní àkókò ọ̀nǵẹ
 in time food
 When it is time to feed them
- c. [Adiye] ni ó maa n kọ́kọ́ tọ́jú *definite specific*
 chicken Foc 3sg HAB prog first take-care
 'He feeds **the chickens** first.'

In (25c), *adiye* 'chicken' is one of the domestic animals that has been previously mentioned, hence it is definite and qualifies to be a subset of the other domestic animals. I illustrate this with the subset diagram in (26).

- (26) *Yorùbá subset relation: specific definite*



I present the same test for English in the next section and show that English parallels Yorùbá.

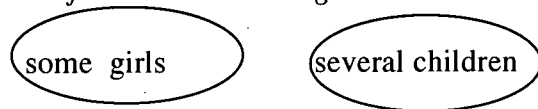
5.1.4.2 English

The examples that I present here are an adaptation of Enç's (1991) data. Consider the pair of sentences in (27) the first of which contains the NP "several children" (27a), and the second NP containing "some girls" (27b).

- (27) a. [Several children] were playing in the yard.
 b. [Some girls] enjoyed themselves.

Enç's analysis predicts that *girls* in (27b) can only be specific if it is a member of *children* in (27a). If it is non-specific, then it means *girls* is not a subset of *children*. The latter is the case i.e., the NP *girls* is in disjoint relation to the NP *children*. This reading is shown in (28).

(28) *Disjoint relation in English*



I turn to the case of an indefinite specific, which shows a subset relation.

(29) A lot of children are expected in the hall.

Sentence 1: **Many children** came in.

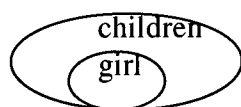
I know **a girl**.

Meaning 1 *A girl* is part of the set of children = specific indefinite

Meaning 2 *A girl* is distinct from the set of children = non-specific indefinite

The subset relation holds, if *girl* is part of the set of *children* earlier mentioned. In this case, the Meaning 1 is assumed, that of a specific indefinite. This is illustrated in the diagram in (30).

(30) *Subset relation in English*

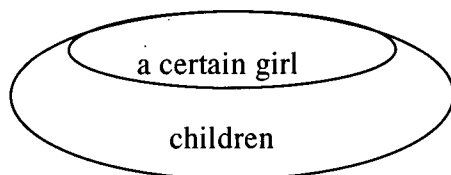


It is also possible for an NP to be overtly marked for specificity:

- (31) a. A lot of children are being expected in the hall.
 b. Many **children** came in.
 c. I know a **certain girl**.

In (31) *a certain girl* is part of the set of children, if it is a specific indefinite. I show the relevant subset relation in (32).

(32)



To conclude, in English, the subset relation holds between two NPs if one of them is (overtly) marked for specificity.

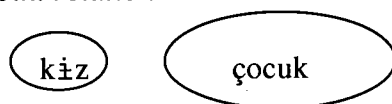
5.1.4.3 Turkish

Recall that in Turkish, the signal for specificity of an object NP is the presence of the accusative Case marker. In this language, non-specificity also implies disjointness. I illustrate this in the following examples.

- (33) a. Odam-a **birkaç çocuk** girdi *non-specific indefinite*
 my-room-Dat several child entered
 'Several children entered my room.' (Enç 1991: 6)
- b. **İki kız** tanıyordum *non-specific indefinite*
 two girl I-knew
 'I knew two girls.' (Enç 1991: 6)

İki kız 'two girls' in (33b) is expected to show a disjoint relation with *birkaç çocuk* 'several children' in (33a) since it is not marked for accusative. I show the disjoint relation between the two NPs in (34).

- (34) *Disjoint relation in Turkish*

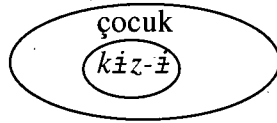


However, when an NP takes an Accusative Case, it is interpreted as specific. Thus, *iki kız-ı* 'two girls' in (35b) is a subset of *birkaç çocuk* 'several children' in (35) since it is marked for the accusative Case.

- (35) a. Odam-a **birkaç çocuk** girdi
 my-room-Dat several child entered
 'Several children entered my room.' (Enç 1991: 6)
- b. **İki kız-ı** tanıyordum
 two girl-Acc I-knew
 'I knew two girls.' (Enç 1991: 5)

The subset relation is illustrated in (36).

(36) *Subset relation in Turkish*



In conclusion, I have shown that though languages may use different mechanisms to mark specificity, they converge with respect to these two tests: speaker knowledge and the subset relation. A NP that a speaker has knowledge of is always specific. Similarly, a NP that is a subset of another NP previously mentioned in the discourse is necessarily specific.

5.2 Salience in Yorùbá: *náà*

In this section, I demonstrate that the element *náà* marks nouns as salient in one of three ways: by picking out a unique referent (37a), by identifying a referent with a previously mentioned referent, (37b) or by adding a referent to a previously established set (37c).

- (37) a. Ajá náà ni ó lè gbó mi
dog SAL FOC 3sg able bark 1sg
'It is the ONLY dog that can bark at me.' = *Uniqueness*
- b. Mo rí ajá náà
1sg see dog SAL
'I saw the VERY dog.' = *Identity*
- c. Ajá náà rí mi
dog SAL see 1sg
'The dog ALSO saw me.' = *Additive*

Some linguists have claimed that *náà* is a determiner (Bámgbóṣé 1967, 2000; Awóbùlúyì 1978) while some linguists describe it as post-nominal modifier (Déchaine 1993: 84). In what follows, I am going to show that the function and distribution of *náà* leads one to conclude that it is not a determiner but a marker of salience.

5.2.1 Defining Salience

Simply put, saliency implies being significant and striking. A noun is made salient when it is particularly important to the speaker and he wants to draw the audience's attention to its striking feature. As pointed out above, salience marking with *náà* performs three functions in Yorùbá: the “*uniqueness*” function, the “*additive*” function, and the “*identity*” function. I define each of these terms in the following subsections.

5.2.1.1 Uniqueness

There are two different factors that people consider when they talk about definiteness: uniqueness and familiarity. The Yorùbá salience marker *náà*, like definites, may also pick out a unique referent. A noun phrase that encodes uniqueness implies that the individual it refers to (say ‘the dog’) is distinct from all other referents in the context, it's a ‘one of a kind’ referent. For example, in a context where I have both a dog and a cat as pets, if I say, “I’m going to go feed the cat”, I mean the unique, ‘one of a kind’ cat. There are no other cats in the context. This meaning shows up most clearly in English when the determiner gets focused – “THE cat”. Levinson (2005: 1) claims that the referent of a noun phrase is unique or uniquely identifiable if there is only one most salient candidate for being the referent. In other words, the entity is distinguished from other members of the set as unique in some way.⁶ In this case, A is unique since it is the only referent, which can satisfy the description. This is schematized in (38).

- (38) *Uniqueness function* = only N
A satisfies a description that the other discourse referents: B, C, D don't satisfy.

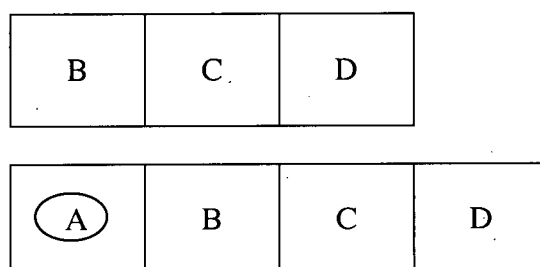
Ⓐ	B	C	D
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⁶ Another view is contained in Heim (1988) where there is some sense in which an element that denotes uniqueness relates to specificity.

5.2.1.2 Additivity

In addition to having a uniqueness function, the Yorùbá salience marker *náà* also has an additive function.⁷ This is schematized in (39), when A is added to the set of relevant discourse referents.

- (39) *Additive function* = also N
A satisfies a description that the other discourse referents B C D previously satisfied.



5.2.1.3 Identity

A third function associated with the Yorùbá salience marker *náà* is the identity function. Thus, a noun marked by *náà* is understood to be identical to a previously mentioned discourse referent. This is schematized in (40) where A' is identical to A.

- (40) *Identity function* = the very N
A' satisfies the same description as A i.e. A' is identical to A



In what follows, I illustrate how salience is marked in Yorùbá and English. I go into details by showing how Yorùbá *náà* performs the three different functions of uniqueness, additivity and identity. I also show that while Yorùbá marks salience with *náà*, English has no dedicated morphology for this function.

5.2.2 Marking salience in Yorùbá

I establish here that the presence of *náà* in Yorùbá nominal expressions marks salience rather than definiteness. I start by showing that the misconception of interpreting *náà* as a definite determiner can be attributed to the fact that *náà* is often translated as *the* in English (Manfredi 1992).⁸ Consider (41) where the (a) example has a bare noun with an indefinite construal while in the (b) example the same noun marked with *náà* has a definite construal.

- (41) a. Mo ra ilé
1sg buy house
'I bought a house.'
- b. Ilé náà ní yàrá méje
house náà have room seven
'The house has seven rooms.'

In (42b), the intuition of most native speakers of Yorùbá is that *náà* is the same as English *the*.⁹ But *náà* does not strictly speaking mark definiteness. To see this, consider the examples in (42). In (42a), the first mention of *òyà* indicates that it is a new referent—that is neither familiar to the speaker nor the hearer. In this case, its interpretation is indefinite. In (42b) the mention of *òyà* again shows that it is now a familiar referent that both to the speaker and the hearer and here the bare noun is interpreted as definite. Finally in (42c), where the noun occurs with *náà* the interpretation that *òyà* 'grass-cutter' receives is that of identity with the previously mentioned *òyà* 'grass-cutter'.

⁷ According to Cohen (2004) additives are special types of focus-sensitive particles.

⁸ Manfredi (1992) claims that Yorùbá morphemes usually glossed as determiners, and (mis)translated as English definite articles, are both syntactically and semantically more like demonstrative adverbs or deictic nouns.

- (i) a. Ìwé e Ayò (náà)
book of at that very
b. Ìwé e Ayò (yẹn)
book of that-one
c. Ìwé e Ayò (yíí)
book of this-one (Manfredi 1992: 207)

⁹ During the course of writing this chapter I had the privilege of speaking with native speakers of Yorùbá who are not linguists telling them how I got stuck interpreting nouns that take the element *náà* as in *ilé náà*. To my surprise, the first response I got from one of them is this: 'that is being specific'! This response is a confirmation that many speakers of Yorùbá have the intuition that *náà* marks nouns for definiteness/specificity. But from what I show in this section, we see that *náà* does not also quite fit into the description of specificity as it is used in the literature, rather *náà* marks nouns for "salience" in some way. In particular, I show that this notion of salience overlaps with specificity, it is not reducible to specificity.

- (42) a. Tàkúté Olú mú [òyà] *indefinite*
 trap PN hold grass-cutter
 'Olu's trap caught a grass-cutter.'
- b. Olú gbé [òyà] lólé *definite*
 PN carry grass-cutter go-house
 'Olu carried the grass-cutter home.'
- c. [Òyà náà] ni wón fi jẹyán *definite salience*
 grass-cutter SAL Foc 3pl use eat-pounded yam
 'The very grass cutter served as meat with which they ate pounded yam.'

More generally, with nominal expressions that are unambiguously definite (e.g. proper names and nominal expressions that have demonstratives), I show that *náà* may mark uniqueness, additivity or identity. Moreover, the availability of these construals is sensitive to the syntactic status of the argument as stated in (43).

- (43) The distribution of *náà*
 (i) *náà* marks uniqueness or identity with focused arguments
 (ii) *náà* marks additivity or identity with non-focused arguments

The next two subsections show how these distinctions are realized.

5.2.2.1 *Náà* marks uniqueness or identity with focused arguments

Like most Kwa languages such as Gungbe, Fongbe, Gengbe (Aboh 2004), focus constructions in Yorùbá are "utterances that involve a preconstructed domain...it can also be presupposed due to specific situational knowledge or even to general, may be culturally determined, background knowledge" (Bisang and Sonaiya 2000). They require leftward movement of the focused entity to sentence initial position and such entity is marked by the particle *ni* (Yusuf 1995).

Both nouns and proper names that are marked by *náà* can be focused irrespective of whether they are singular or plural. When this happens, the focused arguments are construed as unique 'ONLY the X' reading or as standing in an identity relation with a previously discourse referent 'the VERY X' reading. This is illustrated in (44) and (45) respectively.

(44) Singular NP in Focus position

a. *Context for uniqueness interpretation*

Ojo has a goat, a sheep and a tiger. One day, the tiger killed Ojo's guard. Ojo's son, who for the first time got to know how dangerous tigers are, ran to his father and said (44b). In response, the father said (44c).

- b. **Èkùn** ni ó pa ọḍẹ
 tiger Foc 3sg kill hunter
 'It is **the tiger** that killed the guard!'

- c. **Èkùn náà** ni ó lè pa ọḍẹ.
 tiger SAL Foc 3sg able kill guard
 'ONLY **the tiger** can kill the guard.'

(45) a. *Context for identity interpretation*

It is a known fact to Kunle's father that there is one particular tiger in the Ibadan zoo where Kunle works that is very dangerous. This morning there was a report that the tiger killed a guard. When Kunle's father asked if it is the tiger that killed the guard. Kunle replied with (45b).

- b. **Èkùn náà** ni ó pa ọḍẹ.
 tiger SAL Foc 3sg kill guard
 'It is **the VERY** tiger that killed the guard.'

I extend the searchlight to coordinated nouns. Again, we see that focused arguments marked with *náà* are construed either as unique (46), or as standing in an identity relation (47).

(46) Plural NP in Focus position

a. *Context for uniqueness interpretation*

Imagine that the following animals are paired together in a hunting expedition: (i) *ajá* 'dog' and *ológbò* 'cat' (ii) *àgùtàn* 'sheep' and *ewúré* 'goat'. At the end of the day, group (i) killed some game while group (ii) killed nothing. Determining the potentiality of which group can hunt, Speaker A rendered (46b).

- b. [**Ajá àti ológbò náà**] ni ó lè ọḍẹ.
 dog and cat SAL Foc 3sg able do-hunting
 'It is **ONLY the dog and the cat** that can hunt.' *uniqueness*

(47) a. *Context for identity interpretation*

Imagine that the following animals were paired together in a hunting expedition: (i) *ajá* 'dog' and *ológbò* 'cat' (ii) *àgùtàn* 'sheep' and *ewúré* 'goat'. At the end of the day, group (i) killed a rabbit while group (ii) killed

nothing. A week later the same contest was repeated and only group (i) still succeeded in killing some game, then speaker A rendered (48b).

- b. [Ajá àti ológbò náà] ni ó pa ẹran.
 dog and cat SAL Foc 3sg kill animal
 'It is **the VERY dog and cat** that killed a game.'

Since proper names are treated as definite DPs (Longbardi 1994), it is also predicted that they should pattern like other definite nouns when they are focused. This is what the examples in (48)-(51) show. The examples in (48) and (49) show individual proper names while in (50) and (51) show coordinated names with *náà*.

(48) Individual proper name in Focus position

a. *Context for uniqueness*

Olu has threatened to kill Ojo's dog. One day, the dog was reported dead. Ojo's son who heard of Olu's threat ran to his father and said (48b). In response, the father who also knows Olu to be a wicked person said (48c).

- b. Olú ni ó pa ajá.
 O. Foc 3sg kill dog
 'It is **Olú** that killed the dog.'

- c. Olú náà ni ó lè pa ajá.
 O. SAL Foc 3sg able kill dog
 (i) = 'It is **ONLY Olu** that could kill the dog.'
 (ii) ≠ 'It is **ALSO Olu** that could kill the dog.'

(49) a. *Context for identity*

Olu hates dogs. Last week, he killed Ojo's dog under the pretext that it ate his meat. Yesterday, another dog was killed and it was alleged that the same Olu was responsible. Speaker A who witnessed the killing said (49b).

- (b) Olú náà ni ó pa ajá.
 O. SAL Foc 3sg kill dog
 (i) = 'It is **the VERY Olu** that killed the dog.'
 (ii) ≠ 'It is **ALSO Olu** that killed the dog.'

(50) Coordinated Proper names in Focus position

a. *Context for uniqueness*

The following children are paired together for a dancing competition (i) *Kúnlé* and *Títí* (ii) *Túndé* and *Mojí*. At the end of the day, group (i) won the competition. Commenting on the result, Speaker A rendered (50b).

- b. Kúnlé àti Títí náà ni ó lè jò.
 K. and T. SAL Foc 3sg able dance
 (i) =‘It is **ONLY Kunle and Titi** that can dance.’
 (ii) ≠‘It is **ALSO Kunle and Titi** that can dance.’

(51) a. *Context for identity*

A week later the same contest was repeated and the same group (i) won the competition, then speaker A rendered (51b).

- b. Kúnlé àti Títí náà ni ó lè jò.
 K. and T. SAL Foc 3sg able dance
 (i) =‘It is **the VERY Kunle and Titi** that can dance.’
 (ii) ≠‘It is **ALSO Kunle and Titi** that can dance.’

Thus, in focus position, nominal expressions that occur with *náà* are interpreted either as unique (ONLY X) or as identical to a previously mentioned referent (the VERY X). Crucially, the additive function of *náà* (ALSO X) is not found with focused elements.

5.2.2.2 *Náà* marks additivity or identity with (non-focused) arguments

Nouns and proper names can also be marked by *náà* in non-focused positions. When this happens, the non-focused arguments can be construed as added to the set of relevant discourse referents (ALSO X) or are construed as identical to a previously mentioned referent (the VERY X).

I first consider the **additive** reading. I split the relevant data into two. In (52)-(53) are the examples that show how the occurrence of *náà* with individual nouns and personal names gives rise to an additive interpretation.

(52) Individual nouns in A-position

- (a) Out of fear that someone might want to steal his pets, my neighbour left her dog and cat in the living room and went shopping. When she returned she quickly looked for the cat and found it sleeping on the floor. Looking around, she discovered that the dog too was lying on a couch. After a sigh of relief she said (52b).
- b. Ajá náà wà níbè.
 dog SAL be Loc-there
 ‘The dog **ALSO** is there.’

(53) Individual Personal name in A-position

- a. My wife left Taye and Kehinde with our neighbour and went shopping. On her return she called on Taye from the gate and he answered. Calling Kehinde, she received no answer. She asked me if he had left our neighbour's place and I said (53b) because I just heard his voice within an earshot.
- b. Kẹ̀hìndé nǎà wà níbẹ̀!
K. SAL be Loc-there
'Kehinde ALSO is there.'

Similarly, in (54)-55) are the examples showing the co-occurrence of coordinated nouns and personal names with the same salient element giving us the additive interpretation.

(54) Coordinated nouns in A-position

- a. My domestic animals: a dog, a cat, a goat and a sheep are never found outside after 6pm. By 7pm this evening, my son came to inform me that my goat and sheep were in the backyard. To my disbelief, I followed him to the backyard. When we got there, truly the goat and the sheep were there. Looking further, he saw some other animals and said (54b).
- b. Aǵà àti ológbò nǎà wà níta
dog and cat SAL be Loc-outside
'The dog and the cat ALSO are also outside.'

(55) Coordinated personal names in A-position

- a. Bose ran into the house from the backyard and told me that some people were abusing her because she was playing with her brothers. I asked her to point at them. First, she pointed at Titi and Moji. When I asked of the other people, she said (55b).
- b. Olú àti Kúnlé nǎà wà níbẹ̀.
O. and K. SAL be Loc-there
'Olu and Kunle ALSO are there.'

I discuss the **identity** interpretation next beginning with the example of an individual noun (56) and an individual personal name (57). The identity interpretation is obtained for both of them, which implies that such nominal expressions have been previously mentioned in the discourse.

(56) Individual noun in A-position

- a. My son told me there was a dog in the backyard that stared at him as he was entering through the gate. When we got there the dog was still there and my son said (56b).
- b. Bàbá, **ajá** **náà** wà níbè.
father, dog SAL be Loc-there
'Father, **the VERY dog** is there.'

(57) Individual personal name in A-position

- a. My son told me that one man named Olu who he has just pursued for stealing his money was in the backyard staring at him. By the time my son led us there, he was still there and my son said (57b).
- b. È wò ó **Olú** **náà** wà níbè.
2pl look 3sg O. SAL be Loc-there
'Look, **the VERY Olu** is there.'

In (58)-(59) are the coordinated nouns and personal names. Like their individual counterparts, when they take the salient element *náà*, both the identity and additive interpretations can be obtained but I only illustrate the former with the example in (58).

(58) Coordinated nouns in A-position

- a. Ládi told me that a dog and a cat were in the backyard starring at him as he entered. When we got there they were still there and he said (58b).
- b. **Ajá** àti **ológbò** **náà** wà níbè.
dog and cat SAL be Loc-there
'**The VERY dog and cat** are there.'

(59) Coordinated personal names in A-position

- a. Olu and Kunle are naughty boys. Few minutes ago, Ọmọ̀le came and told me the two were in the backyard throwing pebbles at him. When we got there, they were still there and he said (59b).
- b. **Olú** àti **Kúnlé** **náà** wà níbè.
O. and K. Sal be Loc-there
'**The VERY Olu and Kunle** are there.'

The conclusion that I draw from the data presented here is that non-focus arguments marked with *náà* are construed either as additive (the ALSO X reading) or as standing in an

identity relation to a previously mentioned referent (the VERY X reading). Notably, non-focused arguments are never construed as unique (the ONLY X reading).

The table below shows the overall summary of N *náà* in both focus and non-focus constructions.

(60) *N náà in focus and non-focus domains*

N <i>náà</i>	FOCUS POSITION	NON-FOCUS POSITION
UNIQUENESS FUNCTION	√	
IDENTITY FUNCTION	√	√
ADDITIVE FUNCTION		√

5.2.3 Testing for salience

The goal of this section is to demonstrate that salient nominals can't be indefinite but they can be "free choice" (defined below). I use two diagnostics to establish this claim.

5.2.3.1 Yorùbá salient nominals can't be indefinite

Relevant to the present discussion is the fact that Yorùbá bare nouns can be either indefinite or definite. The salient marker *náà* predictably should not co-occur with indefinite NPs because they are not discourse-linked nouns. However, at the surface level, it is difficult to tell which bare nouns are definite and which ones are indefinite. The question that arises is the following: how do we know that truly, indefinite nouns cannot take *náà*? One way to test this is by finding unambiguous indefinite nouns to combine with *náà*. The readily available nouns are the negative polarity items (NPI) i.e. the "N-kí-N" derived nominals (Koch 2004). On independent grounds, Koch claims that Yorùbá negative polarity items such as *ẹnikẹni* in (61) are existentials and as such are indefinites.

- (61) Kò dájú pé ẹnikẹni wà níbi
 NEG certain that person.kí.person be in.here
 'I am not certain that **anyone** is here.'
- (Koch 2004: 3)

If negative polarity items in general, and *enikēni* in particular, are indefinites, then we expect that their co-occurrence with *nāà* should be bad. This prediction is supported by the ungrammaticality of (62b) where we see that *nāà* cannot occur with *enikēni*.

- (62) a. **Enikēni** ló lè wọbẹ *focus*
 anyone Foc-3sg able enter-there
 yàrá tí kò nílẹ̀kùn¹⁰
 room that Neg have-door
 'It is **anyone** that can enter a room without a door.'
- b. ***Enikēni** **nāà** ló lè wọbẹ
 anyone SAL Foc-3sg able enter-place
 yàrá tí kò nílẹ̀kùn
 room that Neg have-door

I extend the search to three other syntactic environments, including negation (63), conditionals (64) and Yes-no questions, (65). In all of these contexts, the co-occurrence of *nāà* with the indefinite *enikēni* 'anyone' yields ungrammaticality as shown in the (b) examples of (63-65).

- (63) a. **Enikēni** kò sí nílẹ. *negation*
 anyone neg be at-home
 'No one is at home.'
- b. ***Enikēni** **nāà** kò sí nílẹ.
 anyone SAL neg be at-home
- (64) a. Tí **enikēni** bá pè sọ fún mí. *conditional*
 if anyone Aux call tell for 1sg
 'If **anyone** calls, tell me
- b. *Tí **enikēni** **nāà** bá pè sọ fún mí.
 if anyone SAL Aux call tell for 1sg
- (65) a. Ñjẹ o rí **enikēni** *Yes-no Q*
 Q-tag 2sg see anyone
 'Do you see **anyone**?'

¹⁰ This saying is very famous among the *eégun alárinjọ* (*elẹ̀wẹ*) 'traveling dancers'. It is contained in one of the songs that are used to compare a lady who is not attached to any man to a room that has no door. As such, any man can ask for her hand in love.

- b. *Njẹ o rí ẹníkẹni náà
Q-tag 2sg see anyone SAL

The fact that salient marking is not possible with *ẹníkẹni* is consistent with Koch's claim that it is a polarity item. But as I show in the next subsection, when *ẹníkẹni* occurs in a free choice environment it can occur with *náà*.

5.2.3.2 Yorùbá salient nominals can be “free choice”

Drawing from Shank (2004: 70-72), I define free choice items as indefinite NPs whose domain has been widened.¹¹ When these items are in a focus construction, the contextually supplied domain, which restricts a negative polarity indefinite NP, can be widened. In this section, one case involving domain widening is considered for *ẹníkẹni*, and I argue that the fact that *náà* can co-occur with this item is due to the widening of its domain. By so doing, a possible scalar implicature is canceled. Specifically, whenever *náà* co-occurs with *ẹníkẹni*, its interpretation is no longer limited to “anyone”. Rather, it has been widened to include “anybody at all”.

- (66) a. Context: Ọkọya, a business mogul is throwing a party to mark his 60th birthday. Títí, who is a friend to one of his daughters to her disbelief, heard that the party is open. She went to her friend and asked (66b). Then, her friend replied with (66c).

- b. Ẹ́é ọ́ótọ́ ní pé ẹníkẹni náà ní
Q true be C anyone SAL Foc
ó lẹ wá sí patí ọjó-ìbí dádì.
3sg able come Loc party day-birth daddy
'Is it true that it is **anybody at all** that can attend daddy's birthday party?'

- c. Ọ́ótọ́ ní, ẹníkẹni náà ní ó lẹ wá
true be anyone SAL Foc 3sg able come
'It is true, **anybody at all** can attend.'

¹¹For details on definition of “free choice”, see also among others Haspelmath (1997) and Giannakidou 1998).

In this context, *enikēni* has a free choice reading. With this I conclude my discussion reiterating the claim that the distribution of *náà* is semantically conditioned: it never co-occurs with indefinite non-specifics (e.g. someone/anyone), but when its domain is widened, it can have a free choice reading that enables it to be construed as “anybody at all”.

5.2.3.3 No dedicated marking for salience in English

I have shown that Yorùbá has a dedicated word that marks salience on nouns. This is the element *náà*. This element is capable of marking nouns for uniqueness, additivity, or identity. In this section, I show that just as English does not overtly mark specificity on definite DPs, so it is with salience: English does not have dedicated words to mark nouns as salient. In this case, a definite DP is also considered as salient (Heim 1982). This fact is illustrated in (66). The claim is that *the man* can either be specific (66b) or salient (66c). Although, there is no distinct morpheme used in English to mark salience, as mentioned above, salience can be marked prosodically by means of an intonational prominence of the determiner.

- (67)
- | | | |
|----|------------------------------|-------------------|
| a. | [A man] came in. | |
| b. | [The man] sat down. | definite specific |
| c. | [THE man] was John's father. | definite salience |

As we have seen in the translation of the various Yorùbá examples, English does have lexical items that perform the functions of uniqueness, additivity and identity, namely *only*, *also* and *very*.¹²

- (68)
- | | | |
|----|-------------------------------|-------------------|
| a. | Only the man sat down. | <i>uniqueness</i> |
| b. | The man also sat down. | <i>additivity</i> |
| c. | The very man sat down. | <i>Identity</i> |

¹²From the foregoing, it is clear that English marks nouns for salience optionally. Worthy of note is that English does not have dedicated word for salience. Those words identified as capable of marking salience can also be used for other functions. For example ‘very’ can also function as a degree adjective.

(i)

a.	I like the lady
b.	I like the lady very much

In conclusion, while Yorùbá marks uniqueness, identity, and additive with *náà*, In English, different items fulfill these functions.

5.2.4 *Náà* combines with other functional elements within the DP

The salient marker *náà* can also co-occur with either the specificity marker *kan* or demonstratives. I also show that *náà*, *kan* and demonstratives *yìí/yẹn* can all co-occur with a definite DP in certain ways. First, when *kan* co-occurs with *náà* in focus construction, the definite construal of the DP is maintained and in addition such DP is marked as standing in an identity relation to a previously mentioned referent that is unique. Of particular interest is the fusion of identity and uniqueness interpretation. I present the full data set in (69)-(71).

(69) [NP SPF SAL] *in focus position*

- | | | | | | | |
|------------|------------|--|-----|-----|-----|------------------------|
| Ajá | kan | náà | ni | mo | rí | |
| dog | SPF | SAL | FOC | 1sg | see | |
| (i) | = | 'It is the VERY SAME dog that I saw.' | | | | <i>Identity/unique</i> |
| (ii) | ≠ | 'It is the dog TOO that I saw.' | | | | <i>*Additive</i> |

The next set of examples show how demonstratives combine with the salient marker. Observe that the linear order is Demonstrative-Salience.

(70) [NP Dem Sal] *in focus position*

- | | | | | | | |
|------------|------------|--|-----|-----|-----|------------------------|
| Ajá | yìí | náà | ni | mo | rí | |
| dog | DEM | SAL | FOC | 1sg | see | |
| (i) | = | 'It is THIS VERY dog that I saw.' | | | | <i>Identity/unique</i> |
| (ii) | ≠ | 'It is this dog TOO that I saw.' | | | | <i>*Additive</i> |

And when all the three elements: demonstrative, specificity and salient markers combine to mark a DP, the linear order is Demonstrative-Specificity-Salience and the DP is marked as standing in an identity relation to a previously mentioned referent that is also unique. This is shown in (71).

- (71) [NP DEM SPF SAL] *in focus position*
 [Ajá yǐi kan náà] ni mo rí
 dog Dem certain sal FOC 1sg see
 (i) = 'It is **THIS VERY SAME dog** that I saw.' *Identity/unique*
 (ii) ≠ 'It is **ALSO** this certain dog that I saw.' **Additive*

The examples in (72)-(74) illustrate the occurrence of these same elements in the same combination with bare nouns in non-focus position. Like the focused construction, both identity and uniqueness readings are obtained. When nouns co-occur with the salient and specificity markers (72), or with the specificity marker, the salient marker, and a demonstrative (74), such nouns are marked as standing in identical relation to a previously mentioned referent that is unique. In contrast, when a noun co-occurs with the salient marker and a demonstrative (73), such noun is marked as standing in identical relation to a previously mentioned referent and at the same time marked for additivity.

- (72) [NP SPF SAL] *in non-focus position*
 Mo rí ajá kan náà
 1sg see dog SPF SAL
 (i) = 'I saw **the VERY SAME dog**.' *Identity/unique*
 (ii) ≠ 'I saw certain dog **TOO**.' **Additive*
- (73) [NP DEM SAL] *in non-focus position*
 Mo rí ajá yǐi náà
 1sg see dog DEM SAL
 (ii) ≠ 'I saw **THIS VERY dog**.' **Unique*
 (i) = 'I saw **this dog TOO**.' *Identity/additive*
- (74) [NP DEM SPF SAL] *in non-focus position*
 Mo rí ajá yǐi kan náà
 1sg see dog DEM SPF SAL
 (i) = 'I saw **THIS VERY VERY SAME dog**.' *Identity/unique*
 (ii) ≠ 'I saw **this dog TOO**.' **Additive*

The summary of the findings is shown in (75). While focused arguments of the string: [Nouns/Proper names (Dem) (SPF) náà] are construed as unique and identical to a previously mentioned referent, when the same arguments of the same string are in non-focused position, they are construed as additive and identical to a previously mentioned referent. In all cases, whether focused or not, they are always construed as identical to a previously mentioned referent.

(75) *Interaction of náà, kan and DEM with bare nouns in focus and non-focus positions*

	Focus (A') position			Non-focus (A) position		
	unique	additive	identity	unique	additive	identity
Proper name + náà	✓	x	✓	x	✓	✓
Definite noun + náà	✓	x	✓	x	✓	✓
NP Dem + náà	✓	x	✓	x	✓	✓
NP Spf + náà	✓	x	✓	✓	x	✓
NP Dem Spf + náà	✓	x	✓	✓	x	✓

In conclusion, this section has established the following. First, in focus constructions, a nominal expression (proper name or noun) that co-occurs with the salient marker (with or without a demonstrative or the specificity marker *kan*) is always marked as standing in an identity relation to a previously mentioned referent that is unique. Second, in non-focus constructions, a nominal expression (proper name or noun) is marked as standing in an identity relation to a previously mentioned referent and as additive if such a noun co-occurs with the salient marker *náà* (with or without a demonstrative). Third, in non-focus constructions, when a bare noun is marked for salience and specificity, such a noun is marked as standing in an identity relation to a previously mentioned referent that is unique. Thus, the presence of the specificity marker *kan* precludes the additive reading, and forces the identity reading. The reason as to why this comes to be so is subject to further research. I now turn to the syntax of these two elements in §5.3.

5.3 The syntax of *kan* and *náà*

Having shown the distribution and the semantics of *kan* and *náà*, I now give a syntactic account. I have shown that indefinite NPs are morphologically marked for specificity with *kan*. I analyze *kan* as D and propose the structure in (76) where the NP starts as a complement of D and moves to Spec DP to derive the surface linear order of [NP D].

- (76) a. $[_{DP} NP_i [D \textit{kan}] t_i]$
 b.
-
- ```

graph TD
 DP --> NP
 DP --> D
 D --> kan
 D --> tNP[t_NP]

```

On the other hand, I propose that *náà* as a marker of salience modifies D(em)Ps and is to be analyzed as an adjunct to D(em)P with the structure in (77).

- (77) a.  $[_{D(em)P} NP [D(EM) \textit{yíí}] t_i] \textit{náà}$   
 b.
- 
- ```

graph TD
  DEMP[D(EM)P] --> DemP[D(em)P]
  DEMP --> SAL
  DemP --> NP_i[NP_i]
  DemP --> DEM
  DEM --> yií[yíí]
  DEM --> tNP[t_NP]
  SAL --> náà[náà]
  
```

As the structure in (77) shows, it is possible for the salient marker *náà* to mark the entire DP as salient or the functional element within the DP in this case, *yíí* 'this', since it is in c-command relation to the entire DP.¹³ I assume the former, namely that *náà* marks the whole DP.

¹³Viewing *náà* as a modifier of functional structure has cross-linguistic support. The intuition of native speakers of English is that in the phrase [even this book], the nuclear stress (association with focus effect) is on [this] not on [book]. [Book] is anaphoric, so somehow it escapes from the scope of the focus modifier [even] as shown by the contrast between (i-b) and (i-c).

- (i) a.
-
- ```

graph TD
 DP --> D
 D --> this
 DP --> NP
 NP --> book

```
- b.
- 
- ```

graph TD
  DP1[DP] --> even
  DP1 --> DP2[DP]
  DP2 --> D
  D --> this_FOC["[this_FOC]"]
  DP2 --> NP
  NP --> book
  
```

5.4 The number interpretation of *náà*

(78) a. Mo rí ajá
1sg see dog
= 'I saw a dog.' *singular*
= 'I saw dogs.' *plural*

b. Táyé ra òro
T. buy mango
= 'Taye bought a mango.' *singular*
= 'Taye bought mangoes.' *plural*

(79) a. Mo rí ajá náà NP + náà = *singular*
1sg see dog SAL
'I saw the very **dog**.'



- b. Táyé ra òro náà NP + *náà* = *singular*
 T. buy mango SAL
 'Taye bought the very mango.'

It follows then that if a bare noun that occurs by itself is ambiguous between singular and plural interpretation but the same noun is obligatorily interpreted as singular when it takes this salient marker, it must be the case that the salient marker is inherently singular.

To test this, we can look at the behaviour of *náà* with nouns that are overtly marked as plural. If *náà* is inherently singular, such sequences will be ill-formed. If *náà* is pragmatically singular, such sequences will be well-formed.

- (80) a. Mo bá [àwọn ìjímèrè] nínú oko
 1sg meet PL red-monkey P farm
 'I met **some red monkeys** in the farm.'
- b. Mo lé [àwọn ìjímèrè] náà]]
 1sg greet PL red-monkey SAL
 'I chased **the very red monkeys**.'

(80b) indicates that the salient marker is pragmatically singular rather than inherently singular.

5.5 Conclusion

I have shown how specificity and salience readings are obtained in Yorùbá nominal expressions. I argued that an indefinite NP that is morphologically marked for specificity with *kan* has the interpretation of 'a certain N', whereas a definite DP that is morphologically marked for salience with *náà* can mean 'the VERY N', 'ONLY N' or 'ALSO N'. I also showed that though salience is not compatible with indefiniteness, in free choice cases, the salient marker *náà* could combine with indefinite NPs whose domain had been widened, yielding an 'anybody at all' reading. Syntactically, I claimed that *kan* is a deictic D whereas *náà* can modify a functional head, such as D(em) and it is analyzed as an adjunct to the DP.

CHAPTER SIX: PLURAL STRATEGIES IN YORÙBÁ

6 Introduction

The concern of this chapter is to account for how plural marking is carried out on Yorùbá nominal expressions. I have identified three strategies (cf. Ajíbóyè 2005c). First is contextually determined plurality, as in (1). The term “contextually determined plurality” is intended to capture the fact that, in the absence of a PLURAL feature, the interpretation of a nominal expression as singular or plural is contextually determined. This is the focus of §6.1.

- (1) Mojí rí [ejò] lónà oko
M. see snake on-path farm
(i) ‘Moji saw a **snake** on her way to farm.’
(ii) ‘Moji saw **snakes** on her way to farm.’

The second plural-marking strategy is semantically determined, as in (2). The term “semantically determined plurality” is intended to capture the fact that certain lexical items, by virtue of their inherent semantics are necessarily construed as plural. In Yorùbá, this is the case for group-denoting quantifiers and for numerals whose cardinality is two or greater than two. I account for this in §6.2.

- (2) a. Mo ra [ìwé púpò]
1sg buy book many
‘I bought **many books**.’
b. Mo ra ìwé méjì
1sg buy book two
‘I bought two **books**.’

The third strategy is morphologically determined plurality, as in (3). The term “morphologically determined plurality” is intended to capture the fact that certain morphemes have an exclusively plural function, i.e., they mark plurality and nothing else. In Yorùbá, there are three kinds of plural morphemes: the plural marker *àwòn* that occurs before nouns, the plural prefix *-wòn* that attaches to demonstratives, the plural copy

morpheme, that copies modifiers to indicate plurality on the NP.¹ I account for this in §6.3.

- (3) a. Mo kí àwọn ọkùnrin
 1sg greet PL man
 'I greeted men.'
- b. Mo rí [ajá wọn-yíí]
 1sg see dog PL-DEM
 'I saw these dogs.'
- c. Yorùbá kò ní [àṣà burúkú burúkú]
 Y. Neg have custom COPY bad
 'Yoruba does not have bad customs.'

I propose that plurality is associated with two syntactic positions. One is with nouns, the other with non-nouns. I also demonstrate that Yorùbá plural words are left adjoined to the nouns/non-nouns that they mark for plural.

6.1 Contextually determined plurality

The first observation is that if a noun occurs by itself or with a modifier, there is no way to know if that noun is to be interpreted as singular or plural.

- (4) a. Mojí rí [ejò] lònà oko
 M. see snake on-path farm
 (i) 'Moji saw a snake on her way to farm.'
 (ii) 'Moji saw snakes on her way to farm.'
- b. Mojí rí [ejò dúdú] lònà oko
 M. see snake black on-path farm
 (i) 'Moji saw a black snake on her way to farm.'
 (ii) 'Moji saw black snakes on her way to farm.'

¹ Strictly speaking, both semantically determined plurality and morphologically determined plurality involve the semantic feature [PLURAL]. The distinction lies in the fact that plural quantifiers introduce a [PLURAL] feature by virtue of their group denoting semantics, while plural morphemes introduce a [PLURAL] feature and nothing else.

I show that the interpretation of such nominal expressions as singular or plural in Yorùbá is partly contextually determined. I claim that this is an instance of General number.

6.1.1 The General number analysis

The idea of General number adopted here follows Rullmann and You (2003) and Rullmann (2004). On the basis of the semantic and pragmatic properties of bare nouns, they conclude that bare nouns are neither singular nor plural; i.e., they are unspecified for number (cf. Déprez 2004: 10). In order to determine whether a singular or a plural interpretation will be applicable, one has to put such bare nouns in a sentence. Rullmann and You claim that the example in (5), which has general number, has the same truth conditions as (6) which has a semantically singular object (p.2).

- (5) Zuotian wo mai le **shu**
yesterday I buy ASP book
‘Yesterday, I bought one or more books.’ (Rullmann and You 2003: 1)
- (6) Zuotian wo mai (yi) **ben** **shu**
yesterday I buy one CL book
‘Yesterday, I bought a/one book.’ (Rullmann and You 2003: 2)

The next two subsections examine count and mass nouns in Yorùbá and show that both categories behave the same way with respect to the general number property.

There are two distinctive ways by which nouns that are unspecified for number in Yorùbá can be interpreted. On the one hand, there are nouns that are not specified for number and as such they can be interpreted as singular or plural. I treat this type in §6.1.2. On the other hand, there are nouns that are not specified for number and they can only be interpreted as singular. I treat this in §6.1.3.

6.1.2 Unspecified for number resulting in ambiguity

When a count noun occurs by itself or when it takes a modifier, it can either be construed as singular or plural. In (7a) *ejò* 'snake' occurs independently and as shown in interpretation (i), it can refer to one snake. But it can also be the case that the snake is more than one, as in interpretation (ii). Similarly, in (7b) where *ejò* 'snake' takes the modifier *dúdú* 'black', it can either be construed as singular or plural.

- (7) a. Mojí rí [ejò] lónà oko
 M. see snake on-path farm
 (i) 'Moji saw a snake on her way to farm.'
 (ii) 'Moji saw snakes on her way to farm.'
- b. Mojí rí [ejò dúdú] lónà oko
 M. see snake black on-path farm
 (i) 'Moji saw a black snake on her way to farm.'
 (ii) 'Moji saw black snakes on her way to farm.'

Like count nouns, bare mass nouns can also be interpreted as singular or plural depending on context. In (8a), *mílîkì* 'milk' can be interpreted as singular or plural. It can also be interpreted as a quantity. Similarly, when it takes a modifier as in (8b) the same two interpretations of singular and plural are obtained.

- (8) a. Mo ra [mílîkì] *singular/plural*
 1sg buy milk
 = 'I bought a tin/carton of milk.'
 = 'I bought some tins/cartons of milk.'
- b. Mo ra [mílîkì gbẹ̀rẹ̀fu] *singular/plural*
 1sg buy milk powdered
 = 'I bought a tin/sachet of powdered milk.'
 = 'I bought some tins/sachets of powdered milk.'

Since Yorùbá nouns can be unspecified for number, this suggests that number marking is underdetermined in Yorùbá.

Based on the data and the discussion above I propose the structure in (9) for Yorùbá bare nouns and claim that if an NP is unmarked for plural, then the NP can be interpreted as singular or plural.

- (9) a.
$$\begin{array}{c} \text{NP} \\ \triangle \\ \text{ejò} \\ \text{'snake(s)'} \end{array}$$
- b.
$$\begin{array}{c} \text{NP} \\ \swarrow \quad \searrow \\ \text{NP} \quad \text{Mod} \\ | \quad | \\ \text{ejò} \quad \text{dúdú} \\ \text{'black snake(s)'} \end{array}$$

As a result of being unspecified for number, the interpretation of such an NP as singular or plural is contextually determined. The example in (10) shows a context where *ajá* 'dog' can be interpreted as singular.

- (10) a. Context for singular interpretation: I was walking on a path to my house at night and a dog appeared from nowhere. When I got home, I say (10b) to my wife.
- b.
$$\begin{array}{cccccc} \text{Mo} & \text{rí} & \text{ajá} & \text{lójú} & \text{ònà} & \text{ilé} \\ \text{1sg} & \text{see} & \text{dog} & \text{on} & \text{road} & \text{house} \\ \text{'I saw a dog on my way home.'} \end{array}$$

On the other hand, the example in (11) shows a context where *ajá* 'dog' can be interpreted as plural. In *Şaworoidę* movie, Adębòmí was telling a story of a hunter and his dogs to his children.²

- (11) a. Context for plural interpretation: The hunter in the story uses songs to summon his dogs in times of danger. The dogs then would run quickly to his aid.
- b.
$$\begin{array}{cccccc} \text{Ajá} & \text{a} & \text{mi} & \text{dà} & \text{o} \\ \text{dog} & \text{MTS} & \text{1sg} & \text{Q-tag} & \text{Emph} \\ \text{'Where are my dogs?'} \end{array}$$
- c.
$$\begin{array}{cc} \text{Ajá} & \text{ọde} \\ \text{dog} & \text{hunter} \\ \text{'my hunting dogs'} \end{array}$$

² *Şaworoidę* is one of the most famous Nigeria home video movies written by Professor Akínwùnmí, produced in (1999) by the *Mainframe Film Production* under its director, Túndé Kèlání.

- d. òkémọkéréwú..., òsopàkàgbòmòmì..., ògbálègàràwé

- e. Ajá ɔɖɛ
dog hunter
'my hunting dogs'

- f. E sáré e mía bò o
2pl run 2pl Prog come Emph
'You should all come immediately.'

The mention of *òkémọkéréwú*, *òsọpàkàgbòmọmì*, and *ògbálẹ̀gàràwé* in this song leaves no one in doubt that *ajá* ‘dog’ can only be interpreted as plural.

Crucially, Yorùbá differs from some other languages where the expression of plurality is inflectional. In such languages, plural marking is obligatorily expressed via a dedicated plural morpheme. Consider the English examples in (12). Adding the plural suffix 's to 'dog' differentiates between the singular interpretation (12a) and the plural interpretation (12b).

- (12) a. I saw a **dog** on my way home.' *singular*
b. I saw **dog-s** at the Vancouver city hall today.' *plural*

I conclude along the lines of Corbett (2000) that the issue of ambiguity of number interpretation of nouns as singular or plural is one of the peculiarities of languages with no overt dedicated plural marking.³ The next section addresses the other case of the unmarked nouns that are unambiguously interpreted as singular.

6.1.3 Unspecified for number with obligatory singular interpretation

The other context where bare nouns are not specified for number is when they co-occur with a demonstrative (13a) or the numeral “one” (13b). In this context, the noun is obligatorily interpreted as singular.⁴

³ Matthewson (personal communication) notes that Brazilian Portuguese has number-neutral bare nouns and has a real plural marker.

⁴ Note that the Demonstrative follows N. I assume that a demonstrative is a functional head that takes an NP as its complement. Further, I assume that Yorùbá is a Head initial language. So, in cases where the head follows

- (13) a. Mo rí [ajá yíí] N DEM
 1sg see dog DEM
 'I saw this dog.'
- b. Mo rí [ajá kan] N NUM=1
 1sg see dog one
 'I saw one dog.'

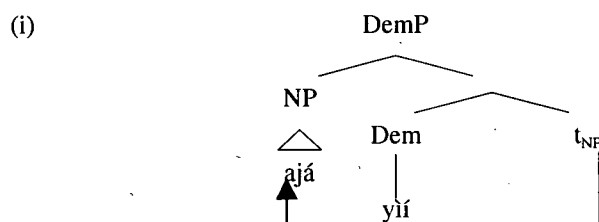
The obligatory interpretation of nouns as singular whenever they take demonstratives being reported here is a little surprising. Recall that when a noun occurs by itself, it can be interpreted as either singular or plural. One wonders while taking a demonstrative will make a noun to be obligatorily singular. In light of this, I assume that demonstratives in Yorùbá are inherently singular and therefore force nouns they occur with to have an obligatory singular interpretation. This claim is further discussed in §6.3 where demonstratives are marked for plural.

To recap, we have seen that a noun that is not specified for number can be interpreted as singular or plural if it occurs by itself or if it takes a modifier. On the other hand, if the noun occurs with an inherently singular numeral ("one") or a demonstrative, that noun is obligatorily interpreted as singular.

6.2 Semantically determined plurality

One means by which NPs are unambiguously expressed as plural in Yorùbá is when they occur with group-denoting expression that is inherently plural. The lexical items that are inherently plural in Yorùbá nominal expressions are quantifiers and numerals. This is in contrast with Chierchia's (2005:8) claim that quantifiers generally lack inherent number

the complement in the surface syntax, I account for this via movement. In this case, the NP moves to Spec Dem (cf. Kayne 1994).



feature. Rather they receive this through agreement. As I show in this section, Yorùbá quantifiers are inherently plural and this is why whenever they combine with nouns which are unspecified for number such nouns are obligatorily interpreted as plural.

- (14) a. Mo ra [ìwé púpò]
 1sg buy book many
 'I bought **many books**.'
- b. Mo ra [ìwé méjì]
 1sg buy book two
 'I bought **two books**.'

These quantifiers and numerals have an abstract [PLURAL] feature, which can be realized on nouns that they co-occur with. I call this an instance of semantically determined plurality. I propose that the plural interpretation of such nouns is accounted for through a feature percolation mechanism. The formulation of this mechanism is the subject of the next section.

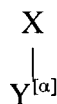
6.2.1 The feature percolation analysis

There are two mechanisms of plural marking that I consider: feature percolation and feature matching. I start by giving a general view of the feature percolation mechanism before coming to the plural feature percolation in particular. I formulate the notion of percolation in the sense of copying where the copied feature is α , as outlined in (15).

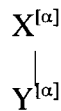
- (15) a. Node X immediately dominates node Y



- b. Y is specified for the feature α , X is unmarked for the feature α



- c. The feature α is copied on to X



I illustrate how plural feature percolation works with nominal expressions that are pluralized by *àwòn* '3pl pronoun' or a demonstrative. Observe that the plural feature can be realized on the noun (16a), the demonstrative (16b) or on both (16c).

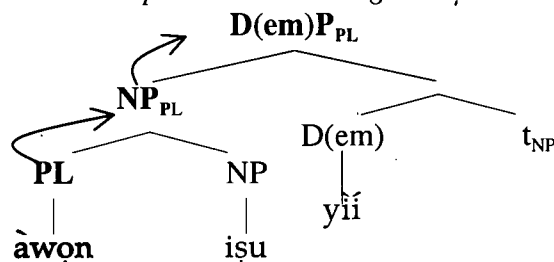
- (16) a. *àwòn* *ịsụ* *yẹn* **PL** N Dem
 PL *yam* Dem
 'those yams'
- b. *ịsụ* *wòn-* *yẹn* N **PL-** Dem
yam PL Dem
 'those yams'
- c. *àwòn* *ịsụ* *wòn-* *yẹn* **PL** N **PL-** Dem
 PL *yam* PL Dem
 'those yams'

The assumption is that plural feature percolation copies the plural feature of a node onto the node that immediately dominates it, as in (17).

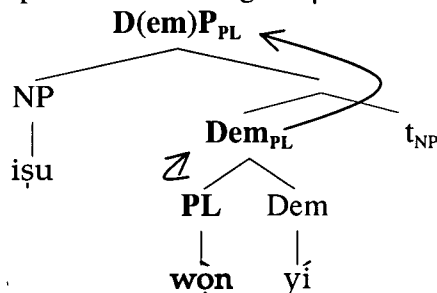
- (17) a. NP Input
 |
 $X_{[PLURAL]}$
- b. NP_[PLURAL] Output
 | Plural percolation
 $X_{[PLURAL]}$

It is possible for percolation to come from more than one node within a nominal expression. Using (16) as an illustration, plural feature can percolate through *àwòn* as in (18a), through the prefix *-wòn* as in (18b) or through both *àwòn* and *-wòn* as in (18c). In the latter case, the DP ends up receiving the plural feature from both NP and Dem.

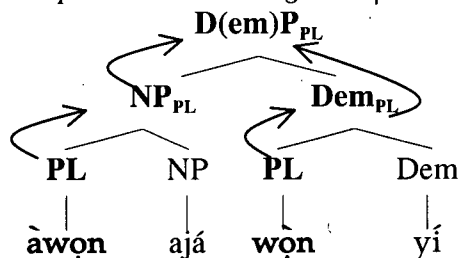
- (18) a. *Plural percolation through àwọn*



- b. *plural percolation through wọn*



- c. *plural-percolation through àwọn and wọn*



The mechanism of feature percolation is not new in the literature. In its broad use as a well-formedness condition, Selkirk (1982) and Scalise (1984) define percolation as follows:

- (19) If a constituent α is the head of a constituent β , α and β are associated with an identical set of features (syntactic or diacritic) (Selkirk 1982: 21)

In the same spirit, Owólabí (1995: 106) claims that percolation is a device which enables a complex word to inherit the syntactic properties (or features) of its head. This implies that feature copying is usually from the head. These percolation approaches differ from the present analysis in one respect. In my own proposal, what makes an NP plural does not rely on the head alone. In particular, a plural feature of an adjunct can percolate onto the NP if the head noun is not specified for plural.

Further, the general formulation of feature percolation in (15) can apply to a wide

range of domains in the grammar of any language. This depends on the target of copying as well as what is copied. When a feature α is copied in Phonology (e.g. under Optimality theory), the process is called reduplication, as in (20a). This process can manifest itself as feature spreading or assimilation, where phonological features are spelled-out at the level of pronunciation (PF). At the syntactic level, $COPY\alpha$ is a syntactic feature, (20b). This is carried out through movement. In the minimalist theory this copying process involves movement of a phrase. In this approach, the base is deleted after movement has taken place. This is called “copy” and “erase” (Chomsky 1993, 1995) and it manifests itself in the linear order of lexical items. Lastly in semantics, a semantic feature that is copied is manifested in meaning, (20c).

(20) *COPY in three domains of grammar*

		Feature	Process	Target	Output
COPY α	a	α = phonological feature	“reduplication” local, no deletion	[x] [x] segments	pronunciation (PF)
	b	α = syntactic feature	“movement” non-local, deletion	[x] -[x] phrases	linear order
	c	α = semantic feature	“percolation” local, no deletion	[x] [x] features	Meaning (LF)

Closely linked to feature percolation is feature matching which is more restrictive than feature percolation in the sense that all members of a nominal expression within the phrase must agree with respect to the plural feature. Feature matching contrasts with feature percolation; in the latter the requirement is that at least one member of the phrase has a plural feature. I discuss the formulation of feature matching mechanism in §6.3.5.

Finally, in the account of the plural strategies across languages, I propose (21).

- (21) Plural marking
Plural is resolved through feature-matching if possible,
elsewhere through feature-percolation.

I am assuming that Yorùbá always uses the elsewhere condition i.e., the feature percolation mechanism.

Having laid out the mechanism that is involved in accounting for plural marking, I

now turn to the two types of semantically driven plural marking in Yorùbá.

6.2.2 Inherently plural Quantifiers

There are three quantifiers that force a plural construal on NPs in Yorùbá. These are *púpò*⁵ ‘many’, *díè* ‘few’ and *gbogbo* ‘all’. In (22), where the only element in the nominal expression apart from the bare N is the quantifier, we observe that the whole NP is construed as plural.⁶

- (22) a. Mo ra [ìwé **púpò**] NP Q
 1sg buy book many
 ‘I bought many books.’
- b. Mo ra [ìwé **díè**] NP Q
 1sg buy book few
 ‘I bought few books.’
- c. Mo ra **gbogbo** ìwé Q NP
 1sg buy all book
 ‘I bought all (the) books’

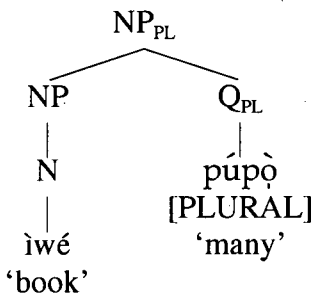
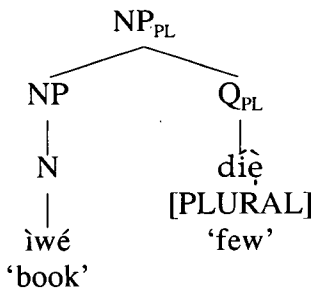
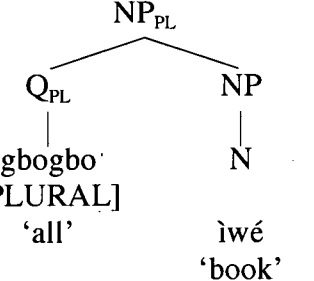
The task here is to account for the obligatory plural construal of the noun with these quantifiers.

The data in (22) suggest that there is an abstract [PLURAL] feature on quantifiers that forces the plural interpretation on NPs. Using the feature percolation mechanism, I propose that the abstract [PLURAL] feature of the quantifier percolates onto the NP as illustrated in (23).

⁵ Lawal (1986, 1989) and Adéwólé (1989) claim that *púpò* is derived from the verb *pò* ‘be plenty’. Two other words that are derived from the same word are *òpò* and *òpòlòpò*, both of which mean ‘many/plenty’.

⁶ The syntactic position of *gbogbo* in relation to *púpò* ‘many’, and *díè* ‘few’ is not clear at the moment except to stipulate that while *gbogbo*, a universal quantifier precedes the NP, *púpò* ‘many’ and *díè* ‘few’ follow the NP. Note also that the Plural morpheme *gbogbo* can co-occur with *àwọn*. When this happens, *gbogbo* precedes, *àwọn*.

- (i) a. Gbogbo àwọn ọmọ ọ̀n dé
 all PL child HTS arrive
 ‘All the children have arrived.’
- b. *Àwọn gbogbo ọmọ ọ̀n dé
 PL all child HTS arrive

- (23) a. 
- b. 
- c. 

Evidence from French supports the claim that quantifiers are inherently plural. The word *plusieurs*⁷ 'many' combines only with a plural noun. Compare (24a) where the noun is plural with (24b) where it combines with a singular noun. For the latter, it results in ungrammaticality.

- (24) a.

plusieurs	chevaux
many	horse.PL
'many horses'	
- b.

*plusieurs	cheval
many	horse.sg
'many horse'	

So, the fact that I establish here is that *plusieurs* is like Yorùbá *púpò* in the sense that it only

⁷ One should not mistake the 's' at the end of this quantifier to mean a plural morpheme.

occurs with plural nouns.

In English, the quantifiers 'many' and 'few' among other quantifiers are also inherently plural. Compare (25a) where 'many' combines with a plural noun with (25b) where it fails to combine with a singular noun.⁸

- (25) a. many orange-s
b. *many orange

With this, I conclude that like French *plusieurs*, and English *many*, the Yorùbá quantifiers *púpò* 'many', *díẹ̀* 'few', and *gbogbo* 'all', are inherently plural. As such, they pluralize the NP they occur in through feature percolation. However, in a language like English, there must be an agreement between the noun and the quantifier with respect to the plural feature.

6.2.3 Inherently plural numerals

Another source of plural marking on Yorùbá NPs comes from numerals. This should not come as a surprise, as any noun that takes a numeral denoting a set with cardinality $/>1/$ should be able to have a plural interpretation in any language (Corbett 2000: 211). This is why Ionin and Matushansky (2004) claim that the semantics of numerals is the same cross-linguistically. According to them numerals always signify plural (cf. Chierchia 2005). First, I claim that numerals apart from 'one' all bear an abstract plural feature that enable us to interpret the noun they co-occur with as plural. I later show that English numerals predictably contrast with Yorùbá in the sense that there must always be agreement between the noun and

⁸ Although, the quantifier 'many' is supposedly inherently plural, the phrase: [a man] may occur with this quantifier in certain restricted contexts.

- (i) a. During the 1930s [many [a man]] sold his farm and moved west.
b. During the 1930s [many men] sold their farms and moved west
c. *many man

Observe also the parallel situation in other English quantifiers: 'every' versus 'all'. Both denote groups. While 'all' takes a plural NP, 'every' takes the unmarked form.

- (ii) a. Every man
b. All men
c. *All man

its constituents in English. Such agreement is not required in Yorùbá. I argue that this is because the two languages adopt different strategies for plural marking.

Let us now go into details on how numerals acquire plural marking status. First, observe that Yorùbá numerals have different forms (Abraham 1958, Bámgbóṣé 1967, Awóbùlúyì 1978, Ajíbóyè & Déchaine 2004). Ajíbóyè & Déchaine discuss two forms that are crucial to my account of plural formation: the base form and the m-form, where the latter is derived from the base numeral by prefixing m- and H tone. The m-form contrasts with the base form phonologically because the initial tone of the base numeral is replaced with H tone. Some representative examples are given in (26).

(26)	Base	m-form	Output	Gloss
a.	ení	m + ení	*méní	'one'
b.	òkan	m + òkan	*mòkan	'one'
c.	èjì	m- + èjì	méjì	'two'
d.	èta	m- + èta	mèta	'three'
e.	èrin	m- + èrin	mèrin	'four'

(adapted from Ajíbóyè & Déchaine 2004: 6)

Observe that the numeral 'one', which has two base forms (*ení* and *òkan*), cannot take the m- prefix. In what follows, I present the syntactic distribution of the base and m-form. First, both types can occur by themselves as nouns:

(27) a. Mo ra èjì
1sg buy two
'I bought two.'

b. Mo ra méjì
1sg buy two
'I bought two.'

Second, only the m-form can occur as a modifier, and therefore only the m-form seems capable of marking plural (28).

(28) a. *Mo ra [iwé èjì]
1sg buy book two

b. Mo ra [iwé méjì]
1sg buy book two
'I bought two books.'

The m-form of numerals cannot occur with *òkan* 'one' and *ení* 'one', (29) to modify nouns.⁹ This suggests two things: (i) only a numeral that denotes a set with cardinality />1/ can be used to derive the 'm-numerals', (ii) the m-form has to do with the semantics of more than 'oneness'. I return to this later.

- (29) a. *Mo ra [ìwé m_òkan]
 1sg buy book one
- b. *Mo ra [ìwé m_éní]
 1sg buy book one

The analysis of numeral-as-plural-feature-bearer follows the one proposed for quantifiers. Adjoining the appropriate numeral form to an NP yields the desired result. The abstract [PLURAL] feature of the numeral percolates through the numeral to the NP, as illustrated in (30).¹⁰

⁹ Note that in counting, *ení* can be in the m-form.

¹⁰ It appears only the *m*-form can co-occur with a noun. But observe that the base form like *èjì* 'two' also inherently contains an abstract [PLURAL] feature. As such it should be able to qualify to mark plural on nouns. But this is not the case. However there are certain instances where only the base form can modify nouns and consequently mark them for plural. There are a few things to note about such numerals. First, they do not allow the m-form, (i-a). Second, they precede the noun they modify, (i & ii). Third, they are multiples of ten starting from *ogún* 'twenty'. See Abraham (1958:xxxii-xxxvi), (i-iii).

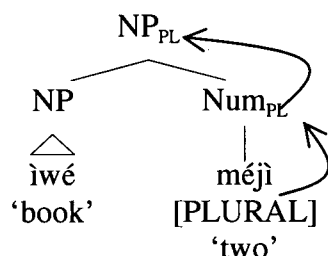
- (i) a. Şhun ra [ogún ìwé]
 S. buy twenty book
 'Shun bought twenty books.'
- b. *Şhun ra [ìwé m_ògún]
- (ii) a. Jēnrólá ta [ogb_òn iṣu]
 J. sell thirty yam
 'Jenrola sold thirty yams.'
- b. *Jēnrólá ta [iṣu m_ògb_òn]

When these numerals follow the nouns, they show ordinals and as such no longer mark nouns for plural.

- (iii) a. Şhun ra [ìwé ogún]
 S. buy book twenty
 'Shun bought the 20th book.'
- b. Jēnrólá ta [iṣu ogb_òn]
 J. sell thirty yam
 'Jenrola sold the 30th yam.'

There is more to say than claiming either that only the m-form or the base form of numerals qualifies as a plural marker. What determines which numeral must be in the m-form and which one must be in its base form to mark plural as well as the linear order between the numeral and the noun require further research.

(30)



Taking my discussion of quantifiers and numerals in these last two sections together, I conclude that quantifiers and numerals converge in the sense that they both have an inherent abstract [PLURAL] feature. The remaining issue to address is how to account for the H tone of the m-numerals.

6.2.3.1 Accounting for the floating H tone of m-numerals

Observe that each base numeral in (31) begins with L tone whereas each m-numeral consists of H tone that associates with the initial vowel of the base numeral thereby displacing the underlying L tone. I am going to argue that H tone of the m-forms comes from the morpheme *mú* 'take'.

- (31)
- | | | | |
|----|----------------|-----------|-------|
| a. | èjì
'two' | m' + èjì | méjì |
| b. | èta
'three' | m' + èta | méta |
| c. | èrin
'four' | m' + èrin | mërin |
| d. | èfà
'six' | m' + èfà | méfà |
| e. | èje
'seven' | m' + èje | méje |

There are two possible hypotheses for how to account for this H tone.

One hypothesis is that this floating H tone is there underlying with the m-prefix as part of the plural morpheme.

- (32) a. m' + èjì > méjì 'two'
 b. m' + èta > mēta 'three'

Since floating tones are not allowed in Yorùbá (Bámgbóṣé 1966 among others) there are two options: the H tone either deletes or it associates with a tone-bearing unit adjacent to it. In the case under consideration, the H tone associates with the initial vowel of the base and the L tone deletes.

- (33)
- | | | | | | | | | |
|---|---|-----|---|---|--|---|---|-----|
| H | | L | | | | H | | L |
| | | / \ | | | | | | |
| m | e | j | i | → | | m | e | j i |

Thus one way of resolving the HL contour tone is through deletion of the L-tone.¹¹

The other hypothesis is that the H tone is associated to a vowel underlyingly before the vowel deletes and the tone in turn associates with the nearest adjacent tone bearing unit (TBU). On the phonological content of this vowel Abraham (1958: xxxii) suggests that it is a prefix *ma-*. According to him, whenever the base form such as *èjì* 'two' follows the noun, the prefix *ma-* links this numeral to the noun. In other words numerals such as *méjì* 'two' and *méje* 'seven' are derived from *ma* + *èjì* and *ma* + *èje*. This suggestion faces two problems. First is that of meaning. It is difficult to pick out the meaning of *ma* either as a lexical item or when it combines with numerals. The second is a phonological problem. Assuming that the prefix is M toned *ma*, one is faced with the question of how H tone surfaces when it combines with numerals whose initial tone is L.

In the alternative, I suggest that the morpheme is *mú* 'take'. This suggestion comes from our knowledge of the counting system in Yorùbá. Native speakers count, *méní* 'take one', *méjì* 'take two', *mēta* 'take three' etc. It is probably the case that this morpheme combines with the base form and undergoes vowel deletion as shown in (34).

- (34) a. mú èjì > m' èjì > méjì
 b. mú èje > m' èje > méje

¹¹ For details on resolution of contour tones in Yorùbá, readers are referred to (Bámgbóṣé 1966; Akinlabí 1985; Pulleyblank 1986; Laniran 1992).

Note that there is nothing unusual with vowel and tone deletion in the language. In particular, this kind of deletion is robust when two vowels are juxtaposed across a word boundary (Bámgbóšé 1966, 1967, 1989; Òla 1989; Oyèláràn 1971; 1990 among others). Once a tone-bearing unit deletes in this context, there is bound to be an extra tone. On which tone to delete, the claim in the literature is that when there is H and L concatenation, the L deletes and H survives because the tonal hierarchy in Yorùbá is H>L (cf. Chumbow 1982; Pulleyblank 2004).¹²

6.2.3.2 Other languages that pattern with Yorùbá

Yorùbá is not the only language where numerals form plural words. There are other languages that require no further marking whenever a numeral that denotes a set with cardinality >1/ is used. Hungarian is one of such languages. In (35), *lány* ‘girl’ is marked as plural only by the presence of the numeral *két* ‘two’.

- (35) Két lány beszélget Hungarian
 two girl.SG chat.SG
 ‘two girls are chatting’ (Corbett 2000: 211).

However, there is a slight difference between Yorùbá and Hungarian. In Yorùbá it is possible to use other plural words to mark nouns for plural even when a numeral is present. This contrasts with Hungarian, which does not allow any other plural marking.¹³ The question is how a language like Hungarian would be treated in the present analysis.

The explanation is that Hungarian permits only one instantiation of the PLURAL feature. It could also be that there is a language specific rule that prohibits further plural marking once a numeral is introduced. Note that even for Yorùbá all that is required is for at least one plural marker to be present.¹⁴

¹²There is also one problem with the second hypothesis. This is the problem of why *méní* (*mú ení* ‘take one’) cannot combine with nouns. Observe however that when we count, we always have a sense of plurality. We don’t just count “one” thing. Therefore counting requires > 1 thing. This suggests that, although we count “1”, we are counting part of a plural set of objects.

¹³ See §6.3.4 for multiple plural marking.

¹⁴ For Hungarian, one can also speculate that PLURAL takes precedence over SINGULAR, hence when an NP

Further, there are languages where the presence of a numeral is mutually exclusive to dedicated plural word i.e., where a numeral and a dedicated plural word do not co-occur. The reason for this is because numerals occupy the same position as the plural word. In Gurung, a Tibeto-Burman language of Nepal, the plural word occurs in the same syntactic slot as numerals. The examples in (36) taken from Dryer illustrate this.

- (36) a cá pxra-báe mxi **jaga**
 that walk-adj person PL
 'those walking people'
- b. ca mxi **só-bra**
 that person Numeral
 'those three hundred people' (Dryer 1989: 872)
- (37) a *cá pxra-báe mxi **só-bra jaga**
 that walk-adj person Numeral PL
- b. *cá pxra-báe mxi **jaga só-bra**
 that walk-adj person PL Numeral

This means that plural word and numeral are in complementary distribution (Dryer 1989: 871). Unfortunately, there is not enough data from Dryer's work to ascertain why plural and numerals cannot co-occur in this language.

This concludes my discussion of the semantically driven plural strategy.

6.3 Morphologically determined plurality

The third way by which Yorùbá marks plural on nominal expressions is through the use of

contains a numeral that has an abstract PLURAL feature and a noun with a SINGULAR feature, the NP is interpreted as plural because of this precedence constraint. This is illustrated in (i).

- (i)
- | | |
|------------------|------------|
| NP _{PL} | |
| Num | N |
| [PLURAL] | [SINGULAR] |
| | |
| Két | lány |

certain dedicated words/morphemes whose only function is to mark plurality. I refer to this as a morphologically determined plurality. There are three plural morphemes in Yorùbá: *àwọn* marks plural on nouns, the prefix *wòn-* marks plural on demonstratives, and a copy marks plural on modifiers. I call these morphemes ‘plural words’ along the lines of Dryer (1989).

The term “Plural word” in this dissertation is used for a word or a morpheme that gives a noun or an entity it co-occurs with a plural interpretation.¹⁵ Observe that plural words cross-linguistically do not belong to a natural syntactic class. This is consistent with Dryer’s observation that the grammatical category of words that function as plural words varies from language to language.¹⁶ In Yorùbá, *àwọn* is a pronoun. As for the *wòn-* prefix, although it is clearly related to the 3pl weak pronoun *wòn/won*, it does not have the same distribution as weak pronouns. As for modifiers, to qualify as plural words, a modifier must undergo copying. Thus a modifier-plural word consists of ‘COPY’ in Yorùbá. In order to account for how these plural words mark nouns for plural, I also appeal to the feature percolation mechanism already motivated above.

¹⁵ Cf. Corbett’s (2000: 135) definition of ‘plural words’ as special ‘number words’ that languages use to indicate number and Dryer’s (1989: 865) definition which says ‘a plural word is a morpheme whose meaning and function is similar to plural affixes in other languages.’

¹⁶ For example Hawaiian (i) and French (ii) use articles to mark plural.

- (i) a. **ke** keiki
SG child
‘the child’
b. **nā** keiki
PL child
‘the children’ (Hawaiian Dryer 1989: 872)

- (ii) a. **la** pomme
[læ pɔm]
the, fem apple
‘the apple’
b. **les** pommes
[le pɔm]
the, plur apple
‘the apples’ (French Dryer 1989: 873)

Peñoles Mixtec combines plural words with numerals e.g. (Dryer 1989).¹⁶

- (iii) oko **kwee** tee
twenty PL man
‘twenty men’ (Peñoles Mixtec Dryer 1989: 872)

6.3.1 *àwọn* marks plural on nouns

I have already established in Yorùbá that when a bare noun occurs by itself, there is no way by which we know whether it is singular or plural. This is why I claim that Yorùbá bare nouns are not specified for plural. The only way by which plural is overtly marked on nouns is through the use of *àwọn* '3pl strong pronoun'¹⁷ (Dryer 1989, Rowlands 1969).¹⁸ In (38a) *àwọn* marks *ọkùnrin* 'man' as plural, in (38b) it marks *obìnrin* 'woman' as plural; in (38c) it marks both *ọkùnrin* 'man' and *ọmọ Israeli* 'child of Israel' as plural. However, in (38), in addition to *àwọn*, there are other lexical items that relate to plural interpretation. As I demonstrated in §6.2, numerals like *méta* 'three' in (38a) have an abstract plural feature that can be realized on the noun in the absence of a plural word. Similarly, as I show in §6.3.2 below, the prefix *wòn* that attaches to the demonstrative *yí* in (38b) is a plural morpheme.

- (38) a. [*àwọn ọkùnrin*] *méta yí*
 PL man three this
 'these three men' (Dryer 1989: 875)
- b. [*Àwọn obìnrin wòn-yí*] *wá tún pín sí méjì*
 PL woman DEM come again divide to two
 'These women again divide into two groups.' (Fágúnwà 1961: 15)
- c. [*Àwọn ọkùnrin kan*] *nínú [àwọn ọmọ Israeli] dé ìhín yí*
 PL man Spcf among PL child Israel reach place this
 'Certain men among the children of Israel got here.' (Joshua 2: 2)

I propose the structure in (39) which shows that a Yorùbá NP consists of a bare NP and a

¹⁷Note that Yorùbá is not the only language that uses 3pl to mark plurality. Others include Chamorro and Ngarinjin (Dryer 1989: 877), Angas and some Creoles (Corbett 2000: 135 fn.3).

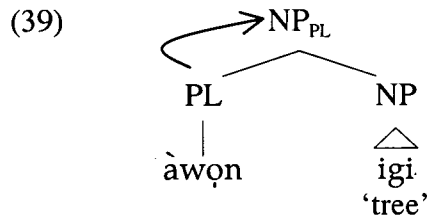
(i) a. *mandjan biri*
 stone PL
 'stones'

b. *biri-ma-ra*
 they-say-past
 'They said.' (Dryer 1989: 87)

See the chapter on genitive construction for the definition of strong pronoun.

¹⁸The universal quantifier *gbogbo*, patterns with *àwọn* in the sense that it also precedes the noun.

plural word that is left adjoined to the NP.¹⁹ Applying the percolation mechanism, the plural feature of *àwọn* percolates onto the higher NP node.



As we shall see, all plural morphemes are left adjoined to NP in Yorùbá. For *àwọn*, which is the plural morpheme associated with nouns, this means that it must precede the noun that it pluralizes, as shown in (40).

(40) Plural marking on nouns

- a. Mo bí [àwọn ọmọ]
 1sg born PL child
 'I have children.'
- b. Mo bí [*ọmọ àwọn]
 1sg born child PL

This concludes the discussion on *àwọn* as a plural word that marks plural on nouns. I now turn to *àwọn* as a pronoun.

6.3.1.1 *àwọn* as a pronoun

Apart from functioning as a plural word, *àwọn* is active in other domains in the syntax of Yorùbá like any other Yorùbá strong pronoun. Consider (41) and (42) where both the 3pl weak pronoun *wọn* and the 3pl strong pronoun *àwọn* occur in argument position.

- (41) a. Jeff wanted to know if Solveiga and Mario were at my birthday party. In response, I said (41b).

¹⁹ This poses the problem of how to account for the disparity between Šàbẹ́, Idàìẹ́ṣá and Kétu dialects and Standard Yorùbá. However there is not enough data that will reveal a wider range of the distribution of *wọn* in those dialects as such, I consider only the case of Standard Yorùbá for this present study.

- b. **Wọ̀n** wá
 3pl come
 'They came.'

Let us now consider the context where *àwọ̀n* is used.

- (42) a. Jeff was not sure if Solveiga, her husband and my friends were at the party yesterday and when he asked of Solveiga I answered "no" because I did not see her. But when he asked of my friends, I said (42b) because I wanted him to know that truly they were present.

- b. **Àwọ̀n** ọ̀n wá
 3pl HTS come
 'They came.'

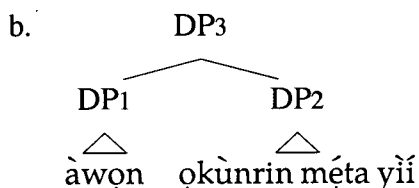
Two additional facts about *àwọ̀n* are revealed in the above examples. Compared to its clitic counterpart *wọ̀n*, *àwọ̀n* is emphatic. The sentence in (41b) will be uttered in normal speech but when someone wants to be emphatic, (42b) is used. The use of *àwọ̀n* is also an expression of certainty. The speaker is very certain of the referents' presence in (42b) whereas (41b) does not necessarily reflect certainty or uncertainty of the referents' absence. These two properties are peculiar to all the so-called strong pronouns when they occur in argument position.²⁰

6.3.1.2 Appositive analysis of PL-NP

A diachronic account contained in Dryer's work is that *àwọ̀n* in (43a) may be analyzed as a pronoun head, with *ọ̀kùnrin mẹ́ta yíí* functioning as an appositive noun phrase. This predicts that *àwọ̀n* is also a NP. In the appositive analysis, the structure for (43a) would be (43b).

²⁰ For details on the Yorùbá pronominal system see among others Bámgbóṣé (1967), Rowlands (1969), Pulleyblank (1986), Manfredi (1987), Dryer (1989), Adéṣọlá (2000) Déchaine & Wiltschko (2002a&b), and Ajíbóyè (2005a).

- (43) a. Mo rí [àwọn] [ọkùnrin mēta yíí]²¹
 1sg see they man three Dem
 'I saw them these three men.'



In (43), *àwọn* and *ọkùnrin mēta yíí* are said to refer to the same people, hence they are analyzed as separate DPs (DP1 & DP2).

Dryer's analysis correctly predicts that strong pronoun, (44a) and weak pronoun (44b) can occur independently.

- (44) a. Mo rí **àwọn**
 1sg see 3pl.strong
 'I saw them.'
- b. Mo rí **wọn**
 1sg see 3pl.weak
 'I saw them.'

His analysis also incorrectly predicts that both strong pronoun (45a), and weak pronoun (45b), should be able to occur with nouns to mark them for plural. But this is only true of the strong pronoun.

- (45) a. Mo rí **àwọn** ọkùnrin
 1sg see PL man
 'I saw the men.'

²¹ This kind of nominal expression is actually found in some Southern dialects of English spoken in the United States as shown in (i).

- (i) a. I saw [them child- ren]
 PL PL

- b. [Them dogs] are in the yard
 PL -PL

(Wilson personal communication)

The Standard form of (i) is rendered as (ii).

- (ii) a. I saw [the children]
 b. [The dogs] are in the yard

Such dialects may be good for reconstruction on the 'plural agreement neutrality' that is witnessed today in Standard English whenever a plural noun takes the determiner *the*.

- (iii) a. the boy (singular)
 b. the boys (plural)

- b. *Mo rí wọn/wọn ọkùnrin
 1sg see 3pl.weak man

The fact that *wọn/wọn* '3pl clitic pronoun' cannot occur with *ọkùnrin* 'man' to mark it for plural in (45b) casts doubt on Dryer's claim that *àwọn* in (43) should be analyzed as an appositive.

One way to tell whether (43) is a single DP or two DPs in apposition is the position of *gbogbo*. If (43) were to be two DPs in apposition, one would expect (46) to be possible such that *gbogbo* modifies the second DP.

- (46) *Mo rí [àwọn] [gbogbo ọkùnrin mètá yíí]
 1sg see [3PL] [all man three Dem]

What we have instead is (47), where *gbogbo* precedes the 3PL implying that *gbogbo* modifies the entire phrase.

- (47) Mo rí [gbogbo àwọn ọkùnrin mètá yíí]
 1sg see [all PL man three Dem]
 'I saw all these three men.'

The fact that *àwọn* cannot precede *gbogbo* is evidence that *àwọn* is not a separate DP and as such, (43) cannot be analyzed as an appositive phrase in the language.

6.3.1.3 Internal structure of *àwọn*

There is one more question that I address, namely the morphology of 3PL *àwọn*. Comparing the example from *Sábẹẹ* dialect with Standard Yorùbá, it appears the 3pl pronoun has two forms *àwọn* versus *wọn* which might suggest that one is derived from the other historically.²²

²² According to Martí (1992: 13), in *Şàbẹ*, *Idàìẹ́sá* and *Kétu* dialects of Yorùbá, the plural marker follows the noun it pluralizes.

- (48) a. egi wọn *Sábẹ̀ẹ́*
 tree 3pl
 'trees'
- b. àwọn igi *Standard Yorùbá*
 3pl tree
 'tree'

The question is which one is the base and which one is derived? There are two hypotheses that I put forward.

- (49) H1: àwọn is the basic form and wọn is derived from it through a phonological process which deletes the first vowel.
- H2: wọn is the basic form and àwọn is derived from it through a morphological process of prefixation that prefixes à- to wọn.

At first glance, both hypotheses look plausible and seem to have support from internal evidence. But I am going to argue in support of the second hypothesis. I consider the deletion option first.

Deletion as a phonological process is robust and productive in Yorùbá, and it occurs in many word formation processes. The examples in (50) show deletion involving two concatenated vowels at morpheme boundary where /a/ is the initial vowel of the second morpheme. What one observes is that it is the first vowel that deletes.

- (50) a ì- jẹ ayé > ìjayé
 Nom eat life
 'enjoyment'
- b. à-ì- gbé ayé > àìgbáyé
 Nom-NEG live world
 'act of not living'
- c. ì- kó adé > ìkádé
 Nom gather crown
 'gathering crown.'
- d. ì- ní adé > ìládé
 Nom have crown
 'having crown'

- e. ì- gbọ afẹ > ìgbáfẹ
 Nom hear enjoyment
 ‘loving socialization’

The fact that ‘a’ is not deleted in any of these examples provides a strong argument against the claim that *won* is derived from *àwon* through deletion of the initial *à*.

On the other hand, there is ample data to back up the claim that *àwɔn* is derived through a morphological process of prefixation. In fact there are many nouns that are derived by prefixing an affix to a verb including *à-*. Some examples are given in (51).

- | | | | | | | |
|------|----|-----|---------------------|---------|-----|--------|
| (51) | a. | à- | tò | > | àtò | |
| | | Nom | urinate | | | |
| | | | 'semen' | | | |
| | b. | à- | lò | > | àlò | |
| | | Nom | go | | | |
| | | | 'departure/leaving' | | | |
| | c. | à- | bò | > | àbò | |
| | | Nom | arrive | | | |
| | | | 'arrival' | | | |
| | d. | à- | wà | yè | > | àwàyè |
| | | Nom | drive | survive | | |
| | | | 'driving safely' | | | |
| | e. | à- | rò | pin | > | àròpin |
| | | Nom | think | end | | |
| | | | 'consider hopeless' | | | |

In view of the fact that word formation with the à- prefix is possible and plausible, I adopt the second hypothesis in accounting for the morphology of àwòn, claiming that it is derived from wòn through prefixation of à-. The alternative hypothesis, namely that wòn is derived from àwòn through deletion of the initial vowel, is rejected because it posits a word formation process (deletion of the initial vowel /a/) that is otherwise unattested in Yorùbá.²³

Finally, I also need to point out that the plural word *àwòn* shares some morphological structure and process with demonstratives in the sense that that they can take “è -/ì”

²³ This is not say that V2 can never be deleted in Yorùbá.

nominalizer prefix just as *wɔ̃n* takes “à-”. This process derives demonstrative nouns. I show this in (52).

- (52) a. è- yĩĩ
 Nom Dem
 ‘this one’
- b. ì- yɛn
 Nom Dem
 ‘that one’

Note that each of the demonstrative nouns in (52) consists of the base: *yĩĩ* and *yɛn*.

6.3.2 *wɔ̃n*- marks plural on demonstratives

This section discusses how demonstratives are used as plural words. First, I show that the base form of demonstratives is unmarked for plural. That is why the nouns they combine with is obligatorily interpreted as singular.

- (53) a. Mo ra ilé yĩĩ
 1sg buy house Dem
 ‘I bought **this** house.’
- b. Mo ta ilé yɛn
 1sg sell house Dem
 ‘I sold **that** house.’

Demonstratives are pluralized by prefixing the morpheme *wɔ̃n*- as in (54).²⁴

²⁴ Note also that whenever *wɔ̃n* combines with demonstratives to form plurals the derived word can in turn undergo another nominalization process by prefixing ì-. This further supports the claim that *àwɔ̃n* is derived from *wɔ̃n* by prefixation of à-

- (i) a. ì- wɔ̃n- yĩ
 ‘Nom PL Dem
 ‘these ones’
- b. ì- wɔ̃n- yɛn
 Nom PL Dem
 ‘those ones’

One can also claim that *àwɔ̃n* is derived from the plural prefix *wɔ̃n* by prefixing /à/ to the former. However such argument is not tenable considering the fact that the output **àwɔ̃n* is not attested.

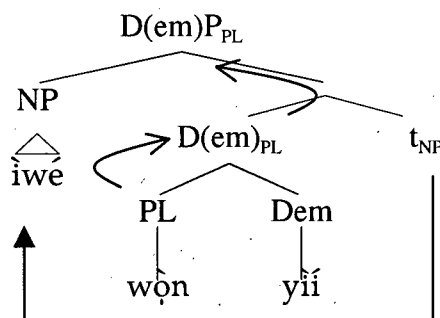
- (54) a. **wòn-yíi**
 PL-Dem
 'these'
- b. **wòn yèn**
 PL Dem
 'those'

Observe that when a demonstrative is unmarked and it takes a noun, the NP is obligatorily interpreted as singular (55a). To get a plural interpretation, the demonstrative (55b) must be marked for plural.

- (55) a. Mo rí [ajá yíi] NP DEM
 1sg see dog DEM
 = 'I saw this dog.'
 ≠ 'I saw these dogs.'
- b. Mo rí [ajá **wòn-yíi**] NP **PL-DEM**
 1sg see dog PL-DEM
 'I saw these dogs.'
 ≠ 'I saw this dog.'

Recall that in the present analysis, demonstratives are heads and they take NPs as their complement. The NP moves to Spec D(em)P, which derives the surface linear order. The plural feature on the demonstrative percolates to the D(em)P and assigns the whole phrase its plural feature.

(56) *Plural percolation via demonstrative*



Finally, there is a common factor shared by the plural word *à-wòn* on nouns and the plural prefix *wòn* on demonstratives, namely the presence of L-tone on them:

- (57) a. *à- wòn*
 b. *wòn- yǐí*

It is desirable to inquire if there is anything that L tone can tell us about plural marking in Yorùbá. The questions that arise are the following. Is there something that this L tone can tell us about plural marking in Yorùbá or is its presence a mere accident? Is there any difference between the L tone *wòn* that marks plural on demonstratives and the H toned pronouns *wòn* and the M toned *wòn* that are used as weak pronouns?

One possible analysis is to claim that like its M-tone and H-tone counterparts, *wòn* L-tone is a pronoun. Then, the claim is that the tonal alternation is syntactically motivated: the pronoun bears H tone when in subject position (58a) and M when it functions as an object (58b). In contrast, when this pronoun functions as a plural morpheme it bears L tone (58c).

- (58) a. *Wòn rí mi*
 3pl see 1sg
 'They saw me.'
- b. *Mo rí wòn*
 1sg see 3pl
 'I saw them.'
- c. *Mo rí wòn- yǐí*
 1sg see PL- Dem
 'I saw these Xs.'

On the other hand, the L-tone *wòn* neither appears as a subject nor as an object NP:

- (59) a. **Wòn rí mi*
 PL see 1sg
- b. **Mo rí wòn*
 1sg see PL

In the same vein, the M/H toned form does not function as a plural morpheme:

- (60) a. *wọ̀n -yǐí
b. *wọ̀n yǐí.

One argument against this claim is that the plural morpheme on demonstratives always bears L tone as opposed to H or M. Observe that, in contrast to *wọ̀n* which may surface with H, M or L tone the 3pl strong pronoun *àwọ̀n* bears initial L tone irrespective of whether it functions as an independent pronoun (61a-b) or as a plural word (61c).

- (61) a. *Àwọ̀n* rí mí
3pl see 1sg
'They saw me.'
- b. Mo rí *àwọ̀n*
1sg see 3pl
'I saw them.'
- c. Mo rí *àwọ̀n* ọmọ
1sg see PL child
'I saw children.'

This is an area for further research.

6.3.3 Reduplication marks plural on modifiers²⁵

Another way by which Yorùbá expresses plurality on its nouns is through the use of modifiers. A modifier-as-plural-word consists of a 'COPY-modifier'.²⁶ Bare nouns with plain

²⁵Cross-linguistically, reduplication is extensively used to form plural forms. There are several variations on how reduplication operates, depending on the base form of the noun or the entity that is reduplicated for the purpose of marking plural. In any case, all of the reduplication processes create a reduplicant, a prefix whose phonetic content is from the segments that make up the base.

²⁶I should say the use of "COPY" as a mechanism of marking plural is famous among the Yorùbá people, as demonstrated in the early novels. The example in (i) is taken from one of the works of Fágúnwà, a famous Yorùbá novelist. The copied modifier *ní lá* in citation means 'big' but when used as a plural word as in (i), it means 'great Xs'.

modifiers display an ambiguity between a singular and plural interpretation. This is illustrated in all the (a) examples in (62)-(66). However, this ambiguity disappears once the modifier is copied. This is reflected in the (b) examples.

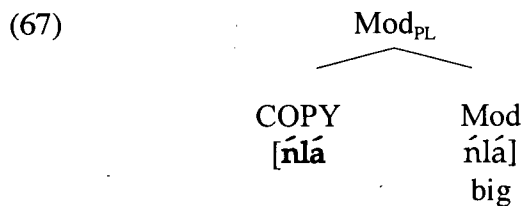
- (62) a. Ìlú yíí ní [àṣà burúkú]
town DEM have custom bad
= (i) 'This town has a bad custom.'
= (ii) 'This town has bad customs.'
- b. Ìlú yíí ní [àṣà **burúkú** burúkú]
town DEM have custom COPY bad
'This town has bad customs.'
- (63) a. Péjú ta [bọ̀ṣù pupa]
P. sell ball red
= (i) 'Peju sold a red ball.'
= (ii) 'Peju sold red balls.'
- b. Péjú ta [bọ̀ṣù **pupa** pupa]
P. sell ball COPY red
'Peju sold red balls.'
- (64) a. Ọ̀mọ̀lẹ̀ fọ̀ [ìgò palaba]
O. wash bottle flat
= (i) 'Omole washed a flat bottle.'
= (ii) 'Omole washed flat bottles.'
- b. Ọ̀mọ̀lẹ̀ fọ̀ [ìgò **palaba** palaba]
O. wash bottle COPY flat
'Omole washed flat bottles.'
- (65) a. Mo ra [ògèdè ñlá]
1sg buy banana big
= (i) 'I bought a big banana.'
= (ii) 'I bought big bananas.'

-
- (i) Ìwọ̀ ní Ọ̀ ní [agbára ñlá]
2sg FOC 2sg own power big
tí Ọ̀ fí dá gbogbo [ńkan ñlá ñlá] inú ayé...
that 2sg use create all thing COPY big inside world
'You are the one that has a **strong** power that you used in creating all the **great** things in this world.' (Fágunwà 1961: 146)

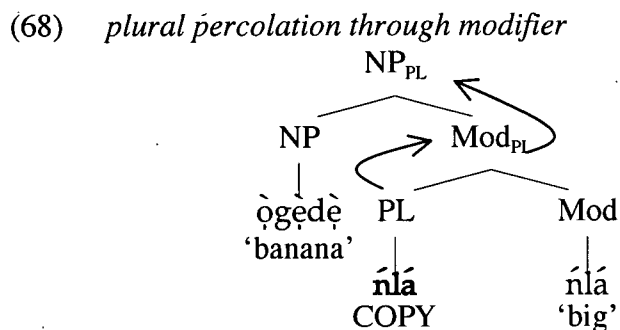
See Bámgbóṣé (1967: 112-113); Pulleyblank (2002) and Ajíbóyè and Déchaine (2004) for various accounts of Yorùbá reduplication.

- b. Mo ra [ògèdè ñlá ñlá]
 1sg buy banana COPY big
 'I bought big bananas.'
- (66) a. Abíólá ní [ilé gíga] ní Èkó
 A. have house tall P Lagos
 = (i) 'Abiola has/owns a tall building in Lagos.'
 = (ii) 'Abiola has/owns tall buildings in Lagos.'
- b. Abíólá ní [ilé gíga gíga] ní Èkó
 A. have house COPY tall P Lagos
 'Abiola has/owns high-rise buildings in Lagos.'

Following Orie and Pulleyblank (2002) and Ajíbóyè and Déchaine (2004), I assume that the copied entity is at the left edge of the base.²⁷ Consequently, I adopt the structure in (67) for the Yorùbá copy-modifier. The plural marker is left adjoined to the modifier to form a plural modifier (cf. Kayne 1994).



The analysis of modifiers is the same as that of demonstratives reported above. For completeness, I show how the mechanism of feature percolation derives plural NPs with modifiers using (65a) as an illustration.



²⁷ While this claim is not transparent in full reduplication as it is difficult to know which one is the base and which one is the COPY, evidence comes from partial copy, which derives gerunds. The fact that only (i-a), which has the COPY to its left is grammatical attests to this claim.

- (i) a. dé dí-dé
 'arrive' 'arrival'
 b. dé *dé-dí

Yorùbá speakers do not have the same judgments on which sub-classes of modifiers can be copied to mark plural. While Bámgbóṣé (1967: 112-113) reports that quality modifiers (e.g. *burúkú* 'bad') and quantity modifiers (e.g. *ńlá* 'big') can be copied to 'indicate more-than-one-ness', some other native speakers cannot process copying that involves colours (such as *dúdú* 'black') or qualities (such as *burúkú* 'bad') as plural words. For the purpose of this dissertation, I consider quality, dimension and colour²⁸ as modifiers that can undergo copying for plural marking. Some representative examples are given in (69).

- (69) a. *ajá* *burúkú* *burúkú* quality
 dog bad bad
 'dangerous dogs'
- b.. *ajá* *ńlá* *ńlá* dimension
 dog big big
 'big dogs'
- c. *ajá* *dúdú* *dúdú* colour
 dog black black
 'black dogs'

Putting aside speaker variation, it remains that in Yorùbá, not all modifiers are eligible for copying to mark plural. In particular the class of attributives (70a)²⁹, most ideophones (70b),³⁰ and locatives (72-73) cannot be copied to form plurals.

²⁸ Observe that quantity modifiers (quantifiers and numerals) are treated as a kind of plural word with an abstract [PLURAL] feature. They therefore require no copying to function as plural words. When they are copied they modify verbs, (i-b).

- (i) a. *Mo* *ra* *ìwé* *púpò*
 1sg buy book many
 'I bought many books.'
- b. *Mo* *ra* *púpò* *púpò*
 1sg buy COPY many
 'I bought in large quantity (i.e., the buying was done in large quantity).'

²⁹ Attributive as used here is a kind of modifier that describes or characterizes the mental state of the noun it modifies. This contrasts with the standard use of the term as any adjective, which appears directly beside the noun. These modifiers are attributives because they assign some kind of quality to the noun they modify.

³⁰ According to Doke in Awóyalé (1974:139), an ideophone is a word, often onomatopoeic, which describes a qualificative, predicative, or an adverb with respect to sound, colour, smell, manner, state, action or intensity. Actually, there is a category of ideophones that can be copied to mark plural (cf. Beck 2005).

(70) a. *ajá olóríburúkú olóríburúkú
dog COPY unlucky

b. *ajá jàtijàti jàtijàti³¹
dog COPY feckless

(71) a. eyín òsì
tooth left
'left tooth'

b. *eyín òsì òsì

(72) a. apá òtún
arm right
'right arm'

b. *apá òtún òtún

The reason why locative modifiers cannot undergo copying might be because 'left' and 'right' are unique.

The next thing that I would like to discuss is the size of the copied item. Whenever a modifier is copied for the purpose of marking plural, it is the whole word that is copied. In most cases, full copying is subject to certain phonological constraints. In particular, Òla (1995), and Orie and Pulleyblank (2002) claim that what determines the size of what is to be copied is the principle of "foot binarity".

I also observe that whenever a modifier is copied, it does not undergo any phonological process of either deletion or assimilation either at the segmental or the tonal

³¹ The category of ideophones that can be copied to mark plural in Yorùbá is shown by the examples in (i), (cf. Beck 2005).

(i) a. Mo ra ìgò palaba
1sg buy bottle flat
= 'I bought a flat bottle.'
= 'I bought flat bottles.'

b. Mo ra ìgò **palaba** palaba
1sg buy bottle COPY flat
'I bought flat bottles.'

level. This may be because the kind of copying under discussion is syntactic³² or because of its phonology: the modifiers in question are all consonant initial.³³

- (73) a. *ńlá* > *ńlá ńlá*
 big COPY big
- b. *pupa* > *pupa pupa*
 red COPY red
- c. *kékeré* > *kékeré kékeré*
 small COPY small

One final question that I address is what happens when two or more modifiers modify a noun. In chapter 1, I have shown that Yorùbá modifiers fall into four distinct semantic classes of colour, dimension, quality, and quantity. Also, in my discussion of overt plural marking with modifiers above, I have shown that the COPY of the modifier functions as plural word. There is a restriction on the copying process when there is more than one modifier in a nominal expression. The observation is that only a modifier that is adjacent to a noun can undergo copying. This claim is supported by the examples in (74) where there are two modifiers: *ńlá* 'big' and *tuntun* 'new' that modify *ilé* 'house'. As it turns out, only the first of the two, namely *ńlá* can be copied.

- (74) a. *ilé ńlá ńlá tuntun*
 house PL big new
 'new big houses'
- b. **ilé ńlá tuntun tuntun*

³² See Inkelas and Zoll (2000) and Pulleyblank (2002) among others for a discussion of phonological versus morphological reduplication.

³³ Observe that Yorùbá also makes use of the partial copying strategy to derive gerunds. If modifiers were to be partially copied for the purpose of plural marking, the process would involve copying the first consonant of the modifier and the insertion of a fixed segment (the H toned /i/).

- (i) a. *kékeré* **kí-kékeré*
 small COPY-small
- b. *dúdú* **dí-dúdú*
 black COPY-black
- c. *ńlá* **ní-ńlá*
 big COPY-big

Unfortunately, partial copying does not apply to modifiers not to talk of using it for plural marking. I conclude that copying that involves plural marking must be full and not partial.

The second restriction is that only one modifier can be copied. So, in (75b) despite the fact that the adjacent modifier is copied thus satisfying adjacency constraint, it is not possible to extend copying to the next modifier.

- (75) a. ilé **ńlá** ńlá tuntun
 house PL big new
 ‘new big houses’
- b. *ilé **ńlá** ńlá **tuntun**tuntun
 house PL big PL new

Even when the noun itself is marked for plural such ungrammaticality or infelicity (as witnessed in (74) remains. This is what I show in (76)-(77).

- (76) a. **àwọn** ilé **kékeré** kékeré tuntun
 PL- house small PL- new
 ‘new small houses’
- b. a. ***àwọn** ilé kékeré **tuntun**tuntun
 PL- house small PL- new
- (77) a. **àwọn** ajá **dúdú** dúdú kékeré
 PL- dog PL black small
 ‘small black dogs’
- b. ***àwọn** ajá dúdú [**kékeré** kékeré]
 PL- dog black PL- small
 ‘small black dogs’

It appears there is more to be done before we can make a definite conclusion on specific restrictions guiding modifier copying when they are stacked within NPs in Yorùbá. I address what prevents N copy for the purpose of plural marking next.

6.3.3.1 What prevents N copy: blocking

Cross-linguistically, copying can be used to mark a number of grammatical functions including plurality, distributivity, perfective aspect, continuous/progressive aspect, diminutives, augmentatives, intensification (Moravcsik 1978, Ghomeshi et al. 2004). The issue of why nouns are not copied in Yorùbá for the purpose of plural marking is the concern of this section. I have shown that Yorùbá makes use of copying modifier for this purpose. On the other hand, Mandarin copies classifiers for plural marking.

- (78) (yi) zhang –zhang zhi *Mandarin*
one CL CL paper
'pieces of paper (with an emphasis on the individual pieces)' (Yang 2004: 1)

If Yorùbá were to be like Mandarin we expect (79) where the classifier is copied. But such examples are ill-formed in Yorùbá.

- (79) *awẹ awẹ ìwẹ *Yorùbá*
sheet sheet paper

The question that arises is this: why is it that nouns cannot be copied to mark plurality on nouns in Yorùbá? Observe that there are many languages that copy nouns for the purpose of plural marking. For example, Amele forms its plural on nouns by copying the nouns.³⁴

- (80) a. dana *Amele*
 'man'
 b. dana-dana
 'men' (Corbett 2000: 136-137)

Similarly, in Malay full copying of nouns creates the indefinite plural nouns. This kind of copying is also very common in New Guinea (Cook personal communication).

- (81) a. bunga *Malay*
 'flower'

³⁴ Amele is a Madang sub-group within the Trans New Guinea languages (Corbett 2000).

- (McShane and Nirenburg 2003: 17)

(82) a. ọ̀kùnrin Yorùbá
 ‘man/men’

 b. *ọ̀kùnrin ọ̀kùnrin
 [men]

What this boils down to is that variation with respect to copying might be a language specific rule. In Yorùbá such a rule will pick out modifiers i.e. copying is only available for plural marking if the base is a modifier. I treat the Yorùbá case of using COPY for modifiers but not for nouns as an instance of ‘The Emergence of the Unmarked (TETU) as I will discuss in the next subsection.

(i)	a.	ilé	*iléélé	*iliilé
		'house'		
	b.	owó	*owóówó	*owoowó
		'money'		

(ii) a. ilé ilékílé
'house' 'any house/bad house'
b. owó owókówó
'money' 'any money/ill-gotten money'

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6.3.3.2 The emergence of the unmarked

There appear to be two cases of noun copy that we can talk about across languages. First, there is copying of nouns to mark plural, this I call the general case since many languages make use of this device. The other copying of nouns for more specified functions other than plural marking; this I call the restricted case. This is the category that Yorùbá belongs.

- (83) a. Case I: (General) e.g. Amele
 $[\alpha_N] [\alpha_N] \Rightarrow$ pluralization
- b. Case II (Restricted) e.g. Yorùbá
 $[\alpha_N] [\alpha_N] \Rightarrow$ quantification

What we already saw is that Yorùbá does not use the general case. On the restricted Case, whenever nouns are reduplicated in Yorùbá, they have the specific function of distributive quantification with numerals (84) or temporal expressions (85).

- (84) a. $\begin{matrix} \text{èjì} & \Rightarrow & \text{èjì} & \text{èjì} & \Rightarrow & \text{èjèèjì} \\ \text{'two'} & & \text{two} & \text{two} & & \text{'all two'} \end{matrix}$
- b. $\begin{matrix} \text{èje} & \Rightarrow & \text{èje} & \text{èje} & \Rightarrow & \text{èjèèje} \\ \text{'seven'} & & \text{seven} & \text{seven} & & \text{'all seven'} \end{matrix}$
- (85) a. $\begin{matrix} \text{alé} & \Rightarrow & \text{alé} & \text{alé} & \Rightarrow & \text{alaalé} \\ \text{'night'} & & \text{night} & \text{night} & & \text{'every night'} \end{matrix}$
- b. $\begin{matrix} \text{òsẹ̀} & \Rightarrow & \text{òsẹ̀} & \text{òsẹ̀} & \Rightarrow & \text{òsọ̀òsẹ̀} \\ \text{'week'} & & \text{week} & \text{week} & & \text{'every week'}^{36} \end{matrix}$

I claim that because N-copy has a dedicated function in Yorùbá, it cannot be interpreted as pluralization. The generalization is that the more specified meaning (i.e. distributive quantification of numerals and temporal nouns) blocks the more general meaning (i.e. pluralization of N). As a last resort, Yorùbá has to adopt the marked form of plural marking

³⁶ For details, see (Ajíbóyè & Déchaine 2004).

i.e. the use of COPY modifier. This is what I call The Emergence of the Unmarked (TETU).³⁷

Observe that in many languages, whenever modifiers are reduplicated they have a degree reading. This is the general case. English is a language that adopts this device. The restricted case (i.e. Case II), which Yorùbá adopts, is using the copy form to mark plural.

- (86) a. Case I: Degree reading e.g. English
 $[\alpha_{Mod}] [\alpha_{Mod}]$
 a tall tall man
 ‘a very tall man’
- b. Case II: Plural marking e.g. Yorùbá) \Rightarrow TETU
 $[\alpha_{Mod}] [\alpha_{Mod}]$
 òkùnrin gígá gígá
 man tall tall
 ‘tall men’

Adapting this to plural marking makes the prediction that if a language fails to use COPY (i.e. reduplication) on N for the purpose of marking plural, then that language should use the marked form i.e. COPY on modifier if it has a reduplication process.³⁸

6.3.4 Multiple plural marking

As mentioned earlier, there are two syntactic positions available for plural marking within Yorùbá nominal expressions the noun or the modifying elements (quantifiers/numerals, demonstratives and modifiers). What I have accounted for so far are cases involving one of the two positions at a time. In this section, attention is going to be on cases where both syntactic positions are marked for plural. This is what I call multiple plural marking. First, I present the data. In (88a-d) the noun *ajá* ‘dog’ is marked for plural by *àwọn*. In addition the

³⁷ The idea of the emergence of the unmarked (TETU) is not novel in Phonology literature (McCarthy and Prince 1993, 1994 and in syntax too (Bermúdez-Otero & Börjars 2002). In Optimality Theory (OT), a constraint can be active even if it is crucially dominated. A low-ranking markedness constraint, then, can decide between candidates, as long as they tie on all higher-ranking constraints. The linguistic structure that is unmarked with respect to this constraint can emerge in such circumstances (McCarthy and Prince 1994).

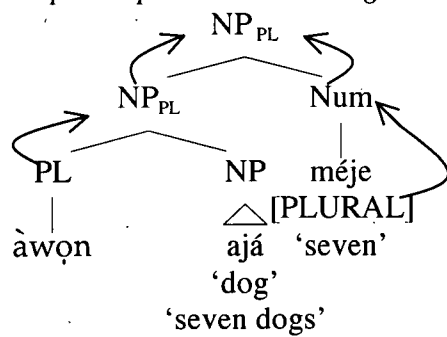
demonstrative is marked for plural with the prefix *wòn-* (87b), the modifier by its COPY (87c), and in (87d), each entity within the whole nominal expression is marked for plural by the appropriate plural morpheme.

- (87) a. **àwòn** ajá **méje**
 PL dog seven
 'seven dogs'
- b. **àwòn** ajá **wòn-yí**
 PL dog Dem-PL
 'these dogs'
- c. **àwòn** ajá **dúdú** dúdú
 PL dog COPY black
 'black dogs'
- d. **àwòn** ajá **dúdú** dúdú **méje** **wòn-yí**
 PL dog COPY black seven Dem-PL
 'these seven black dogs'

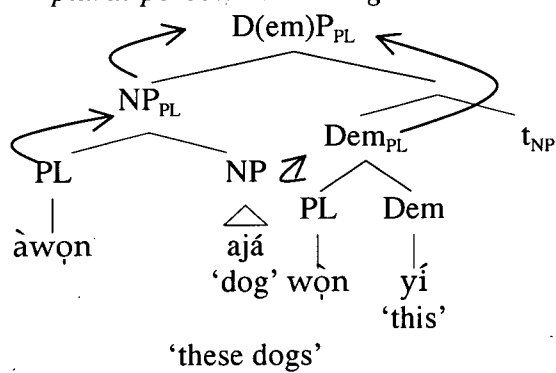
As with the account of cases where just one member of a nominal expression is marked for plural, these multiply marked NPs also involve percolation of the PLURAL feature. I demonstrate this in (88). In (88a), both the plural feature of *àwòn* and the abstract [PLURAL] feature in *méje* percolate their plural feature onto the NP. In (88b), plural percolation is realized on the NP through the plural word *àwòn* and the prefix *wòn* of the demonstrative. In (88c), plural percolation comes via *àwòn* and the copied modifier *dúdú*. Lastly, in (86d), plural percolation comes via *àwòn*, the copied modifier *dúdú*, the abstract [PLURAL] feature from *méje* and the prefix *wòn* of the demonstrative. The different arrows show the direction of the percolation.

³⁸However, this prediction is not true cross-linguistically as there are languages (e.g. Halkomelem), which marks plural on nouns with plural words that are not copied.

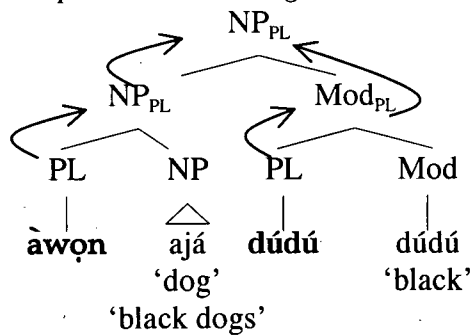
- (88) a. *plural percolation through noun & Num*



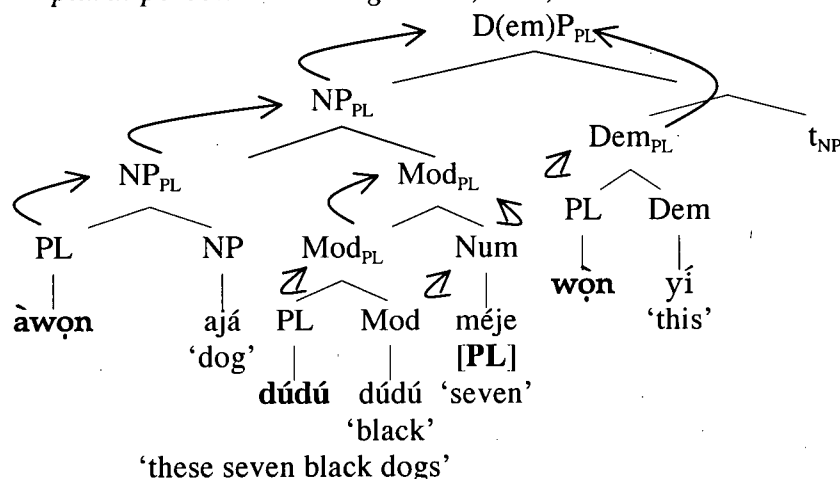
- b. *plural-percolation through noun & Dem*



- c. *plural-percolation through noun & Mod*



d. *plural-percolation through noun, Mod, Num & Dem*



Plural construals on nouns in Yorùbá divide into three interpretive classes as summarized in (89). Class 1 involves cases where an NP is not specified for number, in that context, the NP is interpreted as singular or plural. Class 2 involves cases whereby a noun can be accompanied by either an unmarked demonstrative or the numeral “one” and the nouns are obligatorily interpreted as singular. Finally, class 3 divides into two sub-groups. On the one hand are cases where bare nouns are either accompanied by a numeral that is greater than “one” or a quantifier. On the other hand are cases where a dedicated plural morpheme occurs with N. In all of these, the NPs are obligatorily interpreted as plural.

(89) *A summary of the analysis*

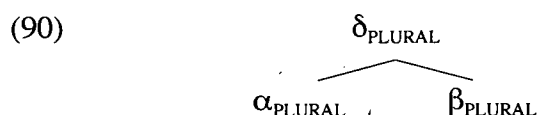
CLASS	Syntactic context	Interpretation
1	N	SINGULAR OR PLURAL
	N + Mod	
2	N + Dem	SINGULAR
	N + Num 1	
3	(i) N + Num >1	PLURAL
	N + Q	
	(ii) PL-N + Dem/Mod	
	N + PL-Dem/PL-Mod	
	PL-N + PL-Dem/PL-Mod	

This catalogues the various ways in which Yorùbá nouns come to be interpreted as singular or plural. What remains to be discussed is how the feature percolation mechanism adopted in

the account for Yorùbá contrasts with feature matching. After laying out feature matching mechanism, I use English as a case study.

6.3.5 Feature percolation versus feature matching

Feature matching is a mechanism whereby plurality is marked on all members of a nominal expression. In a language like English, which makes use of this mechanism, the way it works is as follows. Let δ be the NP and α and β be constituents under δ . If δ is plural, then both α and β must be plural (cf. Yang 2004, Wiltschko 2004).



There are four environments that can be examined in English to illustrate feature matching, as shown in (91).

- (91)
- a. noun demonstrative
 - b. noun quantifier
 - c. noun numeral
 - d. noun determiner

I look at only one of the cases, namely noun-demonstrative since it presents an interesting contrast with the facts of Yorùbá already accounted for. If a noun in English takes a demonstrative, both must match with respect to number. When the noun is singular it can only take a singular demonstrative, (92a). On the other hand, a singular noun cannot take a plural demonstrative, (92b).

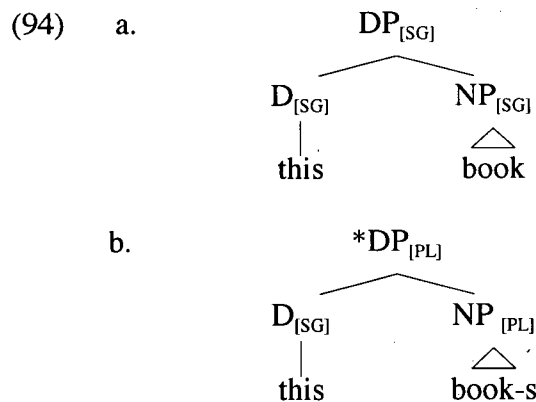
- (92)
- a. **this** book
 - b. ***this** book-s

Further, when the demonstrative is in the plural form, the noun and the demonstrative must

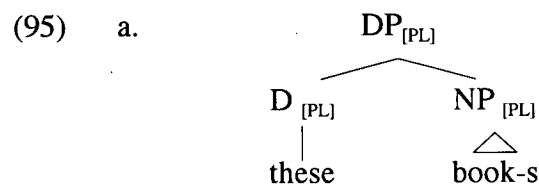
agree with respect to plural marking (93).

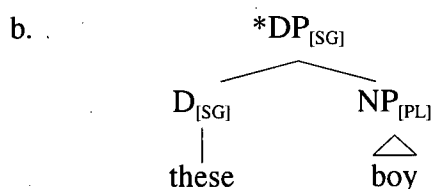
- (93) a. **these** books
 b. ***these** book

The effect that we see in (93) is referred to as concord or agreement in the literature (Corbett 2000, Wiltschko 2004, 2005; Yang 2004 among others). In the current account I analyze English plural marking as an instance of feature matching. This means all members of a nominal expression must have the same number feature. The facts of (92) and (93) are illustrated in (94) and (95). In (94a), the demonstrative *this* and the noun *book* have the same number feature in that they both share the singular feature hence feature-matching is observed. However, in (94b) where the singular demonstrative *this* combines with the plural noun *books*, feature-matching is not observed and this leads to ungrammaticality.



Similarly, in (95a), the demonstrative *these* and the noun *books* observe feature matching in that they both share the plural feature. On the other hand, in (95b) where the plural demonstrative combines with the singular noun, it violates feature-matching, hence the ungrammatical output.





Crucially, Yorùbá differs from English in that nouns need not agree with demonstratives in terms of plural marking. As shown in (96b), only the noun is marked for plural by *àwọn* whereas the demonstrative remains unmarked and the whole NP is interpreted as plural. In the same way, in (97b), only the demonstrative and not the noun is marked for plural by *wọn* and the output is well-formed.

- (96) a. *ájá yíí* NP DEM
 dog DEM
 ‘this dog.’
- b. *àwọn ájá yíí* PL-NP DEM
 PL dog DEM
 ‘these dogs.’ (cf. *this dogs)
- (97) a. *àwọn ájá wọn- yí* PL-NP PL-DEM
 PL dog PL DEM
 ‘these dogs.’
- b. *ájá wọn- yí* NP PL-DEM
 dog PL DEM
 ‘these dogs.’ (cf. *these dog)

The disparity between English and Yorùbá is straightforwardly accounted for by assuming that while Yorùbá makes use of feature percolation, English adopts feature matching. The table below further illustrates the similarities and differences between the two languages in relation to how demonstratives and nouns interact.

(98) *Plural marking on noun-demonstrative in Yorùbá & English*

		Yorùbá	English
a.	DEM + N	✓	✓
b.	DEM + N _{PL}	✓	x
c.	DEM _{PL} + N _{PL}	✓	✓
d.	DEM _{PL} + N	✓	x

In conclusion, I have shown that feature percolation and feature matching yield

different results with respect to the typology of number marking. When a language adopts the feature percolation mechanism, marking plural on all the entities within an NP is optional. This is what Yorùbá does. By contrast when a language makes use of the feature matching mechanism, it becomes obligatory for all members of an NP to agree with respect to the plural feature. This is what English does. This analysis thus explains why Yorùbá but not English, can have phrases such as ‘this dogs’ and ‘these dog’.

6.4 Comparing analyses

I review two different types of previous analyses of plural marking and assess them with respect to the Yorùbá data that I have analyzed. These are the plural parameter proposed in Déprez (2004) and inflectional versus modificational plural marking proposed in Wiltschko (2004, 2005).

6.4.1 The plural parameter (Déprez 2004)

Déprez’s (2004) Plural Parameter, which is a development of an earlier proposal (Déprez 1999, 2001) using a morphosyntactic parameter, distinguishes two broad sets of languages: [+PL] languages and [-PL] languages. According to that approach, languages are grouped based on whether or not the structure of their nominal expressions obligatorily includes a functional projection for number. Déprez’s approach treats all languages that do not have inflectional morphology for plural as [-PL]. On this view, in [+PL] languages, number must project whereas in [-PL] languages, “the projection of NumP is optional and when it occurs, NumP does not have to contain a counter” (Déprez 2004: 10). The consequence of this proposal according to Déprez is three-fold:

- (99) a. Only [-PL] languages allow direct access to the basic kind denotation of nouns. For [+PL] languages, access to the kind denotation requires the presence of a relevant operator.

- b. Only [-PL] languages can have bare nominals that are under-specified for number and thus compatible with either a plural or a singular construal depending on contextual factors.
- c. In [+PL] languages, in the absence of relevant morphology, bare 'singular' nominals, i.e., NumPs that contain an unsaturated counter, are excluded. (Déprez 2004: 13).

Going by Déprez's classification, Yorùbá is a [-PL] language. Her claim that bare nominals in such languages are under-specified for number and thus compatible with either a plural or a singular construal depending on contextual factors is in line with the facts of Yorùbá presented in §6.1. Just to remind readers, consider (100) where the bare noun *erin* can be construed as either singular or plural.

- (100) Mo rí **erin** ní ọgbà ẹranko
 1sg see elephant garden animal
 = 'I saw an elephant in the zoo.'
 = 'I saw elephants in the zoo.'

However, despite the fact that Déprez claims that in a [-PL] language the projection of NumP is optional, her analysis makes no predictions regarding the actual deployment of PLURAL features in a [-PL] language. As I demonstrated in §6.1-6.3, [-PL] languages like Yorùbá use feature percolation to mark plural. This differentiates Yorùbá from [+PL] languages such as English where PLURAL must satisfy feature matching (i.e. agreement).

6.4.2 Plural marking as a functional head or as a modifier (Wiltschko 2004, 2005)

The other account of plural marking that I examine is one that draws a distinction between plural marking as a functional head or via modification. My particular focus is on Wiltschko (2004, 2005).

6.4.2.1 Plural marking as a functional head

Using English as an example of a language where plural is inflectional Wiltschko (2004, 2005) argues that in languages with plural marking as a functional head, the functional head takes a noun as its complement as in (101).

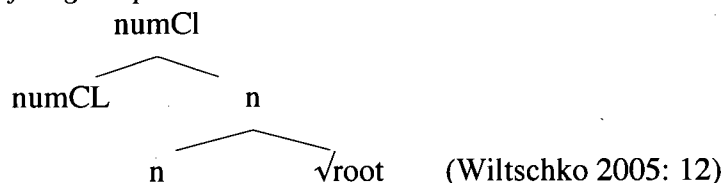
(101) [_{numCl} [**Plural**]_{numCl} _N N]] (Wiltschko 2005: 5)

In particular, she claims that plural marking is associated with the functional head num(eral) Cl(assifier). The other significant thing about languages of this type is that number marking requires that there be number agreement on all the elements within a nominal phrase.³⁹ The following examples illustrate this idea.

(102) *Obligatory plural marking in English phrases*

- a. the two men
- b. *the two man

(103) *Structure of English pluralized nouns*



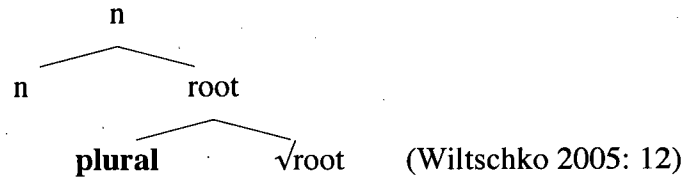
Arguing for (101), Wiltschko (2005:12) claims that plural marking in a language like English “instantiates a functional head (*numCl*) and is therefore obligatory due to a so called (Exceptional Projection Principle) EPP-effect.” She goes further by claiming that the category of the plural marker (*numCl*) projects and is thus syntactically transparent. This is what accounts for the obligatory agreement of number.

³⁹ Cf. Corbett (2000) who observes that there are two types of agreement that exist between the controller (noun) and the target modifiers, which plural form is determined by the noun. The two are **syntactic** and

6.4.2.2 Plural marking as a modifier

For Wiltschko, modificational plural marking arises when plural marking is optional. In Halkomelem, where plural marking is not inflectional, the plural marker modifies roots. Wiltschko proposes that plural, as a modifier, is adjoined to category neutral root (Wiltschko 2005: 11). This idea is illustrated in (104).

(104) *Structure of Halkomelem pluralized nouns:*



This structure accounts for the data in (105) and (106). First, observe that plural marking on the root is optional and a noun that is marked for plural is compatible with a preceding plural marked determiner (105a). However, the noun does not require the determiner to be marked for plural before it is interpreted as plural, (106b).

(105) *Optional plural marking in Halkomelem phrases*

(a) t'ílém ye sí:wí:qe
 sing det.pl man-pl
 'The men are singing.'

(b) t'ílém te sí:wí:qe
 sing det man-pl
 'The men are singing.'

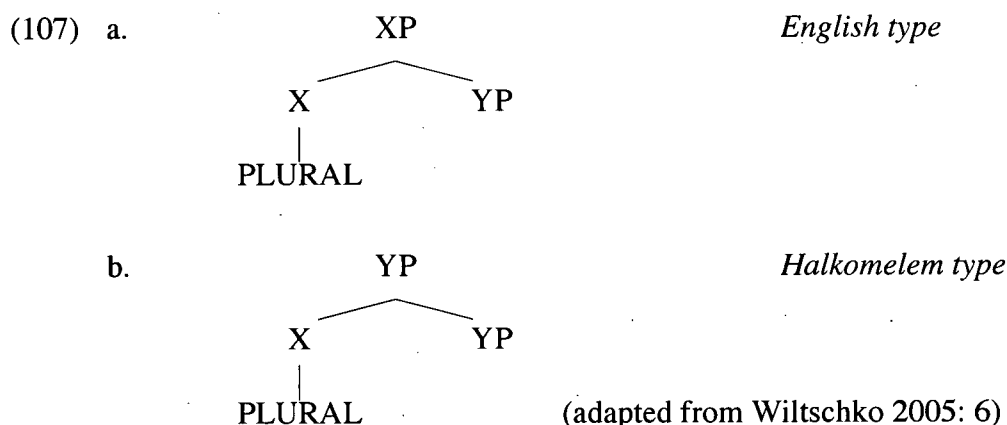
(106) (a) t'ílém ye swíyeqe
 sing det.pl man
 'The men are singing.'

(b) t'ílém te swíyeqe
 sing det man
 'The man is singing.'

(Wiltschko 2005: 3)

semantic agreement. Corbett's claim is that the **form** determines the syntactic agreement while semantic agreement is determined by the **meaning** (p. 178).

One significant thing about “plural marking as a modifier” is that it is not subject to the Exceptional Projection Principle (EPP) as it is with “plural marking as a functional head”. The structural difference between plural marking as a functional head or as a modifier is given as (107). The structure in (107a) illustrates English type of language where X is the Number (the head) and Y is the noun (the complement). In contrast, (107b) illustrates Halkomelem type of language X as a modifier does not project and as such it only adjoins to Y (the noun).



Concluding, Wiltschko claims “the obligatoriness of Number-marking in English is consistent with its inflectional status whereas the optionality of plural marking in Halkomelem suggests that we are not dealing with an inflectional category” (Wiltschko 2004: 3, 2005: 11).

Of the two mechanisms discussed by Wiltschko, the plural marking as a modifier approach easily extends to Yorùbá: Yorùbá is not an inflectional language therefore its number marking cannot project to a functional phrase. So Wiltschko’s proposal should be able to account for Yorùbá data. This account is consistent with my account, which treats plural words as adjuncts. However, Wiltschko’s account falls silent regarding the actual deployment of plural morphemes in nominal expressions. I have shown that there is a way by which both inflection-based (syntactic) and modification based (semantic) analyses converge using feature-based mechanisms. Under this approach, the inflection-based analysis is accounted for using the feature matching mechanism, which requires that there be feature agreement within all members of a nominal expression. The modification-based approach is

analyzed as feature-copying where the plural feature is copied from a lower node to a higher node (feature percolation).

One advantage of my proposal is that it does not really matter whether or not the plural word is a functional head. What determines plural interpretation is the “copy” mechanism involved. When plural is morphologically marked, the feature matching mechanism as expressed by the notion of agreement is applicable. On the other hand, when plural words are used, feature percolation is enforced.

6.5 Conclusion

This chapter has accounted for the various strategies that Yorùbá adopts in plural marking. The general picture that emerges is that plural can be marked in one of three ways: contextually, semantically, or morphologically. I have shown that when a noun occurs by itself or when it takes a modifier, its construal as singular or plural is sensitive to context. Secondly, I have analyzed quantifiers and numerals as lexical items with an abstract PLURAL feature, which percolates onto the NP. This is what I describe as an instance of semantically conditioned plurality. The third claim is that plural is also marked by certain morphemes, which can be realized either on the noun (in the form of *àwọ̀n*) or on a modifying element (in the form of reduplication) or on demonstratives (in the form of *wọ̀n-*).

The analysis of plural marking proposed for Yorùbá makes a prediction that there are two ways by which languages may mark their nouns for plural. Languages that show agreement will use plural feature matching while languages that do not show agreement will use plural feature percolation.

CHAPTER SEVEN: CONCLUSION

7 Findings and open questions

In this concluding chapter, I summarize the results of the research and the issues that need further attention. This thesis has focused on three areas of Yorùbá nominal expressions: possessives, different ways by which argument expressions acquire discourse properties, and different strategies of marking plural. The following findings and open questions emerge.

7.1 Findings

I have proposed that Yorùbá verbal and nominal genitives derive from the same base structure (a vP shell) and that the surface structure of both involves some kind of movement. While the possessum moves to Spec DP/CP in nominal genitives it is the possessor that moves to Spec IP in case of verbal possessives. I have attributed this movement as Case related. I also established that the M tone syllable that occurs between the possessum and the possessor syntactically is a relational element that shows that the two arguments are in a genitive relation. I argued that this MTS heads the genitive DP. Comparing the account of nominal genitives to verbal possessives, I established that what the MTS is to DP is what the HTS is to IP. I also proposed that the genitive marker is a mora μ that acquires its segmental content through assimilation of the last vowel of the possessum NP.

Extending this further to more complex structures involving *ti*-constructions, I argued that there is a link between the “M tone *ti*” in reduced clauses within a genitive DP and “H tone *tí*” in full relative clauses. In particular, I analyzed both M-tone *ti* and H-tone *tí* as complementizers. I proposed that there is a syntactic relationship between the MTS and *ti* claiming that both are functional heads with MTS spelling out D and M-tone *ti* spelling out C. More importantly, when these two elements co-occur, they do not only doubly mark genitive Case on the possessor, they also perform an additional function of emphasizing the possessor. I finally showed that the two elements differ in the sense that MTS is supplied by

phonology whereas *ti* is supplied in the lexicon.

In the second part of the dissertation, I showed that bare nouns can be construed in one of three ways: as generic, indefinite or definite. I established that the generic reading arises in one of two ways; it can be lexically conditioned (with permanent-state verbs) or grammatically conditioned (through the use of imperfective *máa-n̄*). In each case, there is a GEN operator that takes scope over these bare nouns. I extend this proposal to English and suggest that genericity cross-linguistically can be accounted for using the grammatically conditioned approach. Thus, either a language makes use of an aspectual marker to mark genericity overtly as in Yorùbá, or covertly as in English. I also established that, in Yorùbá, in all contexts where a generic interpretation is not possible, bare nouns are construed as indefinite. This is what I refer to as the elsewhere condition. I concluded that generic and indefinite construals are in complementary distribution. I also established that, with the right discourse contexts, bare nouns could be construed as definite irrespective of their syntactic position.

The three possible interpretations of bare nouns attested in Yorùbá have afforded us the opportunity to provide syntactic structures for these bare nouns. While generic and indefinite bare nouns are analyzed as NP, definite bare nouns are analyzed as DP with a null D since they are always discourse linked. In all, there are four types of Ds in Yorùbá: These are the deictic D *kan*, the demonstrative D (both of which are in complementary distribution with one another), the null D that is definite, and the mora μ D found in genitive constructions.

In my account of how nouns are marked for specificity and salience, I claimed that specificity is morphologically marked on NPs in Yorùbá with *kan* while salience is morphologically marked on nouns with *náà*. The findings here shed some light on the relation between the definite/indefinite contrast and the marking of specificity and saliency across languages. Thus, in environments where we expect overt marking, i.e., with indefinites and definites as in English and Gungbe, we have bare nouns in Yorùbá. And in environments where we do not expect overt marking i.e. specificity and saliency as in English, we get *kan* and *náà* in Yorùbá and *dé* in Gungbe.

Regarding pluralization, I demonstrated that plural marking is optional in Yorùbá but that when nouns are marked for plural, there are three different ways in which this is carried

out. First is through contextually determined plurality. These are cases where there is no overt plural marking: as such, a noun can be interpreted as singular or plural. The second strategy is semantically determined plurality. These are the cases where nouns take quantifiers and numerals (both of which I claim have an abstract [PLURAL] feature). The third strategy is morphologically determined plurality. This is the strategy where nouns are overtly marked by plural words. I also established that there are two syntactic positions for morphologically determined plurality either on nouns (using the plural word *àwɔ̀n*) or on non-nouns (copy-modifiers or the prefix *wɔ̀n-*).

The feature percolation and feature matching mechanisms that I proposed shed light on the fact that plural marking converges cross-linguistically irrespective of whether the element that marks plural is a lexical or a functional head. By this analysis, I have shown that all languages are sensitive to feature matching. Where a language fails to utilize this, it results in feature percolation, which has the status of an elsewhere condition.

7.2 Open questions

There are a number of open questions that future research needs to address. One is the controversy surrounding the existence of the MTS as a genitive marker and its overt realization in the environment of a vowel-initial possessors as well as the L deletion on the final vowel of the possessum. It would be very helpful to carry out some instrumental study especially as concerns whether the forms with the MTS before a vowel-initial possessor are actually identical to a V V sequence or whether they are slightly longer. This would (in)validate the claim that I made here to the effect that the contracted form is significantly shorter than the non-contracted form.

Another area of further research will be a comparative study of the syntax and semantics of genitive and appositive constructions. This is necessary concerning the claim in this study that the M-tone mora μ found between the possessum and the possessor is a genitive marker. Most appositives are true appositives in the sense that they involve a juxtaposition of two nouns that refer to one object without any intervening segment.

- (1) a. Mo mọ Súlú Ọba
 1sg know S. king
 'I know Sulu, the king'
- b. Àwa Yorùbá kórirá ìwòsì
 1pl Y. hate insult
 'We Yoruba hate insults.'

But we also notice that there is some kind of appositives in which, this MTS mora shows up.

- (2) a. Adé wá ní [àná an Jímò]
 A. come P yesterday MTS Friday
 'Ade came yesterday, which was Friday'
- b. [Èní in Sátidé] ni ọjọ ìbí ì mi
 today MTS S. FOC day birth Gen 1sg
 'Today, which is Saturday is my birth day.'
- (adapted from Awóbùlúyì 2004: 12)

One of the problems confronting the raising analysis in genitive constructions that I discussed in this dissertation is with respect to its link with Case assignment. This is another area where we have not been able to find empirical evidence in support of the claim. It becomes interesting when one considers the fact this is not a problem peculiar to Yorùbá. Another problem relating to Case assignment is with respect to the position of one of the Case-assigners that are stacked in genitive constructions. The current proposal that the MTS as a member of stacked Case-assigners is capable of assigning Case to the possessor is stipulative since the MTS is not in the right configuration for Case assignment. There is the need to pursue with vigor further research in this area in future.

There also arises an open question on why interpreting subject bare nouns as generic with permanent-state verbs depends on the genericity of the object bare noun. In the same way, there is a puzzle on the asymmetry that exists between the subject and object bare nouns of permanent states: why a subject bare noun is obligatorily interpreted as indefinite, an object bare noun is obligatorily interpreted as generic.

We equally need a precise syntax and semantics of salience marking on definite nouns than is currently understood. In particular it is desirable to be able to know whether this marker modifies the functional head or the whole DP.

Finally, the parity that exists between count and mass nouns in Yorùbá with respect to how plural is marked on them calls for more study, as this will have some cross-linguistic consequences for our understanding of the count/mass distinction (cf. Chierchia 2005).

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